THE METHODOLOGY AND THEORETICAL BASIS OF DEVELOPING THE COMPETENCE OF FUTURE PHYSICS AND ASTRONOMY TEACHERS

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Abstract: Today, issues aimed at organizing the content of education on the basis of pan-European international standards and developing the general cultural, special, professional and personal competence of specialists are gaining special relevance and importance. The quality of educational activities of educational institutions is determined not by the content of the educational process planning, its implementation, curriculum, programs, but by the requirements of the SES of the acquired knowledge, skills and qualifications of the students and the quality of the educational results provided for in the National Program. Therefore, improving the methodology of developing the professional competence of future physics teachers in pedagogic higher education institutions is an important stage in their integration into the educational system.

Key word: Professional competence, general competence, special competence, initial competence, executive competence, differential competence.

Introduction.

Currently, the rapid development of techniques and technologies, as well as the rapid updating of knowledge, require future physics teachers to have the ability to adapt to modern conditions and strive for new knowledge. This creates the need to teach physics teachers working in the educational system to independently search and work, to independently solve professional and life problems and to approach them creatively. Therefore, the implementation of the concept of a free person who thinks independently is the main task of the continuous education system, in which the improvement of the methodology of developing the professional competence of future physics teachers is an important factor.

Determining the priorities for the systematic reform of general high school and extra-curricular education in our country, raising the spiritual, moral and intellectual development of the young generation to a new level in terms of quality, innovative use of education in the educational process. presidential decree No. PD-5712 "*On approval of the concept of development of the public education system of the Republic of Uzbekistan until 2030*" was approved in order to introduce forms and methods. The tasks to be performed in the education system were defined in the concept:

Today, education is being improved in every way, and it is being organized based on the requirements of the times, and it is being highly effective. The quality and effectiveness of education is determined only by trained personnel. Based on this, it is appropriate to approach the preparation of cards based on modern requirements. The concept, study, role and importance of a competent approach. The expression of competence is a term widely used in modern literature and covers issues such as education, personnel selection, performance evaluation, educational success, professional orientation, and so on. Today, it is

considered that it has not been completely clarified from the point of view of meaning.

Appeared in many Western European countries in the 1970s, where competence became a new direction of professional training. The term "competence" means that education is not only related to the acquisition of individual, technical or experiential knowledge and skills, but also represents a set of abilities and skills that can serve as a basis for the further development of an individual. But this idea was expressed differently in all European countries. For example, in Germany, since the 1980s, the phrase "competence in professional activity" has expressed the goal that must be achieved during initial professional training. This course of study consisted of a combination of interdependence, technical complex and general knowledge, which would allow the graduate to continue working in various workplaces. This general qualification cannot remain unchanged, it must develop, because the demands and conditions of the world of work change based on the interests of the individual and society [1].

The future teacher of physics should choose the most effective methods and ways of the system of work to improve his pedagogical skills, correctly choose the physical process and the objects related to this process, it is the most optimal period of professional knowledge, competence development and self-development, taking into account the specific conditions and using the forms of improving one's knowledge individually or together with the team.

The following requirements can be set for the development of professional competence of future physics teachers:

Becoming a good teacher: Prospective physics teachers need to have a good understanding of their subject, instructional preparation, and teaching methods.

Decision Making and Planning: Teachers need to know the vocabulary to make decisions and master, and to make tables to analyze and master.

Preparation of courses and textbooks: Prospective physics teachers can help organize their courses, prepare required materials, and create curricula.

Communicating with users: Educators teach their approach to communicating about the tools and techniques they need to use, and to develop their professional competencies.

Sharing skills: Prospective physics teachers develop their professional competence by sharing experiences and skills with other teachers.

Self-development: Teachers learn to analyze and develop new methods and curricula for their teaching and the skills they need to learn.

Information Updates: Prospective physics teachers are exposed to new information such as newsletters, science curricula, manuals, and methods.

The criteria for the development of professional competence of future physics teachers are as follows:

Implementation of learning process analysis: Physics teachers should analyze the learning process and help determine the level of knowledge and professional competence of students. This analysis of the learning process provides the necessary participation for independent learning of students and allows a good assessment of their learning.

Curriculum Development: Physics teachers should use innovative technologies in curriculum development. These programs help students develop their professional skills and support their learning.

Increase learning motivation: Physics teachers need to find better ways to increase students' motivation. These methods are important in increasing students' interest in learning and developing their professional competences.

Allow students to experience work: Physics teachers should provide students with work experience. This gives them a good opportunity to develop their professional competences and increases their skills necessary to get to know the work in order to participate in the international market.

Cooperative Learning Methods: Physics teachers use cooperative learning methods to help students improve their mastery from one aspect to another. This method is a good way to improve students' professional competence.

Give feedback to students: Physics teachers should help students give feedback. It helps in analyzing their learning and developing their professional competence.

These criteria help to develop the professional competence of students for physics teachers and increase their necessary skills to be active in their time.

At the same time, future physics teachers have many requirements to develop their professional competence. These requirements allow teachers to analyze the skills to be mastered, reflect, share skills, and create conversations to be mastered, which is very useful for developing competence.

