

Improving the Creative Skills of Future Teachers through a Problem-Based Approach

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Annotation: The problem of ensuring the quality of specialist training already at the stage of higher education has always been a burning issue. The question has also always been "How can this be achieved? In essence, the question is to create prerequisites in the professional training process to acquire, along with theoretical knowledge, the necessary practical skills that can ensure a high-quality future professional activity. One of these "skills" is pedagogical thinking, which provides the teacher with the ability to act quickly and effectively in a wide range of professional situations and to make pedagogically justified decisions.

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There is no need to prove the fact that any specialist is distinguished by the peculiarities of his/her professional thinking, and it is good when its formation begins long before the start of the work activity. To this end, modern science and practice are actively developing new forms and technologies of the educational process aimed at effective training of pedagogical personnel capable of working with thinking-activity content. Implementation of the thought-activity approach implies mastering by a future teacher the ways of thinking and activity necessary to solve various tasks of training and education [1]. We consider the task form as a learning technology. An indisputable advantage of this technology is that it "trains" the thinking of a future pedagogue. As a result, a student receives a standard of thinking activity long before the professional practice, acquires the skills "to analyze situations, to identify favorable circumstances under which the proposed activity can most effectively proceed, the planned goals can be achieved" [2].

It is well known that human thinking is activated when it is faced with the need to solve some task. The content, complexity, and other characteristics of this task, in turn, determine the development of certain qualities, operations, or thinking functions. The activity of a pedagogue, as N.V. Kuzmina neatly defines it, is "solution of an infinite number of tasks to shape a personality of another person. Mastery is revealed in the successful accomplishment of these tasks, i.e., in the reception of a positive result"[3].

In the thinking of an individual, along with the general characteristics, there may also be individual qualities that make it distinctive, original, non-standard. Besides, a person's belonging to certain kinds of professions also imposes their own mark on thinking. But the obvious fact is that the more diverse the range of life and professional tasks a person deals with, the more adapted thinking apparatus he will have.

Since there is a dependence between the development of a future professional educator's thinking and the quality of the problems solved in the process of professional training, it is necessary to implement a procedure for their classification as an important aspect of thinking approach to future teachers' training.

Theoretical analysis allows different classifications of pedagogical tasks on different grounds. For example, if we take the content of a pedagogical task as the basis, we can distinguish didactic tasks (aimed at forming knowledge, abilities and skills, development of intellect) and educational tasks (forming moral, labour, aesthetic, etc. relations in a student).

These forms and methods of shaping students' critical thinking are the most adequate to the essence of personality-centered education, the pedagogical sense of which is as follows:

- the personal approach is designed to provide conditions for the development of an individual, who acts as an active subject of learning;
- The most important condition for personal development is the possibility of self-realization in learning and cognitive activities, based on own inclinations, interests, values and experience;
- the focus of learning on the personality of students implies a combination of individual and group forms of learning, modelling of practical situations, development and research of projects - everything that develops cooperation, dialogicality, reflexivity of the personality;

- the leading criterion of personality-centered learning assessment is not so much acquisition of knowledge and skills (they are necessary, but considered only as part of a more general system of personal development), as formation of humanistic structure of value orientations, which determine the spiritual world of the personality, culture of the student.

The understanding of scientists' provisions on personality-centered approach to education allows to identify the forms and methods by means of which it is implemented. These are individual and group forms of teaching students, simulation of practical situations, penetrated by dialogue, game interaction, pedagogical problem solving, analysis of problem situations, etc.

In this regard, the taxonomy of tasks proposed by D. Tollingerova [3]. The author considers a learning task as a "project of a future learning action" which determines the intellectual space in which a learner will perform thinking actions. D. Tollingerova distributes learning tasks on the basis of: the requirement of the task for the cognitive composition of operations of the projected cognitive activity of learners. According to this criterion, tasks are divided into five groups:

- tasks requiring perception and reproduction of knowledge;
- tasks requiring simple thought operations (description and systematisation of facts);
- tasks requiring thinking operations (argumentation, explanation);
- tasks which require generating specific verbal expressions to express a productive thought act (e.g. an essay, an essay, an original scientific text);
- Tasks for productive and creative thinking (problem solving).

