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The Concept of Education in the Development of Professional Competence of Specialists

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Abstract: This article presents the results of a study on the conceptuality of education in the development of professional competence of personnel. It also discusses the definitions of education quality in both narrow and broad senses.

One of the key aspects of the conceptuality of education in the development of professional competence of personnel is the organic connection in the educational-methodological sphere that is established between the departments of higher education institutions that train specialists and their consumers. This article also provides analytical materials and recommendations on this issue.

Keywords: Problem, competence, thinking, concept, consumers, graduates, personnel and education quality, needs, national rating.

Introduction

During this era of quick worldwide progress educational quality functions as an essential factor to develop specialist professional competence. Higher education institutions serve as primary institutions for developing workers who can address the requirements of today's economic system. This paper analyzes educational theory principles which support professional competence development through its examination of quality education and learning through problems and university-stakeholder relationships. The analysis of existing problems and practical recommendation proposals work towards adding value to current educational reforms and human capital development.

All personnel who are developing the socio-economic spheres of our country are educated and trained in higher education institutions. Therefore, a quality education system creates quality personnel, and quality personnel build a developed and prosperous society. From this perspective, investing in human capital and reforming education has become one of the priority tasks in our country’s new era of development. The establishment of new higher education institutions in our republic, the modern educational buildings being built from scratch, and the high attention given

to the quality of personnel training are all compelling evidence to support our point. Classrooms are being renovated according to new, modern designs, and they are being equipped with educational equipment, educational laboratories, and modern ICT. Our Esteemed President emphasized in his addresses that "Improving the quality of education is the only right path for New Uzbekistan." Great attention is paid to supporting education, which is the biggest investment for New Uzbekistan, and it is noted that it is necessary to separately specify the status of teachers and the value of their personnel in the Constitution. Therefore, we must not forget that a quality education system creates quality personnel, and quality personnel build a developed and powerful society.

The concept of education was first introduced into science by I.G. Pestalozzi. In S.I. Ozhegov's explanatory dictionary, education is defined as "learning and enlightenment," and in some pedagogical textbooks, it is defined as the process of students mastering socio-historical experiences and the result of their development or systematized knowledge, skills, and abilities.

In other sources, the term "education" is defined as the process of purposefully transmitting knowledge, concepts, worldviews, values, experiences, competencies, and behavioral models accumulated by society from generation to generation.

Knowledge is regarded as the results of cognition that have undergone empirical or practical testing, which may be logically or empirically grounded.

A concept is understood as a form of thinking that reflects the essential characteristics, interrelationships, and relationships of materials on a topic.

In education, the process of imparting knowledge, forming skills, and developing abilities to students is considered not as the goal of teaching, but as a means of shaping and developing the student's personality.

One of the main tasks of higher education institutions today is to educate patriotic young people with deep knowledge, profound thinking, and a broad worldview, and to train competitive personnel who meet the demands of the global market.

Below, we will discuss concepts that are important in developing the professional competence of personnel, including quality of education, problem, problem-based method, and problem-based learning.

The term "problem" comes from the Greek word meaning "obstacle" or "difficulty," and the Arabic words meaning "enigmatic," "mysterious," or "difficult to understand." Its solution consists of complex theoretical or practical solutions that require observation, comparison, research, and conclusion-drawing. For example, we can cite problems in the origin of the Earth, problems of efficient use of land resources, and problems in improving the quality of education. Therefore, it is worth noting that the correct formulation of a problem is one of the important conditions for its successful solution, and conversely, the incorrect formulation of a problem distances the solution of genuine problems from a false problem. In essence, a problem is solved by studying its causes, searching for important and effective ways, methods, and tools to solve it, collecting evidence to support their effectiveness, and interpreting the evidence in a new analysis.

The problem-based teaching method is aimed at increasing the effectiveness of mastering knowledge and skills through students' thinking, and at the same time includes a set of methods and diverse approaches that incorporate various effective cognitive tasks, including educational and real-world contradictions that help to successfully achieve educational goals.

The goal of problem-based learning is not only for students to master the fundamentals of science and absorb knowledge and scientific facts but also to develop students' creative thinking activities. Problem-based learning is implemented by a group of special methods in which the

teacher's main task is to create a problematic situation and to solve problems for students and develop their proposals.

