



Theoretical Analysis of Educational Structures of Conceptual Lines, Educational Elements and Logical Information Modeling in the Creation of Digital Educational Resources

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ABSTRACT

This article discusses the theoretical analysis of the theoretical analysis of educational structures of conceptual lines, educational elements and logical information modeling in the creation of digital educational resources. In addition, the theoretical analysis of the difference between the concepts “content of education” and “content of educational science (subject of study)” was made in didactics.

Keywords:

Digital education, digital learning resources, consulting lines, learning elements, logical information modeling, content of education, etc.

Introduction. Structure of the structure of education: basic elements and components of Education. In didactics, it was accepted to distinguish between the concepts” content of education “and” content of educational science (subject of study)”. Therefore, for example, the sequence of selection of the content of educational science consists of two aspects, namely: the selection of the content of education as an element of the methodical education system and its transformation into the content of educational science.

Literature view. In our scientific research, the content of education is presented in a convenient form, in the opinion of V.I.Genetsinsky, with the aim of mastering at the appropriate level in the educational programs and all components of the content of professional education in the field. We

understand the educational activities of teachers as scientific data on the appropriate procedure for the study of pedagogical-based, logically sorted materials in educational programs, determining the educational activity and cognitive activity of students.

At the same time, the peculiarity of the didactic form of presenting a certain element of knowledge in the content of education is that this form contributes to the object of pedagogical influence by allowing this element to be manifested (come out, reflect)in accordance with its consciousness, by directing it with values (worldview), in a certain way programs its cognitive activity, allows to The most important thing here is that the creation (construction) of a didactic form of presentation can be carried out only on the basis of sufficient consideration of the content of the corresponding element of knowledge.

Research Methodology. The content of education should be characterized as a didactic re ishlangan system of knowledge in the subject area, which takes into account the following from the point of view of a systematic-structured approach: determining the location in the metasytem; to determine the optimal set and characteristics of components that will ensure the effective operation of the system and its development; it consists of the installation of connections between components.

Thus, according to the above concepts, we must reveal omillarni, which ensures the internal structure of the educational content (the informative part and the logical order), as well as its integrity and relative independence:

- educational elements of theoretical (basic) material, which are the basic concepts in a particular field of Science and the set of relations between them (they, in addition to the basic or fundamental concepts of a particular field of thought, can be different fundamental ideas and different approaches to the study of certain concepts);

- task materials that are identified in accordance with the theoretical material and designed to develop specific skills and skills for the relevant field of knowledge in the students;

- predicate relations between elements of education and internal predicate relations.

We rely on the point of view of the model of the content of the study of a particular subject of Education, which consists of two blocks in the queue. The main part of the structure of education includes:

- 1) part of the subject - the recommendation of the subject under study within the scope of the subject area, including by defining the concepts "know" it (ososeology), statements and theorems that reveal the construction and properties of the object under study;

- 2) part of the activity - algorithms, technologies, methods and their application in the computer. An auxiliary block of educational content is questions on the history of the scientific subject under study, as well as other (for example, Mathematics, Computer Science and pedagogy, etc.). auxiliary sections in the

field of science. As you know, the auxiliary block contains information (concepts, confirmations, theorems, algorithms, tasks) related to other subject areas. In some cases, this auxiliary block can be transferred to the main block of educational content.

Analysis and results. Taking into account the main components of the educational content, it is impossible not to take into account the point of view of T.Sergeyeva, since a particular subject of study should distinguish the following four components in the educational content: 1) knowledge system; 2) skills that the student must master in the process of Education; 3) skills of a creative type, which the teacher subjectively acquires new knowledge by searching independently; 4) Personal component.

It should be noted that we do not pay attention to the individual component of the educational content in our study, since our study focuses not only on the individualization and humanization of education in the field of information modeling, but also on the selection and structuring of educational content through the traditional approach in this area for the pedagogical education system.

As for the other components, according to our concept, the first component is contained in the theoretical block of the educational composition, and the second and third parts are reflected in the task material.

Since the concept of Information Modeling educational content in the context of the creation of digital educational resources, which we have created, has a bright technological direction and is formed on the basis of the ability to apply theoretical knowledge to the solution of professional tasks on the basis of the choice of the required methods, algorithms and technologies, corresponding to the types:

- 1) theoretical knowledge, which is determined by a set of base concepts, laws, principles, theory of modeling, technology and practice considerations and is reflected in the theoretical block of educational content;

- 2) must be based on practical and technological capabilities, which are determined by a set of practical abilities and

skills based on theoretical knowledge acquired in the field of modeling, corresponding to the stages of the computational experiment or the stages of the activity of designing and developing digital educational resources using information modeling in graphs.

The main block of theoretical material consists of two parts: the subject part includes the theoretical foundations, technological and practical aspects of Information Modeling in graphs in the field of science, among which there are 8 educational elements - the main sections: 1) concepts of system theory; 2) basic concepts of general modeling theory (or the basis of modeling theory); 3) basic concepts of Information Modeling; 5) mathematical basis of Information Modeling in graphs; 6) issues of information modeling theory and technology in graphs and trees; 7) main issues of information modeling theory and technology of data types; 8) is used in pedagogical design (development and creation of digital educational resources) in information modeling theory and technology.

Part of the activity includes the technology of implementing algorithms and their implementation, more precisely - the practical tasks of Information Modeling in graphs with the help of data, including computer tools (information systems of various forms). In our research work, algorithms are presented with a wide category of algorithms on graphs, which mainly include the algorithms of the polynomial (R) category of temporary complexity, as well as individual algorithms of the categories of exponential (B) and nondetermined polynomial (no) complexity. In the implementation of algorithms, various marking systems are used (natural language for describing the idea of the algorithm, a pictorial description of the mathematical model, formalization in a fake code, programming language).

Auxiliary Block: 1) modeling historical issues; 2) didactic, pedagogical design not included in the main block, issues of the relevant departments of mathematics, Informatics and other scientific fields; 3) should include issues of propedetic content that should be relied on in the main block.

Task materials are directly related to the theoretical material, only after the logical-obyektiv analysis of the theoretical material in accordance with the functions of the teaching tasks, which, according to the existing facet classification of tasks, can be represented as an educational tool and educational objectives, are determined.

Conclusion and Recommendations. Thus, the structure of the proposed educational content reflects the technological direction of the educational consortium. The future Computer Science defines the components of teaching teachers on the theoretical basis of modeling in graphics and the application of methods of information and analysis activities of the computer science teacher. This category of students will help develop certain knowledge and skills in the field of Information Modeling and pedagogical design of digital educational resources.

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