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INNOVATIVE SUPPORT FOR THE FORMATION OF COGNITIVE INTERESTS OF UNIVERSITY STUDENTS

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Abstract. The article considers cognitive interest as the basis for the success and effectiveness of educational activities in a university. The relevance of the availability of innovative support for the activities of the university in the formation of cognitive interest is substantiated. The authors propose a hierarchical structure of innovative support for the formation of cognitive interest of students, which should be implemented through the electronic information educational environment of the university as a whole.

Keywords: innovation, innovation activity; innovative support, cognitive interest, cognitive activity, cognitive motivation

One of the urgent problems of education at present is the development of cognitive abilities of a person and the development of interests in cognition, self-development, and self-improvement. Such a task is particularly relevant in vocational training.

National projects in the field of science and education have indicated the mandatory link between the development of innovative activities of universities and the implementation of international quality standards for higher education. For Russian higher education, the need for international standardization of the quality of education is due to competition both between the universities of our country and at the international level [1]. The state’s social order for universities is the need to train specialists capable of providing innovative breakthroughs in education, science, the social sphere and other areas of social and professional activity that are significant for Russia [2].
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No one doubts that the achievement of these goals is impossible if a university student does not have cognitive motivation, cognitive interest, cognitive activity during the period of study at the university [3].

An analysis of the literature on the development of cognitive interest in general and cognitive interest in vocational education in a university in particular, conducted by us, showed that interest, including cognitive interest, is a complex and heterogeneous concept.

Cognitive interest is one of the most important motives in vocational education. Under the influence of cognitive interest, educational work even for weak students proceeds more productively [4].

Cognitive interest is often understood to mean various states of a person, united only by a positive orientation towards his activity: hobbies, inclinations, curiosity, etc. In the scientific literature that illuminates this problem, one can find various interpretations of this concept.

So, for example, I.F. Kharlamov understands cognitive interest as “an emotionally colored need that has passed the stage of motivation and gives human activities a fascinating character” [5, p. 99].

From the point of view of G.I. Shchukina, cognitive interest is a selective orientation of the personality, turned to the field of knowledge, to its subject side and the process of mastering knowledge itself.

However, in science there are interpretations of this concept that have a broader meaning. According to N.G. Morozova, cognitive interest is an active emotional-cognitive attitude of a person to the world.

Cognitive interest is the main type of interest, it carries all the functions of interest as a mental formation: its selective nature, the unity of the objective and subjective, the presence in it of an organic alloy of both intellectual and emotional-volitional processes. In this sense, it is inevitably associated with cognitive motivation and actively influences cognitive activity [6].

Based on all the above sides of cognitive interest, we understand that the process of formation of cognitive interest is one of the most significant issues of professional training of university students [6].

At the same time, for vocational education, formation is the conscious management of the student’s development process or individual aspects of his personality, qualities and properties of his character and bringing them to the intended form (level, image, idea), which are dictated by professional standards, the social and professional community, the labor market.

In pedagogical practice, the formation of cognitive interest means the application of techniques and ways (methods, means) to influence the student’s personality in order to create a system of certain values and relationships, knowledge and skills, a mindset and memory, the ability to comprehend and apply professionally significant competencies in practice [2].
Thus, we can conclude that for most authors, cognitive interest is an active selective orientation of the person to the world around him, and the process of its formation and development is possible only in activities and, above all, in the learning process.

The formation of cognitive interests in educational activities of students can occur in two main directions: selection of the appropriate content of educational activity and the actual organization of cognitive activity of students in basic general educational and general cultural disciplines, as well as in disciplines of general professional and special professional cycles [4].

Having set such a high bar of requirements for the formation of cognitive interest, we came to the conclusion that the traditional educational process at a university is not fully capable of generating cognitive interest [7].

The task of forming cognitive interest is to put the student in conditions of continuous learning, continuous activity, achievement of significant results at all stages of professional education, and later in their professional activity [8].

