

## Mechanisms of Professional Competence Development in Future Teachers based on Pedagogical and Technical Knowledge

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**Abstract:** This article highlights the importance of pedagogical and technical knowledge in the process of preparing future teachers for professional work, the importance of developing their professional competencies, the implementation of a mechanism for improving teachers' professional activity based on an integrative-differential approach, and the formation of specialist in each course of education.

**Keywords:** competence, competence, integrative-differential approach, integration of pedagogical and technical knowledge, future teacher.

### Introduction

The interaction of integration and differentiation in pedagogy has been proven to provide the necessary conditions for the regulation of vocational education and building a hierarchical model.

In modern society, the level of development of a particular country depends not only on its technical condition, but also on the professional competence of specialists in higher education.

Modernization of the education system and changes in the system of vocational training are necessary for the development of professional competence of the staff of the educational

institution. Currently, the state educational standards of higher vocational education are introduced and innovations are widely introduced in the content and technology of education aimed at improving the quality of training of future vocational training teachers.

### **Material and methods**

The English term “competence” literally means “capability”. In essence it means "effective use of theoretical knowledge in the activity, demonstration of high professionalism, skills and abilities".

The notion of "competence" came into the field of education as a result of psychological research. Competence is, therefore, "a plan for unconventional situations, how an expert behaves in an unforeseen manner, communicates, takes new steps in interacting with competitors, uses ambiguous tasks, uses conflicting information, and progressively evolves and complex processes".

Professional competence is the acquisition by the specialist of the knowledge, skills and abilities necessary for the implementation of professional activities and their ability to apply it at a high level.

### **Results and discussion**

Professional competence does not mean the acquisition of individual knowledge and skills by a specialist, but rather the integration of integrative knowledge and actions in each independent field. Competence also requires continual enrichment of specialist knowledge, new information, understanding important social requirements, the ability to search for new information, process it and apply it in its activities.

Professional competence is evident in the following cases:

- in complex processes;
- when performing uncertain tasks;
- in the use of conflicting information;
- to have a plan of action in case of unforeseen circumstances

Expert with professional competence:

- consistently enriches his knowledge;
- acquires new information;
- understands the requirements of the time;
- seeks new knowledge;
- They are processed and effectively used in their practical activities.

We will briefly summarize the nature of the qualities reflected in the professional

competence. These include: 1) social competence; 2) special competence; 3) personal competence; 4) technological competence; 5) extreme competencies.

1. Social competence - ability to act in social relationships, acquire skills, ability to communicate with subjects in professional activities.

2. Special competence - preparation for the organization of professional and pedagogical activities, rational decision of professional and pedagogical tasks, realistic evaluation of the results of activities, consistent development of knowledge, skills and abilities, based on the competence of psychological, methodical, informative, creative and innovative. competence is apparent. They represent the following content:

1) psychological competence - the ability to create a healthy psychological environment in the pedagogical process, to establish positive relationships with students and other participants of the educational process, to be able to recognize and respond to various negative psychological conflicts in a timely manner;

2) methodological competence - methodically rational organization of pedagogical process, proper definition of forms of educational or educational activity, purposeful choice of methods and means, effective use of methods, successful use of means;

3) information competence - search, gathering, sorting, processing, and purposeful, efficient, efficient use of necessary, important, necessary, useful information in the information environment;

4) creative competence - a critical, creative approach to pedagogical activity, the ability to demonstrate their creative skills;

5) innovative competence - promotion of new ideas on the improvement of the pedagogical process, improvement of the quality of education, increasing the effectiveness of the educational process, their effective implementation;

6) communicative competence - the ability to communicate warmly with all participants of the educational process, including students, to be able to listen to them and to have a positive impact on them.

7) personal competence - consistent achievement of professional growth, professional development, demonstration of internal capabilities in professional activity.

8) Technological competence - the ability to use advanced tools, techniques and technologies to master advanced technology to enrich vocational and pedagogical knowledge and skills.

9) Extremely competent - ability to make wise decisions and behave in emergency situations (natural disasters, technological processes) and in case of pedagogical conflicts [1].

