DEVELOPMENT OF PROFESSIONAL COMPETENCE OF FUTURE SPECIALISTS

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Abstract

Socio-economic, scientific and technical changes on a global scale presuppose the organization and management of the training system for future specialists on the basis of a modular approach and the development of the professional competence of future specialists in the Higher Education Institutions. At present, in the educational standards of developed countries, special attention is paid to the formation of global skills of students. Great importance in this is the modernization of the content of existing education, image-building technologies, a system for assessing the results of assimilation on the basis of modular technology. On the basis of international pedagogical experience, an important place in the implementation of new pedagogical projects, the widespread implementation of innovative achievements in practice and raising the quality of education to a new level is occupied by the preparation of future specialists for professional activities. The article is devoted to the disclosure of the content of the development of professional competence of future specialists in the technical direction of HEU, through the development of new paradigms of teaching the effective use of the didactic capabilities of information and communication technologies.

Key words: competence, professional competence, teacher’s professional competence, teacher’s methodical competence.
Introduction

In modern times, there is a rapid development of technical and technological processes in the process of teaching students the technology of primary processing of cotton and equipment, theoretical foundations of teaching methods of technology of primary processing of cotton and equipment, psychological and pedagogical problems of professional competence. As a result of the analysis of scientific and methodological literature, methods of using the mechanisms of independent management of educational activities, approaches to the development of professional competencies of future technical specialists in higher educational institutions and the theoretical foundations of teaching methods of technology and equipment for primary processing of cotton, aimed at developing the professional competencies of future technical specialists, have been determined. Important.

As a result of the above analysis of the Concept for the Development of the Higher Education System of the Republic of Uzbekistan until 2030, it is planned to implement the following measures to actively involve personnel in the training of highly qualified specialists:

- improvement of the content of curricula and programs, as well as the distribution of hours by specialties based on the latest achievements of science and technology, taking into account the specifics of educational areas and specialties;
- strengthening ties between universities and industrial enterprises and organizing cluster activities;
- creation of higher educational institutions in industrialized regions and economic zones.

As a result, the research task lies in the fact that this process will become more popular based on the creation of a methodological basis for the formation of professional competencies of future personnel on the basis of a modular approach.

Problems of the formation of future specialists in the process of obtaining higher education, increasing their social activity on the basis of self-management and diagnostics of professional development described in the works of S.Yu.
Akhmadaliev, F.A. Adolf, N.N. Abakumova, Kh.A. Abdukadyrov, V.V. Guzeev, O. Kozyrev [2, 4, 5, 6, 14, 19].

Scientists such as A.K. Markova, A.V. Khutorsky, E. Goziev describe such problems as the spiritual foundations of the formation of future professionals, the spiritual world, tendencies of pedagogical activity.

Questions such as the use of the theory of pedagogical technology in the educational process, the essence and principles of this theory, the design of the educational process, the definition of educational goals and the study of the effectiveness of the goal revealed by Yu.G. Yuldashev and others. [16, 29, 31].

Based on the results of the study of theoretical and practical aspects of the problem, it was shown that the problem of creating a methodological basis for the formation of professional competencies in future personnel on the basis of a modular approach was not a separate object of dissertation research. The content of modern education requires the formation of professional competencies of future personnel, their development as competitive personnel. Accordingly, there is a need to develop a technological system that provides a methodological basis for the formation of professional competencies of future personnel based on a modular approach and its application in the practice of higher education [26, 27, 29, 33, 34, 35, 38].

**Materials and Methods**

The professional competence of A.A. Derkach may include competence in professional activity, competence in professional communication, competence in the ability of a specialist to express his personality.

Professional competence is the ability of a particular professional to perform tasks related to professional activities and use them effectively, which requires many psychological characteristics inherent in an individual.

[13-342s].

AVERAGE. Khutorsky describes the following competencies of the educator, which are important for the educational process:
1. Worldview, values and self-awareness are expressed in relation to the teacher's worldview, imagination and values.

2. Universal - national and universal values; participation in the public life of the country; respect for family, traditions; communication skills.

3. Educational and cognitive process - the teacher's ability to independently analyze cognitive activity, logical thinking, assessment of educational activity, knowledge and skills.

4. Acquisition of knowledge - pedagogical activity, the ability to obtain information about your subject.

5. Communication - knowledge of the language, communication with different people, a special place in the team.

6. Socially useful work - family relations and responsibility, participation in the development of society, socially useful work. They have economic and legal skills.

7. Work on yourself - physical, spiritual, intellectual self-development, emotion management. [34.35].

At the beginning of the twentieth century As noted by PF Kapterev, “in the educational process, the personality of the teacher comes first, and other qualities of the teacher increase or decrease the educational impact on learning outcomes” [17].

