MOBILE LEARNING IN THE CONDITIONS OF SOCIAL AND ECONOMIC INSTABILITY

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The article is devoted to the problem of mobile learning as one of the modern trends in education. The phenomenon of mobile learning is analyzed from the standpoint of the concept of lifelong learning in conditions of social and economic instability. Regulatory and legal documents on the organization of mobile learning are analyzed. The characteristic of the essence of mobile learning is presented.

Keywords: *social and economic instability; education; mobile learning; educational opportunities; educational tool*

МОБИЛЬНОЕ ОБУЧЕНИЕ В УСЛОВИЯХ СОЦИАЛЬНО-ЭКОНОМИЧЕСКОЙ НЕСТАБИЛЬНОСТИ

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Статья посвящена проблеме мобильного обучения как одного из современных трендов в образовании. Феномен мобильного обучения анализируется с позиций концепции образования в течение всей жизни в условиях социальной и экономической нестабильности. Анализируются нормативно-правовые документы по вопросу организации мобильного обучения. Представлена характеристика сущности мобильного обучения.

Ключевые слова: *социально-экономическая нестабильность; образование; мобильное обучение; образовательные возможности; средство образования*

The events taking place today in the field of international relations have provoked socio-economic changes in all spheres of development of society, including education. The closeness of external borders, the complexity and uncertainty of the modern geopolitical environment, numerous economic sanctions that activated inflationary processes, the increase of the cost of education, the restriction of access to global educational markets, platforms and technologies have significantly reduced Russia's opportunities in the field of educational and scientific internationalization and co-operation. At the same time, they have provided unprecedented opportunities for the development of the national system of education.

In conditions of political, social, and economic instability and a high level of migration of the population, both incoming refugees and Russian citizens who temporarily left the country, there is an urgent need to find and develop tools and technologies that can provide the necessary quality of knowledge, skills, and competencies due to the challenges of modern academic, social, and professional mobility and constantly changing reality. The issue of training and retraining of refugees, who need to be provided not only with the possibility of continuous learning, but also adaptation to new conditions, is becoming of significant importance. It also concerns the problem of obtaining language and communication skills and new professional competencies by these people [1].

It should be borne in mind that this is a category of citizens who need not only retraining, but also rehabilitation, psychological support, and assistance. The professional activity of a teacher is based on the use of modern educational technologies. They should be more accessible to this category of the population to provide mobile communication. Besides, they do not require additional investment.

A new direction of distance learning is m-learning, or mobile learning, a form in which students use educational technologies of mobile devices [2; 8; 9]. This type of training seems to be the most promising, as it focuses on the mobility of the student and his interaction with portable technologies such as MP3 players, laptops, mobile phones, tablets at a convenient pace, time, place.

The development of mobile learning began in 1970s with the concept proposed by Alan Kay. It is gradually evolving different education-

al tools and instruments from the digitization of textbooks to modern e-learning technologies based on the latest digital tools [4].

The greatest achievements in the field of mobile learning are currently being noted in Scandinavia, Australia, and New Zealand [3]. Mobile learning is a priority area of the UNESCO Education for All 2030 program. According to international experts, it will solve a few educational tasks: in particular, to make the process of obtaining knowledge personalized and accessible to everyone.

In Russia, mobile learning, as well as all over the world, has become especially popular in the context of the coronavirus epidemic, when remote technologies have assumed a leading role in education. Mobile learning is reflected in the Federal State Educational Standard as part of the principle of continuing education, as it combines the possibilities of regular and extracurricular activities, individual, group and collective learning, and the effective use of all available sources of information.

The materials of the UNESCO Recommendations on Policy in the Field of Mobile Education prepared by the UNESCO Institute for Information Technologies in Education (UNESCO IITE) argumentatively present the main advantages of mobile learning, which are confirmed by international practice [7]:

- expanding opportunities and ensuring equal access to education;
- personalization of learning;
- instant feedback and evaluation of learning outcomes;
- learning anytime and anywhere;
- effective use of time in class lessons;
- formation of new student communities;
- situational learning support;
- development of continuous “seamless” learning;
- ensuring the link between formal and informal learning;
- minimizing the consequences of the destruction of the educational process in areas of military conflicts or natural disasters;
- assistance to students with disabilities;
- improving the quality of communication and management;
- maximizing cost efficiency.

According to international statistics, 71% of refugee families have mobile phones. The majority (93%) live in places covered by the 2G mobile network, and 62% are in the coverage area of 3G mobile networks, which suggests the possibility of using these technologies, including for receiving feedback and operational preparation of the required educational programs. Education is a key factor that can help refugee communities to be integrated into host societies. In the short term, education can bring stability to a shattered life, meet the psychosocial needs of children, youth, and entire communities, and help refugees develop much-needed language and literacy skills [5; 6].

The category of citizens who temporarily left the territory of Russia, including those with children, deserves special attention. Similarly, persons with refugee status need support and continuous training within the framework of existing educational programs. Today, this is not possible not only due to the lack of access to domestic websites, e-schools and textbooks abroad, but also the lack of practice in using "augmented or flexible reality" tools in educational institutions, allowing in case of a long absence of a student to compensate for classes by watching a lesson recording, listening to podcasts or communicating with teachers. Communication support in messengers and receiving feedback for teachers continues to be individually voluntary and is not a factor affecting motivation or income level. While working in modern conditions requires from the teacher not only technical training, but also full dedication and interest in supporting students in real time. The task of the teacher is to motivate vulnerable categories of students, including in difficult conditions, to receive feedback and try to choose exactly the technologies that will be appropriate and acceptable for this family in their living conditions.