Competence requires constantly enriching one's knowledge, learning new information, feeling the demands of this day and age, the ability to search for new knowledge, process it and apply it in one's practical work.

Competence is the ability to do something effectively, the ability to perform according to the standards used in a certain profession.

There are the following types of competence:

- *Behavior (individual)*
- *Technical (professional)*
- *General*
- *Special*
- *Starter (porogovaya)*
- *Executive*
- *Differential*

Behavioral competence is understood as the competence that characterizes the individuality of a person during the performance of his professional duties.

Technical (professional) competence is understood as competence directly related to work results and standards of professional obligations.

General competence is a competence that characterizes all people engaged in a certain profession.

Special competence is understood as the competence needed for effective performance of specific professional duties.

Basic competence is understood as the basis, basic competencies necessary for the worker to perform the assigned professional tasks.

Executive competence is a competence that determines the quality of the achieved result.

A differential competency is a competency that helps to differentiate between effective performers at one level or another.

In the process of teaching physics, the use of educational methods and tools aimed at the formation of competence, the development of its model based on the requirements for the personality of the pedagogue, the following conditions specified in the State educational standards of higher education were taken as a basis:

- pedagogue's fields of activity: education; management.

- activities of a pedagogue: training; methodical; educational; organizational; scientific (leadership); work with personnel; entrepreneurship; expertise etc.

- educational establishments: preschool education; general secondary education; secondary special, vocational education; higher education; post-secondary education; extracurricular education; educational management bodies. The requirements for the teacher are based on the content and each of them is described.

Professional competence does not mean the acquisition of separate knowledge and skills by a specialist, but the acquisition of integrative knowledge and actions in each independent direction. Also, competence requires constant enrichment of professional knowledge, learning new information, understanding important social requirements, finding new information, processing it and being able to use it in one's work.

Professional competence is evident in the following cases:

- in complex processes;
- performing unclear tasks;
- using conflicting information;
- being able to have an action plan in an unexpected situation
- Specialist with professional competence:
- constantly enriches his knowledge;
- learns new information;
- deeply understands the requirements of the era;
- searches for new knowledge, processes them and uses them effectively in his practical work

Social competence - ability to show activity in social relations, possession of skills, ability to communicate with subjects in professional activity.

Special competence is preparation for organization of professional-pedagogical activity, reasonable solution of professional-pedagogical tasks, realistic assessment of activity results, consistent development of BKM, psychological, methodical, informational, creative, innovative and communicative competence on the basis of this competence. thrown away. They contain the following content:

- *psychological competence;*
- *methodological competence;*
- *information competence;*
- *creative competence;*
- *innovative competence;*
- *communicative competence.*

Personal competence - consistently achieving professional growth, increasing the level of qualifications, demonstrating one's internal capabilities in professional activity.

Technological competence - mastering advanced technologies that enrich professional and pedagogical BKM, being able to use modern tools, techniques and technologies.

Extreme competence is the ability to make rational decisions and act correctly in emergency situations (*natural disasters, technological process failure*), when pedagogical conflicts arise.

S.E. The following definitions of competence are given by Shishov:

General competence based on knowledge, experience, values and inclinations acquired through study;

The ability to establish a connection between knowledge and situations, to find a suitable solution to a problem (*it is permissible only if it is demonstrated in a situation to say competence, unmanifested competence is not competence, but hidden possibilities also a big sentence)* [2, p. 78].

Work on oneself and self-development are important in acquiring professional (*including pedagogical)* competence. Self-development tasks are determined through self-analysis and self-assessment.

An important factor in improving the educational process is closely related to the formation of the professional competence of teachers at a high level in the educational system. Therefore, it is determined that one of the urgent tasks is to create the theoretical and practical foundations of the process of forming the professional competence of teachers based on the effective use of the opportunities of modern educational technologies and the created educational methodological complexes.

In this regard, the scientific justification of new approaches that ensure the level of professional competence required from the period of training of teachers in a higher education institution is an urgent task.

Due to the fact that the educational content is grouped into blocks of subjects in the curriculum (*for all subjects*), interdisciplinary *(for a set of subjects*) and subjects (*for a specific subject*), we recognize the following three levels of competence:

basic competence (*according to the humanitarian, socio-economic content of education);*

interdisciplinary competence (*according to the specific framework of educational subjects and educational blocks of general professional training*);

competence in one subject (*subject) (according to having a clear and certain opportunity within a special academic subject*) [4, p. 47].

The professional qualification of a physics teacher is the basis for the successful transfer of science knowledge to students, regardless of the chosen form of teaching. Comprehensive knowledge of this subject allows the teacher to independently solve various problems, develop and apply methodological methods based on the didactic situation and the characteristics of students. Drawing a conclusion from these points, it was determined that future physics teachers should have the following skills in the formation of their professional competence. It was determined that future physics teachers should be able to develop and influence the activity, feelings, and behavior of young people by setting an example in the course of their work.

A system was defined for choosing material for each exercise, considering its complexity and ensuring its connection with the previous and subsequent ones, taking into account the possibilities of young people, their education and development of training games, work assignments and the like. Pedagogical process was planned using a set of educational tools, covering work with the team of teachers and young people. It was decided to organize the

workplace, prepare the necessary manuals and documents, and manage them based on the given requirements.

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