

# Analysis of the Readiness of First-Year Students to Use Electronic Textbooks in the Learning Process

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## ABSTRACT

The use of information and communication technologies is an important element in the implementation of curricula in the area of preparation 44.03.05 Pedagogical education at the Faculty of Natural Science Education of the Chuvash State Pedagogical University named after I. Y. Yakovlev. The analysis of the readiness of first-year students for the independent use of electronic textbooks in the learning process. Low readiness of first-year students to use electronic educational resources is shown. It is noted that freshmen rarely turn to the components of the electronic educational environment and are not sufficiently aware of the possibilities of the Internet for educational purposes.

**Keywords:** *freshman, e-learning tools, teaching*

## 1. RELEVANCE OF THE RESEARCH PROBLEM

Russian education is currently undergoing global changes. Particularly important changes affect the field of education informatization [1], [2], [10].

The modern education system is developing in close connection with the achievements of information technology (IT) in the learning process at all levels of education. This primarily concerns new forms and means of training based on the use of information and communication technologies (ICT). In particular, such technologies include electronic, distance learning, which involves the indispensable use of a specific type of educational literature electronic textbooks.

Currently, a significant number of publications have been noted in the scientific literature that reveal the essence and process of creation, as well as the use of electronic educational publications (EEP) in the educational process.

In the Russian Federation, many organizations are successfully operating in the market for educational electronic publications. This fact indicates that both theoretical and practical aspects of the development and implementation of educational electronic publications in the educational process are taking shape in the country. It should be noted that many educational institutions encourage independent development and use by teachers of their own educational electronic educational publications in the educational process.

The research problem arises from the analysis of the current state and development trends of ICT in education, understanding of the growing role and importance of developing methodological foundations for the creation and active use of electronic textbooks.

However, some researchers point to the fact that electronic educational publications are not always effective in the

educational process. N.P. Shatalova, G. A. Shabanov and other researchers believe that this is due to insufficient or lack of integrity in the methodological support of the creation and use of electronic educational publications at all levels of education, and especially at the initial [7], [9].

It can be noted that the study of the development of information culture from the perspective of pedagogical science in modern society is gaining great practical importance. This fact is due to the fact that, firstly: the educational environment is the space in which the knowledge system is formed; secondly: only the educational environment provides an increase in the level of information culture, both of the individual and of society as a whole; thirdly: the educational environment, which has a high level of personnel and material and technical support, provides ample opportunities for the practical implementation of theoretical and applied developments in the formation of an information culture, the introduction of modern forms, methods, and means of IC formation.

However, as the researchers note, despite the fact that many students have significant experience working with mobile devices and the digital environment, at least in their personal lives, they are often not ready to study in the digital environment [17].

In connection with the above, the study of the readiness of first-year students to use electronic textbooks in the learning process is an urgent topic.

## 2. MATERIAL AND RESEARCH METHOD

Domestic and foreign experience in informatization of education are studied and summarized; the analysis of scientific literature on problems related to the informatization of

society is made, its impact on the individual and the education system; analysis of the readiness of first-year students to use electronic textbooks in the learning process. An anonymous survey was conducted of first-year students of the Chuvash State Pedagogical University, studying in the areas of training: 44.03.05 Pedagogical education (with two training profiles), profiles "Biology and Chemistry" and "Biology and Geography". The survey was taken in September 2019.

### 3. RESEARCH RESULTS AND DISCUSSION

As many researchers note, the informatization of education is a multifaceted and multifaceted problem [6], [11], [14], [15].

In connection with the active implementation and use of information and communication technologies and the transition to computerization and digital education, the ability to self-education is an important quality for students. Digitalization of education requires self-discipline and independence from students [10], [13], [16].

Researchers note the fact that the low level of informatization of preschool educational institutions leads to a similar level of education in the middle and, as a result, in higher education [11]. Students face with digital editions in one form or another at all levels of their educational path. Nevertheless, having rich experience in using mobile devices and the digital environment in everyday life, students often show a lack of willingness to use electronic educational resources and educational publications in the learning process [17]. That was confirmed by our research.

As our analysis shows, there are a small number of theoretical developments on the issue of readiness of first-year students to use electronic educational resources in the learning process, and even fewer practical ones.

It is necessary to highlight the research of Y. P. Molokanova, carried out in order to determine the readiness of students to use computer technology in the learning process [5]. Also of interest are the works of Dyachkov V. P. [3], Karbozov Z. Z., Butenova A.K. [4], Sharafutdinova L. N., Mikheeva N.N., Shagidullin N.M. [8].

At the beginning of the 2019-2020 school year, we conducted an anonymous survey of first-year students of the Chuvash State Pedagogical University, studying in the areas of training: 44.03.05 Pedagogical education (with two training profiles), profiles "Biology and Chemistry" and "Biology and Geography". A total of 57 people took part in the survey.

