

COMPONENTS OF THE PURPOSE AND CONTENT OF THE METHOD OF DEVELOPING CREATIVE COMPETENCES OF FUTURE ELEMENTARY SCHOOL TEACHERS BASED ON A COMPLEX APPROACH

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Abstract. *In this era of global competition, the creative thinking is very important, because the level of complexity problems in all aspects of modern life is high. A balance between logic and intuition is essential. What are competency-based tasks? What are the main groups of goals for the development of creative competence? What are the principles of developing creativity-based mathematical tasks (CBMT)? The answers to these questions are the focus of this article.*

Keywords: *creativity, creative ability, creative person, creative potential, creative competence, creativity-based tasks.*

Introduction. Deep socio-political, spiritual and economic shifts in the world are prompting the reform of the education system, which should provide conditions for the development and self-realization of each individual, the priority of universal human values, the formation of generations capable of learning throughout life, the creation and development of the values of civil society. Competence is a systemic concept, the significant components of which are motives, goals, value orientations, knowledge, abilities, skills, reflection. Competence is a component of this system, the basis for the formation of competence, a structural and functional unit of competence. In the concept of "competence" such parties are distinguished as the ability and readiness for effective activity. It is believed that competence is mastered by a person in the educational process, and competence is formed in the process of this development. Within the framework of this approach, design education must be considered as a special quality and type of education, as a result of which the upbringing of a project-thinking person takes place, in whatever area of social practice he or she acts - spiritual culture, production, science (including practice), household sphere, etc. One of the main goals of education is the formation of a sense of humanitarian dignity, high spirituality, and an aesthetic rich worldview in students, where the main value is considered the human being, and attention is paid to the development of the individual.

Teaching mathematics gives the future primary class teachers the opportunity to develop thinking qualities such as abstraction, algorithmic, logic, flexibility, originality, breadth and depth of mental activity of the student to master new areas of knowledge and gain experience in creative development. The totality of these qualities determines the mathematical worldview and "helps a person to strive for the truth and beauty, to begin the mathematical culture, to master the scientific foundations of the profession, ways of rationally changing the world and oneself" [2].

At the same time, it is necessary to define the goals of forming the creative competence of future primary school teachers as one of the results of teaching mathematics in higher education and to implement on the basis of normative documents and the structure of this competence.

Taking into account the above, we form the main groups of goals for the development of creative competence of future primary school teachers based on a comprehensive approach:

- Formation of knowledge about the creative methods of solving mathematical problems and the mathematical knowledge required in the creative activities of future elementary school teachers;

- Formation of students' knowledge and skills on ways of developing students' creativity;
- Formation of mathematical modeling ability in solving problems that require solving non-standard professional (pedagogical) situations;
- forming the attitude of future elementary school teachers to creative activity;
- forming the experience of performing the main actions of creative activity (analyzing and synthesizing existing data, searching for a solution to a problem in a non-standard situation, transferring existing knowledge to a radically new situation, etc.).

It is necessary to enrich the content of mathematics teaching in accordance with the goals of forming the creative competence of future elementary school teachers based on a comprehensive approach.

A didactic element that enriches the content of the lesson is represented by a set of mathematical tasks aimed at creativity [1].

Competence-based tasks mean tasks that model standard or non-standard life and professional situations and require independent knowledge activity from students, as well as personal qualities that determine readiness for such activity.

Analyzing the requirements for the development of competence-based tasks of various authors, taking into account the above-described conditions for the formation of creative competence of future primary school teachers and the content of teaching mathematics to students in different fields, we emphasize the development principles of CBMT:

1. The formulation of the task should include some problems and encourage students to implement elements of creative activity.

2. The goal of the task should be to give students the experience of gaining new knowledge and consciously engaging in creative activity in solving mathematical problems.

3. The task condition is formulated as a problem or problematic situation to be solved using mathematics. However, the task condition should not specify the necessary mathematical knowledge to be applied or the mathematical operations to be performed.

4. Implies the determinism of the student's actions in performing the task, that is, the method of performing the task is not completely known to the student or consists of a combination of methods known to him.

5. Information in the task may be redundant, missing or contradictory. The student must select the information necessary to solve the problem or, if there is a deficiency, look for additional information. The information in the task can be presented in different forms: picture, table, diagram, graph, text, video, etc.

6. The result obtained in solving a mathematical problem should be important for students, so it is appropriate to use the life experience of students, as well as explicit or implicit instructions about the scope of the result.

7. The CBMT complex should be aimed at forming and developing all components of the creative competence of future elementary school teachers in the process of teaching mathematics.

Taking into account the stated principles of CBMT development, their classification in this study is the orientation of tasks for the formation of one or another component (cognitive, motivational, active, reflexive) of the creative competence of future elementary school teachers,

therefore, each component of creative competence corresponds to a group of mathematical tasks focused on its competence.

1. Tasks aimed at forming and developing the cognitive component of creative competence. This CBMT group involves students working with the concepts of "creative competence", "creative qualities", "creative activity", as well as learning about creative methods of solving mathematical tasks (1st stage - teaching the subject "Theory of Elementary Mathematics Course"), Formation and development of creative competence of students using mathematical apparatus (2nd stage - mastering the course chosen by students "The role of creative mathematical activity in the professional activity of a subject teacher", 3rd stage - performing alternative research tasks). Tasks are evaluated on a scale from 2 to 5 points.

At the same time, the content of the tasks should correspond to the students' current knowledge of mathematical sciences and the psychological-pedagogical block.

2. Tasks aimed at forming and developing the motivational component of creative competence.

The tasks of the first stage of forming the creative competence of future elementary school teachers are tasks that allow to determine the student's interest in performing creative activities within the framework of educational and future professional (mathematical) activities, to express his attitude to creative activities, as well as to evaluate the activity of creative, personal qualities in self-development (fluid thinking, risk-taking, etc.)

3. Tasks aimed at forming and developing the activity component of creative competence.

Completing the tasks of this group includes analyzing and synthesizing existing information by students within the framework of solving mathematical tasks, creating ideas, transferring knowledge and skills from the field of science to another one adjacent to it, and includes the implementation of similar elements of creative activity. At the same time, it plays an important role in the formation of tasks: it is non-standard, and it puts the student in front of the need to identify a problem in the proposed situation, to carry out a variable search for a solution. The lack of direct presentation of mathematical knowledge and solution methods that should be used to solve the problem gives the student the opportunity to creatively approach the choice of technologies and methods of activity.

REFERENCES

1. Бекешева И.С. Задачный подход к формированию креативной компетентности будущих учителей при обучении математике/ И.С. Бекешева (Егорова) // Вестник Красноярского государственного педагогического университета им. В.П. Астафьева – Красноярск: «Литера-принт» - 2017. - №2
2. Егупова, М.В. Задачи на приложения математики в методической подготовке учителя в педвузе / М.В. Егупова // Концепция развития математического образования: проблемы и пути реализации: Материалы XXXIV Международного научного семинара преподавателей математики и информатики университетов и педагогических вузов. – Калуга, 25-27 сентября 2015 г. – С. 319-321
3. Seytmuratov S.T. Bo‘lajak boshlang‘ich sinf o‘qituvchilarning kreativ kompetentlikning: tuzilishi, shakllanish mezonlari va darajalari// TDPU ilmiy axborotlari.-Toshkent №10 2023.