



# The Use Of Technology Techniques In The Formation Of Critical Thinking Of Schoolchildren As A Means Of Personal Self-Development

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## ABSTRACT

The article discusses the role of using interactive methods, as well as the introduction of critical thinking development technology in the classroom.

## Keywords:

Information technology, critical thinking development technologies, professional competence, interactive methods, integration

Society has set before education the task of raising a free, developed and educated individual, capable of living and creating in a constantly changing world. Education is designed to help future citizens self-develop: teach them to learn, act, communicate, live in harmony with themselves and with other people, which will allow them to enter the world community and function successfully in it.

It is well known that the intellectual development of an individual in our time is determined not by the volume of knowledge, information, the ever-increasing volume of scientific information, but by a person's readiness to select the necessary knowledge through critical analysis, comprehension of information and the ability to make decisions independently.

The teacher faces a number of difficulties:

- there is a decrease in the level of independence of students;

- students quickly lose interest in learning.

Therefore, I consider the use of technology for the development of critical thinking (TRCM), the initial ideas of which are: the development of the child's authorial position in the educational process and the non-judgmental nature of the reaction to students' statements during learning, as a priority direction of my work. The teacher becomes an assistant in the student's work, an organizer of independent educational knowledge, and also a collaborator in finding solutions to problems. Critical thinking begins with asking questions and understanding the problems that need to be solved. Critical thinking strives for persuasive argumentation.

In lessons of an oral-practical nature, such as literary reading, the world around us, history, where we often have to work with texts, I use some well-known techniques for developing critical thinking that make it possible to enliven the lesson, make it exciting

and emotional. Of course, the lesson requires prudence and rigor, but the atmosphere of joyful elation accompanying search and creativity is the key to success in the joint activities of teacher and students.

The problem stimulates the thinking process, but independent critical thinking is possible only on the basis of certain knowledge and comprehension of previously acquired experience. For the development of critical thinking, it is very important, of course, to know the above areas of its application, but this is not enough. It is necessary to have a clear understanding of what intellectual skills help to form such thinking for the purposes of mastering knowledge, for analysis, generalization, evaluation of the information received, and restructuring of information. These issues can be solved using interactive methods, as well as introducing technology techniques into lessons. As an example, we provide some types of use of technology techniques in the formation of critical thinking in schoolchildren as a means of personal self-development.

The first technique - a **"Basket"** of ideas, concepts, names... - is aimed at organizing individual and group work of students at the initial stage of the lesson, when their existing experience and knowledge is being updated. Using this technique allows you to find out everything that students know or think about the topic being discussed in the lesson.

**Method "A-4 format".** In most classrooms, participants sit in 3 rows. And there are 2 people at each table. Take 6 sheets of A-4 paper and distribute one each to the participants sitting at the first desk. Participants will have to write what they know about today's topic. There are usually 6 rows in a class. After the participants in the 1st row finish writing, the participants sitting at the second, third and next desk will have to write until the participant sits at the last desk. The information written on sheet A-4 should not be repeated. An important aspect of this method is that before writing an opinion, the participant must read the information written before him and then write new information related to the topic. Usually the last desks in the class are occupied by

participants who have little interest in the lesson. They will also have to find and write down new information about the topic. After all participants have finished writing, the student sitting at the last desk must read. Using this method, it is possible to determine what participants know about the topic that is expected to be covered. The teacher continues the lesson accordingly.

**"Composing a cluster"** (translated from English as "cluster" - a bunch, a constellation). The meaning of this technique is an attempt to systematize existing knowledge on a particular problem. The student writes down the key concept in the center of the sheet, and from it draws arrows-rays in different directions, which connect this word with others, from which in turn the rays diverge further and further. This technique can be used at all stages of the lesson: at the challenge stage - to stimulate mental activity; at the stage of comprehension - to structure the educational material; at the reflection stage - to summarize what students have learned; or as a strategy for the lesson as a whole. The cluster system covers more information than students receive through regular written work. The cluster can also be used to organize individual and group work, both in the classroom and at home.

The next technique is **"Flight Magazine"**. Logbooks are a general name for various teaching writing techniques in which students write down their thoughts while studying a topic. In its simplest form, students write down answers to the following questions in a logbook: What do I know about this topic? What new did I learn from the text on this topic?

