

# THE SIGNIFICANCE OF EDUCATIONAL AND METHODOLOGICAL SUPPLY IN DEVELOPING THE PROFESSIONAL COMPETENCE OF THE SPECIALIST

Sharipov Yashnarbek Ilkhom ugli

Teacher of the Shahrisabz branch of the Tashkent Institute of Chemical Technology

## ABSTRACT

The professional competence of a specialist is an integral feature of being able to skillfully perform certain functions of all types of professional activity regulated by the qualification requirements of this specialty. It includes general and special qualities, physiological, psychological and spiritual-ethical components and depends on the socio-economic requirements of modern society and industry. In order to form the professional competence of the specialist, special attention is paid to educational and methodological support. In order to form professional competence, the systematic use of teaching-methodical support enables the systematization of students' knowledge on cognitive-analytical competence, information-mathematical competence, and activates students' cognitive activity.

**Keywords:** Ability, need, competence, creativity, project, professional activity.

## INTRODUCTION

As stated in the Decree of the President of the Republic of Uzbekistan on the Action Strategy for the Further Development of the Republic of Uzbekistan, issues such as "Further improvement of the continuous education system, increasing the possibilities of quality education services, continuing the policy of training highly qualified personnel in line with the modern needs of the labor market" should be our main goal [1].

Analyzing the problem of didactic design in the system of a perfect human personality and social experience in continuing education allows to notice and distinguish the following difficulties in advance: in the science of pedagogy, the concept of a perfect person has not yet been thoroughly analyzed, and its content and scope have not yet been determined; moreover, the importance of social experience and their interrelationship in educating a well-rounded human personality has not been studied pedagogically.

## LITERATURE ANALYSIS

Many teachers and psychologists associate the solution to the problem of training a qualified competitive specialist in the course of studies in higher education institutions with the formation of professional competence. The beginning of the development of the competent approach can be associated with the first scientific studies of the phenomenon of "competence" in the 20s of the 90s. The definition of the concept of "competence" is given in the studies of many teachers and psychologists.

The concept of "competence" is derived from the word "competence", which has the following definitions in a large encyclopedic dictionary (Latin *competere* - to seek; I match, approach): 1) conditions of authority provided to a certain body or person by law, statute or other actions, 2) knowledge, experience in one field or another [2]. However, scientists who use these terms to determine the criterion of a specialist's readiness for professional activity interpret them differently in their research, for example:

S.E.Shishov and I.G.Agapov: "by competence we mean the general ability and readiness of a person to work, based on the knowledge and experience gained through training, directed to the individual's independent participation in the educational and educational process, and also aimed at successfully incorporating it into work. .. Competence closely connects the mobilization of knowledge, skills and behavioral relations adapted to certain conditions of activity at the same time" [3];

V.A. Kozirev, N.F.Radionova, A.P. Tryapitsyn: "in the conditions of modernization of education, an indispensable indicator of quality can be considered the qualification of a specialist, which describes the ability of a person to use acquired knowledge and skills, not through a certain amount of knowledge and skills . Special competence implies the acquisition of correct professional activity at a sufficiently high level, the ability to plan their further professional development" [4].

### RESEARCH METHODOLOGY

Analyzing the scientific literature on this issue, it can be concluded that most authors consider the concept of "competence" to be a set of requirements for professional abilities (skills) that an expert holding a certain position should possess. Competence can be called a specialist's ability to perform a number of professional tasks at a high level of competence, in a specific situation.

Each researcher defines the structure of professional competence in his own way. In the works of all authors, a mandatory component of the structure of professional competence is the knowledge component.

In Yu.I. Nechaev's dissertation, professional competence includes the following components:

- cognitive competence, which is characterized by the ability and need of the specialist's professional training;
- communicative competence, including knowledge of interpersonal communication skills (including using a foreign language and modern information technologies);
- special competence, i.e. knowledge of real professional activities at the creative level, including the ability to design their professional development, plan production processes and master manual labor;
- axiological competence, including individual achievement motive, success resource, individual's striving for self-realization;
- extreme competence that ensures departure from well-established production conditions, test conditions, lifestyle changes, outlook, attitude [5].

Thus, professional competence includes the following components:

- cognitive competence, which is responsible for having systematically formed professionally important knowledge, methods of solving various engineering tasks of the specialty, the ability of continuous professional training;
- axiological competence is a personal quality of a specialist, which describes his attitude to the profession as a value and includes goals, motivation for success in the self-awareness of a person in professional activity;
- communicative competence, which includes the specialist's ability to actively communicate with colleagues in his team.;
- physical and psychological health, the presence of modern social experience and socio-psychological competence that contributes to the successful implementation of all personal professional competences in a timely manner under certain conditions;
- professional experience-includes all personal professional experiences of the specialist, which are gradually accumulated from the first days of study.