The role of the problem situation in studying a topic and thinking has been developed in the research of A.M. Matyushkin, L.A. Reshetnikov, M.I. Makhmutov, and I.Ya. Lerner.

Therefore, problem-based learning begins with the creation of a problem situation.

A problem situation is a state of mental difficulty in students, in which their knowledge in a situation related to a problem that they must solve themselves is not sufficient to solve the problem, requiring a mental thinking process that demands the search for new knowledge.

Below, we will analyze some of the opinions and concepts expressed by pedagogical scientists regarding education problems. To date, there have been various views and opinions regarding the interrelationship of the terms education and teaching.

Problem-based learning is not an entirely new pedagogical process or concept. It is known to all that, since ancient times, the mental activity of humans, that is, the higher nervous system, has closely helped to preserve materials about the material world in memory and to understand the meaning and essence of things and events occurring in nature.

It is known from the experiences of the Socrates and Pythagoras schools, as well as the Sophists, that questions posed to an interlocutor create problems for them in answering, forcing them to think in order to answer the questions. It is worth noting that the role of problem-based learning has significantly increased today, especially in the modern context of implementing a competence-based approach in the educational process.

Previous stages of education were based on an approach aimed at developing the student's personality. The issue of developing knowledge, skills, and competence competencies in students, taking into account their individual characteristics, is characteristic of the activities being carried out in the current modern education system.

An analysis of the studied materials related to the research topic showed that there are contradictions between the effectiveness of the educational process organized using traditional teaching methods and the task of training competitive personnel who meet the requirements of the competent organizations that order social issues to the educational institutions. Therefore, some materials that students cannot assimilate well are carried out through modern technologies and teaching methods.

In many ways, problem-based learning meets the global requirements for organizing and managing the education and training process. Regularly defining problem tasks and the emergence of problem situations encourage students to think independently and seek new knowledge. Therefore, based on the ideas expressed above, it can be understood that a problem is "an obstacle that must be overcome." Undoubtedly, as a result of solving problems, the formation of the student's personality, the expansion of their worldview and critical thinking ability directly helps the development of professional competence.

The initial philosophical debates between Socrates and his opponents, their conversations, or the determination of truth in the course of arguments, formed the basis for the formation of problem-based learning.

Later, in the philosophical works of F. Bacon, a different approach was presented regarding the desire to independently obtain evidence or to deny an emerging problem situation in order to implement his approach to searching for the truth.

The formation of problem-based learning in different periods has been directly or indirectly reflected in various theories. For example, the great Czech pedagogue J.A. Comenius was a supporter of active teaching for schoolchildren.

The French philosopher J.J. Rousseau advanced the idea of implementing the development of a child's intellectual ability in education.

The Swiss pedagogue I.G. Pestalozzi advanced the idea of developing the use of visual aids in education through observations, generalizations, and independent conclusions.

The Russian pedagogue K.D. Ushinsky created a didactic system aimed at developing the student's mental strength.

Foreign pedagogical scientists from Bulgaria, Germany, and the Czech Republic made great contributions to the development of the theory of problem-based teaching. The Polish scientist V. Okon achieved great success in this matter. In his research, he studied the conditions for the emergence of problem situations in studying materials in various sciences.

From a psychological point of view, problem-based learning is understood as a method of identifying mental activity and extracting important group of internal relations and relationships from the content of education to ensure the student's development, in order to form deep and stable learning and cognitive motivation in students.

Ya.S. Kovaleva and M.B. Chelyshkova expressed their opinion that there is no consensus among theorists and practitioners in defining the concept of education quality.

Today, the concept of education quality has become a pressing issue that has become the object of scientific research by pedagogical scientists in many developed foreign countries and our country, as well as the subject of discussion by the broader pedagogical community.

It is worth noting here that many researchers, when it comes to the definition of education quality, deliberately bypass it and focus directly on the issues of measuring and evaluating it. In particular, employees of the International Institute for Educational Planning have expressed the view that it is not possible to give a definition of the concept of "education quality" at all.

Ya.S. Kovaleva and M.B. Chelyshkova expressed their opinion that there is no consensus among theorists and practitioners in defining the concept of education quality.

Some pedagogical researchers are trying to link the concept of "education quality" with the concept of personnel training. In other cases, education quality is understood as generalizing the essence of their knowledge in its connectedness with its characteristics, its nutrition, and its concept.

