METHODOLOGICAL TECHNIQUES AND TOOLS USED IN ORGANIZING THE TRAINING PROCESS OF PRIMARY SCHOOL STUDENTS

Dustov Mansur Khurramovich

Teacher of Tashkent University of Applied Sciences https://doi.org/10.5281/zenodo.10601178

Abstract. Methodical classes, as the authors write, are, in fact, a system of didactic games, during which children explore problem situations, identify significant signs and relationships, make discoveries. With the traditional organization of the educational process, the general didactic goals of laboratory work are experimental confirmation of the studied theoretical principles and laws, experimental verification of calculations and formulas, practical acquaintance with modern technology, equipment and devices. In the course of laboratory work, students develop general professional skills: observe, compare, juxtapose, analyze and draw reasonable conclusions.

Keywords: competence, quality of education, pedagogy, psychology, formation, education, didactics.

With the traditional organization of the educational process, the general didactic goals of laboratory work are experimental confirmation of the studied theoretical principles and laws, experimental verification of calculations and formulas, practical acquaintance with modern technology, equipment and devices. In the course of laboratory work, students develop general professional skills: observe, compare, juxtapose, analyze and draw reasonable conclusions. [6], however, to expand the methodological capabilities of laboratory classes in the system of functionally oriented training, it is necessary to use laboratory equipment specifically designed for the acquisition of skills and abilities of professional activity - professional competencies.

This contributes to the achievement of the goals of forming the personality of a professional even while studying at a university and creates conditions for the transition, transformation of students' cognitive activity into professional activity with a corresponding change in needs, motives, goals, actions, means, subjects and learning outcomes.

The difficulties in identifying the mechanisms for developing the professional competencies of a future teacher are due to their complexity, integration, and the presence of a personal component.

We will determine the pedagogical conditions that ensure the formation of a block of special competencies for a bachelor of education. To do this, let's find out what is meant by this term.

In the philosophical encyclopedic dictionary [5], a condition means the following:

1) the environment in which they live and without which they cannot exist;

2) the setting in which something happens.

In pedagogy, conditions are interpreted as external circumstances affecting the effectiveness of the educational process. M.I.Dzhumaev propose to understand pedagogical conditions as an external circumstance that has a significant impact on the course of the pedagogical process, more or less consciously designed by the teacher, implying the achievement

of a certain result [1]. These circumstances do not arise spontaneously, but are the result of "purposeful selection, design and application of content elements, methods (techniques), as well as organizational forms of training to achieve ... goals" [1]. These interpretations of the concept of "pedagogical conditions" characterize its two facets:

- on the one hand, this is a circumstance (that is, teaching technologies, various means, techniques and teaching methods) that contributes to the formation of special competencies of a bachelor of education;

- on the other hand, this is the result of targeted pedagogical influence.

Literary sources describe various sets of pedagogical conditions that ensure the formation of a teacher's professional competence.

The process of developing professional competencies among students will be effective if

- the set of professional competencies necessary for a future teacher to solve professional problems has been determined; a model for developing professional competencies of students was developed and implemented;

- the pedagogical technology for the formation of professional competencies in future teachers in the course of practice-oriented training, special educational disciplines and specialization disciplines, types of educational activities, in the process of implementation of which professional competencies are formed, have been identified;

M.I.Dzhumaev notes that in order to achieve this goal, it is advisable to carry out functionally oriented training of students, which lies in the fact that, in accordance with the threecomponent structure of pedagogical training, professionograms and their constituent elements (laborograms, psychograms and sociograms) are also presented as consisting of three parts: basic, functional and subject-industry.

The basic part of the professiogram contains a description of work in the profession, a person in work and an individual in the profession, compiled on the basis of the requirements of the relevant state educational standard of higher professional education. The functional part of the professiogram reflects the characteristics of various types of teaching activities, and the subject-industrial part reflects the branches of production. A significant place in the system of functionally oriented training of students is given to practical and especially laboratory classes.