Thus, the professional competence of a specialist can be defined as an integral description of an engineer who is able to perform certain (necessary) functions in all types of professional activities regulated by the qualification requirements of this specialty. The professional qualification of a specialist includes general and special qualities, physiological, psychological and moral components and depends on the socio-economic requirements of modern society and industry. The professional competence of the engineer should be demonstrated in the activity. Presenting the structure and content of the specialist's professional competence requires choosing an appropriate methodological approach to study the specific qualities he should acquire and develop them in the process of training. This approach, experience shows, is a competent approach.

Since there are no absolutely ideal theories and methods, the experience of using this approach in higher education was studied in order to use the competent approach as the theoretical basis of this research and the methodological basis of designing the technology of teaching subjects to the future specialist.

## RESULTS OBTAINED

In order to determine the limitations of using this approach in the practice of teaching general and specialized subjects to future engineers, it is necessary to take into account the negative experience of implementing a competent approach in the development of secondary school educational standards. The design of teaching technology for general subjects requires the identification of diagnostic learning objectives.

At the beginning of the preparation of a future specialist for professional activity, a competently structured course and, thanks to them, descriptive teaching technology are of great importance:

- terms of approach: teaching of graphic arts starts from the first semester and lasts for two courses;
- includes conditions related to the content, purpose and tasks of each discipline:
- the professional significance of the content of the subjects;
- close connections with other mathematical, specialized and general science programs and future professional activities;
- the description of "independence" of subjects - the student uses the knowledge, skills and competences acquired in making mechanical engineering drawings "by hand" and using a computer not only in course projects, but also in BMI;
- providing the graphic field of engineering creativity with modern computer technologies, which creates strong knowledge motives in the study of graphics and related disciplines;
- special features of the sciences: a person who cannot read and execute drawings of mechanical engineering structures cannot participate as an engineer, - thus, engineering graphics serve as a specific indicator of the student's engineering ability;
- development of computer graphics that allow specialists to master new ways of visualizing objects: - this brings engineering thought to new opportunities for the use of applied geometry, engineering and computer graphics in practice;
- in the process of studying the visual professional direction of projects, drawings, engineering and computer graphics, the student first of all gets acquainted with the objects of his future professional activity;
- using a general conceptual approach allows to form a model of implementation of theoretical knowledge, skills and competencies in solving specific professional tasks and problems related to the geometric modeling of objects of these topics.

Along with teaching technologies, we define the structural elements of educational and methodological support as a means of acquiring certain components of the basic professional competences of students as the basis of the success of professional activity. In addition to regulatory documents (state educational standards, programs, curricula), modern educational and methodological support should include:

1. Brief theoretical information on the studied sections in order to help students in the implementation of the theoretical stage of problem solving (formation of cognitive-analytical competences).

2. Material created for independent implementation of the analytical stage of solving educational and professional tasks (formation of cognitive-analytical, knowledge competences).

3. Instructions for solving issues necessary for students' independent work (formation of cognitive competence).

4. Algorithms, algorithmic type indicators, generalized methods of solving problems (formation of cognitive competence) in order to teach independence and reasonableness of decision-making.

5. Brief theoretical information on mathematics and informatics, which are often used by students to complete the practical stage of solving problems (formation of information-mathematical competence).

6. Questionnaire materials for searching for the necessary information and independent verification of the obtained information (formation of reflexive components of basic general professional competences).

7. Examples of solving the main types of problems to ensure independent work of students (activation of independent activity).

8. Examples of solving professionally-oriented tasks (formation of the motivational component of basic general professional competences).

9. Tasks for independent work (formation of the reflexive component of basic general professional competences).

10. Supervision and independent works (summarization and systematization of the mastered material).

## CONCLUSIONS AND SUGGESTIONS

Thus, the professional competence of a specialist can be defined as an integral characteristic of an engineer who is able to skillfully perform certain (necessary) functions of all types of professional activities regulated by the qualification requirements of this specialty. Professional competence of a specialist includes general and special qualities, physiological, psychological and spiritual-ethical components and depends on the socio-economic requirements of modern society and industry. The professional competence of the engineer should be demonstrated in the activity.

In addition, special attention is paid to educational and methodological support in order to form the professional competence of the engineer. Their systematic use makes it possible to systematize students' knowledge in terms of cognitive-analytical competence, information-mathematical competence, activates students' cognitive activity. Such provision is universal and includes basic laws and basic formulas, so it is suitable for use in any higher education institution.

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