FORMATION OF THE PROFESSIONAL AND PEDAGOGICAL COMPETENCE OF THE MASTER OF INDUSTRIAL TRAINING ON THE BASIS OF USING THE EDUCATIONAL-METHODOLOGICAL COMPLEX

Abstract. The article discusses the actual problem of the formation of professional and pedagogical competence of the master of industrial training, sets out the tasks, criteria and levels of its formation. Analyzed the results of the experimental use of the EMC of the module "Professional and pedagogical competence", intended for masters of industrial training of the course of advanced training and retraining.

Keywords: competence, competent, professional and pedagogical competence, functions, criteria, levels of formation, educational and methodological complexes.

In the process of transition of society to the industrial stage, the paradigm of competence serves as one of the foundations for updating the content of general education and leads to its evaluation in terms of "preparation", "knowledge", "general culture", "education", "competence", "competent" [1].

The competency paradigm is also actively integrated into the vocational education system. "Professional competence" as a state of mind and the ability of a person to perform certain work tasks, which consists of the results of their work, and allows a specialist with a certain ability to act independently and responsibly.
Today, the vocational education system pays more and more attention to the training of highly competent personnel on the basis of differentiated educational programs.

The main categories of the competency approach are the concepts of “competence”, which do not currently have a generally recognized content and interpretation. Foreign and local scientists (J. Raven, N.V. Kuzmina, E.F. Zeer, Sh. Kurbanov, N.A. Muslimov, A.A. Turgunov, etc.) interpret them differently and a number of scientific researches on identification who did the work.

The professional competence of masters of industrial training can be determined by the synthesis of two components: professional-pedagogical competence and special professional competence.

At different stages of the development of pedagogical knowledge, scientists have reflected the personality of the master of industrial training, his professionally important qualities, various abilities and skills, and defined the essence of his work. In general, at each historical stage of the development of society there are a number of requirements that define the goals and objectives of the specialist as an individual and a professional.

V. Slastenin, I. Isaeva and others consider pedagogical competence as “a set of professional competencies and functions that create the necessary conditions for effective functioning in the educational process”, and professional and pedagogical competence is considered to be “a set of professional and personal qualities that ensure effective implementation of competencies” [2].

According to R.V. Ovcharova, pedagogical competence is the preparation for pedagogical activity, a certain set of psychological qualities (character, temperament, type of nervous system). It is the ability to strive for a new creative understanding of their work, the ability to develop creative potential [3].

Professional and pedagogical competence is considered in dictionaries as a result of professional and pedagogical education, i.e. a "need and opportunity" to achieve a high level of professional self-awareness, as well as creative self-awareness in life and professional situations in the professional and pedagogical activities of masters of vocational training [4].

In our research, we understand professional competence as an integrative (systemic) feature of the master of industrial training, which reflects the psychological-pedagogical and (special) knowledge, professional skills and competencies, personal experience and deep awareness in the education of a promising (special) specialist in professional activity, dynamic communication, self-confidence and has the ability to achieve significant results and quality in professional activities.

When we have professional and pedagogical competence, we understand the outcome of the training of a future production educator, that is, the need for the existing system to achieve the required level of training, characterized by a holistic understanding of professional self-awareness, professional-pedagogical activity, self-awareness and creative understanding in life and professional situations.

As noted above, along with the concept of “competent”, the concept of “competence” is also particularly relevant.

By professional-pedagogical competence of the master of industrial training we mean a set of features of his personality, which allow him to perform professional-pedagogical activity independently and is characterized by the concept of “ability”.

Competent is achieved by the individual himself during his professional activity, as he has gained experience.

In our opinion, in college education we are talking only about the formation and development of professional competence (qualification level), while the main competencies are specific to experienced professionals, and their formation is the task of higher education. Key competencies are acquired on the basis of existing professional experience, higher qualifications and developed core competencies.

