

The Pedagogical Basics of the Formation of Skills of Analytical Thinking through the Development of Mathematical Competences in the Students of Primary Schools

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ABSTRACT

The following article reveals the factors that the teacher should follow in the didactic process in order to form analytical thinking skills through the development of mathematical competences in primary schoolchildren, planning, organization of activities, creative approach to it; self-presentation, analysis of the situation; social interaction with the participants of the pedagogical process; tireless work on oneself, critical thinking is analyzed through the means of available national and international literature.

KEYWORDS: *competency approach, modern requirements, assessment of the situation and solution of problems, possession of management skills, evaluation, establishment of re-connection, possession and application of mathematical competences in practice, pedagogical activity.*

Introduction. The education sector will play an important role in achieving the ultimate goal of comprehensive reforms in Uzbekistan. This puts the task of increasing the effectiveness of educational activities in the primary grades on the basis of modern requirements.

The practice of conducting research in the formation of analytical thinking skills through the development of mathematical competencies in primary school students is described in detail in the dissertation (PhD) of Pardayeva Mehriniso Doniyarovna on “Management of the organizational and methodological system for the introduction of a competency-based approach in secondary schools”.

Discussion. In this dissertation, the term “competence” is defined in the dissertation, which focuses on the design of state educational standards and curricula based on a competency-based approach, a promising model for the introduction of a competency-based approach in secondary schools. The study shows the material and technical base, pedagogical potential, the system of taking into account the individual characteristics of students, administrative staff in the staffing, teaching staff, methodologists, monitoring specialists, infrastructure, building equipment, necessary for the introduction of a competency approach in general secondary schools. At the same time, the model reflects the indicators, tools, methods and processes that are necessary for assessing the quality of education.

Critical thinking is thinking about things in certain ways so as to arrive at the best likely solution in the circumstances that the theorist is aware of. In more everyday language, it is a way of thinking about whatever is presently lodging your awareness so that you come to the best possible conclusion.

The term “competence” is described in terms of teaching biology in the dissertation of A.K.Rakhimov on “Improving the methods of developing natural-scientific worldview in students (on the example of teaching the subject of “Evolutionary doctrine”)” (DSc). In his research, the scientist described the system of competencies that future professionals acquire in their personal, social, spiritual, educational, economic and professional relationships throughout their lives.

The author of the dissertation is aware of the scientific and basic competencies of students, including communicative, information and communication technologies, competencies for personal development as a person, socially active civic competence, general cultural competencies, mathematical literacy, science and technology news. and provides detailed information on the features of creating an innovative learning environment based on competency-based approaches in teaching the subject of “Evolutionary Doctrine” in order to have the competence to use them.

In the formation of analytical thinking skills through the development of mathematical competencies in primary school students, the teacher is required to:

- consistent perception of pedagogical reality;
- orientation to the field of science;
- mastery of pedagogical and information technologies;
- to organize interpersonal communication;
- to receive, process and use information on their science, field of activity;
- be able to share learning information with others;
- requires a certain degree of formed worldview.

These components are an integral part of the formation of analytical thinking skills through the development of mathematical competencies in primary school students.

The way analytical thinking works is based on two basic processes:

- The creative process, accompanied by the search for new knowledge and information;
- A formal process, accompanied by the analysis and synthesis of data, as well as conclusions and consolidation of the final result in the mind.

The development of analytical thinking is a very important issue, because analytical skills in themselves are required for each of us in order to better understand, remember and assimilate information, draw conclusions, make decisions.

In the didactic process, the teacher follows the following in order to form analytical thinking skills by developing mathematical competencies in primary school students:

- planning, organization of activities, creative approach to it;
- self-expression, ability to analyze the situation;
- social interaction with the participants of the pedagogical process;
- working tirelessly on yourself;
- situation assessment and problem solving, management skills, etc.

In the development of mathematical competencies in students, attention is paid to the acquisition of knowledge, skills, as well as the manifestation of personal values, qualities, qualifications in the future educational activities.

