Creation Of Electronic Textbooks In Higher Education

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Abstract: *In this article, the creation of electronic textbooks in the higher education system, the development of textbooks is one of the most important issues of today. In today's pandemic, the demand for e-textbooks has increased.*

Keywords— higher education, textbooks, information and communication, innovation, computer technology, visualization, quality education, psychological requirements.

1. INTRODUCTION

Among the various traditional textbooks in the system of higher education, the textbook occupies a special place due to its importance. Because it is the most effective and most common didactic resource, it serves as a learning tool for learners. A quality textbook increases the interest of students and plays a special role in the quality and effective organization of the teaching process. Therefore, the preparation of electronic textbooks in higher education, the widespread use of scientific and technological advances is one of the most important issues in the field of education.

One of the most pressing issues in the country's higher education system is the preparation of electronic textbooks and manuals based on information and communication and new innovations.

2. Main part.

In the process of creating an electronic textbook, didactic, methodological, psychological, pedagogical, technical, technological, aesthetic and ergonomic requirements are set. The general requirements for an electronic textbook are as follows:

1. The structure and content of the electronic textbook should correspond to the curriculum of the studied subject, as well as to the in-depth study of the educational material;

2. Ensures sufficient depth and reliability of the content of teaching materials, taking into account the latest achievements of science, technology and engineering in teaching;

3. The process of mastering the educational material with the help of electronic textbooks should be built in accordance with modern teaching methods. For example: experiment, experiment, comparison, observation, abstraction, generalization, rounding, similarity, analysis and synthesis, modeling method, as well as mathematical modeling and systematic analysis method;

4. Requirements for the achievement of teaching - is carried out through an electronic textbook and indicates the need to determine the level of complexity and depth of learning material specific to the age and individual characteristics of students;

5. It is impossible to over-complicate and overload the study material, in which case the learner will be unable to master this material.

3. Results and discussion.

Requirements for the robustness of the acquisition of knowledge in the use of e-textbooks - the development of skills such as deep thinking, memorization is of great importance for students to master the learning material. .Developmental and educational functions of teaching should be performed in the electronic textbook. The content and structure of the e-textbook must meet the requirements of the educational standard. The e-textbook should include automation of calculations, design and construction, experimentation, processing of experimental results, control tasks, automation of information processing, such as search, collection, storage, analysis, processing of educational activities. The e-textbook should contain an imitation of the work of complex objects (machines, equipment, hardware, devices, etc.), a variety of processes in real, accelerated or decelerated time scales. The training tools of the e-textbook are to prepare the learner in a virtual environment depending on his / her future professional activity.

Didactic requirements for the e-textbook Flexibility requirements - the e-textbook should be adapted to the individual capabilities of the learner, ie the knowledge, skills and psychological characteristics of the learner in the learning process. Interactive learning requirements include ensuring that the e-textbook interacts with the learner during the learning process. E-textbook tools should provide interactive communication and feedback. An important part of organizing communication is the reaction of the e-textbook to the user's behavior. Provides feedback control, provides recommendations for further work, provides constant access to reference and explanatory information. Requirements for the introduction of computer visualization capabilities in the presentation of educational information in the electronic textbook. It involves the analysis of the

capabilities of modern electronic media and the quality of the presentation of educational information in the electronic textbook. Requirements for the development of intellectual abilities of students in working with e-textbooks. Thinking involves the development of the ability to make independent decisions in complex situations, the ability to process information.

Must meet the requirements of structural and functional interdependence of the presentation of e-textbook material. 6. E-textbooks should ensure completeness and continuity of education. The e-textbook should have an intellectual teaching system of problem-solving and research assignments. The didactic requirements for e-textbooks are inextricably linked with the methodological requirements. Methodological requirements provide for the consideration of the specifics and features of the subject for e-textbooks, methods of searching for its laws, the possibility of introducing modern methods of information processing. Methodological requirements for e-textbooks should be based on the interdependence of the conceptual, figurative and moving components of the presentation of e-textbooks. The e-textbook should provide the learning material in the form of a high-order structure. Interdisciplinary logical interdependence must be taken into account. The e-textbook should allow the learner to perform a variety of controls in order to gradually master the learning material. All calculations performed in the e-textbook should have an open system of visualization, demonstrating the interdependence of variable studied objects or processes.

Psychological requirements for the e-textbook Demonstration of educational material in the e-textbook should correspond not only to the verbal, but also to the sensory and demonstrative states of the cognitive process. An e-textbook should be developed taking into account the characteristics of psychological processes such as reception, attention, thinking, imagination, memory. The educational material in the electronic textbook should be designed taking into account the age of the learners, basic knowledge. The e-textbook should focus on the development of figurative and logical thinking. Demonstration requirements for teaching imply the need to take into account the objects studied by students, their sensitive perception and personal observation of their mock-ups or models.

E-textbooks E-textbook (textbook) is a product of modern information technology, which serves to improve the quality of education. E-textbooks form the core of the new form of education - distance learning [1]. The use of modern information and pedagogical technologies, including electronic textbooks, plays a special role in increasing the effectiveness of teaching. In order to organize the educational process in higher education institutions at a high level, it is important to provide textbooks that fully meet state educational standards and international educational standards. In practice, outdated concepts lead to the creation of electronic products (texts and teaching materials available in electronic form on diskettes, etc.) that are being tried to be interpreted as electronic textbooks. But in reality, these are less effective tools because they are not electronic textbooks. It is therefore advisable to identify the concepts related to the e-textbook. A textbook is a necessary weapon for a student because he cannot have a solid and comprehensive knowledge and skills in science without textbooks.

4. Conclusions.
In conclusion, the creation of e-textbooks in the higher education system is one of the most pressing issues. The creation of e-textbooks, on the other hand, has led to a growing demand for such textbooks and manuals in today's pandemic, as online learning continues throughout the higher education system.

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