

## Using Digital Technologies in Education

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**Abstract:** *The article discusses in more detail the purpose and content of the EUMC structural components by the example of the manual on the discipline "Computer Science Information Technology" for students enrolled in the specialty of ekonomiki and religious studies*

**Keywords:** *technology, program, model, educational blocks, corrections, work route, component, bibliography.*

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### Introduction

One of the main tasks of the 2nd stage of the National Program for the Training of Personnel of the Republic of Uzbekistan is the strengthening of the material and technical and information base of educational institutions and their improvement, providing the educational process with textbooks, teaching aids, methodical literature and advanced pedagogical technologies. The implementation of these tasks will contribute to the introduction of modern information technologies in the teaching and educational process, improving the quality of education and training competitive personnel. The quality of education is a complex concept, which is characterized by a whole range of parameters and indicators, among which the quality of education dominates. In recent years, significant changes have occurred both in the equipment of educational institutions with information technologies, and in the content and forms of organization, as well as in improving the quality of the educational system.

The main feature of textbooks and teaching aids is their orientation on students' independent learning activities when studying material. The effectiveness of this activity depends not only on the scientific level of the textbook or manual on the method of presenting educational information, but to a greater extent on the method of working with it, determined by the structure and method of presenting educational material [1].

### Research background

Structuring of the material should be carried out in accordance with the main didactic goal - the creation of a system of scientific knowledge of the student. Traditionally, the textbook is based on the organization of the academic discipline (linear structure). Theoretical information is given; examples, methods for calculating the characteristics and parameters of the phenomena being studied, devices, etc., control tasks and questions; reference data; list of recommended literature. When working with such a textbook, students, as a rule, consider it sufficient to study theoretical material, perform tasks on the model, i.e. the development of knowledge occurs at the level of "recognition", "reproduction", which leads to the great difficulties of translating students' knowledge into skills and abilities. In addition, such a structuring of the material of the textbook does not ensure the implementation of the didactic principle of the individuality of learning, as successful students who do not succeed have the same "route" of obtaining educational information, as well as volume.

### Methodology

In the organization of teaching and methodological support of independent learning activities, students in the study of computer science, the main role, undoubtedly, belongs to the textbook or teaching aid. On the basis of a comparative analysis of the didactic opportunities of educational publications, preference was given to multimedia manuals.

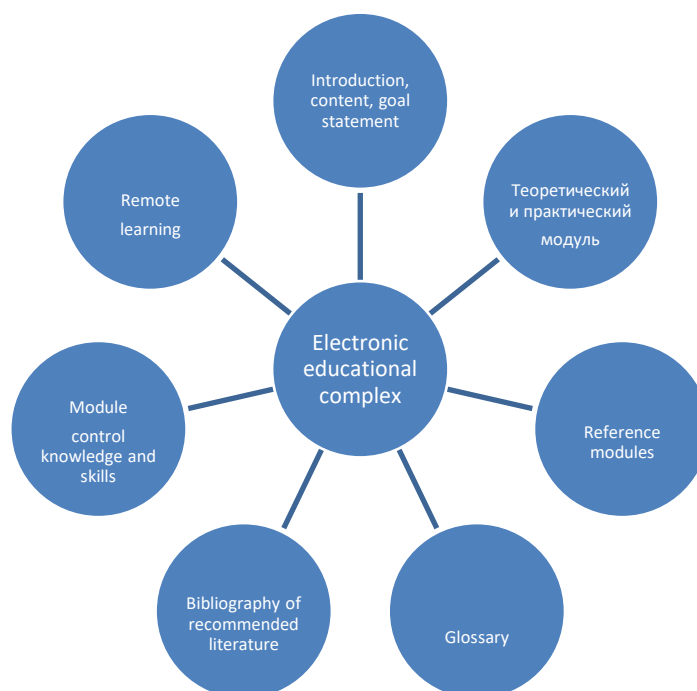
## Main part

Let us consider in more detail the purpose and content of the structural components of EUMK by the example of the manual on the discipline "Computer Science Information Technology" for students studying in the specialty of ekonomiki and religious studies [6].