M.I.Dzhumaev formulates the following conditions for the formation of special professional competencies:

- the formation of training content is based on a model for the formation of professional competencies of bachelors, which includes as components the goal, structure of competencies, monitoring, methods and means of the educational process;

- pedagogical technologies have a practical orientation and contribute to the formation of professional educational competencies;

- independent work of students is aimed at solving problem situations in the context of implementing real projects and contributes to the formation of personally significant components of professional educational competencies;

– a system for improving the professional and pedagogical competence of teaching staff has been developed and is being implemented, which provides for the development of teachers both special competence in the field of the discipline being taught, and psychological, pedagogical and methodological competence in the field of ways to form professional competencies of future bachelors [9, p. 185].

SCIENCE AND INNOVATION INTERNATIONAL SCIENTIFIC JOURNAL VOLUME 3 ISSUE 1 JANUARY 2024 UIF-2022: 8.2 | ISSN: 2181-3337 | SCIENTISTS.UZ

M.I.Dzhumaev believes that the determining factors in the formation of special professional competencies are competency-oriented organizational and pedagogical conditions, the most important of which she considers to be "subject-subject" relations between the teacher and students. These are relationships in which the teacher acts as a designer, organizer, regulator, corrector, coordinator of students' educational activities, "creates an information environment for each of them and offers for use scientifically based didactic tools that are adequate to his stylistic characteristics and degree of training" [4, With. 6].

By organizational and pedagogical conditions, the author understands the use of competency-oriented forms of organizing students' educational activities. One of these forms is the individual educational trajectories of students, and the forms of organizing their education are "guidance" and "informational" lectures.

"analytical", "procedural", "consulting", "design" workshops. The grounds for designing and implementing individual educational trajectories for students can be classified into didactic ones:

- different volumes and depth of students' knowledge of the theoretical foundations of the discipline;

- students' presence or absence of practical professional experience;

-psychological and pedagogical:

- individual psychological and intellectual characteristics of students;

- different levels of motivation for students to study the discipline material.

We highlight the following conditions:

- development of the university information space. The formation of professional competencies should be carried out as a result of information and computer training, which is defined by the author as the totality of all conditions for the emergence and development of the future teacher's information competence;

- establishment of interdisciplinary integration of modular training. In modern conditions of globalization of society integration, there is an urgent need to prepare future specialists for actions that are aimed at the conscious formation of professional competencies;

- application of innovative forms and methods of developing professional competencies. Certain opportunities for implementing an innovative approach to the formation of basic professional competencies in the structure of the optimal balance between theoretical and practical professional training are provided by the technology of organizing the educational process based on on-site practical training [2, p. 36].

Thus, a theoretical study of the problem of developing special competencies for a bachelor allowed us to draw the following conclusions.

1. In the literature, there are different points of view on the competency-based approach in education. However, these points of view are similar in determining the direction of training (obtaining learning outcomes in the form of a set of competencies) and in determining the need to develop an assessment apparatus for the development of competencies of a future teacher, as well as updating the content of education.

2. In the literature, there are different points of view on the competency-based approach in education. However, these points of view are similar in determining the direction of training (obtaining learning outcomes in the form of a set of competencies) and in determining the need to

develop an assessment apparatus for the development of competencies of a future teacher, as well as updating the content of education.

the success of achieving the expected results is still under discussion.

3. To date, there is no unity in the literature in understanding the relationship between the concepts of competence and competency. The named categories are either identified or differentiated by different authors. We have found that many researchers, differentiating these concepts, assume different relationships between competence and competence: objective - subjective; potential - implementation; structural component - whole. In our study, we adhere to the latter relationship and consider competence as an integral personal characteristic - a set of various competencies.

4. The competency-based approach does not contradict other existing methodological approaches to learning: it expands and complements the knowledge-centric approach; from the standpoint of the competency-based approach, the activity-based approach to learning becomes a priority in the development of technologies for developing competencies. The personal approach to education allows us to focus on the formation of competencies as integral characteristics of the individual.