According to N.Muslimov and K.Abdullaeva, competence is the degree of independent

and creative application of a set of theoretical knowledge, skills and abilities acquired in practice, which also shapes the student's practice and post-graduate activities.

The concept of competence is defined as the ability to apply knowledge, skills, personal qualities and practical experience to successful work in a particular area.

The most complete psychological forms of the professional development of the person in the process of professional self-management in modern socio-economic conditions, features of the development of professional competence were studied by E.F.Zeer. Assesses professional competence as one of the main components of the structure of professional activity, as well as the personality, orientation, professional qualities, and psychologically important features of the personality.

T.M. Sorokina's studies, the professional competence of the teacher is interpreted as a unit of theoretical and practical training for pedagogical activity. His teaching competence is one of the stages of professionalism that is the basis of the teacher's pedagogical activity.

V.N. According to Vvedensky, the concept of "professional competence" is characterized by the breadth of content, integrated features that combine common concepts such as "professionalism", "qualifications" and "professional competence". However, the identification of the concept under consideration with that concept is still often "competent." Competence is an individual and a set of professional or functional characteristics.

M.I. Lukyanova understands the characteristics of a person with a high level of professional training and effective interaction with students in the learning process, based on the psycho-pedagogical potential of the teacher. As a component of psychological and pedagogical competence, he considers blocks of psychological and pedagogical orientations.

A.V. Khutorsky distinguishes between the concepts of "competence" and "competence" between "synonymically used". Competence is a complex set of interpersonal characteristics (knowledge, skills, methodology of activity) that are defined for specific topics and processes that are necessary for the production of qualitatively.

G.M. Kodjaspirova believes that "a teacher must have certain pedagogical competence in order to become a competent teacher".

"Competence is a shared ability based on knowledge, experience, values, and intentions acquired through education. Does not fall under the competence knowledge or skills; competence does not mean being a scientist or an educated person ". It is important to distinguish between competence and skills. Skill is a characteristic that can be learned from observations of behavior,

competence - behavior in a particular situation. Thus, skills are seen as competencies in practice. Competence is a skill, something that enhances mobility. Competence is formed as a result of conscious activity.

Implementation of the mechanism for improving the professional training of teachers of professional education on the basis of an integral and differential approach will be carried out step by step in accordance with the formation of the specialist in each course of education. At the stage of understanding the status of a student, there is a holistic development of the individual, his or her preparation for a new professional activity is related to the development and acquisition of common fundamentals of the profession.

Students often have no differentiation in their roles during the individual's exposure to others. Students are attached to the students' lifestyles, and to the basic forms of community life. At this stage, the student has developed a new attitude towards the new profession, adjusting to the life of the high school.

Integration of pedagogical and psychological theoretical and practical knowledge in preparation for professional activities, interdisciplinary integration, and systematic approach to improving students' professional competence based on integration of pedagogical and technical knowledge in diagnosing preparation for professional activities. Therefore, a systematic approach to the integration of pedagogical and technical knowledge in the diagnosis of vocational training. The mechanism of development of such competences as mobility, reflexivity, integrality in theoretical, practical, research and training directions was improved based on the classification of stages of formation of personal and professional qualities of future specialists.

At the stage of professional self-knowledge (II year), the development of the student's personality will continue, their cultural needs and needs will be shaped. They encompass all forms of education and upbringing, trust and independence, but also actively participate in the work of public organizations and movements. In this period, the emphasis is placed on the professional sciences.

At the stage of professional self-determination (III year), students' attention to specialization subjects will be enhanced and their motivation to improve their preparation for professional activities will be strengthened. At this stage, specialization begins, increases the interest in research, learns about the specifics of the chosen profession. At the same time, students' social activity will be developed and, as a rule, their self-organization will be increased.

