

tize the monitoring procedures and provided objective, qualitatively and quantitatively comparable information about the level of students knowledge.

The suggested qualimetrics technology of a complex monitoring includes four steps: marketing, organization, project and experiment.

The first monitoring step was to conduct a marketing research, in order to estimate real and perspective job opportunities for the graduates of the ISTU, by the example of specialization «Technological education». The aim of the second stage was to set goals and tasks for children education in specialized classes, as well as for the bachelor and master students at the technical college. The third stage related to developing subject thesaurus and creating databases of educational control material and experts, invited for their development and validation. At the experimental stage, an algorithm of the education quality monitoring was developed.

Monitoring of education quality in the framework of the «specialist school-technical college» system, let determine students' individual ratings. For students at the pre-higher education department, it was later used for assessment and admission to university. Results of the monitoring research were obtained, processed and analyzed in the following aspects: meaning of career counseling; advanced knowledge in specialism before entering the technical college; education quality at the ISTU; influence of the students' participation in scientific methodical and scientific practical conferences, on the educational success; importance of practical training for professional development, and other aspects, mentioned in the article. Created information databanks were used for both external and internal evaluation of the technical college.

The monitoring research, conducted at the engineer-pedagogical faculty of the ISTU, has revealed, that it is necessary to intensify the fundamental part of students' education. For this purpose, new courses have been developed and introduced into the bachelor study program, in framework of the following educational aspects: world outlook development, continuing physics-mathematical and technical training, organization and management education, qualilogy and reflexive methodological training. The courses are: «Principal physics in modern technologies», «Modern technical devices and their operation» and «Education quality management».

To sum up, the qualimetric monitoring should be regarded as an integral management part for all integrated educational systems, including the «specialist school – technical college» system.

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PSYCHOLOGICAL AND EDUCATIONAL CONDITIONS FOR DEVELOPING SOCIO-ECOLOGICAL READINESS AT STUDENTS

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One of the most pressing concerns facing humanity today are environmental problems. This requires an adequate education of students, in order to prepare them for a proper interaction with nature (socio-ecological readiness) in the framework of their future professional activities. Training effectiveness depends on a number of factors. We need to determine, what socio-ecological readiness is; and secondly, find educational mechanisms for its development.

Our studies in this area let define the socio-ecological readiness as a personal characteristic that unites knowledge, abilities and skills. These three components help develop an effective environmental policy based on certain norms, limits and methods. Secondly, this notion expresses a certain psychological state of an individual, when he begins to interact with nature. Such a condition arises, while a person anticipates some objects of the socio-ecological reality. Under condition of compliance with the norms and limits, it provides a stable goal-oriented activity, keeping an inter-element environmental balance and creating a possibility for further functioning and development.

Condition of the socio-ecological readiness means, according to A.S. Prangishvili, «...to balance relations between an individual and environment». Its substance is determined by the environmental values that satisfy some personal needs. Our attention is focused on the socio-ecological values, which can be divided into general values (nature, society, human, culture, their interaction) and specific values (natural, psychological, ethnic, social, labor, economic, educational). These values need to be learned; they determine a general plan of subjective orientations and require, that each and everyone adheres to the common norms, limits and methods of rational nature management.

An important question in research of the socio-ecological readiness is to determine relevant psychological mechanisms of its formation. In framework of this study, we have assumed, that personality is a system. Our considerations were based on V.A. Petrovsky's subjective theory, which explains personal subjectivity as means of self-determination of human existence in the world. According to V.A. Petrovsky, personal subjectivity reflects in human activities, which he one uses to reproduce himself and his existence. Being one of the forms of human interaction with nature, this activity requires a certain training. It involves the whole personal potential, which is presented in three subjective spaces, where an individual acts as a personality: intra-individual, inter-individual and meta-individual.

The readiness under study is most likely associated with these spaces; it is being formed using potential of each space and its specific mechanisms. The spaces play a role of original devices that transmit and transform the changes towards the condition of readiness. The main part of socio-ecological readiness' development in the intra-individual space (the first dimension) is motivation, which elements are needs, motives and goals (S.L. Rubinshtein, A.N. Leontiev, M.I. Dyachenko). Each of them lays a basis for a certain aim and its practical form - readiness for an optimal interaction with nature.

The intra-individual personal space acts as an initial stimulus for development of socio-ecological readiness. But its final practical implementation involves not only mentality, but also other personal spaces, for example, an inter-individual space. According to V.A. Petrovsky, this space (the second dimension) is, first of all, an area of interpersonal communication, where relations between several individuals reflect personality of each of them. The fact, that environmental exploitation is impossible without other subjects, communities, societies and relations between them, determines the possible development of the socio-ecological readiness in this space.

