

PEDAGOGICAL OPPORTUNITIES FOR THE DEVELOPMENT OF CONSTRUCTIVE ABILITIES OF STUDENTS IN AN ELECTRONIC INFORMATION AND EDUCATIONAL ENVIRONMENT.

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Annotation

in this article, the process of preparing an electronic manual for the user is carried out at the following stages: verification; writing instructions for using an electronic manual; development of methodological support; preparation of materials for registration, thinking about the principles.

Keywords

student construct; lash competence, traditional programming languages; general purpose instrumental tools; multimedia tools; hypertext and hypermedia tools.

Regardless of at what stage of education it is taught, one of the important tasks of any subject is to ensure the process of forming a system of knowledge in the same subject. On the basis of logical-genetic analysis of the structure of knowledge, the following basic elements are distinguished in the system of knowledge: scientific evidence, concepts, laws, theories, practical application of theoretical knowledge, the scientific picture of the universe. The structural units of recorded knowledge are common to all natural and Social Sciences.

Having analyzed the requirements for the above structure of knowledge, we will consider these requirements at the stage of preparing an electronic manual.

The process of preparing an electronic manual for the user is carried out at the following stages: verification; writing instructions for the use of an electronic manual; development of methodological support; preparation of materials for registration; registration of an electronic manual and obtaining a certificate of authorship from the intellectual property agency under the Ministry of Justice of the Republic of Uzbekistan; protection and distribution of

The principles of creating electronic guides include the following conditions:

1. The principle of quantization: the volume of information presented in the electronic manual is small, the content is divided into parts consisting of completed sections.

2. Completeness principle: each section and topic must have the following components: theoretical core; control questions on theoretical data; examples; tasks for independent execution; control questions and tests for a general guide; help for use (Help); comments on the concepts and tariffs used.

3. The principle of exhibitionism: each module should consist of a staff collection with a minimum level of text and visualization that allows you to understand and facilitate the recall of new concepts, thoughts and methods.

4. Branching principle: each module must be connected to other modules through hypertext links in such a way that it is possible for the user to switch to an optional section and topic.

5. Principle of management: the student independently manages the exchange of personnel, is able to issue an arbitrary number of examples in the window (the concept of "example" has a wide meaning: examples describing the concepts and thoughts under study, samples for solving certain issues, reverse examples wahokoza.), the ability to solve the necessary number of issues to oneself, as well as the ability to check oneself by answering control questions or doing Control work.

6. Flexibility principle: in the learning process, an electronic guide should be able to adapt to the needs of a particular user, allow you to change the depth and complexity of the studied materials, create additional visual materials in accordance with the needs of the user, provide graphic and geometric interpretation of the results of the concepts and issues under study.

7. The principle of computer assistance: a student can use computer assistance at a voluntary time, which frees him from tedious work and allows him to focus on the essence of the material being studied, to see and solve more examples. In this, the computer not only performs coarse substitutions, various calculations and construction of graphs, but also performs mathematical actions of the level of ichthyological difficulty, as well as checks the results obtained at an arbitrary stage.

Software tools for creating electronic guides: the purpose and functions performed by the tools for creating electronic tutorials, requirements for technical support, can be grouped according to complex criteria that include application features. In accordance with these criteria, the tools for creating electronic guides can be classified into classes as follows: traditional programming languages; instrumental tools for general purposes; multimedia tools; hypertext and hypermedia tools.

In the educational system, the purpose of the electronic information and educational project is developed in direct connection with the formation of constructional competencies for students and the improvement of their creative

abilities through them. In turn, the formation of constructional competencies in students pays special attention to the content of qualities aimed at consciously choosing the profession in which they are interested and constantly developing during the next labor activity.

At the same time, the organization of electronic information and education in secondary education constructs the formation of competencies, the organization and management of informatization of educational processes assumes the research of the electronic information and educational environment of pedagogical education, the creation of Integrated Information and educational resources as a factor enhancing the quality of Education.

Thus, it can be concluded from the above that if geometric constructionism is not specially taught to students in the discipline of e - learning Ham, they can master it on their own, but the degree of constructive literacy inherent in such a case may not be satisfactory. At the same time, the study shows that mathematics is taught on special programs, and the application of special textbooks in the teaching process positively affects the level of constructive training of students of educational institutions. This once again confirms the need for educational institutions to include geometric constructs as a special object of teaching in a mathematics course.

In the development of student constructionism competencies, the creation of an electronic information and educational unit in educational institutions plays a large role, since in the electronic information and educational sphere, students' attention, observation, perception, memory, thinking, imagination and other processes are mobilized. The results of field studies show that in electronic information education, it was found in the analyzes that the combination of motives is associated with a high level of aspiration, as well as a favorable environment for the successful implementation of the development of structural competencies of students.

The role of the development of structural competencies of students in society was determined by their commitment and tasks in education and individual abilities: thorough reading of subjects, independent thinking, hard work, learning a trade, knowledge of the latest information technology (computer use, searching for information from the internet) and the level of development of a profession suitable for interests, abilities and inclinations,

It was found that the creative approach of students to training, independent work skills and increasing their interest in acquiring a profession is the main task of

the educational system, and the development of the competence of electronic information and education, its construction of students is an important factor.

The educational environment created by the educators who are conducting educational training to students and the electronic information and educational challenge used to understand the essence of concepts related to science and construction, to study the elements of construction, to study several trades along with the choice of an independent profession and the chosen profession, the application of information technologies in their knowledge of the requirements.

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