THE FORMATION METHODICS OF SKILLS OF ANALYTICAL THINKING THROUGH THE DEVELOPMENT OF MATHEMATHICAL COMPETENCIES IN THE STUDENTS OF ELEMENTARY SCHOOLS

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Abstract: *Formation of analytical thinking skills through the development of mathematical competences in primary school students, the use of collaborative and intensive methods, orientation to full coverage of the effectiveness of teaching mathematics on the basis of the application of innovative techniques, innovation technologies, mastering of new knowledge, skills and competences in the field.*

Key words: *development of Mathematical Literacy competences, formation of analytical thinking skills by developing mathematical competences in primary school students, pedagogical phenomenon, research activity, mathematical literacy competency, Special Research object.*

I. Introduction

The global processes taking place on a global scale and as a result of it, the integration of cultural, social, economic, political relations between countries, regions and peoples is contributing to the development of the students ' mathematical literacy competences.

The educational process is enriched with innovative pedagogical technologies, approaches, interactive methods, computerization and communication conditions, the performance of coaching services in relation to the training of school graduates is increasing.

The formation of analytical thinking skills through the development of mathematical competences in primary school students is widespread through the use of collaborative and intensive methods and is directed to the full coverage of the effectiveness of teaching mathematics on the basis of the application of innovative techniques.

II. Methods

The leadership of Uzbekistan is the introduction of advanced methods of teaching mathematics through the use of modern pedagogical and information-communication technologies, improving the quality of Education. Therefore, the formation of analytical thinking skills through the development of mathematical competences in primary school students is one of the most important issues in the methodology of teaching mathematics.

In our country at the stage of modernization of mathematics education is determined by the need to develop the scientific basis for the formation of analytical thinking skills through the development of mathematical competences in primary schoolchildren, educate the younger generation with deep knowledge, logical observation, mastering practical skills and skills.

Formation of analytical thinking skills through the development of mathematical competences in primary school students is a socio-pedagogical necessity, because the formation of analytical thinking skills in senior class students in many ways contributes to the solution of educational problems, the increase in its effectiveness. Therefore, it is important to create a wide opportunity for young people to master their knowledge in life at the present time so that they can fall. This task requires a high level of improvement in the quality of education, the training of well-educated young people, in other words, the issue of the need for a competent, competent person with competency in the system of education and

training.

One of the bright manifestations of such a socially relevant pedagogical phenomenon is the wide range of reforms in the general system of secondary and secondary special education, ensuring the readiness of students for research activities on the measurement and evaluation of the quality of education on a global scale through the development of mathematical competences is of great importance.

III. Main part.

The law of the Republic of Uzbekistan "On Education" defines a number of tasks for the formation and development of creative, innovative competence in students [2,5]. On the basis of this priority, the continuous education system of our country, including the system of primary education, is implementing large-scale reforms on the introduction of advanced innovative technologies and information and communication tools into the educational process, increasing the intensity, effectiveness of teaching, adaptation to the world standards. This is due to the fact that the formation of analytical thinking skills through the development of mathematical competences in primary schoolchildren requires the improvement of their ability to prepare them for the future life, the normative-legal basis of the application of innovative educational technologies to the educational process, the improvement of methods, forms and tools and the improvement of their ability to have online lessons.

One of the factors determining the quality of education is the ability of students of Elementary education to acquire analytical thinking skills from mathematics. It is manifested on the basis of a pedagogical adaptation system. These include: mathematical and scientific knowledge; ability to perform various activities (give an example); creative activity-based approach to finding an effective solution to problematic situations; experience in a positive emotional attitude to society and people, nature.

In elementary schoolchildren, mathematical concessions as a didactic phenomenon combine in their own time the following alternatives: rational development, understanding of mathematical actions, their acquisition, mathematical literacy; creative thinking, being able to apply the concepts of mathematics in practical life, being able to use these concessions in social life, etc.

The mathematical competences of the students serve to the realization of the objectives of the educational process :tirishga serves to educate, educate and, most importantly, develop the knowledge and skills acquired, contributes to the increase in theirualual capacity. The concept under studyept defines a broad range of general competency in a broad sense, along with the formation of analytical thinking skills in primary school students.

Mathematical competence of students is the level of preparation associated with the acquisition of the necessary knowledge, skills and qualifications, personal-socially significant qualities, the ability to make independent decisions in concrete and non-standard situations, self-management and a sense of responsibility for each behavior, which will be necessary to conduct orientation activities in the educational, research and pedagogical process.

