

A TOOL FOR DEVELOPING METHODOLOGICAL COMPETENCE OF FUTURE PRIMARY SCHOOL TEACHERS

Nurillaev Samad Safarovich

Assistant of Uzbekistan-Finland Pedagogical Institute

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***Annotation.** This article includes the development of the professional-methodical competence of the primary school teacher and his readiness for professional-methodical activity. It includes the stages of designing and building pedagogical technology, the professional-methodical competence (PMK) development system of the future primary school teacher, the professional-methodical competence of the future primary school teacher the components of the development system, the activity-based approach to teaching, the technology of the activity-based approach to teaching mathematics are described.*

***Key words.** competence, cognitive, component, motivational environment, analytical, intellectual, design, organizational, creative, constructive, communicative, diagnostic, reflexive, constructive.*

The methodical training of the future primary school teacher includes the development of professional and methodical competence of the future primary school teacher and his readiness for professional and methodical activity. The "Teaching theory and methodology of Mathematics" (TTMM) course occupies a central place in the methodological training of the future teacher at the pedagogical higher education institution. According to scientist V.F.Lyubicheva's opinion, which we fully agree with, this course serves as the most important system-developing component of the methodological system of training future elementary school teachers at the Pedagogical Higher Education Institution, and sets the didactic conditions for the holistic process of professional development of the future teacher.

V.F.Lyubicheva analyzes the relationship of the "Teaching theory and methodology of Mathematics" (TTMM) course with the main blocks of vocational training listed in the HPE SEP (higher professional education in state educational standards). This analysis showed that the "Theory and Methodology of Mathematics Education" course is familiar with all the main blocks, because each one in one way or another serves as a scientific-theoretical basis for preparing a future primary school teacher for the profession. The course "Teaching theory and methodology of Mathematics" combines broad psychological, pedagogical and mathematical knowledge, and therefore the methodology is based on:

- 1) psychological-pedagogical and scientific-mathematical blocks - as a scientific-theoretical basis;
- 2) cross-cultural block in the formation of the pedagogical culture necessary for productive communication and pedagogical interaction in the future mathematics teacher.
- 3) methodological-biological block to ensure the ecology of the personality of the teacher and students, to create favorable conditions for the development of students and to satisfy their needs for knowledge through human pedagogical interaction.

According to scientist Z.I.Yansufina, "Course of Theory and Methodology of Teaching Mathematics" is "responsible for introducing the general theories of education, teaching and upbringing into the work practice of the primary school teacher, therefore, it is necessary to manage

the placement of psychology and pedagogy courses while performing the function of the social orderer of psychological and pedagogical training of the primary school teacher. Mathematics preparation (education) should be implemented as a holistic career-oriented system and should therefore also guide the placement of science-related mathematics courses.

At one time A.A.Stolyar spoke about the isolation of the mathematics teaching methodology course, its separation from the psychological and general didactic foundations of the methodology. Analysis of modern studies, A.A.Stoliar shown that the problem raised by has it is still relevant. To eliminate this shortcoming, A.A.Stolyar considers the need to distinguish three levels of educational theory as the main direction of improving the course of mathematics teaching methodology: the psychological theory of teaching, on the basis of which a general didactic theory of education should be built, and on the basis of the general didactic theory - a specific methodological theory that takes into account the specifics of mathematics should be built. The role of methodical training in the general education of the future primary school teacher sets the following goals and objectives:

- to create an understanding of the main directions of the modern modernization of higher education mathematics education related to humanization, humanitarianization, stratification, person-oriented teaching, introduction of new pedagogical technologies, etc.;
- to develop ideas about the main ideas and methods of mathematics for studying and knowing the surrounding reality;
- introduce the historical aspects of mathematical education in Uzbekistan;
- development of personal qualities necessary for the productive methodical activity of the elementary school teacher;
- formation of readiness to start working as a primary school teacher in a modern secondary school; providing specific methodical knowledge, qualifications and skills necessary for practical application in professional-methodical activity;
- providing the necessary qualifications for scientific research activities in the field of mathematics teaching methodology.

Therefore, the course "Teaching Theory and Methodology of Mathematics" includes the elements of the theory of mathematics teaching and the technology of its application to the specific topics of the school mathematics course.