In the formation of analytical thinking skills through the development of mathematical competencies in primary school students, the following are the main requirements that ensure the necessary and adequate level of teacher preparation for pedagogical work in the educational process:

First, to have knowledge of pedagogy and psychology, to work on themselves, to plan, evaluate the educational process, to provide feedback;

Second, the formation of didactic motivation in students;

Third, to know the characteristics of the development of the student;

Fourth, mastery and practical application of IT and mathematical competencies;

Fifth, be aware of universal and universal cultural values and use them throughout your career;

Sixth, participation in the social life of the country;

Seventh, to innovate in the educational environment, to know one's subject perfectly;

Eighth, communication, tolerance, empathy, leadership, activism and initiative, responsibility;

Ninth, to analyze their activities, to plan the effectiveness of competence, to set goals and objectives, to make predictions, to be able to express themselves, to correct shortcomings, and so on.

Pedagogical activity is a professional activity of a teacher aimed at solving the tasks of education and upbringing of students and carried out by means of pedagogical interaction.

The teacher does several of these activities:

- *teaches and educates,*
- *shows the instructions,*
- *forms,*
- *propagandizes,*
- *engages in independent learning.*

All of this is directly or indirectly focused on solving the tasks of teaching and educating.

Motivational during pedagogical activity:

- the target stage is manifested in the stage of understanding the situation;
- motives emerge, mental preparation for the activity is created, goals and objectives are set and changed;
- the teacher's influence on the mental development of students is coordinated;
- methods of pedagogical self-analysis (diagnostics, forecasting, control) are used;
- the assigned task is solved;
- the allowed pedagogical shortcomings are eliminated.

Like other types of human activity, pedagogical activity consists of features that differ from each other: purpose, object, subject and means. These are:

Firstly, the purpose of pedagogical activity is determined by society, the result of pedagogical activity is connected with the interests of society. Her work should be aimed at the full development of the personality of young people. Pedagogical activity ensures the social identity (sequence) of a generation, transmits the experience of one generation to another, directs young people towards social relations, realizes the natural potential of man to gain social experience.

Secondly, the pedagogical activity is always related to the management of the individual's activities. It is important that the pedagogical goal becomes the goal of the student. Achieving it will not be easy. The educator needs to have a clear idea of the purpose of her activity and ways to achieve it, and be able to explain to them that achieving the goal is important for the students as well.

Thirdly, the management of student activities in the pedagogical (education, upbringing) process is therefore complex — the pedagogical goal is always to focus on the student's future. The educator imagines this goal more clearly than the student. And the reader, in many cases, lives with the

worries of the present, the present, because of a lack of life experience, and cannot fully imagine the future. Teaching is a creative activity. As the teacher gains more experience, she is not satisfied with the original teaching materials, she tries to use new materials in the teaching process. To do this, she must have a sense of creativity. If there is a sense of creativity, the educator is sought, works on herself. Emotional preparation - creates a sense of creativity in the teacher.

Most importantly, the teacher needs to identify his or her emotional relationships in the classroom. When presenting teaching materials in mathematics through words, the teacher should pay attention to the tone, gestures, facial expressions, art, to follow the logical continuity of ideas.

Results. The basis of the first direction is the high professional ethics of the teacher. About this direction scientists like M.O.Knebel, I.P.Volkov, V.F. Shatalov, M. Ochilov, O. Rozikov have expressed their views. According to them, the relationship with students and pedagogical feelings are formed on the basis of this direction.

The second direction is friendly relations, which are formed in educational activities. Friendly relationships provide communication management.

The third line is that it is important to communicate remotely. There should be a certain distance between the educator and the student. The distance should not be too long. Otherwise, the formality will increase and the creative environment will not be formed. If the educator keeps his/her distance, his/her reputation will increase.

The fourth direction is intimidation-based communication, which is a negative form of communication. Some educators communicate by intimidating students. Because their pedagogical skills are not well formed. This hinders mutual understanding. Critical scholars meticulously question ideas and assumptions rather than accepting them at face value. They will continuously pursue to determine whether the ideas, influences and findings represent the entire depiction and are open to finding that they do not.

The fifth direction is communication, which is organized to gain a false reputation, and some young teachers use lies because they are not qualified enough. A teacher who uses this method lacks a general pedagogical and communicative culture. Thus, the introduction of communication on the basis of the first and second directions - serves the effective conduct of the process of education and upbringing.

Conclusion. Thus, the formation of analytical thinking skills through the development of mathematical competencies in primary school students is an important socio-pedagogical phenomenon, the comprehensive study of which is important. Because, according to the World Bank, mathematical literacy plays an important role in the modern economy, and 16% of the total wealth of any country is material capital, 20% natural resources and 64% human capital, and 80% of national wealth is human capital.

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