The development of Mathematical Literacy competency in students is seen as an integrated process based on modern approaches aimed at improving the quality of education on the basis of individual needs and qualification requirements, innovative technologies, mastering new knowledge, skills and competences in the field.

Scientific justification of the problem under study will help to find a solution to the following tavofut conflicts in the pedagogical process:

- conflicts between the needs of Primary School students who are participants in education and the current situation in pedagogical practice;
- differences between the general educational needs of the subjects of education and the preparation of the teacher for teaching the course on the basis of the general context;
- in the interpretation of scientific concepts from mathematics, their interpretation based on scientific integration is characterized differently in different teaching subjects variations in the middle;
- the current state of the need to enlighten the processes of scientific cognition on the basis of relative models in the school educational process, etc.

In ancient Greek philosophy, the issues of the development of arithmetic literacy were considered in Parmenid's work "On nature"[56,67], in the apories of Zenon (Ζήνων) from Eley [56,88], in the doctrine of Geraklite [56, 103] at that or that level. Among the logical teachings up to Aristotle, the logical teachings of the Democrit [56, 122] are notable for Socrates' inductive method [56,178] and Plato's dialectics 56, 195].

Therefore, by focusing on the forms and techniques of enriching the content of education (on the example of teaching mathematics) such scientists as A.N. Kolmogorov [52], A.I. Markushevich [65], A. I. Fetisov [99], A. Bakhromov [19], D. Makhmudova conducted scientific research.

Scientific-pedagogical and practical technological aspects of students' reflexive observation, improvement of communicative competence, preparation of effective communication technologies and techniques are elaborated by the following scholars such as developed by M.Abdullaeva [16], A. Nurmanov [76] and others.

Scientists who conducted scientific research on the problems of mental education and their application in mathematics lessons: B. Mirzahmedov, N. Mamadiyorov, A. Abduvahobov's views are significant. However, the issues of the formation of analytical thinking skills through the development of mathematical competences in primary school students have not been fully studied and have not yet found their solution sufficiently, proceeding from today's requirements. The fact that this issue was not studied as an object of Special Research was determined by the analysis of pedagogical experiments and from our observations.

Acquaintance with the content of theoretical sources has shown that the problem of development of mathematical competences in primary school students has been studied in different directions in the research work of many researchers. However, the formation of analytical thinking skills through the development of mathematical competences in primary school students has not been studied as compliance and suitability to the requirements of pedagogical activity, which provides dynamism on the basis of their socio-pedagogical orientation, serves to ensure an effective solution of future tasks.

This is expressed through a complex of integrated professional-personal qualities, as well as the content of educational activities aimed at competences. Accordingly, it is necessary to evaluate the mathematical competence of students not as a dogmatic category, but rather as a systematic process that requires constant dynamics of development throughout life. This, in our opinion, determines the purpose of improving the content and structure of the development of mathematical competence of students on the basis of innovative requirements in the conditions of modernization of Education.

In June 1999, representatives of 29 European countries signed the Bologna declaration on

edauction in one of the oldest universities in Bologna, Italy [18, P. 34.].

The term "**compensation"** was introduced into science in 1959 by White, expressing the activity performed on the basis of a high level of motivation. White acknowledged that competence is acquired by a person as a result of "being, striving-effective cooperation with the environment", hence "competence motivation" – "achievements on the basis of abilities." The study of competence as a pedagogical phenomenon took a mass toll in the 60 years of the twentieth century in the USA.

Here it was tried to prove that the crisis in the economy of the country was caused by non-competent teachers, namely because they gave shallow knowledge and lessons to the economists who served in this area, and that there was economic hardship. Special tests were developed to clarify the pupil's competence, and Mak-Klelland was able to use them as an experiment instead of the tests that determined intellekt in 1976 year. Diagnostic tests of the competencies began to be used as anti-cognitive tests.

In 1999, the American Educational Association divided into five clusters of competences (resource performance competency, interpersonal communication competency, information competency, systems interoperability, their organization, management competency and technology competences), and today the professors and teachers working in the field of Education organize their work on the basis of the same competences.

During the course of the study, the following approaches were identified in relation to the formation of content and equivalence (structure) of analytical thinking skills through the development of mathematical competences in primary school students: classifying the content of competency in the form of social, political, consciousness, responsibility, information and communication awareness, logistical competences that characterize the content of the main directions of; functional approach organization, modeling of specific tasks within the sphere and sphere of activity on the basis of a system of compensations; individual-psychological approach, which focuses on the development of operational and adaptability compensations of a specialist to specific labor market conditions.

