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INTELLECTUAL COMPETENCY DEVELOPMENT FOR THE STUDENTS OF TECHNICAL HIGHER EDUCATION INSTITUTIONS

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Abstract. This article discusses the development of intellectual competencies of students in technical higher education, and it uncovers the content and essence of intellectual competence, important factors for the development of intellectual competence, the necessary factors and the formation of a competitive specialist, as well as the development of intellectual abilities of future professionals.

Key words: education, process, intellectual, perception, student, competency, expert, ability, research, talent, development, advancement.

Introduction.

Today, one cannot imagine modern life without the advancement of science and education, as if humanity were revolving around the axis of science. It is no coincidence that the development of education in the world's leading countries has been identified as a priority. After all, the future development of the country is closely linked with its achievements in this area. The development of intellectual competence of students in the educational process is aimed at enriching their potential, developing the ability to solve problems independently, the formation of creative abilities, the development of intellectual culture [1]. The concept of intellectual potential is common in the psychological literature. The exact criteria used in general psychology to describe the intellectual characteristics of a person are determined by the modern level of development of society and the increasing intellectual resources [2].

According to intellectual competence, the understanding of the high ability of a subject in a particular field to determine the level of development is characterized by the type of specific organization in a particular object area and the effective decision-making strategy in that area [3]. Intellectual ability can be characterized by factors that

reflect intelligence and perceptual-analytical skills, such as: information collection, information processing, verbal and logical thinking, ability to abstract and systematize, visual and effective thinking, ability to solve practical problems quickly, and conceptual flexibility. These skills allow you to succeed in making basic and responsible decisions, to act in a vague, problematic situation in cases of lack of information based on logical conclusions. E.L.Grigorenko [4] emphasizes the variables of the cognitive plan, noting that intelligence reflects the characteristics of the skill, including the development of the 'I', social and personal achievements and skills, and social and cognitive maturity.

Literature review.

Some scientific sources believe that competence is not only necessary to gain experience in a particular narrow field and implies the general intellectual development of an individual in the broadest sense of the word. In particular, as the well-known scientist E.G'oziyev noted in his book "Professional Psychology", the formation of the main components of human mental experience is carried out at the following levels: cognitive experience - mechanisms of effective processing of information, mechanisms of forced and arbitrary regulation of the work of the mind, individual selective mechanisms of intellectual activity, which allows you to balance the features of your mind with the objective requirements of the surrounding reality [5].

Pedagogical scientist N.A.Muslimov emphasizes that the formation of competence in the educational process should be carried out simultaneously with the intellectual education of students, which is reflected in the increase of intellectual productivity of each person's mental experience and the specificity of his intellect [6].

Psychologist scientist E.F. Zeer's study of the functional development of competence has shown that different forms of competence become more integrated as they reach professional maturity and that their relationship to professionally important personality traits becomes stronger. [7].

Competence is characterized by the following characteristics [8]:

- being able to apply knowledge correctly and quickly in any given situation, taking into account its various aspects;

- ability and willingness to make decisions, as well as to choose the most appropriate decision for the situation;
- being able to organize social movements and use all opportunities for this;
- communication skills that allow you to interact with other people in the field of activity in a purposeful and purposeful way;
- possession of certain spiritual values, worldview, common cultural and moral qualities, a sense of aspiration to work;
- striving to develop their creative potential, to master new ways of working.

There is an intellectual potential in the projection of basic professional development, the formation of which lays the foundation for the development of all areas of education of students without exception. It combines all the components of the general education structure: general cultural knowledge about the events being studied, general educational skills and advanced methods of activity. The ability of students to search and process information, use new technologies of information and communication, organize their own teaching methods, readiness to participate in activities, collaborate and reflect (know the breadth and depth of their knowledge), the intellectual potential of its “spiritual carrier” arises on the basis of personal mental experience [9].

Intellectual potential can be seen as the characteristics of an individual that are formed under the influence of various regulatory factors throughout human life [10].

Understanding determines not only knowledge, but also the attitude towards this knowledge, its value, its content, not only the content of consciousness, but also the essence of the process of understanding. Because the receiving subject has its own value system, the ideas described in the text are evaluated by the subject and have a personal character [11]. A person’s sense of competence forms the basis of the developmental structure from birth to the age of twelve and at each stage of individual development depends on the socio-economic status and circumstances associated with parental relationships, values and parenting style, as well as the stressful living conditions of family members, family size and level of mental health of the parents [12]. Achieving the qualities of competence is understood as a type of inner satisfaction

achieved by a person and ensures person's development [13]. It is assumed that a person has an internal psychological need in interaction with the external environment. This need has an adaptive value and is not related to biological properties. This is the exact basis of sustainable actions to be taken [14]. The qualities of competence allow self-determination to clearly explain a wide range of research and executive behaviors and the ideas that individuals seek to develop their interests and abilities.

Research methodology.

