

IMPROVING TEACHING USING MOBILE APPLICATIONS IN DEVELOPING THE CREATIVE ACTIVITY OF FUTURE IT TEACHERS

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Abstract. This article provides extensive information about the creation of electronic educational resources based on mobile technologies, mobile education, the possibilities and conveniences of mobile education are highlighted. The analysis of world trends shows that the use of mobile technologies for solving various pedagogical tasks in the educational process is of great vital importance. The article also presents the technology of creating electronic educational resources based on mobile technologies, programs that create mobile books, and several ways of using mobile devices for educational purposes.

Key words: Mobile education, mobile devices, mobile technologies, Information communication technologies, teaching process, knowledge, skills, educational goals, site, resource, multimedia tools, smartphone, tablet.

Introduction. Today, the current development of science, technology and technology defines the image of modern society. The most important feature of modern society is that globalization is visible in all its spheres. Globalization itself requires rapid movement, immediate acquisition of necessary information, their processing and effective application in practice. To be able to move in this way, a person who is knowledgeable in his field, able to acquire professional skills at a high level, as well as the ability to distinguish the necessary information from the large volume of information available on the global Internet network, the ability to quickly absorb scientific news, only personnel with rich experience and skills will have it.

In his address to the Oliy Majlis, our President Shavkat Mirziyoyev stated that it is necessary and necessary to acquire digital knowledge and modern information technologies in order to achieve progress. The most important condition for the stable and rapid development of the country is to educate well-rounded, goal-oriented and active young people who have modern knowledge and skills and can take responsibility for the country's worthy future.

In recent years, the theory and practice of using mobile devices and mobile educational resources have been actively discussed at various scientific events.

The analysis of world trends shows that the use of mobile technologies for solving various pedagogical tasks in the educational process is of great vital importance. Mobile learning refers to the planning and delivery of learning through mobile devices.

M-learning problems and prospects. The term mobile education (M-learning) began to be used fifteen years ago in the pedagogical literature in English, and now in our country as well. Mobile education (m-education) allows to organize learning and education using mobile and portable devices.

Among the major projects abroad aimed at providing theoretical and practical education with the help of mobile devices, it is worth noting the following:

"Mobile learning system" (The Mobile Learning Network Project-MoLenet) (Great Britain), "Mobile Learning Environment Project- the MoLe) (USA), "Mobile technologies in lifelong learning" (Mobile Technologies in Lifelong Learning: best practices-MOTILL)(European Union), "Mobile Learning Consortium" (Mlearning Consortium) (Canada).

Mobile learning is defined as:

Mobile learning is a systematic activity carried out through compact, portable, mobile devices and technologies that allow learners to be more effective in the learning process by accessing or creating information and communicating.

Mobile education is the ability to receive or present information in any format on personal mobile devices.

Mobile education is an opportunity to receive education through mobile technologies regardless of time and place.

We will not be mistaken if we say that the popularization and development of the practice of mobile education is due to its following characteristics: - the concepts of space and time are not important in mobile education. That is, mobile education is an opportunity to receive education anywhere and at any time through mobile devices;

- the use of mobile technologies for educational purposes is a unique tool that increases the educational motivation of students;

- mobile education is not just placement of educational materials on small screens, but a way to introduce innovative educational forms and methods;

- mobile education incorporates elements of gamification;

- the exchange of information between the participants of the mobile education process takes place rapidly;

- the flexibility of mobile devices provides an opportunity to monitor the level of knowledge and mastery of materials of a large number of learners at the same time, while maintaining an individual approach to each of the learners;

- mobile education collects and visually presents a variety of multimedia educational materials;

- mobile education is a unique means of skill development and improvement in the field of professional and ICT.

Problems and solutions. A teacher can approach the process of using mobile technologies in the design of traditional day-time classes of education in different ways. They grouped the methods of using mobile devices in the educational process as follows: multimedia education - for displaying web resources (audio files, video films, graphics, maps and images); providing quick access to educational sites, resources, references, dictionaries; to ensure communication during the educational process (SMS messages, twitter, telegram, web seminars, etc.).

Yu. Shishkovskaya, talking about several ways of using mobile devices for educational purposes, listed the following:

First, independent education. Based on mobile educational technologies, the following general pedagogical principles are created: ease of use and simplicity of materials, interactivity, and special applications that allow self-management and self-assessment.

Secondly, the ideas of m-learning can be used equally in the traditional educational process in schools, as well as in higher education institutions.

Third, mobile learning can be an effective complement to distance or corporate training courses.

The introduction of mobile technologies into the educational process has the following advantages: it is possible to study and learn at any time and in any place (Mobility); the ability to present educational materials in different ways, in a visual way full of multimedia possibilities such as audio, video, picture, graphics (Multimedia); mobile education is often implemented in the form of a game (having a gamification character); availability of participation monitoring (Participation monitoring); educational process has an encouraging (motivational) character; uniform control of the education level of students; acceleration of information exchange between the participants of the educational process; flexibility of mobile devices in individual approach based on personal psychological and physiological characteristics of learners (Individual approach).

Besides:

- there is no need to carry heavy books with you. All necessary textbooks, books and manuals are at hand at any time;

- mobile books do not get lost, torn or worn out;

- mobile textbooks are very convenient to use, and when using them, you can set the settings according to yourself, that is, see the text in a larger font, enlarge the images, set bookmarks in the necessary places, continue reading from where you left off etc.;

- mobile textbooks and training manuals have the ability to help in independent study of the subject and strengthening of knowledge.

Technologies that create this type of mobile books include:

- Android Book App Maker;
- Flip PDF Professional;
- Book Creator;
- Online service provided by "Go Dev" group

<http://www.goforandroid.com/ebook/> etc.

The following mobile communication environments and devices can be used for mobile education:

- Smartphones, iPhones, tablets;
- mp4 players, Netbooks, GPS-navigators, etc.; - Portable computers (laptops, netbooks).

Conclusion. In conclusion, traditional education practitioners believe that the use of smartphones, tablets and similar mobile devices in the educational process has a negative effect on the success of learners, distracting their attention from the lesson. It is emphasized. But by the 21st century, on the contrary, the growth and development of technology offers teachers a unique opportunity to achieve scientific achievements in a new and innovative way, using the advantages of devices that were once interpreted as distractions.

At this point, it is worth saying that now, teachers do not have to constantly fight to attract the attention of learners, through the use of mobile technologies in the educational process, which automatically encourages their participation, A new learning environment is created that encourages learning and always working on oneself. Many practitioners and industry experts believe that in the future, mobile education will become a new standard in the field of education and will rise to the level of a trend.

In conclusion, it can be said that the use of educational resources based on mobile technologies helps to organize the educational process more effectively, the effective use of mobile technologies, and most importantly, to increase the student's interest in science, mastering science more deeply, and allows self and even parents to monitor their child's level of mastery of science.

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