We understand that a completely new approach to the problem of the formation of cognitive interest is needed. We will call this approach innovative support for the formation of cognitive activity.

Innovative support of any type of educational activity is a combination of measures and means, creating conditions conducive to the normal course of educational processes, implementing the plans, programs, projects, maintaining the stable functioning of the educational system and its facilities. Innovative support is a process of coordinated management of educational processes, the interaction "teacher - student", "student - educational environment", "electronic information and educational environment (EIEE) - teacher", "EIEE - student" and other processes that are important in educational activities [9].

In addition, innovative pedagogical support for the formation of the cognitive interests of university students implies the presence of the following components:

- educational environment enriched by a variety of innovative activities, their continuity and the opportunity for personal self-realization;
- innovative educational technology;
- interaction of participants in the educational process on the basis of dialogic communication, reflective activity, partnerships;
- creating a field of student self-realization, motivation for self-knowledge and self-development, independent creative activity [9].

It should be noted that the continuous process of forming the cognitive interests of university students is nothing more than a combination of education and self-education, and can be considered as the most common case of obtaining knowledge in the vital areas of student activity motivated by the environment [10].
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The formation of the cognitive interests of university students is not a linear, but a complex multi-level structure with a centralized conscious-volitional system for managing the innovative support of such activities, with a hierarchical subordination of the student’s cognition impulses and the teacher's managing and coordinating activities [7].

A prerequisite for innovative support for the formation of the cognitive interests of university students is hierarchy [7].

The study of hierarchical levels of innovative support for the formation of cognitive interests of university students was carried out by us in the form of a pilot experiment in several state and non-state universities.

Since the objective of our study was not to evaluate these universities by the effectiveness of the formation of cognitive interest among students of these universities, we consider it possible not to name these universities in this article.

The objectives of the pilot experiment are:
1. Identification of hierarchical levels of innovative support for the formation of cognitive interests of university students.
2. Compilation of characteristics of each level of innovative support for the formation of cognitive interests of university students, taken separately.

Our pilot experiment allowed us to identify and describe the characteristics of the following levels of innovative support for the formation of cognitive interests of university students.

**First level.** Identification of social and pedagogical values of the development of cognitive interest as input control at each stage of transition to a new stage of training, a new discipline, a new course, a new type of educational activity, etc. We consider innovative support to be the need for comprehensive mass testing of all students studying at a university on various aspects of cognitive interest.

**Second level.** Creating a model of the content of educational and cognitive activities aimed at developing cognitive interest by selecting and incorporating innovative elements in the educational process. These are system-based active classes, student discussions, computer classes, business and role-playing games, video, audio, the Internet, digital and robotic elements of educational activity, etc.

**Third level.** Filling the bank of educational and methodological developments of special studies that contribute to the targeted formation of cognitive interest. Innovative information and communication approach to the formation of educational, managerial, educational and methodological content in the university’s EIEE.

**Fourth level.** Formation of methodological requirements should be carried out within the boundaries of all traditional educational disciplines of the main professional educational programs (MPEP) for the development of cognitive interest, which should be based on the educational and cognitive competence of students. Creating an electronic, digital environment for each MPEP.
**Fifth level.** Ensuring managerial impact on the formation of cognitive interest by organizing design, research, scientific and educational work of students in educational and extracurricular activities. This is the innovative filling of the EIEE of the university with educational, teaching, administrative materials in these areas of activity.

**Sixth level.** Purposeful influence on the formation of the student’s cognitive interest through the control and corrective activity of the teacher. A phased study of the levels of development of cognitive interest and, if necessary, the introduction of corrective changes in the innovative support of the learning process.

**Seventh level.** Using the student’s portfolio of educational achievements and his rating in the formation of cognitive interest. Confirmation of increasing the level of development of the student's cognitive interest in educational products: essays, creative works, tasks of increased complexity, educational and research projects, elements of research-oriented activities, etc.

