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PEDAGOGICAL AND PSYCHOLOGICAL ASPECTS OF TRAINING SPECIALISTS IN NATURAL SCIENCES

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The results of the analysis of scientific literature, the data of experimental works, our own approaches and the use of our work experience at the university made it possible to develop a model of the training system of the future specialist for self-regulation of behavior in professional activities. It reflects the structural and functional interaction of the main components of education (goal, content, procedural, effective) and main features (principles, psychological-pedagogical conditions, factors, stages of preparation, criteria and indicators for determining the level of preparation). self-regulation of behavior in professional activities).

The main components of the model of the system of preparing a future specialist for self-regulation of professional activity in the field of natural sciences are as follows:

- the methodological foundations of building the educational process at the university, ensuring that it is aimed at preparing students for self-regulation of professional activity (ideas of subjectivity, self-development, self-realization);
- the main components of preparation for self-regulation of professional activity (goal, content, procedural, effective) and their functional relationships;
- preparation factors for self-regulation activities: individual characteristics of students; educational and information environment; development of theoretical and methodological foundations of step-by-step training of future specialists based on the formation of a holistic understanding of their professional activity; use of new forms and innovative methods of teaching and educating students, pedagogical support and organization of self-regulation activities;
- general principles of preparation for self-management activities in the field of natural sciences (consistency and systematicity of education; awareness, independence and activity in learning; individualization and differentiation; professional direction; scientific character; optimization; emotionality; connection between theory and practice) and specific (principle) the subjectivity of the educational process, the principle of personal goal setting, the principle of the emotional-value orientation of the educational process, the principle of conformity of forms of interaction between educational subjects to the level of mastering the subject content of the activity. and levels of self-regulation of its functional components, the principle of semantic continuity in the organization of activities, the principle of complexity of professional functions);
- the teaching content, its basis is methodological, general theoretical, psychological-pedagogical and didactic-technological knowledge and the subsystem of diagnostic-prognostic, self-regulation and self-analysis skills;
- forms and methods of training: organization of educational and cognitive activities and self-organization (lecture, explanation, solving problems of professional content, performing INDZ, analysis of professional situations, independent work, written statements, modeling of professional processes, self-analysis results of educational practice, writing reports, essays), encouraging and stimulating learning (discussion, method of relying on professional experience, creating a situation for success in activities, encouraging independent mental activity, stimulation, didactic or role-playing method. -playing games, etc.) ; control and self-management; classroom and extracurricular; individual, pair and group forms of work;

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- psychological and pedagogical conditions that ensure the purposeful formation of the components of self-regulation (the orientation of the educational process to the formation of a valuable attitude to the goals, content and results of one's own educational, cognitive and professional activity, knowledge of the theory and technology of self-regulation of professional activity and theory and training synthesizing knowledge of practice, attracting future specialists in the field of adapted physical culture to activities that correspond to the structure of self-regulation);

- stages of formation of components of self-regulation of professional activity (orientation, training-modeling and effective-correction);

- functions of the vocational training system: general (educational, developmental, educational) and special (information-cognitive, research, self-education);

- criteria, indicators and levels of readiness for self-regulation of professional activity;

- making corrections to self-management activities of students during the educational process by teachers;

- sources of replenishment of didactic and technological knowledge and skills that ensure self-regulation (vocational science, scientific foundations of management, advanced professional experience, educational practice, independent study and cognitive activity);

- the main mechanisms and methods of self-regulation of professional activity (self-observation, introspection, self-control, self-esteem).

An important component of the model of preparing future specialists for self-regulation of professional activity is the purpose and goal of this process (target component). The goals and tasks of teaching are the starting points for defining, clarifying and improving the content of education, which in turn affects the clarification of the goals for the development of self-regulation skills. From this point of view, the main goal of preparing students for professional activities is to form the readiness of individuals with such needs to carry out physical and psychological rehabilitation at a high professional level, with high efficiency in communication, to conduct lessons, methodological and scientific work. Such training, as we mentioned above, implies the presence of professionally important personal qualities (diagnostic and prognostic, constructive, self-analysis, self-management skills), without which professional activity becomes, in fact, impossible.

Based on the above, the preparation of future specialists for self-regulation of professional activity is carried out through the following set of tasks:

- development of self-awareness, activity and independence in educational and cognitive activities;

- to ensure that the content of vocational subjects is aimed at forming a system of methodological, general theoretical, psychological-pedagogical and didactic-technological knowledge and skills that help students to self-regulate their professional activities;

- formation and development of professional personal qualities and psychological competence of students;

- activation of pedagogical support for the process of development of self-regulation skills during the entire course of study at the university.

As for the last element (increasing pedagogical support for the process of development of self-regulation skills during the entire course of study at the university), it should be noted that its implementation implies compliance with didactic and specific principles that include ” and regulation of the main components of the educational process (motivational, purposeful, content, procedural and effective).

Summarizing approaches to the foundation of the system of education and training principles, taking into account the specific features of the educational process at the university, studying the

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practice of professional training of a future specialist in the field of adapted physical culture. a set of principles for preparing future professionals for self-regulation of professional activity.