The left column of the logbook is filled in with initial knowledge, then when reading, during pauses and stops, students fill out the right column of the logbook based on the information received. At the reflection stage, there is a preliminary summing up: comparing the two parts of the logbook, summarizing the information, recording it and preparing for discussion in class. The organization of records can be individual, i.e. each partner makes entries in both parts of the table independently, the results are discussed in pairs. Then follows a new cycle of work with another part of the text.

Final reflection is very important, as it can become a way out for a new task: research, essay, etc.

I use the **"Essay Writing"** technique, the essence of which can be expressed in the following words: "I write in order to understand what I think." This is a free letter on a given topic, in which independence, manifestation of individuality, discussion, originality of problem solving, and argumentation are valued. Usually the essay is written in class after discussing the problem and takes no more than 15 minutes.

The **"Insert"** technique ("Notes in the margins") is technically quite simple, as it allows the student to track his understanding of the text he has read. Students should be introduced to a number of markings and encouraged to mark them in pencil in the margins of specially selected and printed text as they read. A checkmark (✓) indicates information in the text that is already known to the student. In this case, the source of information and the degree of its reliability do not matter. The plus sign (+) marks new knowledge, new information. The student puts this sign only if he encounters the text he has read for the first time. The "question" sign (?) marks something that remains incomprehensible to the student and requires additional information, causing a desire to learn more.

The minus sign (-) indicates something that goes against the student's existing ideas, something he thought differently about.

Students receive a text, when reading the text, students put notes in the margins

"✓" - knew,

"+" - new,

"-" thought differently,

"?" - I don't understand, I have questions.

The work is carried out individually.

✓	+	-

This technique requires the student to read actively and carefully. It obliges you not just to read, but to read into the text, to monitor your own understanding in the process of reading the

text or perceiving any other information. In practice, students simply skip what they do not understand, but in this case, the "question" mark obliges them to be attentive and note what is not clear.

Using this technique requires the teacher to:

- pre-define the text or its fragment for reading with notes;
- explain or remind students of the rules for placing markings;
- clearly indicate the time allotted for this work and follow the regulations;
- find a form for checking and evaluating the work done.

For students, the most appropriate option for completing this work with the text is an oral discussion. Usually, students easily note that they encountered something known to them in what they read, and with particular pleasure they report that they learned something new and unexpected for themselves from this or that text. At the same time, it is important that students read the text and refer to it.

Technique **"Writing a cinquain"**  
Translated from French, the word "cinquain" means a poem consisting of five lines, which is written according to certain rules. The rules for writing syncwine are as follows: on the first line one word is written - a noun (this is the theme of syncwine); on the second line you need to write two adjectives that reveal the theme of the syncwine; on the third line three verbs are written that describe actions related to the topic of syncwine; on the fourth line there is a whole phrase, a sentence consisting of several words, with the help of which the student expresses his attitude to the topic; the last line is a summary word that allows you to express a personal attitude towards it.

Great importance in the technology of developing critical thinking is given to techniques that form the ability to work with questions. Only students who wonder or ask questions truly think and strive for knowledge.

Thus, of course, this is not the entire list of techniques used in the technology of developing critical thinking, because At primary school age, students do not have sufficient

knowledge to make their own statements; the main thing is that these techniques are effective. They help the student design the educational process, track the directions of his development, and determine the final result himself. It becomes obvious that the use of even some techniques of technology for the development of critical thinking makes it possible to develop and improve the creative potential of students. However, not only students can achieve high results in their development, TRKM is an excellent opportunity for every teacher to improve and grow professionally. The technology for developing critical thinking allows us to determine the area of comfort for each participant in the educational process.

Having made a conclusion about the use of interactive methods, as well as the introduction in lessons of techniques for developing critical thinking in schoolchildren as a means of personal self-development, we can say the following:

- raising questions and clarifying problems that need to be solved;
- strives for convincing argumentation;
- social, independent thinking;
- strives for knowledge, because all connecting thoughts, lining up in a thread of reflection and reasoning, are based on known knowledge, comprehension of previously acquired experience and "look" into the unknown;
- certain degrees of certainty based on facts;
- comparison - juxtaposition - contrast;
- application in real conditions;
- counterargumentation;
- assessment and its reliability/validity;
- generalization of ideas;
- studying other points of view;
- identifying the problem in the text of the information.

This means that students must independently identify a problem and apply their existing knowledge to solve it.

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