The structure of the above levels, in our opinion, should be implemented both in each academic discipline of the main professional educational program (MPEP), and in the implementation of the entire MPEP.

To achieve maximum effect, this hierarchical structure of innovative support for the formation of cognitive interest should be implemented through the EIEE of the university as a whole.

In addition to identifying levels of innovative support for the cognitive interest of students, we conducted a comparative experiment in two universities (we will conditionally call them University “A” and University “B”). A comparative analysis of pedagogical phenomena or processes of innovative support for the formation of cognitive interest of students depending on various external conditions and internal conditions that are observed in universities, showed:

1. Terms of innovative support, EIEE, equipment with educational content, educational, methodological, administrative and control, control and corrective support, the portfolio of students, the rating system of the university "A" is as close as possible to the levels of the hierarchical structure of innovative support we identified for the formation of cognitive interest.

2. The university “B” has large gaps in the structure of the EIEE, there is no complete control and correction level, insufficient filling of the student portfolio, and there is no full rating system of students' creative work.

3. Comparative analysis showed that it is necessary to diagnose cognitive interest in students of the university "A" and the university "B".

To check the cognitive interest of students, a comprehensive mass computer testing of university students was used according to the methodology “Self-assessment of the cognitive position of students” and the block of questionnaires by A. E. Bogoyavlenskaya [11].
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In the computer version of processing the results of studies of cognitive interest of students, the following levels of cognitive interest were laid down:

1. a low level of formation of cognitive interest, in which interest in cognitive activity is weakly expressed, is characterized by a lack of readiness for independent work, a negative attitude towards performing complex and creative tasks;

2. the average level of formation of cognitive interest is noted in the development of new knowledge only under the guidance of a teacher, occasional interest in learning, even with the help of ICT, innovative elements of learning, game and creative activity, waiting for outside help (teacher, fellow student, finished result from the Internet, etc.) with cognitive difficulties;

3. a high level of formation of cognitive interest is characterized by enthusiasm for learning, an increased interest in the use of any innovative, creative, design, scientific, educational activities, a desire for independent solutions to non-standard tasks, a mandatory independent overcoming of difficulties, a positive reaction to complex tasks.

The studies and generalized results of identifying the levels of formation of cognitive interest in two universities are presented in table 1.

Table 1

<table>
<thead>
<tr>
<th>№</th>
<th>Levels of formation of cognitive interest</th>
<th>University &quot;A&quot; in % of the number of respondents</th>
<th>University &quot;B&quot; in % of the number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>High</td>
<td>86</td>
<td>24</td>
</tr>
<tr>
<td>2</td>
<td>Medium</td>
<td>12</td>
<td>56</td>
</tr>
<tr>
<td>3</td>
<td>Low</td>
<td>2</td>
<td>20</td>
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</tbody>
</table>

From table 1 it is seen that the innovative support of the university "A" helps to shape the students' cognitive interest, which was shown by the research results. Students of the university "A" are almost completely lacking a low level of cognitive interest formation (only 2% of students), an insignificant (about 12%) average level of cognitive interest formation, and 86% of students have a high level of cognitive interest formation.

We see a completely different picture from students of the university "B". In University "B", 20% of students have a low level of cognitive interest, that is, they are absolutely not striving for knowledge, are not interested in creative activity, and are not able to overcome educational difficulties. More than half of students (56%) have an average level of cognitive interest. Only 24% of students have a high level of cognitive interest.

Based on the conducted study, the following conclusions can be drawn:

1. The problem of innovative support for the formation of cognitive interest of students in a university is relevant and requires constant research.
2. The development of the problem of cognitive interest is due to the tasks of modern society, concerned about preparing the young generation for active life.
3. The awakening of curiosity, the upbringing and development of cognitive interests and the need for self-education - is a complex problem and the most important task of educators, which is currently becoming especially acute.