In order to successfully form the axiological component of self-regulation, first of all, it is necessary to follow the principle of professional orientation of the educational process, which ensures the integrity of preparation for the type of activity being studied. This principle requires the formation of students' regulation experience, in other words, methods of action that ensure the effective implementation of self-regulation activities in the course of professional activity. The professional direction of education can provide independence, mastering the mechanisms of self-regulation activity by simulating the real processes of professional activity, which provide the joint activity of teachers and students, contribute to the development of cognitive interest, activity, solving a set of problems and tasks of different types and levels of complexity.

The principle of the connection between theory and practice, the purpose and content of teaching requires not only mastering scientific and theoretical rules, concepts, laws, theories, but also revealing their various manifestations in practical (self-analytical) activities. because practice is the source and means of knowledge, the system of knowledge and the object application of methods of action. The means and form of implementation of this principle is the analysis of the actual process of professional activity, laboratory, practical training, writing essays and coursework, which ensures the unity of intellectual and practical activity of students.

The principle of scientific education is not only the acquisition of scientific facts, laws, theories, but also the understanding of the development trends of modern physical rehabilitation science, its methodology and, on this basis, analysis, prediction, generalization of empirical experience data, making reasonable decisions and rational work with scientific literature.

In the process of forming self-regulation mechanisms, in addition to the scientific principle, it is necessary to observe the principle of availability, which requires taking into account the real educational opportunities of students when choosing the content, methods and forms of teaching and upbringing.

The principle of systematic and consistent education requires the identification of interdisciplinary connections in learning, not only individual topics, but continuity in the study of academic subjects, regulation and acquisition of knowledge methods, and provision of logical connections between forms and methods of self-management. - arrangement.

The development of students' cognitive interest, activity, independence and creative abilities is ensured by compliance with the requirements of the principle of individualization and differentiation of education (taking into account the individual characteristics of emotional-volitional, effective-practical, intellectual spheres, mental and physical condition of students). Implementation of this principle is carried out by various means and methods of motivation development, involving future specialists in appropriate self-analysis and self-management activities. Such activities form the need for knowledge and professional skills to regulate students' behavior.

Implementation of the principle of optimization in the process of formation of mechanisms of self-regulation of professional activity is carried out through the following elements: clarification of educational tasks based on the study of the real capabilities of multi-level students and working conditions; to choose the optimal logical sequence for learning professionally important subjects, to highlight the most important components that reveal the nature and mechanisms of self-regulation; choosing the optimal structure of classes, rationally combining class, independent and individual work; choose reasonable methods and means of training, motivation and control, ensure self-organization, introspection, self-control, self-regulation of behavior.

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Implementation of the requirements of the principle of independence and activity in education involves engaging students in active independent educational and cognitive activities, turning knowledge into a method of learning new facts and events, turning knowledge into beliefs and worldviews; updating basic knowledge at all stages of their mastery; formation of self-analysis, self-control and self-esteem skills; development of cognitive activity.

We also emphasize specific principles of preparing students for self-regulation of professional behavior.

The principle of subjectivity of the educational process requires paying attention to not external, but internal motivation for learning, ensuring the effectiveness of the selection of educational content, teaching methods, forms and methods, methods and forms of control, the formation of value orientations, subjective experience. and individual learning trajectory.

The principle of personal goal setting implies the organization of the educational process based on and taking into account the goals of the student's personal education, and then of professional importance, and the construction of an educational process aimed at its maximum development.

The principle of the emotional-value direction of the educational process implies the integrity of the emotional and rational spheres of a person, the formation of a system of values, ideals, worldview, and the experience of a value-based attitude to the objects and means of professional activity.

The principle of conformity of the forms of interaction between educational subjects to the levels of mastering the subject content of the activity and the levels of self-management of its functional components includes recording the changes in the educational positions of the teacher and students at different stages. changes in the nature of the relationship of cognitive goals in the structure of their joint activity, educational and cognitive activity. Forms of interaction between educational subjects develop in the logic of restructuring the levels of self-management of learning and cognitive activity (from the direct support of the teacher in solving professional problems, to their own activities with the transition to self-regulatory actions). The principle of semantic continuity in the organization of activity implies its formation at all stages of education with the highest level of self-organization of the individual, the leading role of meaning and goal setting, which is the basis for the development of his regulatory ability.

The principle of complexity of activity functions includes the study of individual activity styles, increasing the level of goals and the scope of self-regulation, which is accompanied by the complexity of professional functions and the level of reflection necessary for their implementation. Taking this principle into account, we emphasize that professional activity as a multi-purpose and multifunctional system requires solving many problems with intermediate results at different levels of generalization. In the process of achieving the goals, there is a possibility that inconsistent, conflicting, local tasks, as well as alternative ways of achieving them, will appear. The variability of strategies and goals, the uncertainty of the specific conditions of activity lead to the complexity of its functions, because a higher level of goals implies more complex means of achieving them. This principle implies the periodic need to adjust the behavior style, taking into account the variability of situations and working conditions. The inclusion of a correction mechanism in the activity of a future specialist in the field of adaptive physical culture activates his thinking and the search for new options for solving complex professionally important problems.

All of the above principles are closely related to each other, and the effectiveness and efficiency of the process of formation of behavioral regulation skills in professional activity depends

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on the level of their implementation in the process of training a future specialist in the field of adapted physical culture.

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