

# IMPROVING THE EFFECTIVENESS OF TEACHING THROUGH COLLABORATIVE TEACHING TECHNOLOGY IN PRIMARY SCHOOL MATHEMATICS

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(primary education) 1st year master's degree

**Annotation:** This article provides pedagogical advice on how to organize collaborative activities in elementary math classes. It also explores ways to make learning more effective through collaborative learning technology in math lessons.

**Keywords:** elementary education, mathematics, collaboration lessons, technology, methodology.

The use of a wide range of innovative technologies in the education of the younger generation, the promotion of modern pedagogical technologies is a modern requirement. Extensive measures are currently being taken. In accordance with the laws of the Republic of Uzbekistan "On Education" and "On the National Training Program", to ensure the continuity and consistency of teaching general education subjects, the creation of modern methodologies, general Improving the state educational standards of secondary and secondary special, vocational education on the basis of a competent approach, the development and implementation of a new generation of educational and methodological complexes.

Today, in order to solve non-standard, non-traditional and more complex problems in mathematics, they are not taught in depth how to create models. Developed by R. Johnson, Professor of the University of Minnesota, D. Johnson (1987), S. Sharon (1988), Professor of the University of California.

Collaborative teaching, developed by American scholars, is mainly aimed at developing students' knowledge, skills and competencies as outlined in the DTS

and science program, and collaborative teaching as recommended by Israeli and European scholars. The processing of the study material involves the development of design activities, training discussions and debates. These ideas complement and didactically enrich each other.

Realizing that the technology of collaborative learning leads to the success of each student in the group, the ability to work independently and diligently, to master the material for the full and quality performance of educational tasks, to cooperate with peers. 'lib prepares the ground for mutual aid. There are several ways to organize collaborative learning in collaborative learning technology:

1. In team teaching (R. Slavin) students are divided into two equal teams. Both teams perform the same task. Team members work together to complete the learning tasks, focusing on each student acquiring the knowledge, skills, and competencies required for the topic. R. Slavin, one of the authors of Collaborative Learning Technology, argues that it is not enough to instruct students to complete assignments collaboratively. Students need to have a real partnership, a sense of joy in the success of each student, a sense of sincere support for each other, a favorable socio-psychological environment. In this technology, in determining the quality of students' acquisition of knowledge, they are not compared with each other, but with the daily result of each student compared with the previously obtained result.

2. Collaborative teaching in small groups (R. Slavin, 1986). In this approach, small groups of 4 students. The teacher explains the topic first, and then the students' independent work is organized. The assignments given to the students are divided into 4 parts, and each student completes a certain part of the assignment. At the end of the task, each student thinks about the part he / she has done, teaches his / her peers, and then the group members draw a general conclusion about the task.

The teacher listens to the information in each small group and monitors and evaluates the knowledge using test questions. Students' learning activities in small groups can be organized in the form of games or individually. Research on teacher-student collaboration focuses on the development of interpersonal relationships, describing the process of group teaching. An important factor in interaction and the basis for determining the nature of student interaction are the forms of student-teacher interaction. Collaborative learning is a special type of teacher-student relationship and interaction that provides the reconstruction of the object of learning, all parts of cognitive activity. The activity of the students gradually increases and becomes a completely self-directed practical and mental movement, and the relationship between the teacher and the student becomes a partnership position.

**There are 8 forms of cooperation in the field of pedagogy and psychology. They are as follows:**

1. *entry into operation;*
2. *independent actions are performed by the teacher and the student;*
3. *The teacher initiates the action and engages the student in it;*
4. *imitation actions (the student who learns from the teacher acts according to this pattern);*
5. *Supportive actions (the teacher helps the student to choose an intermediate goal and ways to achieve it, and monitors the final result);*
6. *self-management actions (teacher participates in the assessment of the final result in the indication of the overall goal);*
7. *self-expression actions;*
8. *Self-organizing actions.*

Interactivity is the interaction between teacher and student. In the process of transition to the stage of improvement of cooperation, there is a rise from the assessment of interaction to the level of self-assessment. This process is one of the

most important factors in the dynamics of cooperation. The idea of collaborative learning is not just to do learning tasks together, but to learn to read together.

It is clear that in the traditional methodology, taking into account the development of the student's personality, no attention is paid to the development of knowledge and skills, and then to the development of skills. The teacher tries to give the student as much information as possible about the topic being studied. Teacher: Does not follow a three-step model of cognition, such as collecting, selecting, processing, and applying learned information. The next step is for the student's cognitive activity (acquired knowledge) to move to a new level, that is, the process of activating cognitive activity. Only then can knowledge become skill, and skill become skill. The activation of students' cognitive activity is based on a number of principles: interest in the study of science, based on basic phrases, the use of problem-based methods, the organization of independent work, the organization of group and individual work, the use of visual and technical aids. linking, establishing interdisciplinary connections, and so on.

One of these forms of collaboration, which creates all the necessary conditions for the overall development of the student, involves cooperation with another person. It is a learning collaboration that aims to teach students to know themselves. Collaborative teaching or small group teaching is a humanistic technology in pedagogy. The main purpose of this technology is to create conditions for students to actively engage in joint learning activities in different learning situations. The idea of collaborative reading is not just to do things together, but to read together!

**The technological process of collaboration in elementary school math consists of the following elements:**

- ❖ *Assignment of knowledge (problem situation);*
- ❖ *Divide into groups according to their goals;*
- ❖ *Distribution of didactic material;*
- ❖ *Group work planning;*
- ❖ *Individual performance of the task, discussion of results;*

- ❖ *Discuss the overall mission of the group;*
- ❖ *Reporting the results of group work;*
- ❖ *Make a general conclusion about the work of the group and the achievement of the task.*

The purpose of collaborative learning activities is to create a mechanism for managing activities and collaborative actions, attitudes, and communication. The product of collaborative activity is the emergence of new ideas put forward by students and goals related to the nature of the activity being mastered and the desire to manage the position of the person in the partnership. A collaborative approach is a system of teacher-student interaction. This behavior begins with the teacher's help to the student.

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