In the future, if there is an attitude to self-awareness through the profession as a result of independent work, competence becomes a professionalism characterized by high skill, deep mastery of the specialty, expressed in the creative use of information learned in the learning process. Only self-education, self-development, self-movement of the individual can ensure this transition. The educational institution must form the basic knowledge and skills, form and develop independent work skills, which will be the basis for further deepening in the theory and practice of professional activity.

The professional and pedagogical competence of the master of industrial training is realized through his tasks.

The state educational standard defines the level of preparation of the master of industrial training for the following types of activities:
- organization of training and production process;
- pedagogical support of a group of students in planned and unscheduled activities;
- methodological support of the educational and production process and pedagogical support of students studying the profession of workers;
- participation in the organization of production activities;
- performance of work on one or more professions of workers, positions of employees.

According to N.V. Kuzmina, the structure of pedagogical activity has five interrelated components related to the functional activity of the teacher: gnostic, project, constructive, organizational and communicative [5].

Analyzing the components that characterize the professional competence of a master of industrial training, this competence consists of theoretical and practical training of a specialist to carry out pedagogical activities, which in turn is a set of general pedagogical, special, technological, communicative and reflective competencies, is characterized by the ability to perform effectively.
A student’s professional and pedagogical competence cannot have the appearance of a mature teacher with life and professional experience. Assume that students’ professional and pedagogical competencies cover only the basics of competence. However, they also need to be identified to determine how effective the vocational training process is. To do this, we develop criteria for shaping professional competence so that we can decide how well a student is prepared to perform their tasks consciously.

In determining the criteria for the formation of professional and pedagogical competence, we relied on its important features and the rules of the criteria approach (criteria should provide information about the subject's status, structure, motives and attitude to its implementation).

To determine the level of formation of professional and pedagogical competence, we used the following pedagogical-psychological methodologies and questionnaires:
- "Methods of assessing the professional orientation of the teacher" by V.F. Ryakhovsky to assess the level of communication;
- C.D. Spielberger's method of "Determining the level of emotional anxiety";
- T.Eler's methodology "Assessment of the level of motivation to succeed";
- T.Matveeva's method "Determination of organizational skills";
- "Needs and communication" by M. Orlov;
- D. Marlow and D. Crown's methodology "Self-assessment motivation";
- V.I Andreev's method "Do you know how to listen".

Based on the existing theoretical and practical experience and pedagogical research, we have identified four groups of students whose professional and pedagogical competencies are typically demonstrated.

On the basis of the criteria, we analyzed the monographic features and identified the generalized characteristics of each level: intuitive (low), normative (medium), active (high), creative (high).

It is known that the work performed by each employee is competent enough to meet the requirements of the end result of this professional activity. Evaluating or measuring the end result is the only scientific way to determine whether a person is competent or not. It is wrong to judge competence not by the outcome, but by the situation in which it is achieved. As a result, after a comprehensive pedagogical practice, at the end of the lesson should be determined the level of formation of professional and pedagogical competence of students.

The content of vocational education is determined by the goals and needs of society and the set of requirements for future professionals. The purpose of the whole educational process in the training of personnel for educational institutions should be to form a socially active person with pedagogical knowledge and skills, ready to put them into practice, that is, with a high level of qualification, high moral attitude.

The course of development of pedagogical science shows that only the process provided with methodical, didactic and methodical developments that meet the modern requirements of science and practice is effective and fully achieves the intended goals. This provision of the educational process is called scientific-methodical. The organizational beginning of all developments is the idea of the structure, constituent elements and functional relationships in the created pedagogical system. The description of the future education system is carried out in the form of various methodological documents, the set of which is called the educational-methodical complex (EMC). Using this set, the student should be able to independently organize the acquisition of new material. The teacher’s responsibilities should be seen as informing and supervising, as well as counseling and coordinating.

