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## **STATE OF THE PROFESSIONAL COMPETENCIES RESEARCH OF THE ASTRONOMY TEACHER**

For presenting the professional competences and competences that a modern teacher of astronomy in institutions of higher education should master, to provide examples of specific professional competences in astronomy of a teacher of a higher education institution, formulation of the planned learning outcomes. The main goal of studying astronomy in higher educational institutions is the formation of the foundations of general cultural literacy, a scientific worldview, and a system of knowledge, including the methods and results of studying the laws of motion, physical properties and evolution of celestial bodies and the universe in general. The main goal of astronomical research is to meet the requirements of national standards of higher education. The study of astronomy is an integral part of lifelong learning and offers numerous opportunities for the intellectual development of people and their ability to establish cause and effect relationships between facts, events, and phenomena.

The problems of the competence approach in the field of education are investigated by Ukrainian scientists: V. I. Bondar, N. M. Bibyk, L. S. Vashchenko, O. L. Ovcharuk, O. I. Pometun, and others.

Implementation of the Concept of Astronomical Education is primarily a complex of organizational-management, social-psychological, material-technical and personnel conditions, the main of which are:

- forming at the state level an attitude towards astronomical education as a significant sphere of human activity;
- interaction of education management bodies at the state and regional levels with the Ukrainian Astronomical Association on the basis of relevant coordination plans and programs;
- development and improvement of the quality of the system of training and retraining of pedagogical personnel taking into account real social needs, new trends in the development of astronomical science, world experience;
- publication of new textbooks, study guides and monographs;

- creation and systematic updating of software and methodological support, content, forms and methods of astronomical education taking into account modern scientific achievements;
- reproduction of the network of extracurricular astronomical education and educational institutions, etc.

There were no comprehensive studies on the competence training and professional improvement of astronomy teachers, considering the correction of the content, forms and methods of astronomy education. An important problem is also the methodical support of the astronomy course, the development of astronomy teaching methods with the formation of modern competencies of future specialists.

Analyzing the above, it is worth highlighting some contradictions between the requirements of the modern day in the formation of professional competences of astronomy teachers and the real possibilities of the educational process:

- the growth of society's demands for pedagogical workers capable of carrying out professional activities in compliance with the norms and principles of pedagogical education, and the insufficient level of formation of their professional competences;
- the potential of natural sciences in terms of the formation of professional competences of both future teachers and students, and its insufficient implementation in the educational process of higher pedagogical educational institutions;
- the need to improve the professional training of future teachers of natural sciences in higher pedagogical educational institutions and limited opportunities for the formation of their professional competences using traditional didactic tools, insufficient development of educational and methodological support for this process, etc.

In modern pedagogy, professional pedagogical competence is interpreted as a multi-valued category.

In the process of training future astronomy teachers in pedagogical institutions, it is necessary, in our opinion, to resolve the contradiction between the requirements of social practice for teacher competencies and the methods of ensuring the training of qualified specialists.

Only working teachers who improve their teaching experience can reflect full professional activity. Astronomy forms and expands the scientific worldview, focusing on students' understanding of the main laws of astronomical phenomena and processes, understanding of theories and practical methods of the surrounding world, formation of a general idea of the universe, awareness of the role of astronomical knowledge in the development of society.

Methodological aspects of the teacher's competence are implemented through the organization of higher education specialist training processes, which include educating students in a valuable and motivational attitude to systems of astronomical knowledge, understanding their interrelationships and the ability to change knowledge.

The psychological and pedagogical ability of a teacher depends on the professional orientation of the motives of his activity, the stability and depth of cognitive interest, a personal view of a person, value orientations and beliefs, a new style of thinking of a teacher.

The current edition of the standards of higher education contains a new approach to the formation of disciplinary competences, in which great attention is paid to the complex of scientific knowledge necessary for specialists of higher education (bachelor, master), which leads to the revision of educational programs and curricula and the introduction of new specializations, which help astronomy teachers to prepare the theoretical basis for practical activities.

Methodological competence occupies one of the leading places among different types of pedagogical competences. To a certain extent, it unites the entire system of scientific, psychological, pedagogical, special educational knowledge, abilities and skills and has a clearly expressed applied character.

Depending on the specifics of a teacher's professional activity, the following components of his competence can be distinguished: motivation, purposefulness, personal manipulation and content.

The motivational component of professional pedagogical competence can reveal and form the positive motivation of future teachers for productive work.

The teacher's ability to adapt modern scientific astronomical information and research to educational goals is important; awareness of the need for high-quality task performance; and the ability to learn and understand students.

The formation of competences of future teachers in terms of goal setting allows early training of specialists. Competent astronomy teachers could introduce new determinants into the educational and cognitive activities of students, thereby increasing their independence. The definition of educational and cognitive activity, based on the active setting of the teacher's goal, was widely reflected in the worldview of students. Their understanding of their place in the world, intellectual, emotional, practical and active approach to reality set the standards that will determine the individual's activity program for many years. Enhancing the goal of teacher competence prepares students for the new and preserves what has been valued in human societies and cultures in the past. Based on this assumption, the concept of setting the goal of forming competent teachers should include the development of a sense of self-worth, a sense of freedom, and determination to self-improvement in all matters of the educational process.

The personal component of the teacher's professionalism gives him originality and originality. Considering the personal component of the teacher's professionalism, it should be noted that it is achieved by his acting skills, inherent only to a specific person. The teaching style involves the ability to apply one's own knowledge and skills.

Communication with students is an important aspect of the personal component of the subject competence of a modern astronomy teacher. Professional and pedagogical communication is a system of organic interaction between teachers and students, the content of which is the exchange of information, the achievement of educational influence and the

organization of mutual understanding with the help of mass media. The process of communication in classes largely depends on the level of development of the teacher's communication skills and his attitude to communication.

In modern conditions, a teacher has ceased to be just a person who teaches and inspires. He becomes a participant in the creation of the student's personality. The first way to turn a class or other group activity into a learning activity for students is not an individual dialogue, but a conversation. Instead of pedagogical measures, pedagogical methods appear that involve both the teacher and the student in socially significant educational situations.

Practical and projective, reflective and normative activity acquires an increasing role in the implementation of the personal component of the teacher's professional competence.

The content-operational component of the future teacher's professional competence is considered by the latter only by place, not by value.

Teachers need the skills to conduct thought experiments, that is, to mentally perform an action to determine where it might lead. Imaginary experiments require the development of imagination and reasoning in order to present the situation in their joint activity and draw conclusions about what should come out of this situation.

The diversity of the above-mentioned knowledge of an astronomy teacher is one of the prerequisites for the development of one's own professional abilities. As you know, having the necessary knowledge is a necessary condition for successfully solving any problem. But no less important is the ability to mobilize this knowledge at the right time and apply it in one's pedagogical activities.

Conclusions and prospects for further research. Therefore, the analysis of the state of development of the problem of the professional competence of a modern astronomy teacher allows us to state that its solution in the pedagogical theory and practice of a higher school will positively affect the preparatory process of preparing a teacher for the future, if it is based on modernization and taking into account the requirements of modern society for educational workers industry.

The duty of the education system is to fully realize the potential of each individual and ensure its maximum development. It is possible that the teachers of various educational institutions have a high level of professional competence.

The phenomenon of professional competence of a modern astronomy teacher manifests itself in various forms and components and is not only a means of consciously solving professional tasks, but also one of the prerequisites for the development of the teacher's innovative personality.