You are absolutely right! I apologize for the repetition. I seem to be stuck in a loop. Here's the English translation of that passage again, and I'll try to be more attentive to providing new translations moving forward.

In our opinion, the quality of education can consist of a set of indicators that are assessed by the content of education, teaching forms and methods, the educational and material-technical base of educational institutions, the composition of personnel, and the scientific and educational potential, which ensures the development of competencies among students.

The owners of intellect, which determine the quality of personnel, are the learners. Because the quality level of the professional competence of personnel is determined by their intellectual wealth in education.

The following requirements are imposed on the quality indicators of the intellectual wealth of learners:

1. Having a general secondary education (relevant documents about studying and receiving knowledge in AL or KHK).

2. Having an idea and understanding of professional competence in the field of education being studied.
3. Knowing ICT to the required level.
4. Having a formed interest and enthusiasm for reading.
5. The desire to acquire knowledge, skills and competence competencies has become a vital necessity and their need.

Another main intellect owner that determines the quality of personnel is the educators, that is, teachers.

The following requirements are imposed on the quality indicators of the intellectual wealth of educators:

1. Having theoretical knowledge, practical skills and skills in the subjects being taught. For example, in order for a technology teacher to conduct practical exercises on the topic "Processing Cylindrical Surfaces on Turning Machines", first of all, the teacher must have theoretical knowledge about the structure, mechanisms and rules of operation of turning machines, and at the same time, be able to operate the machines. More importantly, their skills and abilities in operation must be formed and developed. Otherwise, if they do not have these skills and abilities, they will not be able to force any student to fulfill the requirements specified in the state educational standards. Such examples can be cited from physics, biology, chemistry and many other sciences as examples.
2. The science teacher's activity in teaching should become a professional necessity.
3. Having a formed competence to adhere to the principles of didactics.
4. Possessing a teacher's image.
5. Having prestige and respect among students and teachers with their level of knowledge, culture, and moral qualities.

It is known to all of us that one of the most important indicators of the activity of higher education institutions has been and remains the quality of the personnel being trained. However, unfortunately, the quality of personnel training is not always at a level that meets the requirements of the time, and at the same time, a number of problems that hinder the improvement of the quality of personnel training in higher education institutions and the implementation of large-scale reforms being carried out in the republic are clearly visible.

It is known that in the indicators of the criteria for determining the national rating of higher education institutions, 8 points are allocated to the level of employment of graduates on the basis of a state grant (within 6 months after graduation). However, we recall that there is no scientifically-methodically developed systemic mechanism for communication between the departments of higher education institutions and graduate students and their consumers. Although we all know that the assessment (8 points) of employers on the knowledge, skills, and quality of graduates is of great importance, in practice, when calculating the results of the national rating, group tutors can only formalize the minutes (mostly fake). The quality of personnel can be high only when the heads or specialists in educational institutions, under the leadership of the heads of the departments responsible for graduates, contact with the heads or specialists in educational institutions (Heads of General Secondary and Secondary Special and Vocational Education institutions, science teachers of these educational institutions), closely familiarize themselves with the practical activities of graduate students, provide guidance and methodological assistance. But the positive solution to this issue has not yet been resolved, for example, we can point out that the necessary requirements have not been developed from the educational-normative point of view, and there are no legal bases. Therefore, in our opinion, in order to identify the achievements and

shortcomings in the pedagogical activity of graduates and to prepare proposals, it is important to develop a special set of questions and tests for graduates and employer consumers (general secondary education schools, colleges, directors, science teachers) by higher education institution employees responsible for graduates. Important consumers for the education system remain the state and society. It is precisely at the macro level of management that the educational process and its results shape students in qualitative and quantitative characteristics.

This requirement generally relates to the system, its structure, goals, content, methods, educational tools and organizational forms.

At the next level of the need for interaction, the state's specific requirements for the education system also arise.

States are interested in expanding international cooperation in education, international integration, and joining the world community.

The rapid development of energy, mining and metallurgy, medicine, physics, and many other scientific fields in Uzbekistan is directly related to the quality of education, and without qualitatively changing education, it is impossible to solve these problems. Each of us involved in this issue must consciously understand that our actions will be ineffective without scientifically researching the fundamental essence of education quality and its components.

In a broad sense, the quality of education can be viewed as consisting of:

- ✓ The correspondence of education to various needs, goals, requirements, and norms;
- ✓ A systematic combination of hierarchically organized, socially significant important aspects (characteristics, parameters) of education.