In turn, these groups are divided into subgroups, which allows for a more precise identification of the mental act to be formed. For example, the first group includes tasks for recognizing and reproducing previously learnt facts, concepts or rules. In the second group one can find tasks for revealing the abilities to analyze, synthesize, compare and generalize. The third group includes tasks for developing the ability to justify, reasoning, induction, deduction, etc. The fourth group is detailed through tasks such as writing essays, essays, reports, summaries, preparing projects, etc. Finally, the fifth group includes tasks of the highest level of complexity - discovering the possibility of practical application of the acquired knowledge, identifying problems and posing questions, heuristic search.

In order to use this taxonomy in practice, it is necessary to select tasks according to the objectives of the activity. This procedure can be characterised as a process of taxonomy, i.e. determining the 'value' of a task in terms of what quality of thinking needs to be generated. Lexically, each task will be preceded by appropriate stimulus words - "recall", "describe", "determine which class of concepts it belongs to", "solve", "give proof", "compose", "compose", "why", "how", etc.

Due to the taxation procedure a teacher can take into account the composition of cognitive requirements for the learning activity of students and thus control his didactic intentions as well as purposefully design and predict the course of learning taking into account the measure of task complexity and the degree of load on all types and subtypes of projected cognitive activity [5,6]. One and the same learning task can be "sharpened" to achieve several goals, the main thing is that the teacher, using them in the classroom, should be able to understand these goals.

Here are some examples of tasks that we have used as part of implementing the task-based approach to teaching.

The task (to identify and develop the ability to understand the essential features of pedagogical notions, processes, phenomena, consistency in reasoning, reasoned choice from a set of theoretical provisions).

"Analyse several textbooks and find definitions of the essence of the learning process. Compare these definitions. Identify the differences in the interpretation of this concept. Which definition best reflects the essence of the learning process? What justifies your opinion?"

The task (aimed at forming students' ability to navigate in a complex environment, to use psychological and pedagogical knowledge quickly, promptly and to apply it in non-standard conditions).

"At a mathematics lesson the teacher, before starting to deduce the formula for the area of a circle, offered the pupils the following problem: "For bridges over small rivers, a pipe is placed under the bridge, the carrying capacity of which should be not less than the carrying capacity of the river bed. Calculate the smallest diameter of the pipe so that the river water can flow freely through it. The cross-section is a trapezoid with a base of 5 and 9 m, and a height of 1.2 m".

The pupils work out the solution by themselves, finding the cross-sectional area. The teacher helps them determine the diameter of the pipe.

Determine which method is used by the teacher in the lesson? Is the help provided by the teacher justified in solving the second half of the problem?

The tasks used in teaching practice can also be classified according to their level of difficulty. In this case, students can either choose and solve more difficult tasks independently, and therefore consciously, or do so under the guidance of the teacher, who distributes tasks according to the degree of preparedness of the students. Of course, independent choice of the task is encouraged, which is regarded as a manifestation of creativity and initiative thinking.

It should also be noted that the use of training tasks in the classroom can solve a twofold problem: revealing the level of preparedness of future teachers for the forthcoming activity and mastering the basic solution techniques by the students themselves. The success in applying the task-based approach largely depends on skillful anticipatory management of their activities in the learning process.

References

1. Baranov S.P. The essence of the learning process. - Moscow: Prosveshcheniye, 1981. - 143 c.
2. Kurashinova A.Kh. Technology of solving pedagogical tasks on the basis of the orientational basis of actions. In the collection: Modern scientific research in pedagogy and psychology collection of research results. Kirov, 2018. p. 409.
3. Kuzmina N.V. Essays on the psychology of teacher work., 1967. -182 p.
4. Tollingerova D. Psychology of designing children's mental development / D. Tollingerova, D. Goloushova, G. Kantorkova. - Prague: Rospedagency, 1994. - 48 p.
5. Problems of Optimal Decision-Making in Pedagogical Activity: Collection of Scientific Works / Ed. G.A. Pobedonostsev (ed.) et al. - MOSCOW: APN SSR, 1984. - 97 p.
6. The Ways of Increasing Management Efficiency in Higher Education. - JL., 1978. - 198 p.