As a result of the questionnaire, it was found that the technical supply of freshmen with various electronic devices is 100%. The leading positions are occupied by the phone/smartphone (100%), which is explained by such qualities as mobility and affordability of devices. They are followed by laptop (59.6%), desktop computer (35.1%), tablet (5.3%).

The survey showed that the goal of visiting the Internet in 98.2% of first-year students (56 people) is to communicate on social networks.

35.1% of students visiting the Internet pursue an informational goal, namely: the search in general for any information. It should be noted that 5.3% of first-year students were looking for information about vacancies.

17.5% of the students, which amounted to 10 people, use the Internet to study. 10.5% of them visit the Internet for entertainment (play computer games, watch music videos, etc.).

In an independent assessment of level of readiness to use electronic resources in the learning process, we obtained the following results: more than half, namely 56.1% of first-year students, expressed their confidence that they well know what electronic educational resources are and are capable of quickly and easily find the necessary material and literature (third level on a scale).

26.3% of students identified themselves as at the second (satisfactory) level and admitted that they work with electronic resources on an intuitive level and have a very vague idea of the possibilities of electronic educational resources.

5.3% attributed themselves to the first level (low), thereby recognizing their lack of skills in working with educational electronic resources.

It should be noted that 7 first-year students (12.3%) attributed themselves to the fourth, excellent level.

However, when students who identified themselves as excellent and good were asked to indicate the educational platforms they use, the following answers were received: Wikipedia; Mail.ru; referat.ru and others.

Only one student indicated that he was using materials from the CyberLeninka International Electronic Library.

Thus, the level determined by the students themselves, in fact, was not confirmed.

At the same time, 100% of freshmen noted that teachers recommend using electronic educational resources in preparation for training sessions.

But when answering the question of how often they use ESM in preparing for training sessions, 77.2% answered "rarely", 21.1% - "often", 1.8% - "never".

It should be noted that the vast majority of freshmen do not use electronic libraries: 57.9%, and 15.8% noted that they do not use any libraries at all, which amounted to 42 people in total.

At the same time, 87.7% of the respondents (50 people) indicated that they prefer printed books over electronic ones, while 12.3% said that they prefer to use an electronic book / textbook.

As an argument that will allow them to use electronic educational resources more actively, first-year students noted the presence at each workplace of a computer or tablet with access to the Internet.

It was found that during class work the vast majority use a smartphone to read an e-book / textbook. Which, basically, 96.5% consider uncomfortable.

Considering that the majority of students (82.5%) already use smartphones for educational purposes during class, the

active introduction of electronic educational resources in the educational process is possible if the university is adequately equipped with computer equipment.

Nevertheless, it should be noted that 7% of respondents believe that the use of computer technology in the classroom can interfere with the educational process.

All first-year students surveyed use office programs. However, they prefer Word (42.1%), Power Point - 35.1%, Excel - 12.3%, Fine Reader - 5.3% and other programs 4%.

Graphic editors are rarely used by first-year students. Most often used is Adobe Photoshop: 21.1% of the total number of responses. More than 60% of respondents (36 people) do not use graphics applications for educational purposes.

As it turned out, less than 60% of respondents are interested in creating electronic educational resources in the academic disciplines of the faculty. This indicates a low interest of students in expanding learning opportunities and expanding their knowledge. We assume that the low cognitive motives of students are due to the fact that during the questionnaire they were still at the very beginning of the first year and did not fully realize the correctness of their choice to enter a higher educational institution. Perhaps the fact that the survey was conducted before the examination session also played a role.

#### 4. SUMMARY

Thus, based on the results of the study, the following conclusions can be drawn:

Based on the questionnaire, the following conclusions can be drawn:

- first-year students' readiness to use electronic educational resources is low.

After analyzing the electronic educational environment operating at the university on the moodle platform, where there are methodological materials for each course, it was found that on 02/10/2020 (the first semester already ended and the second one has begun), 11 first-year students never went to this educational resource during their studies, which is 19.3% of the total number of freshmen. This fact further confirms the low willingness of freshmen to use electronic educational resources.

- first-year students rarely turn to electronic textbooks, study guides, encyclopedias, and other components of the electronic educational environment, which were specially designed to facilitate learning in various academic disciplines.

- Freshmen are not sufficiently aware of the possibilities of the Internet for educational purposes.

- We recommend conducting an initial survey of freshmen for their readiness to use EER in the educational process.

Thus, one of the key pedagogical tasks of the faculty is the active agitation of freshmen students on the use of electronic teaching aids in educational activities, with the aim of developing students' cognitive independence.

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