

DEVELOPING CRITICAL THINKING ON ELEMENTARY CLASS PUPILS IS THE MOST IMPORTANT FACTOR FOR PREPARING SOCIAL RELATIONSHIP

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Abstract: In this article the process, technology, methodology of preparing primary school students for social relations based on the development of critical thinking are described. The perspectives of researchers from near and foreign countries on the development of critical thinking and students' critical thinking have been studied and analyzed. The authors give developing critical thinking of elementary class pupils and interactive methods, which give effective results on preparing them to social relationships and possibilities of using interactive methods. The research methodology is one of the most important parts of the research, it is the general map of the research being conducted, the research path and the mapping lines leading to the location (result). A technology that develops critical thinking in primary school students and prepares them for social relationships has been developed and experimented with, and its results have been presented.

Key words: Critical thinking, Social relationship, elementary class pupil, education process, interactive methods, Problem situation.

I. Introduction

Globalization of the information space, openness and the growth of mass communication are creating an environment of diversity in society. This particular social thought misleads a person who has no relationship. The task of modern pedagogy and psychology is to bring up a person who thinks and acts independently, who takes an active part in the life of society. It is known that nowadays, a person's intellectual level is measured not by how much knowledge he has acquired, how much information and evidence he has stored in his memory, but by his ability to distinguish necessary knowledge through critical analysis, review information and come to independent solutions. In this regard, the first President of the Republic of Uzbekistan I. Karimov said: "Only conclusions that are the results of debate, discussion, analysis can guide us." [16]. The Order of the President of the Republic of Uzbekistan Shavkat Mirziyoyev dated February 7, 2017 "On the Strategy for further development of the Republic of Uzbekistan" PF-4947 sets priorities for further accelerating the development of the country in 2017-2021, the fourth of the five priorities. It includes "further improvement of the system of continuing education, improvement of state youth policy: upbringing of physically healthy, mentally and intellectually developed, independent-minded, loyal to the Fatherland, strong outlook on life, deepening democratic reforms and increasing their social activity in civil society; measures to support and realize the creative and intellectual potential of the younger generation"[1]. As a result of these measures, a number of priorities will be implemented to educate students in the spirit of patriotism, concern for the fate of the country, respect for the law, strengthening their spiritual immunity against harmful influences and currents. Resolution of the Cabinet of Ministers No. 140 of March 15, 2017 defines the goals and objectives of general secondary education: "General secondary education provides students with the necessary amount of knowledge, develops independent thinking, organizational skills and practical experience, and initially helps to choosing right direction and to choose the next stage of education [2].

On the resolution of the Cabinet of Ministers No. 187 of April 6, 2017 "On approval of state educational standards of general secondary and secondary special, professional education", it is said that the purpose of the state education standard is to organize the general secondary education system based on the ongoing socio-economic reforms in the country, advanced experience of developed countries and science and modern information and communication technologies, education of spiritually mature and intellectually developed person. [3]

The formation of critical thinking in students implies the formation of a basic relationship with a variable, independent, conscious view of self and the world. This kind of perspective ensures that learning is credible - because it is truly conscious and reflexive, expanding an individual's communicative capabilities.

Reforms in the field of education make it necessary to create learning conditions that allow students to interact with others, to assess the current situation, to think independently, critically and creatively. This also shows the need to develop theoretical and practical bases of preparation for social life by increasing the cognitive activity of students of all ages, developing their critical, creative thinking, activity of knowing, developing and improving students' critical thinking skills and innovations in the system of preparation for social relations.

II. Literature review

Analysis of the literature shows that the term "critical thinking" is accepted differently in different fields and has a specific description according to the purpose of the research in the world of science.

The man who was the first to define the concept of critical thinking was Dj. Dewey, he put forward the idea of reflexive thinking. In The book of "Pedagogy and Psychology of Thinking", Dewey distinguishes between critical and reflexive thinking: "If the resulting idea is immediately accepted, then we are communicating with a non-critical, that is, less reflexive, style of thinking." According to Dewey, reflexive thinking is "an active and attentive attitude to any thought, in which its foundations and concluding analysis are carefully studied." [11]

The pedagogue considers that the formation of such thinking is the main task of education.

One of the most popular descriptions of critical thinking in the West is that of the director of the U.S. Center for Critical Thinking and Ethical Criticism, R.J. Paul. His concept states: "Critical thinking is about thinking when you are thinking in order to improve your thinking as you wish ... There are two points that are important: critical thinking focuses on self-improvement; it is necessary to use the ability to use evaluation standards in the correction of these thought processes. "(Paul R.U. Critical thinking: What everyone needs to survive in a fast-paced world. 1990.) [30]

According to the developmental features of the pedagogical views put forward in Russia on this problem that P.F. Kapterev also stressed in his time that in the process of learning in school is necessary to create in the child such a mindset through which he can form his new knowledge. [20]

P.P. Blonsky was one of the first to emphasize the importance of finding causal-logical errors in reasoning in determining the type of mental activity in harmony with "critical thinking."