According to the Bologna declaration, it was poured with the purpose of developing the competences, which had 29 appearance in the pupils. One of them-it was noted that it is important to develop mathematical literacy competences in them [23, p. 14.].

In this declaration, the purpose of creating a single quality educational space in the educational system of different countries, the organization of a system of analogies and, on this basis, the improvement of educational programs on the basis of competency approaches, the creation of an educational system of openness character was put forward. Today, more than 50 countries participate in the Bologna declaration system. The participants of this process are making efforts to create a single educational environment that provides an opportunity to train highly qualified specialists, form the competences of students and professors and develop under the auspices of European organizations.

These results reflect the following priorities: qualitative teaching of Educational Sciences at the international level and assessment of the quality of education on the basis of a single international program; application of innovative and information technologies to the educational process; through the use of opportunities for integration, students will be able to develop their potential, creative abilities throughout life, on the basis of a; to conduct effective case studies aimed at ensuring the quality of Education.

These places are important for the adaptation of teachers working in the system of public

education and students studying in it to the requirements of the modern and prospective labor market, innovative educational environment, new strategies of teaching, the acquisition of professional and general-purpose parameters of the constantly updated, changing and improving educational information infrastructure base, harmonization with the requirements of technological development [24, P.8.].

In the process of scientific and pedagogical analysis, it was found out that the problems of formation and development of mathematical competence were studied on the example of training specialists in most researches. Taking into account these aspects, we focused on the development of Mathematical Literacy competences in students at the stage of their future pedagogical activity and within the framework of the content of the development of competency.

The following factors are considered to be important in the development of mathematical competences in students:

1. Deentological factors-the bright appearance of pedagogical tactics (politeness), which determines the high moral and moral development of training for educational activities through the development of mathematical competences in students, demonstrate pedagogical conditions related to initiative, collective adaptability in individual relations.

2. Acmeological factors-individual-spiritual maturity, which ensures the formation of analytical thinking skills through the development of mathematical competences in primary school students, determines the pedagogical conditions and laws relating to the peculiarities of their development in different age periods, reflexivity and creativeness.

Formation of analytical thinking skills through the development of mathematical competences in primary school students metacognitive factors: content knowledge, that is, personal capacity, the level of available preparation, combining the motivational, intellektual and emotional sphere with the highest opportunities for Personality Development; Process Knowledge-new knowledge and skills that are mastered in the process of solving complex and non-standard tasks of educational activity; strategic knowledge-includes

There are certain complexities in educational practice in the formation of analytical thinking skills through the development of mathematical competences in primary school students:

Firstly, it is possible to observe that for the participants of the training, the compensations are considered as a trend necessary for the new imitation, from which there is a state of use in the teaching materials as a modern term, but not serving to improve the quality of Education;

Secondly, the need for the introduction of educational models is felt during the study of foreign innovative experiences on the modern organization of educational goals, content and essence;

- thirdly, the fall is marked by the fact that an inalienable analysis of the theory and practice of education with its social, economic, political factors is not enough. However, advanced foreign experience shows that assessing the effectiveness of quality of education on the basis of competency approaches is carried out at a three-approach level: an approach aimed at improving skills and Skills (USA), a functional approach (UK) and a multidimensional, holistic approach (France and Germany)]. **“Competence”** is an understanding of a person's ability to acquire knowledge, experience, self-respectability and the potential to solve a particular problem and issue, phenomenon[78-b.] [1].

“Competency” -refers to events, to be aware of the solution of issues, to have a certain prestige

[1] Педагогик атамалар луғати. -Тошкент:Меърос, 2014.-15-бет.

[82-b] [2].

In scientific research, competence as a pedagogical phenomenon began to be studied from the 1970s of the twentieth century.

As a result of the world research on the problems of pedagogical competence and their solutions, a number, including the following scientific results, were obtained: methods of guaranteeing the quality of education on the basis of competency approaches were classified.

IV. Results

This can be cited as, for example, the Tokyo Pedagogical University of Japan, the Chonnam National University of South Korea, the Shanghai Educational Evaluation Institute in China, the Moscow State University for training and increasing pedagogical competence of management personnel of Russia, the main scientific and methodological center and educational and scientific center of Uzbekistan.

Conclusion

It is worth noting that, as a result of the above-mentioned dissertations, scientific developments, conducted critical analyzes, research, the formation of analytical thinking skills through the development of mathematical competences in primary school students in the scientific, methodological literature related to the problem, but not separately studied. Therefore, the issue of the formation of analytical thinking skills through the development of mathematical literacy competences in students is subject to in-depth study as a socio-pedagogical phenomenon.

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