Qualities of interpersonal relations (objectivity; subjectivity in form of thoughts and feelings; meaning for the two interacting subjects; a system of aims, orientations, expectations of group members towards each other; common activities and communication; structural properties; role behavior; cohesion and compatibility; leadership and others), act as specific development mechanisms for the socio-ecological readiness. Being an integral structure, the socio-ecological readiness includes other types of preparedness, for example: readiness for interaction with nature; for communication with its elements and the environment in general; readiness to play different roles in the environment; understand its meaning; readiness for apprehension of multilevel environmental relations and inclusion in their structure; cohesion and compatibility with nature.

There is also some development potential in the 3rd personal dimension – meta-individual space. According to V.A. Petrovsky, personality is represented here as otherness in others (as well as in himself as in another), as personalization. Essence of this phenomenon lies in real mental transformations and changes in the intellectual space and affection needs of another person, which are caused by the individual activity and his participation in common activities. This is an extension of the self in another person; it is a kind of getting a second life in other people, causing long-lasting changes by them.

As used here, personality has an ability and possibility of personalization not only in another person and in himself as in another one, but also in nature. Interacting with the surrounding reality, a person sees his presence in the environment via results of

this interaction. This is either an exploitive face, or a wise and common-sensed human, who preserves the living environment for himself, other people and future generations. Earlier, the humanity asked itself, what nature means for people. Today, in conditions of acute ecological crisis, people should ask themselves, what role a human plays in nature, how he is represented there. In response to the first question, people violently exploited natural resources, which is proved by the thousand-year history of ecological crises. At present, the humanity needs to show its intellect in relations with the first and second nature, and focus its activities on preservation and recovery of the remaining natural and human resources for the future generations. In this way, today's generation and its environmental activities will reflect in the consciousness of the future humanity. Thus, people will satisfy their need for higher personalization. In their turn, modern people constantly find traces of their predecessors in the environment. This environmental legacy includes deserted territories, disappeared civilizations, mutations in nature, anthropologically determined climate changes on our planet and etc. According to A.A. Grigoriev, today's human is a powerful environmental transformer whose landscape interventions leave results here, there and everywhere.

Consequences of the current socio-ecological interactions prove not only environmental otherness of society, but also contribute to its own development as "another". Nature pollution, exceeding all standards; cultural vandalism and earthliness are, according to V.A. Petrovsky, a miracle that reflects the humanity, results of its activities and its future. However, people can change their reflection in the «environmental mirror», if they reconsider their relations with nature, and change their consumer attitude towards the environment. People should develop an optimal interaction with nature, based on limits, norms and methods, in order to survive and develop further. That is why, it is important to teach environmental values to everyone and young generation in particular.

So, all main personal spaces: intra-, inter- and meta-individual contain potential for developing socio-ecological readiness at students. The common mechanism for all three spaces is based on needs of interaction with nature that are satisfied by means of motives; inclination to this interaction; clear goals and activities towards their achievement. On the other side, the foregoing arguments let assume, that there are different forms of the socio-ecological readiness at students, for example, socio-eco-cognitive, socio-eco-active, socio-eco-creative and socio-eco-axiological readiness. All these types reflect the main components of the studied readiness. The 1st one – socio-eco-cognitive readiness – means students' preparedness for further perception of natural reality, revealing its features in framework of professional tasks and creation of a familiar environmental image, estimating resource potential that can satisfy some human needs.

The 2nd – socio-eco-active – shows students' readiness for normative activity in the environment according to existing standards and nature preserving technologies. The 3rd – socio-eco-creative – supposes a search for nonstandard solutions in environmental policy and ways of their implementation. They are determined by constantly worsening condition of the environment and concerns about how to preserve natural resources for the current and future generations; as well as by the issue of further optimization of socio-ecological relations. Finally, the 4th socio-eco-axiological readiness is students' preparedness for revealing socio-ecological values in the environment, their estimation and use according to one's needs, social standards and rules.

Existence and functioning of each of the mentioned readiness types can be described with the help of a typical (or average) representative of a group, referable to this type (Dushkov B.A.). For example, the socio-eco-cognitive type is represented by inquisitive, meditative, indifferent personalities; the socio-eco-active – by active, goal-oriented, motivated, interactive people; the socio-eco-creative – by independent, transforming, inert persons; and the socio-eco-axiological – by optimistic-utilitarian, pessimistic and balanced personalities.

To sum up, let us stress, that the use of the described mechanisms can develop the socio-ecological readiness at students more effectively, help harmonize socio-ecological relations today and forecast their stable development in the future.

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