In a narrow sense, the quality of education refers to the level of competence in the accumulation of knowledge by students or pupils.

All of the above allows us to imagine, study, and research the quality of education in the form of a pyramid.

Concluding the approaches and analyses to determining the essence of education quality, we found it necessary to pay attention to another important characteristic from a methodological point of view. The ineffectiveness of searching for a universal definition of the multifaceted and complex concept of education quality does not exclude the possibility of revealing its important characteristics and structure. To understand the essence of the problem of quality management in education, it is important to distinguish between the factors affecting quality and the conditions ensuring quality.

The fact is that the impact of factors on improving quality depends on the environment for ensuring quality.

The existence of this relationship is often not taken into account in the practice of assessing the activities of educational organizations. Therefore, we are forced to address this issue again. Conditions can help factors fully manifest their capabilities or limit the increase of these capabilities. In this case, the quality deteriorates, or more effort is required to achieve a certain level of quality. Many examples can be given of this. For example, unclear, complex writing of textbooks and teaching aids limits the opportunities and effectiveness of the educational process, and as a result, there is no quality.

As a result, teachers' professional knowledge, skills, and abilities are not fully utilized, so potential quality is not achieved. In addition, the costs spent by teachers to master new technologies are wasted in vain, and they tend to be delayed.

The quality of education always serves as a tool that reveals the system's conformity (or non-conformity), the processes implemented in it, and the results achieved with the requirements of the state, society, and the individual.

The system, process, and outcome must meet their social goals and the specific requirements of various groups of consumers. Therefore, in addition to the elements listed above, the concept of education quality should focus on the quality of the conditions for carrying out educational activities, in particular, problem-based teaching.

We would like to remind you once again that it is important to pay attention to the following conceptual foundations of education in the development of professional competence of personnel:

1. When preparing textbooks, teaching aids and monographs, professors and teachers need to pay attention to their scientific nature and quality, as well as the ease of understanding for pupils or students.
2. We consider the introduction of a system of material incentives by the educational institution for teachers who have published articles in prestigious scientific journals included in the Scopus and Web of Science databases, as well as published monographs and textbooks, to be another important step.
3. It is necessary to strengthen mutual cooperation relations with foreign higher education institutions in the scientific and educational fields.
4. Local higher education institutions need to intensify efforts in this area, develop effective mechanisms to attract highly qualified teachers from other countries, and systematically organize student exchanges with leading higher education institutions in the near and far abroad.
5. It is also necessary to organize foreign language and information-communication technology courses for sending professors and teachers to foreign higher education institutions to teach.
6. The need to develop an action plan to increase the participation of our teachers in foreign master's and doctoral studies has already been mentioned. We believe it is useful to use the capabilities of our specialists working or studying in foreign higher education institutions in this work.
7. It is necessary to use the experience of the leading higher education institutions of our Republic in organizing the preparation of graduation qualification works of gifted students, and to appoint scientific supervisors from the leading professors and teachers of these higher education institutions.
8. In order to increase the number of foreign students studying in higher education institutions of our Republic, it is necessary to post information on their websites in Russian, English and other foreign languages about the educational directions taught, as well as information about admission, living conditions, contracts, etc. In the future, it is necessary to organize one-year Uzbek language courses for them. If the relevant responsible persons can make positive decisions and draw relevant conclusions in practice from the ideas and proposals expressed above, we would achieve an improvement in the quality of personnel training.

Methodology

A qualitative research methodology serves to investigate the conceptual structure of education when developing professional competence. The research investigates the definitions and theories that currently exist regarding education quality and problem-based learning and their connection to student achievements. The research drew its data from various sources such as scientific articles together with pedagogical theories and case studies extracted from higher education institutions. The research included integrated analytical materials and expert opinions which provided practical

educational recommendations. This study seeks to understand the most significant factors affecting learning quality alongside graduate professional competence.

Results and Discussion

A high-quality educational system stands as an essential factor which supports the development of professional competence in specialists. The study reveals that institutions of higher education should build strong bonds between academic institutions and professional industries where training personnel are needed. Students develop critical thinking abilities and problem-solving abilities through the implementation of problem-based learning methods since these skills represent necessary components for professional success. The study demonstrates that conventionally carried out teaching practices fall short of meeting current job market requirements. In order to create competitive graduates industry professionals need to integrate contemporary learning approaches such as problem-based learning. Effective communication between educational institutions and employers prevents the proper assessment of training quality and its enhancement.

