

NEW TECHNOLOGIES IN THE FIELD OF EDUCATION

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The questions on the use of new educational technologies. Analyzed theories, concepts, approaches new technologies. Principle of localization of maintenance of educational material is examined.

У статті розглянуто питання щодо використання новітніх технологій у галузі освіти. Проаналізовано теорії, концепції, підходи новітніх технологій. Представлений принцип локалізації змісту навчального матеріалу.

Introduction. Our country is an active participant of integration processes in higher education in European countries. Based on the principles of the Bologna Declaration, carried out the development and monitoring of higher education in Ukraine. In the context of the integration of higher education increased responsibility of higher education institutions by providing quality educational and research services. Therefore, you should make every effort to intensify the educational process, mastering advanced teaching methods, the use in the educational process methods and forms that are characteristic of European education.

The main text. One of the prerequisites for integration of higher education Ukraine to the European Higher Education Area is a change to the credit-module system of education. This system is a recognized European standard instrument for implementing mobility researchers, teachers and students. Modular training is considered one of the most modern and advanced technologies. It is intended to provide individualized educational programs and ways of learning, depending on the abilities, interests and educational needs of students. The effectiveness of modular technology education proven experience of European and national institutions. It requires significant changes in the approach to the formation of learning content, structure and organization. This technology provides the ability to study individual variable part program for professional training, which is

formed according to customer requirements, the interests of students will promote their self-development and prepare for life and profession.

In teaching science module teaching the subject of many studies both domestic (A. Aleksyuk, J. Balashov, V. Ryzhov, P. Yutsyavychene et al.). And foreign researchers (J. Rassel, M. Goldshmid, B Goldshmid et al.). The modular approach is seen as a natural result of the evolution of educational theory (N. Lavrentiev, M. Choshanov et al.). Designing the structure and content of education in a modular fashion with training experts examined in the works N. Borodina, N. Yerhanovoyi and others. The problems of transition from the traditional model of the educational process to the application of technology of modular training in terms of higher education institution analyzes G. Lavrentiev and N. Lavrentiev. Influence of modular training on mental processes underlying personality analyzes K. Vazina. The modular approach as effective learning system define J. Balashov and V. Ryzhov, building on the analysis of vocational training in developed countries. At the same time the development of modular training practices in higher education is far ahead of the construction of psychological and educational theory. To move pedagogical higher education system to the new quality requires further development of the theory of modular training, and with it – means scientific knowledge, forms and methods of complementary modular system that clearly meets the requirements of educational theory today. Development of conceptual frameworks modular training under psychological and educational theory – an objective necessity today.

The objective of this article is to analyze the new paradigm of higher education, including modular technology training in psychological and pedagogical aspects. Modular training – one of the modern and advanced technology, which provides a good individualized educational programs and ways of mastering depending on the abilities and interests of students. Modular training consists of individual modular programs and plug – with modular units. In the modular units are modular learning module elements allocated to form

specific concepts, skills, skills, practical admission or several professional techniques, actions, operations, processes associated with each other. The modular unit consists of educational elements; these may include lectures, practical and laboratory classes, independent work under the guidance of a teacher, course work and projects, individual complex problems, consult [1, 4, 6, 7]. Modular technology realizes in practice the following principles and rules:

- a clear statement of purpose;
- integration of various types and forms of education;
- large-organization of learning material with recommendations and objectives in his study;
- mostly independent study of students learning material;
- management students using (sequences of tasks and stages of learning) and learning of algorithms; openness methodical system of teacher;
- choice of student learning, forms, place and pace of study material;
- creating conditions for successful learning of the learning process;
- ability to work based on individual methods study of educational material, their way of learning;
- substantial operational current control and evaluation of the results on the final control.

Structural-component structure of the educational process, which is organized on a modular technology, creates conditions not only individualization of learning, but also a higher level – personalization of learning. This individualization of learning is seen as part of the training that personalization as personalization is the realization of human aspirations to be a person. The concept of personalization offered in 80 years of the 20th century in the field of social psychology A. Petrovskym [2]. This theory – a new approach to understanding individual, whose origins in the work of L. Vygotsky and A. Leontieva sotsiogeneza consciousness, initiated a general psychological theory of activity [3]. Modular technology realizes the idea of personalized learning.

Considering how personalization process by which the subject receives representation in the life of individuals and society can act as a person.

Personalize, is treated as a process by which the subject receives representation in the work of others and can act in public life as a person. This individual personality as it is made beyond the individual subject, the subject of updated links with others, joint activities with them. In our view, the theory of personalization fruitful in education, particularly in the training module. We have hypothesized that the implementation of ideas personalized learning promotes the formation of professional identity, provides a mutually beneficial development of the individual in the community of students and teachers; increase creative potential as students and teachers. In implementing the training, personalization in modular technology we used was the principle of localization content of teaching material. The essence of this principle is that after a brief description of the program of study of discipline teacher, student at will choose questions for in-depth study, we localized question is called the question semester specialization. The result of the student on this issue estimated the number of points corresponding rating. The decision to work on the issue of specialization semester students have to take a certain period of time from the beginning of the study subjects. The information had students in which modules and training elements which will demand their material semester specialization. Besides oral report on one of the occupation, localized content issues presented to the student in writing as a learning design presentation of the selected issue. The student analyzes the presentation to a number of sources, including lecture. This situation forces the student's choice of critical concern to the content of the material. In turn, this fact puts the teacher in terms of the need for continuous improvement of its scientific and objective level. Maximum rating score is assigned to the works of the students in addition to a broad representation theory point connections with various elements of the subject under study and other academic disciplines [4]. This requirement modular program to introduce students to the study of individual channel system analysis theory study, which

is considered as a subsystem of different systems (other subjects taught). These system components are represented super-system, as which in this case is the production process environment occupational functioning future professionals.