5. The literature provides different classifications of competencies. However, many classifications at the first level are characterized by a binary division of competencies into general (key) and professional. The latter, in turn, should be divided into general professional, professional in the field of training ("Pedagogical education"), which are supplemented by special ones in the field of training. The set of competencies, in addition to special ones, for each area of bachelor's training is clearly defined in the State Standards.

6. Special professional competencies of a teacher have their own specifics. Along with subject knowledge and skills, they also include supra-subject knowledge and skills, which perform not only an instrumental function, but are also elements of knowledge that must be recognized by the teacher as structures formed in students. The State Educational Standard in the field of "Teacher Education" describes only the most general professional competencies. To prepare for the successful implementation of the professional activities of the future teacher in the context of the implementation of the State Educational Standards, they need to be specified and supplemented.

Analysis of the composition of the special professional competencies of the Bachelor of Education profile allowed us to clarify the composition of the special professional competencies of the teacher, specifying and complementing the set of professional competencies given in the State Standards, taking into account the pedagogical conditions for the successful implementation of the State Standards requirements for learning outcomes at the educational level and the results of a survey of teachers and employers (deputy directors schools).

All of the above determines the need to develop a pedagogical model that ensures the creation of a unified educational space with the mentioned set of conditions.

By increasing the level of generalization in mathematical representations, the development of mathematical concepts is facilitated not only through the organization of mental activity but also through the use of specific cognitive tools during the learning process.

These tools include models, graphs, diagrams, and so on. For instance, a "ladder" composed of circles can model the cardinal and ordinal relations of natural numbers, while four circles of

different colors can represent parts of the day. The formation of elementary mathematical concepts in preschool children can occur in various ways.

Since young children have limited experience and knowledge, their training primarily involves accumulating specific knowledge with the assistance of an adult, which is then generalized into simple rules and patterns. However, this approach also has its limitations.

Children are confined to the isolated facts and cases upon which their generalizations are based, preventing them from analyzing a broader range of knowledge and hindering the development of independent thinking and exploration. Therefore, it is necessary to employ an alternative method in teaching, where thought and knowledge assimilation proceed from the general to the specific. Children must learn to apply the rules they have learned in specific situations.

A rational combination of these methods contributes to the optimal mental and mathematical development of children. It is not always necessary to place children in the role of "discoverers" and guide them from concrete knowledge to conclusions and generalizations. Instead, children should learn to master and acquire the knowledge accumulated by humanity, appreciate its value, and be able to use it for analyzing their own experiences as well as the facts and phenomena of their surroundings.

For example, when introducing preschoolers to quadrilaterals, one can initially ask them to identify and name familiar shapes with four sides and four corners that can be classified as quadrilaterals. Additionally, children can be encouraged to find objects or parts of objects that have a quadrilateral shape, thereby deepening their understanding of this geometric figure.

Similarly, the concept of polygons is introduced to children. By concretizing their knowledge, preschoolers are shown and named triangles, squares, and rectangles of different sizes, and are informed that all these figures fall under the category of polygons. The idea of a polygon is constructed through the diverse range of figures bounded by closed broken lines, encompassing both correct and incorrect shapes, as well as large and small ones.

REFERENCES

- Djumayev M.I The transformation of te english language's variants in contemporary great Britain. Educational process science and innovation international scientific journal volume
 Issue 4 April 2023 Uif-2022: 8.2 | Issn: 2181-3337 | Scientists.Uz 19-27 https://doi.org/10.5281/zenodo.7818607
- Djumaev M.I. Some Considerations of Teaching Mathematics Inuzbek Primary School. Journal of Mathematical & Computer Applications. SRC/JMCA-123. J Mathe & Comp Appli, 2023 Volume 2(2): 1-5 ISSN: 2754-6705
- 3. Джумаев М.И. Перспективы совершенствования преподавания математики в школе, колледже и вузе Республики Узбекистан. Ямало.Нанецк Россия «Профессиональное образование арктических регионов» № 1, март, 2023. № 6(147) 3-6 ст https://arctic-journal.ru/index.php/prof
- Djumaev M.I. Some Considerations of Teaching Mathematics Inuzbek Primary School.Journal of Mathematical & Computer Applications. Received: March 28, 2023; Accepted: April 03, 2023, Published: April 22, 2023 ISSN: 2754-6705 1-5