We have developed a set of teaching aids for masters of industrial training in the system of vocational education on the module "Professional and pedagogical competence" and an e-learning set for use in distance learning, based on the use of a competency-based approach to learning. It includes: curriculum of the module, a course of problem lectures, a set of "cognitive visualization tools", a set of practical and independent work, electronic workbooks for independent work, a set of thematic and whole module tests and assignments for knowledge control, self-development tasks listed.

In accordance with the established procedure, the Institute of Professional Development of the Ministry of Education and Science of the Republic of Uzbekistan was tested at the Institute of Advanced Training in Vocational Education, the Scientific and Methodological Council of the Ministry decided to implement it. It is also used to develop the professional and pedagogical competence of future masters of industrial training, who are trained in vocational education.

The EMC provides assignments for students’ practical and independent activities, which not only help them to master the course material consciously and firmly, but also teach different methods of analysis and evaluation of didactic situations, creative design of the learning process, analysis and evaluation of independent work results.

Educational-methodical complex - the purpose of practical and systematic development is to establish the relationship between theory and practice, independent and creative work, the formation of professional and pedagogical competence on the basis of joint project activities with the teacher, the formation of functional tasks and practical skills.

Practical tasks include psychological and pedagogical assistance in overcoming learning difficulties and obstacles in the study of academic subjects, informational, technological and methodological support for the training of college students.

It is desirable that this support be based on the principle of systematic approaches to professional and pedagogical activities.
This seminar-training is designed for active independent work of course participants, taking into account the principles. Some of the assignments and tests are aimed at broadening the listeners’ personal ideas about themselves and developing their reflexive skills. Daily behavioral tasks are aimed at self-development and building the professional and pedagogical competence of future professionals. Practical work experience is fundamentally important for the establishment of a competent (general, professional, practical) approach to the implementation of pedagogical activities with personal learning experience and communication students. We also suggest solving the problem independently (“I think so”) and then comparing it with keywords or expert opinions, based on data, dictionaries. Diaries kept by the audience should be individual in nature.

Many of the tasks presented in the EMC are not focused on finding the correct answers in the textbooks, but on the heuristic search activity of the listeners, which should lead them to develop a personal position.

Listeners will also be offered fun tasks, crossword puzzles, and other creative tasks, the completion of which will not only reinforce, generalize, and systematize the knowledge gained, but also help to develop engagement and interest in the discipline being studied.

After each practical work, assignments for independent work, as well as materials for mastering and testing, will be provided and can be used as a control to assess the level of mastery of knowledge, skills and abilities of the department being studied by the teacher.

Another goal of our seminar is to develop listeners’ scientific maturity and, based on it, to increase their readiness for independent study, which can be the basis for future professional self-realization. To do this, students are offered tasks to analyze scientific information, its placement.

In 2019-2020, this guide was tested in three groups of refresher courses. At the end of the school year, students were asked to rate their views on the effectiveness of using a set of practical and independent work on the module "Professional and pedagogical competence."

71% of the listeners considered the set to be a fully comprehensive training set. 52% of listeners thought that the content was practice-oriented, 21% - person-centered, 46% - competency-oriented. 33% said that the package contributes to the formation of a sustainable interest in educational problems, 29% form their own professional position, and 61% noted that the content of practical work is aimed at realizing the self-development of the master of vocational education.

This EMC (EEMC) helped 58% of listeners to develop design, organizational, communication skills, 31% to develop practical skills of creative activity, 56% to develop professional activity, their individual methodological reflexive analysis skills, 61% to search for learning material independently.

The listeners believed that the EMC module is qualitative and accurate for learning with great interest, helps to self-develop, allows the formation of very convenient and in-depth pedagogical knowledge for the average listener, as well as assesses the level of mastery, identifies gaps.

Summarizing the initial results of the use of a set of practical and independent work on the module "Professional and pedagogical competence", this manual helps to better master the course material, teaches creative design of teaching and production practice, analysis and evaluation of pedagogical situations and independent work. This, in turn, serves to shape the professional and pedagogical competence of the master of industrial training.

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