Work on the question semester specialization requires students to maximize independence and responsibility, and assumes the existence and development of his specific skills and abilities, including the ability to plan their training activities, including goal setting; the ability to use different sources of information (written, oral, computer), the ability to allocate the relevant factors, the basic idea to separate the important from the secondary; have the skills of presentation, quoting, systematization of educational material, information coding (drawing tables, charts, graphs). Experience in the standby module technology using the concept of personalizing learning shows that some students formed a fairly high level of local knowledge of the program of the course. Study subjects organized in a way that students are included in the educative activities. Level of education allows students to conduct local counseling other students (on the semester specialization), local assisting in lectures and workshops. In this activity students cautionary localized issues of specialization semester, but, nevertheless, the student already appears as the subject of local instructional activities.

A student in the educational process such prescribe exemplary status, which is linked with certain functions and duties requires a high level of training and responsible attitude to business. Status instructive creates ideal conditions for representation students about their characteristics, which makes enriching contributions to the development of their identity [5]. The variety of roles performed by one student, researcher, assistant, consultant and behavior leading to successful socialization in the learning process. Status instructive not only orders, but must be made by the student. Students can not formally apply to the implementation of research because it expects assisting, advising on the specialization semester may receive additional points, which will significantly improve its rating. All of these students is difficult to ignore. Experience shows

in each study group of 30 to 45% of the students are eager to learn and question semester specialization reach this positive result. Personalize Learning provides a high level of practical and theoretical training of both students and teachers. Sci-subject teacher level rises because local level student approaching him. Universal level of student increases due to the fact that his research into the semester specialization associated with other issues and discipline sections studied with other disciplines. In traditional education system is not expected specialization semester students because there are only two levels: the teacher and the general level of the student. At the level of teacher consistently and significantly above the level of the student. With modular training formed the third level – local level student approaching the level of the teacher in terms of traditional teaching. As a result of this approach, the level of teacher bound to be higher.

Summary and Conclusions. In this paper the implementation of training, personalization in modular technology used and the principle of localization content of teaching material. We obtained that a high level of scientific and objective training, appropriate local, is not every student enrolled, but only those who worked on issues semester specialization. However, in our view, this does not diminish the value of learning that personalization. In theory personalize argued that at a certain stage of social development of the individual as the individual quality system, serves as a special social value model for the implementation of individual activities of others. Thus, studies that personalization ensure the formation of students' ability to personalize, and that according to psychology, is a defining condition for their successful future career.

ЛІТЕРАТУРА

1. Batyshev S. Module Learning / S. Batyshev. – M., 1997. – 255 p.

2. Petrovsky A. Questions of history and theory of psychology / A. Petrovsky // Proceedings Favourites. – M., 1984. – 420 p.
3. Vygotsky L. Selected psychological studies / L. Vygotsky. – M., 1956. – 432 p.
4. Choshanov M. The technique of modular training / M. Choshanov, O. Liseychikov. – Krasnodar, 1989. – 123 p.
5. Asmolov A. Psychology of formation and development of personality / A. Asmolov. – Moscow: Moscow State University, 1984. – 360 p.
6. Yutsyavichene P. Theory and practice of modular training / P. Yutsyavichene. – Kaunas, 1989. – 271 p.
7. Choshanov M. Flexible modular technology problem-modular training / Choshanov M. – M., 1996. – 160 p.

УДК 621.3:539.3

**РОЗРАХУНОК ІЗОЛЯТОРНОГО ПРИСТРОЮ СИСТЕМИ
ЕЛЕКТРОПОСТАЧАННЯ З ВИКОРИСТАННЯМ САПР**

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В роботі з використанням САПР створено просторову модель фарфорового лінійного ізоляторного пристрою ТФ-20 01 системи електропостачання. На основі створеної просторової моделі виконано механічний розрахунок ізоляторного пристрою ТФ-20 01, встановлено еквівалентні напруження за Ріхардом Едлером фон Мізесом і величини деформацій в матеріалі ізоляторного пристрою при різній силі розтягу струмопровідного проводу.

В работе с использованием САПР создано пространственную модель фарфорового линейного изоляторного устройства ТФ-20 01 системы электроснабжения. На основе созданной пространственной модели выполнен механический расчет изоляторного устройства ТФ-20 01, установлены эквивалентные напряжения по Рихарду Эдлеру фон Мизесу и величины деформаций в материале изоляторного устройства при различной силе растяжения токопроводящего провода.