Based on professional competence, the following qualities are reflected:

1. Social competence

2. Special competence (psychological, methodological, informational, creative, innovative, communicative competence)

3. Personal competence

4. Technological competence

5. Extreme competence

A number of studies have directly studied the professional competence inherent in pedagogy and its specific aspects. This study includes research conducted...
by A.K. Markova. In her research, A.K. Markova states that the professional competence of a teacher consists of the following components:

![Figure 1. Important structural foundations of pedagogical competence (A.K. Markova)](image)

The level of professional development of a teacher can be determined according to the following scale in the works of the scientist-teacher A.K. Markova. [23].

**Table 1. Scale of professional development**

<table>
<thead>
<tr>
<th>№</th>
<th>Qualities of professional competence</th>
<th>Scale indicators</th>
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<tbody>
<tr>
<td></td>
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<td>1</td>
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<tr>
<td>1.</td>
<td>Social competence</td>
<td></td>
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<tr>
<td>1</td>
<td>Ability to interact with public organizations and actors, possession of skills</td>
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<table>
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<tr>
<th>Ability to master professional communication and behavioral techniques</th>
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2. Personal competence

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<tr>
<th>Achieving continuous professional growth and professional development</th>
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<td>Be able to realize your inner potential in professional activity</td>
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3. Special competence

<table>
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<th>Preparation for the organization of independent professional and pedagogical activities</th>
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<td>They are able to correctly solve the usual professional and pedagogical problems and realistically assess the results of their work.</td>
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<tr>
<td>The ability to consistently and independently master new knowledge and skills in the specialty</td>
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4. Technological competence

<table>
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<tr>
<th>Ability to master advanced technologies that enrich professional and pedagogical knowledge, skills and abilities</th>
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<tr>
<td>Умение пользоваться современными дидактическими средствами (технические средства, учебные пособия)</td>
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<tr>
<td>---</td>
</tr>
<tr>
<td>5. Extreme competence</td>
</tr>
<tr>
<td>Ability to make rational decisions in emergency situations (natural disasters, technological failure), correct actions</td>
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</table>

Ability to make rational decisions in problem situations (pedagogical conflict),
to act correctly

Thus, the need to resist the tough competition that arises in the labor market in the conditions of market relations motivates each specialist to develop professional competence and personal qualities. Based on competence, which literally means “ability”, and content means “effective use of theoretical knowledge in practice, the ability to demonstrate a high level of professionalism, skills and abilities”, social, special (psychological, methodological, informational, creative, innovative and communicative), personal qualities such as adaptability and extreme competence.

In a number of studies, in particular A.K. Markova, the structural foundations of pedagogical competence are noted. The professional competence of a teacher ensures an effective, successful organization of the pedagogical (teaching and educational) process.

The professional competence of today's employees is determined by innovative technologies in science, knowledge of modern forms, methods and techniques of organizing a lesson, the ability to make the right decisions in the process of teaching. [23].

**Research Results and Analyses**

In this study, we put forward the following scientific hypothesis:
Training in preprocessing technology, technology and equipment based on a modular approach is a key factor in the development of professional competencies of future technology specialists;

In the process of teaching the technology of primary processing and equipment of cotton on the basis of a modular approach, it is important to correctly choose and effectively use in practice tools that ensure the development of professional competencies of future technical specialists;

An important condition for increasing the effectiveness of training is the development of a logical-structural module for the development of professional competencies of future technical specialists in higher educational institutions on the basis of a modular approach to teaching primary processing technology, technology and equipment and improving the methodology for improving the qualifications of future technical specialists;

The scientific significance of the research results is explained by the development of mechanisms for organizing educational activities based on modular approaches to the stages of development of professional competencies of future technical specialists (independent forecasting, independent design, independent learning) in higher education. [32.33].

The practical significance of the research results is determined by the formation of students' holistic view of the principles of consistency, coherence, structure, creativity, reflexivity, a set of principles for organizing training based on qualification requirements in the field of technology, differentiated programs for students of different levels.

**The goal of the formative stage of the study will be the formation of professional competencies in future specialists through the use of training technologies.**

Formative stage functions:

1. Conducting experimental testing of educational technology of professional competence in the educational process of the university.
2. To identify psychological and pedagogical conditions conducive to the development of professional competencies in the educational process of higher education.

To achieve the goals of this stage, the reports were divided into the most complex topics requiring a systematic presentation of the material. The statement is mostly in a problematic spirit. A clear and detailed definition of interdisciplinary connections in the block of professional educational sciences made it possible to determine the level of preparation and assimilation of students for each technology module. The seminars will be a logical continuation of the lectures. They consist in deepening, expanding and detailing the knowledge gained in lectures and in the course of students' independent work, checking the effectiveness and quality of their assimilation. The seminar consisted of a group discussion of the most important and difficult issues for acquiring professional skills and mastering the content of the course. The workshops encouraged assessment and discussion workshops that help students think independently and freely, develop personal and spiritual attitudes towards the issues at hand; The content of the student's speech, the logic of the answer, the richness of details and evidence, the ability to clearly and simply explain were assessed. At the end of the seminar, the productivity of the work of the group and each student was carried out, a reflection of their work.

