

THE APPLYING OF MODULAR APPROACH IN THE SECONDARY VOCATIONAL EDUCATION

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In the system of Russian professional education there is transfer of accent on interests of the student, which means appearance of reorganization of the educational process of passive learning from to active process of formation of skills of knowledge's using in life process. During solvation of this problem intensive technologies of training play an important role. These modern technologies include the method of modular training. The main point of modular training is consecutive assimilation of modules- complete blocks of information - by the students.

The technology assumes a gradual and semantic transition from one kind of activity (obtainig of theoretical knowledge) to another (obtaining of professional competences). The means of realization of this transition are active learning methods.

System of action of teacher for the transition to modular training involves the development of a modular program, consisting of a comprehensive didactic goal and set of modules for achievement of this goal. For creating this program the teacher should:

1) identify the main scientific ideas of the course;

2) structure educational content around these ideas in certain units;

3) then formulate a comprehensive didactic goal (CDG). And the CDG has two levels: the first level involves the assimilation of the educational content and its using in the practice of the initial phase of study, while the second one requires a long-term approach to educational content. There are integrating didactic goals (IDG) which are allocated from CDG and, accordingly, they formed units, ie, each module has its own IDC. The combination of these goals provides the achievement of CDG.

As a result, the modules include large blocks of the content of the subject. Therefore, each IDG is divided into private didactic goals (PDG) and on the basis of these goals training elements are distinguished. Each PDG matches to one academic item. As the result there is a tree of goals: the top of the tree - CDG for modular program, the middle layer - IDG for building of modules and the bottom layer - PDG for construction of educational elements.

The main structural components of the modular training are:

1. Setting goals and objectives of the training and development of students.

2. Independent work of students using the basic scheme (modules).

3. Consulting and correctional work of teacher (with support of modules).

4. Self-study of students to consolidate the educational material (supported by the modules and consulting and correctional work of the teacher).

5. Information and controlling activity of teacher (awareness of educational information by students).

6. Parity and interaction of teachers and students to consolidate theoretical knowledge in practice (problem solving, implementation of practical and laboratory work).

7. Independent work of students to study the learned educational material.

The modules can be divided into 3 types: *cognitive*, which are used in the study of the basics of science; *operating* (for the formation and development of methods of activity); *mixed*, which are often used in colleges.

Analysis of modules of mixed type, which are developed by our team, indicated that structurally each module should contain a theoretical part of the discipline (or IDC) in the form of the topics (sub-topics), issues and tasks for the consolidation, etc.; the practical part (seminars, laboratory work and etc.) and package of means of assessment of learning results: to conduct current, mid-term and final control [1].

According to the theory of modular training there is theoretical part of academic disciplines:

- ✓ discipline "Physics" - module "Mechanics" contains a 4 sections (blocks): Kinematics; Dynamics; The conservation laws in mechanics; Mechanical vibrations and waves [2];
- ✓ discipline "Life Safety" - Module "Identification and exposure to humans of hazardous environmental factors" represented by 4 sections: "Theoretical basics of Science of Life Safety: basic definitions", "Basics of the theory of risk", "Natural systems of protection of people from the dangers", "The legal and regulatory basics of labor safety";
- ✓ discipline "Engineering Graphics" - Module "Geometric Drawing" includes 4 lectures (3 themes): "General CSDD systems", "Design of drawings", "Geometric constructions";
- ✓ interdisciplinary course "Technology of formation of automatic control systems of standard processes and means" of professional unit "Control and metrology providing of means and systems of automation" includes three major blocks: "Statics and dynamics of elements of automatic control systems"; "The transfer functions of automatic control and regulation"; "Automation Control" [3].

Conclusion.

The positive effect of education on the basis of the modules, firstly, is that the student, armed with teaching materials and guidelines, acquires greater independence in the development of the subject; secondly, the function of the teacher transfer from lecture function to counseling function, but the proportion of passive acceptance material of the student is reduced and there is the possibility of his active discussion with the teacher; thirdly, there are points of intermediate control of consolidation of the material, coinciding with the end of each module; fourthly, there is a slight development of the whole discipline by stepping study of the modules which are completed on the content; fifthly, modular technology of training provides management of educational process in accordance with the set of requirements for specialization to graduate, what reduces, and sometimes eliminates, the adaptation of young specialists to the specific type of activity.

Bibliography

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