

CONCEPTUAL MODEL OF COMPUTER-BASED LEARNING SYSTEM

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A computer-based learning system (CBLs) is a set of information, didactic, technical and software components designed to study a particular academic discipline. [1] By analogy with the means of the usual learning process, the element of a CBLs can be an electronic textbook, a training manual, etc., which can be used as a learning aid. Programs (computer programs) of educational purpose (independently or as a part of CBLs) perform the functions of means of navigation in CBLs, means of diagnostics and control, means of preparation, processing, transmission and display of statistical information about the results of training, means of modeling of physical and other processes and so on.

Didactic model of CBLs should correspond to the model of the learner, set out in the educational qualification specification (EQS), educational professional program (EPP) and contain the following components:

- educational and upbringing objectives;
- didactic objectives;
- the structure of CBLs;
- forms and methods of monitoring the quality of training;
- forms of information presentation.
- CBLs should solve the following main didactic tasks:
 - initial familiarization with the discipline, mastering its basic concepts and constructions;
 - providing basic training at different levels of depth and detail;
 - development of the trainee's abilities to certain types of activities;
 - restoration of knowledge and skills;
 - formation of appropriate knowledge, abilities, skills;
 - control and evaluation of knowledge, skills and abilities.

From the didactic point of view, the CBLs should be presented at the levels of content, methods and organizational forms of learning.

Didactic tasks, which are solved by CBLs in accordance with the given model of the learner, are specified by the curriculum and the model of knowledge of the learner, corresponding to the working curriculum.

CBLS training material is subject to decomposition according to thematic and temporal principles into structural units - content components. [2] The first principle means the reflection in the content block of the hierarchical sequence of training material: a block of content modules (section), content module (topic), etc. The second principle implies the decomposition of the training material in the content block. The second principle implies the decomposition of the academic material into structural units (fragments) in accordance with the type of learning activity: lecture, seminar, practical training, test event, etc. The second principle implies the decomposition of the academic material into structural units (fragments) in accordance with the type of learning activity. CBLS training material can include theoretical and practical components.

The information content of the theoretical component should meet the following requirements:

- completeness and integrity of the theoretical component;
- use of multimedia and hypermedia components, ensuring the ability of the CBLS to educational dialog in the interactive mode of use, etc;
- availability of hints;
- variety of learning “trajectories”;
- possibility to choose the necessary “trajectory” of learning directly by the learner;
- use of situational components in the scenario;
- availability of links to educational resources on the Internet to ensure the possibility of exporting additional materials;
- availability of bibliography by sections.

The practical component should contain a list (names) of group, practical and laboratory classes, the order of their organization and development with the indication of objectives, content and sequence of tasks, a list of equipment, technical conditions, etc., methods (rules, algorithms) and examples of problem solving, directly tasks for independent solution, answers to them, tests to monitor the level of mastering knowledge, skills and abilities in this subject area. The practical component should ensure the availability of different-level exercises for mastering terms, concepts, notations, rules, laws, etc.; typical situations, rules (algorithms) of decision-making by templates and samples. Formation of skills and abilities of independent decision-making, including in interdisciplinary areas.

The variability of the use of CBLS should be provided by the distribution of educational material (EM) within the boundaries of structural units by volume (levels of use) with orientation on the different depth of mastering or specialty and curricula of related courses, or on the initial preparedness of the student. [3] For example, for the minimum, medium and maximum levels of learning material, the latter is divided into elements of three volumes O_1 , O_2 , O_3 , respectively; when including material for knowledge updating, the element OB is added. (img. 1).


	Or		knowledge recovery material	
	O3	O2	O1	material corresponding to the minimum level of assimilation
				material corresponding to the average level of assimilation

Image 1. Distribution of training material

The information logical model of presentation of training material should provide the realization of linear and adaptive variants of training or their reasonable combination.

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СТРУКТУРНО-СЕМАНТИЧНІ ОСОБЛИВОСТІ УКРАЇНСЬКИХ ТЕРМІНІВ-СЛОВОСПОЛУЧЕНЬ ЗІ СФЕРИ ДИЗАЙНУ

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Актуальність дослідження проблем термінології дизайну зумовлена активним різноплановим розвитком дизайнерської сфери. Термінологічну систему дизайну, сформовану на ґрунті багатьох напрямків наукових знань