Since the goals and objectives of the "Teaching Theory and Methodology of Mathematics" course include the formation of professional-methodical knowledge, professional-methodical skills, and professionally important personal qualities of students, its content allows for the development of all professional-methodical competencies of the future elementary school teacher.

In other words, the course "Teaching Theory and Methodology of Mathematics" can serve as a basis for creating a technology for developing the professional-methodical competence of a future primary school teacher.

In order for the process of developing the professional-methodical competence of the future elementary school teacher to be technological, its design must obey certain requirements determined by the specific features of the design of pedagogical technology.

According to scientist V.M.Monakhov, pedagogical technology is a method of systematic organization of the joint activities of teachers and students, a well-thought-out model that includes the design, organization and conduct of the educational process. It refers to the construction of the educational process in which "all actions of students and teachers included in it are presented in a certain sequence and integrity, and their implementation guarantees the achievement of the planned result".

V.M.Monakhov distinguishes the following aspects of pedagogical technology design:

- 1) diagnosis of students' readiness for educational activities;
- 2) designing differentiated educational goals based on diagnostics; 3) design of educational content - transfer of the designed system of goals to the system of relevant/adequate educational tasks and the system of basic methods of solving them;
- 4) designing the educational process;
- 5) designing methodological instruments/tools for managing the educational process;
- 6) evaluation of teaching results.

N.A.Sherstneva distinguishes the following stages of designing and building pedagogical technology::

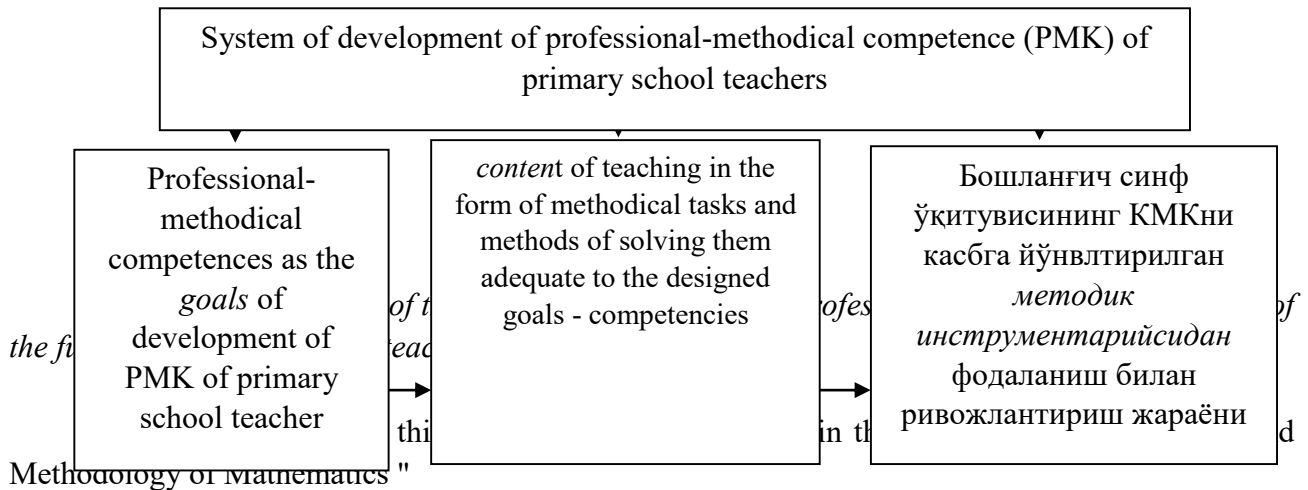
- 1) analysis of the student's future activities;
- 2) determining the content of training at each stage;
- 3) check the level of students' workload and calculate the necessary time for teaching in the given method of building the didactic process;
- 4) choosing the most optimal organizational forms of the planned didactic process of education and upbringing;
- 5) preparation of materials for the implementation of the motivational component of the didactic process on specific topics and specific activities; include them in the previously formed content of the training course;
- 6) developing a system of educational tasks and including them in the content of educational manuals;
- 7) development of materials for objective control of the quality of students' acquisition of knowledge and acquisition efforts;
- 8) development of the structure and content of training sessions designed to effectively solve educational and educational tasks; planning activities and homework;
- 9) testing the technology in practice; verification of the completion of the educational process; technology reform.