Intellectual potential is a multi-level education, the ability of an individual to effectively solve problematic situations in a particular subject and field of knowledge, based on a specially formed knowledge base. In order to measure human intelligence, it is necessary to analyze the size of the caudal nucleus and cortex of the brain. As long as the external dimensions of these two areas are directly related to the level of active intelligence [15]. According to the most popular cognitive theory today, intelligence activity or *fluid intelligence* encompasses our ability to think logically, the ability to assimilate new knowledge, and the ability to find solutions and approaches to unusual problems. It is high time to note that according to this theory, there is another type of intelligence - crystallized intelligence, which includes the knowledge and skills we already have. It can also be called a brain-sealed skill [16]. In relatively tall individuals, the parts of the brain responsible for cognitive control, working memory, and relational processes are enlarged. This means that the intelligence of people with larger areas of the brain can also be overestimated, and conversely, if people with higher intelligence are examined, these areas in the brain will be larger, according to the comments. The scientists themselves claim that such measurements, that is, the size of the caudate nucleus and paragippocampal cortex, can provide up to 50 percent accurate information about human intelligence. [17]. Of course, more in-depth scientific research is needed in this area.

In our view, it is a complex system of internal psychological components and deep human characteristics, such as values, the need for communication, self-confidence and self-esteem. Experience in solving problems in any field can be studied as the most important condition for the development of intellectual potential.

Intellectual competence can be defined as one of the criteria of intellectual maturity, as a high level of skilled development leads to the development of an individual's maturity. Intellectual competence is manifested as part of visual cognition in each cognitive function under different conditions at the same time, the process of remembering becomes an alloy of memory and thinking, and et cetera. The constant increase of intellectual potential, the growth of the specificity of the intellect provides the formation of a culture of intelligence, the necessary conditions for a harmoniously developed person.

All teachings and resources aimed at the development of intellectual competence are considered as a set of all efforts aimed at achieving the educational goal [18]. This system of continuing education is the most necessary starting point of human life. The main task of education is not to shape the person by these patterns, but to help in self-awareness, revealing and developing personal potential, accepting and mastering responsibility for one's own freedom and life choices, revealing and developing one's essence, one's positive potential. The content of education should be adapted not only to personal and age characteristics, but also radically changed in the direction of taking into account the real psychological mechanisms of intellectual development of the individual. The criterion for the effectiveness of higher education is not only knowledge, skill, ability, but also ability, initiative, creativity, self-management, unique intelligence, effective understanding, reflection. The main intellectual qualities, including intellectual potential, are the true characteristics of an intellectual person. And accordingly, it becomes an integral part of a broader personal profile of the evaluation of the effectiveness of higher education.

Globalization is a global process that has emerged as a result of human consciousness and thinking. It is a process of transition to an information society that knows no boundaries and territories, does not recognize systems, and is constantly growing and evolving. In such a society, only human thinking takes the lead.

Contemplation is a window that reflects the level of development of society. In this window, both successes and shortcomings are evident. It is no secret that a person's sanctity and perfection are determined by the level of his thinking. Information is a key

factor influencing the extent to which human thinking and reasoning ability is formed. Therefore, the current development of modern civilized society is characterized by the process of informatization.

The source of intellectual wealth and potential, a factor in its development is the quality of the educational process.

Such a question arises instead of a conclusion from the above considerations.

Why does the quality of education affect all vital activities of mankind?

First, human civilization has reached a level of global interdependence in all areas, including the education system. Today, the problem of one state or nation can have a great impact on the development of the whole world. The solution to the environmental, economic, political problems and crises that have arisen will only require humanity to develop mentally and spiritually in the future. This can only be achieved through the establishment of a proper and quality education system.

Second, the main focus of education is on upbringing. Education has been and will continue to be a very important, very complex and very topical issue.

It is this school and madrasah that have been taught by teachers before and now. In our opinion, environmental impact also plays a leading role in education. Children tend to do what they see, not what they hear or read more. So, in a word, for education to be of good quality, we (pedagogues) must be worthy of quality education.

Third, all the vital relations of humanity are formed and developed in connection with the interdependence and interaction between people. Depending on the quality of education, the level of these relations and, of course, political and economic relations will also change.

From the above, it can be concluded that the root of all the problems in the world today is the result of quality shortcomings in the education system.

All problems can be solved only through a high level of consciousness, correct thinking and incomparable knowledge, high spirituality and enlightenment. The solution to this can be solved by increasing the focus on education, improving the quality of education by allocating more funds to this area.

However, it should be noted that the more positive reforms in the field of education also depend on how well educators understand the content of globalization and the information system of the information society, and how diligently they implement it.

The ability to self-improvement is one of the common characteristics of knowledge. This is not a coincidence, but a natural process. As a system of organizing the learning process, education was initially introduced to its specific concepts. The process of education is understood as the creation of an image of perfection in a person through active belief in the world of intellectual, social and spiritual culture.

Analysis and results.

The educational process shapes the quality of education through knowledge as a personal quality, which provides not only a personal perception of the world, but also its creative transformation.