The development and application of mobile technologies, the re–use of best practices within the framework of Russian education would allow at the system level:

- to create inexpensive opportunities for the training and education of a wide range of students;
- provide continuous and situational training support;
- reduce the cost of developing educational materials and the learning process as a whole;

- expand opportunities for traditional educational institutions, including a/synchronous learning experience;
- make learning flexible and personalized;
- provide access to information and knowledge in online and offline forms;
- receive feedback from various categories of students in real time, thereby identifying non-obvious problems and selecting targeted, focused solutions, without dispersing resources, considering individual approaches and needs;
- to form a sense of identity and belonging of students to a single educational and information space, regardless of the location.

The development of updated content, as well as the evaluation, selection and adaptation of existing content is a complex and at the same time necessary task in many mobile learning projects. Content platforms currently used in education range from static library repositories, digitized reference books and online encyclopedias to multimedia platforms with levels of interactivity and monitoring functions to track student progress. It is necessary to build the course in such a way that the student feels like a single part of the educational process, a unit of a permanent virtual / physical classroom, is familiar with a group undergoing similar training, can maintain contacts and exchange information. He could understand and control his dynamics in relation to the group, see the plan and the final goal to be achieved.

It should be understood that mobile learning – this is not just a student's access to the Internet or receiving educational materials, it is a completely new approach to the presentation of information: short iterations with the ability to focus no more than 20-25 minutes, the availability of self-testing tools, self-control, simulation simulators for self-preparation, the possibility of using various forms of material presentation (automatic translation in subtitles, graphics, sound, etc.) questionnaires and questionnaires with feedback, which are aimed at immediate real-time response and support through all channels [10].

Thus, the creation of mobile textbooks and materials becomes an important part of the pedagogical process and covers, among other things, such areas as:

- testing, surveys, work assistance and just-in-time training;
- geolocation and contextual training;
- mobile learning in social networks;
- mobile educational games;
- training using two-way SMS messaging and voice data transmission with interactive assessments (for regular cell phones)
- cloud storage of files, interactive documents, and whiteboards with shared access;
- the use of chatbots – programs that simulate the process of communication.

Chatbots are based on artificial intelligence, pre-programmed rules, natural language processing and machine learning. Chatbots were originally created to serve customers with frequently asked questions quickly and efficiently, freeing up people to solve more complex and specific customer problems. Currently, they are used for higher purposes, such as education. Bots facilitate the delivery of educational materials, reinforce content, and answer basic questions through automated communication. They manage simple requests, such as providing a bibliography of the lesson or brief and concise data related to the material being viewed. This takes the teacher away from the routine and mechanical tasks of teaching to guide students to a more contextual and in-depth understanding of their learning.

Of course, like any other learning strategy, mobile learning is not perfect, but it has positive aspects that can significantly enrich the learning process.

For mobile learning to be effective, a modern teacher should be aware of the full range of its capabilities:

1) messengers, online team boards, cloud storage, webinars — all these tools further structure the education process and allow you to quickly and effectively exchange information, solve problems, get feedback, and adapt learning to the specific needs and characteristics of the student;

2) provide guidance to the mobile learning process, monitor, and direct its implementation, both in the form of interactive interaction with the student, and offline;

3) provide tasks, both of a mandatory nature "for evaluation" and of a developmental nature. At the same time, understand that they should not be redundant, so as not to cause rejection and demotivation on the part of students;

4) understand that mobile learning allows students to interact with educational content in their own conditions, not only at the time and place that they consider the best, but also at the pace that they set for themselves. For this reason, mobile learning allows you to use different learning styles and content types, maximizing student engagement. The range of content it can use ranges from texts, images, and videos to podcasts and even video games;

5) provide support for the operation of mobile applications in an offline environment since students do not have the Internet at birth or conditions do not allow them to connect to it. Check the possibility of downloading versions of applications and materials adapted to different media to avoid difficulties with their use and storage;

6) to conduct evaluation activities – use any of the available forms, since in mobile learning environments there are often no pens, paper, or other handy materials, including time to prepare complex presentations, graduation papers. This can be a dialogue with a teacher or dictations in a messenger, sending in notes and anything, up to responses in the form of SMS messages;

7) constant support of the organizational and technical part, not only in the person of a teacher who performs the role of a curator, coordinator, psychologist, etc., but also technical support services, with the opportunity to consult;

8) maximum simplification of the content, since only 4-5 clicks determine the future fate of the application. It is necessary to reduce the "friction" on transitions, inputs and adaptation, seamless transitions are welcome, which gives students direct access to educational content without the need to log in.

9) changing the presentation of the material, mobile learning is not just a compression of existing e-learning on a computer to the size of a smartphone screen. Playing familiar actions from the most frequently used applications helps to create an easy-to-use intuitive interface.

10) micro-learning in short iterations increases the involvement and long-term preservation of knowledge, the use of video content and gamification. Combining substantial amounts of information into small fragments provides fast and painless learning and adding interactive elements such as quizzes and leaderboards helps to interest students and keep them motivated.

Studies show that mobile learning increases productivity by 43%, while students take courses 45% faster than those who study on a computer. This is due to the features used by mobile learning, such as micro-learning modules and gamification.

Thus, mobile learning is an educational learning strategy that uses digital online content through mobile devices, the purpose of which is to ensure the availability of knowledge, reduce the cost and increase the effectiveness of training by providing access to educational programs anywhere using any available means of communication.

The development of mobile education in Russia will make it possible to ensure the continuity of education, including for vulnerable social strata of the population who are in conditions of political turbulence, to get inclusive and equal access to high-quality and continuing education, regardless of territorial location, national and socio-economic conditions.

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