He believed that the main feature of critical thinking is the need to refuse reasoned arguments with reasonable arguments and to check the correctness of one's own opinions.

In the 50s and 80s of the twentieth century, the problem of critical thinking is studied by A.S. Bayramov, A.I. Lipkin, L.A. Rybak, V.M. Sinelnikov, S.I. Wexler et al.

Veksler S.I. exploring critical thinking as a lifelong process that can be accelerated in a specially organized learning process by specially training students to find and correct their mistakes, as well as by writing reviews of learning tasks. [22].

Thus, all of the Russian pedagogics considered that it is necessary to teach students critical thinking, according to their emphasizes development of critical thinking does not ensure its necessary development on its own.

The concept of "critical thinking" is increasingly being studied today. Nowadays, a number of Western researchers (D. Halpern, K. Meredith, D. Steele, Ch. Temple, S. Walter) and Russian scientists (M.V. Clarin, S.I. Zair-Bek, I.O. Zagashev, I.V. Mushtavinskaya et al.). While they think about critical thinking, they do not only look for ways to find mistakes and correct them, but also to consider the following:

To be able to accept new ideas; try not to make mistakes in their judgments; be able to see the difference between situational thinking and logical-systematic thinking; be able to distinguish between objective content

and subjective content; know the difference between right and wrong; realizing that he did not understand; such as limiting reasonable and unreasonable errors.

Authors of technologies for the development of critical thinking through reading and writing (Temple Ch., Meredith K., Steele Dj.) Put forward the following views on critical thinking: "Critical thinking systematically requires him to look for answers. Critical thinking takes place in a multi-level way, not limited to facts, but reveals their consequences and causes. Critical thinking takes place in a multi-level way, not limited to facts, but reveals their consequences and causes. Critical thinking means being able to think skeptically within the framework of etiquette, to be skeptical of generally accepted truths, to form an opinion on a particular issue, and to be able to defend that point of view by giving logical reasons. Critical thinking consists of carefully and logically reasoning the opponent's arguments. Critical thinking does not consist of individual skills and abilities, but of a combination of many skills." [24]

According to S.I. Zaire-Beck's definition, critical thinking refers to "reflexive and evaluative thinking" in which knowledge is not the final result, but serves as a point of reference based on personal experience and verified facts that lead to reasoned and logical thinking. [16]

T.F. Noel-Tsigulskaya considers that "critical thinking has reflexive character and it is related to communication. It is connected to not only with informative (cognitive), but also with the motivational sphere, with consciousness. When we do not deal with thoughts of people, and with the phenomena of a material world, there is quite enough usual thinking for us". [27]

The only one thing that unites the various district descriptions of critical thinking is the expression of the evaluative and reflexive nature of thinking. It implies a peculiar way of thinking, which does not accept dogmas at all, and enriches life experiences with new information. This is a distinctive feature of creative thinking, which does not have to be evaluative and requires the production of new ideas, which require a departure from the scope of most personal experiences. It is difficult to clearly distinguish between critical and creative thinking. It can be said that critical thinking is the defining point of cultivating creative thinking, and critical and creative thinking evolve in a reciprocal relationship.

III. Research Methodology

The most important methods are problem-based research and conscious-communicative methods among the methods of technologies for the development of critical thinking.

The main purpose of the use of problem-based research methods is not only to form the necessary knowledge, skills and abilities in students, but also to develop high mental development, independent reading skills, self-development and self-education, special methods of mental activity, research activity.

Technology requires the use of a clear system of methodological approaches for different age groups and subjects.

Results of learning Critical Thinking Technologies:

1. ability to work with increasing information source;
2. to be able to use different methods of information integration;
3. to ask questions, to form an fantasy independently;
4. solving problem;
5. develop personal opinion based on ideas, imagination, thinking of different experiences;
6. express his / her opinion about others (orally or by writing) clearly, confidently, correctly;
7. be able to prove their point of view and take into account the point of view of others;
8. ability to independently improve their knowledge;
9. taking responsibility;
10. Participate in joint decision-making;
11. building constructive relationships with others; working together as a team, and etc. [9]

Lessons aimed at developing critical thinking are developed on the basis of the technology model "**Calling - thinking - comprehension**", which consists of three stages: calling, thinking and reflection stages.