One of the main directions of educational and methodical work of the department "Modern information and communication technologies" The International Islamic Academy of Uzbekistan can now be considered the following:

Textbooks and tutorials of the new generation, including those created using multimedia technology, as opposed to traditional ones, have an extensive or combined structure of educational material. For such complexly structured textbooks used beam-modular model of the presentation of educational material.

Consider the structure of the main blocks EUMK:



Such a structuring model is preferable for e-learning materials, since it allows them to take full advantage of their advantages in comparison with printed publications. Such advantages include the ability to quickly change the content while reducing the time spent on modifying and developing a new electronic teaching and methodical complex, i.e. Creation of adapted EUMK for related specialties or EUMK for practical and laboratory work.

To create a high motivational attitude of students working with EUMK, first of all, they should disclose the goals of studying this discipline, the need and significance of mastering this educational material for their further perception and application in their professional activities. In teaching concepts, goals are specified regarding the learning process: a description of the state of knowledge and skills that must be achieved by the learner as a result of his learning activities.

## Data analyses

The content of the EUMK educational material in accordance with the requirements of the State Educational Standard of Higher Education (5220400-Religious Studies, 5120100-Classical Oriental Literature and Source Studies, 5330200-Informatics and Information Technologies) is divided into educational blocks according to the discipline under study. And the next stage of goal-setting includes the development of private learning goals and their inclusion in the

introduction of each section of the training course. On the basis of the work program, taking into account the general goals for the discipline, a range of typical tasks is determined, which the student must learn to solve after studying each module, each topic.

Through the formulation and disclosure of the objectives of the study of this discipline, the implementation of such a didactic principle as awareness, which significantly increases the effectiveness of students' independent educational activities, contributes to its additional motivation. The objectives of the study of this discipline can be used by the student in assessing and correcting their activities. The principle of orientation this training as mandatory implies the presence of a module of the reference system. The help system provides a detailed description of the structure of the material being studied, which allows the student to get a general idea of the course being studied; free to navigate the location of educational material, as well as independently choose the route of working with EUMK.

The principle of orientation of educational material on independent learning also provides for sufficient completeness of its presentation. The main part of EUMK includes a module of theoretical and professional knowledge with practical tasks, allowing students to independently master the necessary knowledge, skills and abilities.

In the theoretical module EUMK for each topic, each section presents a mandatory minimum content of educational material, the study of which allows students to achieve their goals.

One of the most important structural components of the content of EUMK is the module of control of mastering the studied discipline as an evaluative and productive component of educational activity. Moreover, in contrast to traditional educational publications, EUMK controls at all stages of learning and developing skills, which is ensured by the special organization of educational material and students' learning activities. In the knowledge control module, feedback is also foreseen: a student who has not been tested should be given recommendations on which sections, topics he should pay attention to, which topics should be studied again and then re-checked.

When working with EUMK, a student receives a set of information from the point of view of information processing, which forms the information field of the studied discipline, characterized by the development of keywords of the necessary information in the student's memory. In the glossary module, the basic concepts of the studied discipline and the basic themes of previous courses are included. Since the studied discipline is based on the material of previous courses. This set of keywords becomes common to these previous and studied courses. In order for a student to fully master the information retrieval algorithm, it is necessary to master these key words with simultaneous knowledge of the main provisions of the discipline under study.

For self-study material EUMK necessarily included the module bibliography of recommended literature. The module provides two references: mandatory and optional, which contribute to a broader or detailed study of any topic.

Work with EUMK can also be carried out in extracurricular time, for this reason a distance learning module has been introduced. This module includes a registration system for students working with EUMK, as well as a question and answer page for consulting with a teacher. If EUMK is located in the electronic library of the university, then the student on this page may ask a question on any topic and any section of EUMK; note the difficulties that he has when working with EUMK. Thus, both teachers and developers have operational information about the level of mastering educational material from virtually every student, i.e. implemented the principle of feedback in learning.

## Conclusion

The development and creation of an electronic textbook is a creative process. Therefore, the proposed structure of the content of an EEMC can be considered rather conditional, and depending on the characteristics of the educational material, it can be supplemented with a

module for solving problems on topics, a methodology for solving them; blocks of research assignments, diagrams, drawings, etc., so that a textbook or study guide would encourage students to self-education and creativity [4].

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