V.V.Guzeev [42], V.A.Dalinger [52, 53], O.B.Epischeva [77, 78], T.A.Ivanova [93], V.M. Monakhov [170] and other scientists have developed technologies for the design and construction of the educational process aimed at achieving guaranteed results in teaching mathematics at HEIs. These technologies can also be used in teaching students (in particular, future primary school teachers), but as practice shows, teachers do not use them.

Therefore, the course "Teaching Theory and Methodology of Mathematics " is to manage the development of the appropriate methodical system for training future primary school teachers at the Pedagogical Higher Education Institution, i.e. to act as a system-developing factor in the development of the professional-methodical competence of the future primary school teacher, and to guarantee the achievement of a sufficiently high level of its development. the learning process of the course must be built taking into account the requirements for the design and construction of pedagogical technology.

The defined, established methodological and theoretical conditions for solving the problem of developing the professional-methodical competence of the future primary school teacher at the Pedagogical Higher Education Institution and the noted features of the pedagogical technology design allowed us to express the following requirements for the design of the technology for the development of the professional-methodical competence of the future primary school teacher:

I. The system of developing the professional-methodical competence of the future primary school teacher should be a sub-system of the methodological system of teaching students of the pedagogic HEI, it should have the same structure, that is, the goals, content and features include. (1-Figure).



2) *III. In accordance with the rule on the integration/combination of the concepts of competence-based and technological approaches to teaching, the learning objectives of the course "Teaching Theory and Methodology of Mathematics "* should be:

2) to be represented by a set of professional-methodical competencies corresponding to the main types of educational-methodical activities of the future primary school teacher (V.A.Dalinger) and to be combined into three groups according to the structure of professional competence (according to V.D.Shadrikov):

- a) professional-methodical knowledge;
- b) professional-methodical skills;
- c) professionally important personal qualities;

3) according to the technology of the activity-based approach to teaching mathematics (O.B.Episheva et al.), it is given in the form of an activity;

4) they are classified according to the level of development of the professional-methodical competence of the future primary school teacher:

4) It is necessary to specify in the sections of the course "Teaching Theory and Methodology of Mathematics " and to describe in detail the specific topics of these sections.

III. According to the concept of an activity-based approach to teaching, the content of the process of developing the professional-methodical competence of future primary school teachers should be as follows:

1) it must be expressed in the form of activity, that is, it must be presented in the form of educational-methodical tasks (EMT) that correspond to the planned educational goals;

2) it is necessary to include educational-methodical tasks (EMT) to solve the main types of educational-methodical tasks.

IV. According to the technology of the activity-based approach to teaching, the stages of development of the professional-methodical competence (PMK) of the future primary school teacher and the levels of his development should be correlated with the development stages of the educational-methodical activity (EMA) used to perform multi-level educational-methodical tasks (comparison with the stages of development

It should be noted that the fourth level of development of the professional-methodical competence of the future elementary school teacher (methodological culture) is achieved by the specialist directly in the process of professional-methodical activity at the school, therefore, as a rule, students cannot reach it when they study the course "Teaching Theory and Methodology of Mathematics " and after that we will not consider this issue.

V. In accordance with the main theoretical rules of the technology of the activity-based approach to teaching mathematics and the theory and methodology of teaching mathematics, in the course "Teaching Theory and Methodology of Mathematics", it is necessary to organize the following tools/instrumentation for the development of the professional-methodical competence of the future teacher using educational-methodical activity methods:

- a) solving/fulfilling educational-methodical assignments;
- b) to solve them, depending on the stage of the educational process, create educational-methodological situations with the help of active profession-oriented methods of education;
- c) use of specially developed training manuals as teaching tools aimed at developing the professional-methodical competence of students with the help of educational-methodical tasks, the content of which is expressed in educational-methodical tasks of different levels.

VI. According to the activity-based approach to teaching, monitoring and evaluating the level of development of students' professional-methodical competence and methods of educational-methodical activity are three: introductory, current, final, and four (zero, first, second) of the development of the professional-methodical competence of the future primary school teacher at the third level; fourth - it must be done excluding the level of methodical culture.

Thus, we substantiated the role of the "Theory and Methodology of Mathematics Teaching" course in the development of the professional-methodical competence of the future primary school teacher, identified the features of the organization of learning, and justified the requirements for the design of the technology for the development of professional-methodical competence.

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