SCIENCE AND INNOVATION INTERNATIONAL SCIENTIFIC JOURNAL VOLUME 3 ISSUE 1 JANUARY 2024 UIF-2022: 8.2 | ISSN: 2181-3337 | SCIENTISTS.UZ

- 5. Djumaev M.I. Формирование элементарных математических представлений у детей в дошкольном возрасте с использованием и без наглядных материалов. Глобальный научный потенциал», ИД ТМБ принт, СПб.№ 6 (147) 2023 г. http://globaljournals.ru/
- 6. Djumaev M.I. Methodological principles of the student's independent work form under the supervising of the teacher in process of modern education https://doi.org/10.5281/zenodo.7772930
- Dzhumaev Zh.M Scientific and practical foundations of studying the subject "Technology" in primary school. Professional education and society. — 2021. — No. 2(38). — 300 s. ISSN 2227-9652. 166-174
- 8. Dzhumaev Zh.M. As an integral part of the educational activities of junior schoolchildren in the system of developmental education. Materials of the international scientific and practical online conference on the topic: "Prospects for the development of science and education in modern society: problems and solutions" October 19, 2021 Termiz . 912-915
- 9. Dzhumaev Zh.M Random events. Lesson-lecture. Modern problems of mathematical physics and mathematical modeling. Program of the international scientific and practical conference. December 3-4, 2021. Karshi. 240-244
- Dzhumaev Zh.M Activation of forms and methods of teaching students in educational activities. Quarterly Scientific, theoretical and practical journal Professional education and society. Moskaa. - 2022. - No. 1 (41). — 300 s. ISSN 2227-9652 171-179
- Driga, V.I. Development of the professional career of a modern teacher in conditions of creative education / V.I. Driga // Standards and monitoring in education.— 2012.— No. 4.— P. 48–51
- Loktionova TE, Sergeev MG. A comfortable educational environment in an educational organization: a modern approach to design. Vocational education and society. 2018. No. 3 (27). 43-106 s.
- Peterson L.G. Modeling as a means of formation before the representations of the concept of function in 4-6 classes of high school. Dis . for a job . student step. Cand. ped . sciences. -M., 1984. -201s.
- 14. The National School Cirriculum, Cirriculum and Assessment Guide. CDC-HKEAA Committee. Hong Kong. http://www.emb.gov.hk/cr
- 15. Ginsburg A., Leinwand S., and Decker K., "Informing Grades 1-6 Standards Development: What Can Be Learned from High-Performing Hong Kong, Korea, and Singapore?" American Institutes for Research, 2009.
- California Common Core State Standards. Mathematics. Electronic Edition. Adopted by the California State Board of Education August 2010 and modified January 2013. ISBN 978-0-8011-1748-8.
- 17. Zhumaev M.E. Methods of teaching mathematics for elementary grades: a Textbook. Bayyoz. Tashkent, 2023 .-- 296 p.
- 18. Davydov V.V. The psychological theory of educational activities and methods of elementary education, based on a meaningful generalization. Tomsk, 1992 .-- 112 p.
- 19. Peterson L.G. Modeling as a means of forming ideas about the concept of function in grades4–6 of high school. Dis. for a job. student step. Cand. ped sciences. M., 1984. 201 p.
- 20. Internet resources:

SCIENCE AND INNOVATION INTERNATIONAL SCIENTIFIC JOURNAL VOLUME 3 ISSUE 1 JANUARY 2024 UIF-2022: 8.2 | ISSN: 2181-3337 | SCIENTISTS.UZ

- 21. http://roboreview.ru/nauka-o-robotah/istoriya-razvitiya-robototehniki.html history of the development of robotics
- 22. http://robot-ex.ru/ru/newscontent/razvitie-robototehniki-v-budushchem development of robotics in the future