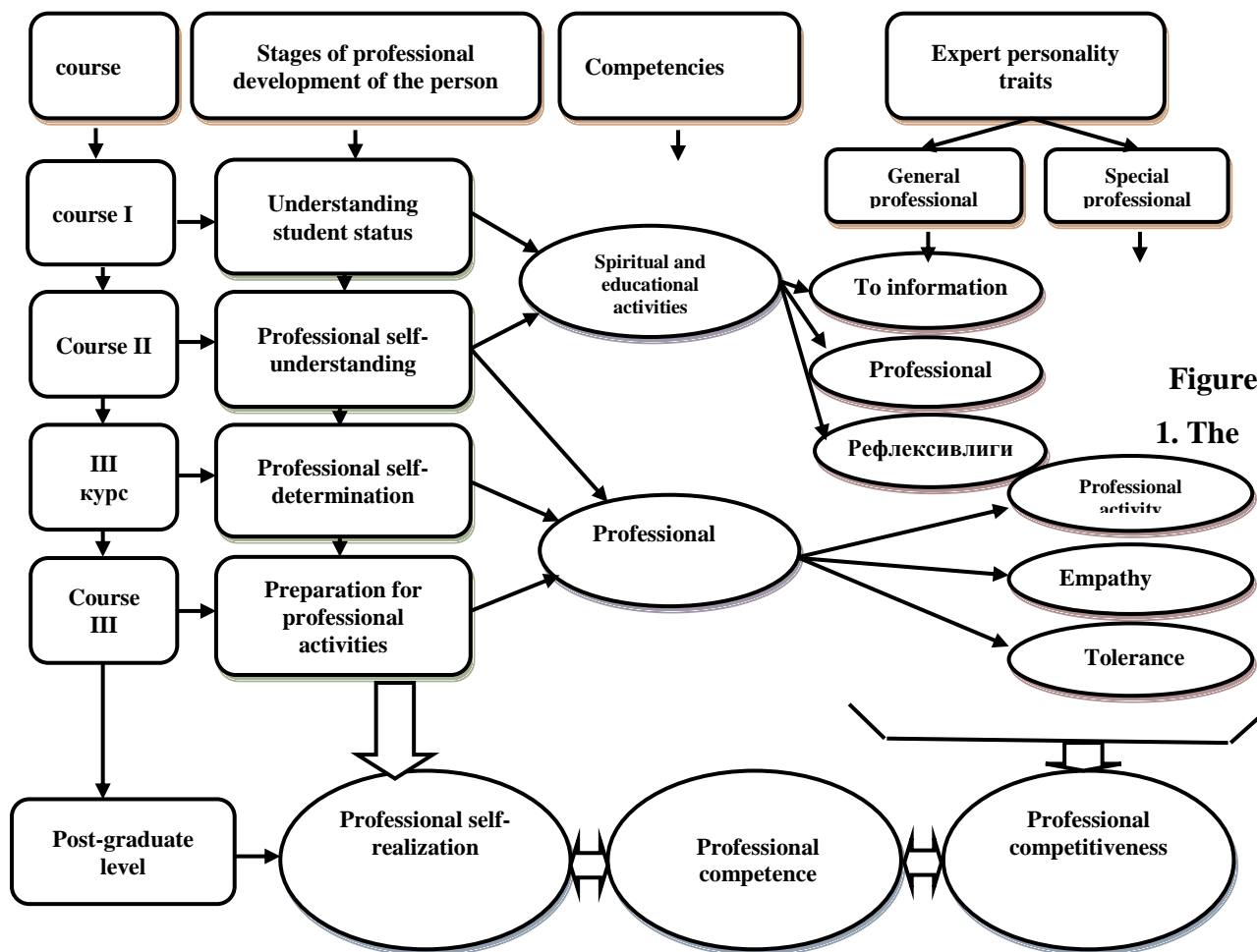
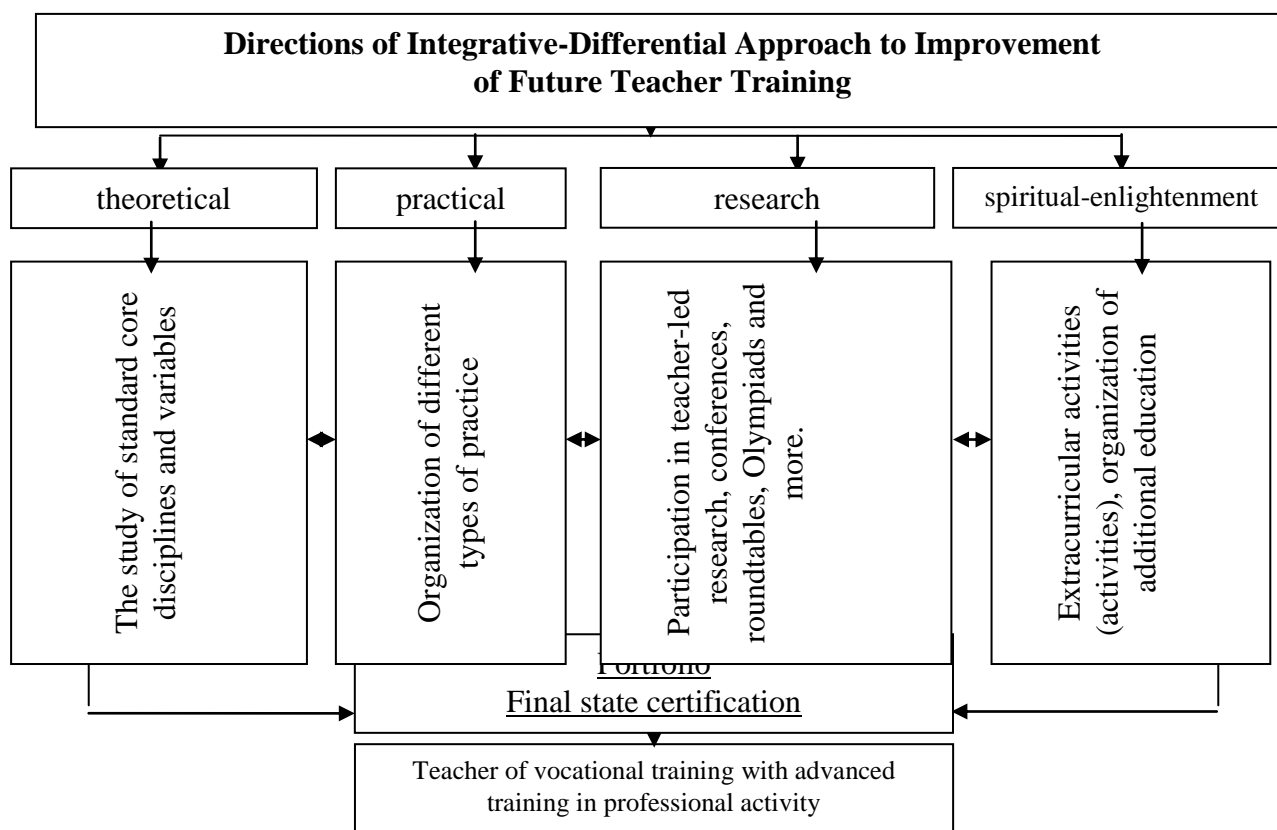


Figure 1. The

### mechanism of development of professional competence of students on the basis of pedagogical and technical knowledge

Career Development (Vocational Training) Phase IV (Course IV) encourages the acquisition of specialist work methods and technologies related to future career planning. At this stage, the need to choose a place of practice to apply in the practice of professional activities is more conscious. At each stage of improving students' readiness for professional activities, the main emphasis is on the peculiarities of the professional features of improving the readiness of professional activities [9] (Figure 1).



**Figure 2. Integrative-differential approach to the development of professional competence of students**

### Conclusions

As the theoretical direction of our aforementioned ideas, it implements all blocks and models of the content of preparation for professional activity within the State educational standards; Practical direction - provides various types of practice- training, pedagogical acquaintance, pedagogical, production, pre-graduation, etc .; research direction - opens the organizational foundations of vocational training in the system of preparation for professional activity, according to which it can be built in the course of education or in parallel with it; spiritual, educational and ethical direction - provides cultural, recreational, professionally-oriented, civic-legal, informational, spiritual, educational and public events in various activities.

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