The main tool for the development of the intellectual potential of the individual in the field of higher education is personal-oriented education aimed at creating conditions for the demonstration of the subjective experience of the student and the development of his individuality. Within the framework of the implementation of personal-oriented learning goals, the participation of two basic knowledge - education and training - should be coordinated through the development of intellectual personal competence.

The development of the student's personality should be recognized as the main goal of teaching in higher education, but the acquisition of this knowledge and skills should not be an obstacle to professional development. Personality is the most common and evolving system of life experience. Therefore, it is impossible not to see the unity of personal characteristics that a person has with the knowledge, skills and abilities that can be achieved in the development of personal experience.

The manifestation of a person applies not only to the field of knowledge, but also to any other characteristics - communication, self-control, emotionality, and so on.

One of the types of learning models that can help you find other ways to understand and experience knowledge in a changing world can be a systematic model.

The meaning in education allows us to connect its content with reality - objective (natural, social) or subjective (reality of the inner world of man).

Personal relationships ensure the content and more active functioning of the material understood in the knowledge system. The teacher ensures the existence of all components of the learning environment for the student, which combines the functions of the generator of goals and objectives to form the intellectual potential of students in the sense of his professional activity. The importance of students' intellectual development is to work effectively with the teacher. Collaboration involves abandoning the Mentor dictatorship and affirming other types of relationships: collaborative research, orderly and benevolent analysis of results, and so on.

A common feature of collaborative learning activities is a change in the position of the individual, a change in attitudes toward the knowledge learned, a change in the means and methods of acquiring it, a change in value relationships, learning goals and interactions between participants. This professional and personal component of joint learning activities is closely related to the subject matter of the interaction involved in regulating the assimilation process, resulting in an understanding of the surrounding reality present in the texts (educational, scientific, artistic). The student not only reflects the surrounding reality, but also creates his world as an objective reality defined by subjective coordinates (values, meaning, values), only a person acquires the possibility of meaningful and responsible behavior. In addition, when the participants of the educational process are united into a single structure with the characteristics of a functional and oriented learning environment, the state of co-development of the world allows to realize optimal learning trajectories for each student. During learning, stable complexes of personality traits are formed, the size of the activity of each is regulated, which influences the formation of their own developmental environment. In other words, the development and correction of all areas of life can occur in the process of constant self-improvement.

Accepting tasks that are less defined, need co-development and creative problem-solving, and have an open structure may not arise primarily from the perspective of reproductive education. A teacher who works skillfully in the logical transformation of

forms of collaboration and leads to such collaboration helps not only to accept an effective task, but also to produce it, or also to develop the ability to independently promote and regulate such a system of tasks.

The full participation of students and teachers in the process of defining and solving effective creative tasks realizes the need to determine their own destiny in order to live permanently in the context of their activities, opens up prospects for individual and collective development.

Changing the nature of tasks mobilizes a variety of intellectual activities. Creative tasks are always focused on understanding, memorizing, composing, preserving, and purposefully implementing material that is simultaneously digested in students' memory.

In addition, they allow for the involvement of each student's personal psychological experience and link it to scientific knowledge. Successful completion of creative tasks is a reliable criterion for evaluating the scientific performance of future professionals. Not only knowledge and attitudes on the topic, but also psychological skills, creative skills and practical skills are clearly demonstrated here.

The use of creative production tasks in the learning process prioritizes the role of meaning and target components of learning activities, which has a decisive impact on the transition to the doctrine of self-control and self-management [19]. Creating effective collaborative work situations makes learning an effective process that helps increase an individual's effectiveness [20].

Conclusion and recommendations.

The competency-based education paradigm is the result of the effectiveness of overcoming the contradictions between scientific knowledge acquired in universities and applying them in practice. In other words, there is a real need for continuous evaluation of the results of the educational process and professional training of future professionals. The competency-based approach overcame the contradiction of general intellectual development and focused on practice-oriented achievements in a particular professional activity. The conditions for shaping the intellectual competence of any student are determined by the interconnected functioning of the components of the

learning environment, such as personal-oriented learning, which is related to meaningful learning. In particular:

Intellectual competence determines the intellectual potential of a particular industry, as well as the skill level of the future specialist [21].

The effective joint activity of teachers and students, which serves as the implementers of innovative educational functions, aims to create a mechanism of self-management of teaching, learning activities and their interactions and the formation of personality.

With the development of human, it is necessary to create conditions that are realized in the formation of human dignity. Our young people strive to live a healthy and beautiful life, to have a permanent job in their profession, to take responsibility, not to discriminate against human dignity, in short, to achieve perfection, and in this process, education is the main condition.

The following suggestions can be made on the development of intellectual competence of students in the educational process:

1. Developing the students' intellectual potential by testing, processing, searching and activating creative activities;
2. Development of scientific thinking, which provides a basis for independent decision-making in any non-standard situations that are common in professional activities, as well as the ability to analyze all the events and facts of the whole process;
3. Organization of education that allows to have their own individual methods in mental and practical activities by individualizing the preparation for professional activity in the field of study.

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