Conclusion

Professional competence development relies heavily on the education quality received by students. The research emphasizes that contemporary teaching approaches based on problem-based learning should be implemented to develop student critical thinking along with practical abilities. Education facilities and professional organizations must strengthen their working relationship to create training programs which match practical workplace requirements. These factors when addressed will enable the development of highly qualified professionals who address current job market requirements.

References:

1. Concept for the Development of Higher Education of the Republic of Uzbekistan until 2030.
2. Resolution of the President of the Republic of Uzbekistan No. PP-3775 dated 05.06.2018 “On additional measures to improve the quality of education in higher education institutions and ensure their active participation in the ongoing comprehensive reforms in the country.”
3. Mahmudov Y. G. Laboratory work on determination of electrical conductivity of cotton fiber. European journal of Research and Reflektion in Educational Sciences. Vol. 8 No. 2.2020. ISSN 2056-5852. (-Buyuk Britaniya,02.2020.)
4. Imanov B.B. Lesson and its analysis as factor of increasing the qualiyy of education. European scholar Journal. Available online at// www.scolarzest.com. Vol. № 1 January 2021 ISSN: 2660-5562.
5. B. Imanov. (2020). Specificity Of Student Creative Activity. The American Journal of Social Science and Education Innovations/ 2 (10), 243-249.
6. Muxliboev M.Q. Developing Studens’ sompetense in Rationalization and Ingenuity through TRIZ Technologies Ssiense promotion zamonaviy falsafa, ijtimoiy va gumanitar fanlarni rag‘batlantirish” ssiensepromotion.uz 2024.05.30
7. Muxliboyev Maxmut Qarshiboyevich. Texnologiya fanini o’qitishda iqtidorli o’quvchilarni texnik ijodkorligini rivojlantirish metodikasini takomillashtirish. GULISTON DAVLAT UNIVERSITETI AXBOROTNOMASI * * Gumanitar – ijtimoiy fanlar seriyasi, 2024. № 4
8. Muxliboev M.Q. Developing Studens’ sompetense in Rationalization and Ingenuity through TRIZ Technologies Ssiense promotion zamonaviy falsafa, ijtimoiy va gumanitar fanlarni rag‘batlantirish” ssiensepromotion.uz 2024.05.30

9. Mahmudov Y. G. Laboratory work on determination of electrical conductivity of cotton fiber. European journal of Research and Reflektion in Educational Sciences. Vol. 8 No. 2.2020. ISSN 2056-5852. (-Buyuk Britaniya,02.2020.)
10. Muxliboyev M.Q. O‘quvchilarning texnik ijodkorligini rivojlantirishda triz texnologiyasidan foydalanishning afzalliklari ILIM hám JÁMIYET Ilimiy-metodikalıq jurnal.Nukus-2024//6..95-96 bb.
11. Fayziyeva M.M. Maktabgacha ta’lim tashkilotlarini nazorat qilishning usul va uslublari. EURASIAN JORNAL OF ACADEMIC RESEARCH.Innovative Academy Research Support Center. 2024.60-69-bet
12. Fayziyeva M.M. Maktabgacha ta’limda metodik faoliyatni tashkil etishga qo’yiladigan zamonaviy talablar. ScienceInnovation.INTERNATIONAL SCIENTIFIC JOURNAL.2024. 666-668 bet
13. Eshonqulova Ma’suda Xabibovna Pedagogika fanlari bo‘yicha falsafa doktori (PhD), Guliston davlat universiteti o‘qituvchisi.Bo‘lajak tarbiyachilarni maktabga tayyorlov guruhi tarbiyalanuvchilariga konstruksiyaga oid ko‘nikmalarni shakllantirish metodikasi.
14. Эшонкулова Маъсуда Хабибовна (PhD) Гулистанский государственный университет. г.Гулистан (Узбекистан) ОБЪЕКТЫ И СУБЪЕКТЫ ИНТЕЛЛЕКТУАЛЬНОЙ ДЕЯТЕЛЬНОСТИ
15. Шомирзаев М.Х. - Таълим технологияларидан фойдаланиш муаммолари // Замонавий таълим. – Т., 2019.