In the course of practical training, students underwent the following professional trainings: preparation of methodological literacy for training, definition and analysis of didactic goals and objectives, highlighting the structure of the training structure, appropriate methods, forms and means of training for future technical specialists, assessment, control and correction system. selection Performing study assignments in small groups required the establishment of friendly, humane relations with each other.

The organization of work in pairs and microgroups (4-5 people) and the appointment of specialists for the activities of each student, the creation of a
professional play environment were aimed at developing reflection on their activities and behavior.

Laboratory studies were conducted on the basis of GulSU. Their content consisted of watching sessions or video lessons of experienced master teachers with their subsequent discussion and analysis within the framework of the educational process at the university.

Independent work under the guidance of a teacher was aimed at increasing the cognitive activity of students in preparation for lessons, deepening the knowledge gained, filling in the gaps.

At the stage of the formative experiment, more attention was paid to methods and forms of teaching, such as lectures on problem solving, seminars, analysis of specific pedagogical situations (including the current form of control), preparation of scientific projects and their public defense.

It should be noted that special attention is paid to practical exercises. This is explained by the need to implement the foundations of active learning (based on the analysis of qualification requirements material), which involves training at the level of professional training and skills, which is one of the main characteristics of the formation of practical competence of professional competence. It should be noted that the solution of this problem was facilitated by the development of an academic scientific project, which provided a motivated approach to solving the problem of training future specialists and transferring a significant part of the "knowledge" to the independent work of students.

From this we can conclude that within the framework of the formation of the professional competence of a future specialist in the field of technology in the process of obtaining higher education, conditions will be created for the effective implementation of individual psychological, intellectual potential. This is evidenced by the results obtained in the control phase of the experiment.

In the control phase of the experiment, the results of the formative experiment were compared with the results of the recording experiment. At the same time,
students used their own assessments of the formation of professional competence and expert assessment of the teacher, as well as self-assessment of the motives of cognition and the professional scope of their activities.

According to the results of the formative experiment, the dynamics of all levels of professional competence turned out to be positive both after studying the subject and after completing an internship at a pedagogical college. The passive level was not recorded at all. It was noted that the number of students standing at the imitation level increased due to the transition from low to intermediate level. The number of students who demonstrated active research and creative levels of professional competence has significantly increased, since at the record stage there were no such students (Table 2).

Table 2. Features of the formation of professional competence of students during the period of study at the university

<table>
<thead>
<tr>
<th>No</th>
<th>Stages</th>
<th>Levels of formation of professional competence of a specialist of a future technical direction</th>
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<tr>
<td></td>
<td></td>
<td>Passive (A)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>1</td>
<td>Noting</td>
<td>26</td>
</tr>
<tr>
<td>2</td>
<td>Formative</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>Control</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 2 shows that 57.3% of the surveyed students demonstrated an active research level of professional competence, and 2.9% - a creative level, while such levels were not recorded at the recording stage. It is also natural that the number of
students who demonstrated the approximate level decreased after completing the internship from 40% to 17.1%, therefore the number of students who demonstrated the level of active research activity increased from 57.3% to 74.3%.

Wilcoxon's T-test and Rosenbaum's Q-test were used to determine the reliability of the results obtained.

Summarizing the results of the experimental work, it is worth making the following conclusions: It has been practically proven that the ability to develop and defend a scientific project and implement it in practice creates the necessary psychological and pedagogical conditions conducive to the formation of university graduates' readiness and ability to carry out professional activities at a high quality level.

**Conclusion**

1. The need to use the mechanisms of independent management of educational activities based on the analysis of psychological, pedagogical, scientific and methodological literature on the development of professional competencies.

2. The approaches to ensuring the development of professional competencies of future technical specialists in higher educational institutions have been determined.

3. Based on the analysis of professional competence and psychological and pedagogical research dedicated to the training of future specialists in the field of technology, the definition of professional competence in the field of technology has been determined.

4. It is very important to form in the minds of future professionals not only technical knowledge in the chosen field, but also highly qualified economic, technological and spiritual thinking, because the development of any technique and technology is based on our national values for the development of our country. Respect for our history is manifested in the fact that we live with a sense of
confidence in our future, as well as in the understanding that everyone has the highest value.

5. It has been established that teaching the subject "Technology and equipment for primary processing of cotton" in technical universities has its own characteristics, and as a solution it has been determined that the most effective approach is to organize training in these areas on the basis of modular approaches.

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