Each stage has its own goals, objectives and specific methods, aimed primarily at activating creative, research activities, and then generalizing the acquired knowledge and implementing thinking.

The lesson model aimed at developing critical thinking is reflected in Table 1 below.

Table 1

A lesson organization model based on the technology of forming critical thinking		
Technological stages of the lesson		
1- stage – call	2- stage – thinking about meaning	3-stage – Reflection
- Activating known knowledge; - awakening desire to new information; - setting individual educational purpose of learner.	- taking new information; - correcting new educational aims by learner.	- Awakening view about emerging new knowledge; - setting new educational aims by pupil.

Thus, special methodological tools are used to develop critical thinking, and one of them is the developed technology. Its structure is based on logic, and its stages correspond to the cognitive activity of the individual. The main feature of this pedagogical technology is that students are able to construct this process themselves, observe their own development, and determine the outcomes in the learning process based on specific goals.

We set the task of developing and testing methods and techniques aimed at preparing students for social relationships based on the development of critical thinking in students for us.

On various subjects based on the technology of forming critical thinking in students in most lessons, an attempt was made to use appropriate proportional methods at each stage.

Stage 1. Calling.

At this stage, following issues are solved:

1. The existing knowledge of students on a subject is activated and generalized;
2. arouses interest in the studied topic;
3. to know and understand that their knowledge is not enough;
4. The need for active activity is formed in the student.

During the calling stage, we made sure that the student should be given the opportunity to express his or her opinion freely without fear of making a mistake on the topic studied, all of the points made should be recorded, each of which can be useful in the next work process. However, at this stage, opinions cannot be assessed as “right” or “wrong”.

In addition, individual and group work should be used in harmony, giving each student the opportunity to activate their knowledge and experience at the same time; group - to be able to listen to the opinion of others, to express their opinion without fear of making a mistake. The exchange of ideas is the basis for the birth of new ideas. Some students are reluctant to express their opinions in front of the teacher or the whole class, so working in small groups allows them to feel more comfortable.

At this stage, to encourage the student to recall what he or she knows is teacher's task, and teacher should encourage the group to exchange ideas and remember the information they have learned from their peers without going into conflict. At the same time, students should not criticize them, even if their answers are incorrect or ambiguous. At this stage, it is necessary to follow the following golden rule: "Any opinion of the pupil is valuable."

It is advisable to use the following methods at the calling stage:

- ✓ Create a list of familiar information,
- ✓ Key words express their hypothesis,
- ✓ Cluster, graphical systematization of materials with the help of tables,
- ✓ Reliable or unreliable confirmation,

- ✓ Mental attack,
- ✓ Problematic questions,
- ✓ “Long” or “short” questions,
- ✓ Misleading logical chain and etc.

We want to give some examples of parts of a lesson aimed at forming critical thinking in students below.

Math lesson. 1st grade. Subject: "Length". The “Long and Short Questions” method is used in the “Calling” stage to help students develop the skills to classify basic and non-basic features and to identify cause-and-effect relationships.

Students work in small groups, given the task of measuring several cuts. Students use a variety of gauges. Although they measured a single cut when checking the answers, knowing that the answers were different, the students were stunned to think about the reason for this. To determine this, the teacher advises students to identify it by asking each other long and short questions.

A table with a long and short question will be posted on the board, which will make it easier for students to ask questions:

Long ?	Short?
✓ Explain, why...	✓ Who..
✓ Why you ... think	✓ What...
✓ Why do you think so...	✓ When...
✓ ...What is the difference	✓ May be...
✓ Imagine, if it is... , what will be	✓ ...can be
✓ If it is..., then...	✓ Perhaps...
✓ ...How is it differentiate	✓ ...how is it named
✓ Why is...	✓ ... Has it done
✓ ...which	✓ ... we are agree to be
	✓ ... Is it right

First, students use short questions:

"Whose answer is the same as mine?" - What did we measure? - Is it true that the length of the green section is equal to 5 meters? - Was it difficult to complete the task?

After asking such questions and making sure that it is not possible to determine the reason why the answers came out differently, students begin to ask each other long questions, such as:

- If I measure your cuts with my own ruler, what answer can I find? - Why do you think your answer is more correct? - How different is your cut from mine? - How do our gauges differ from each other?

As a result, students come to the unique conclusion that different answers came out because they measured the cross-sections with the help of different gauges. Students, with the help of the teacher, set themselves a task: to find a way out of this situation so as not to err in measuring the length of objects and not to differ in the answers when measuring a single cross section.

The “long and short questions” method can be used at any stage of the lesson. This method is very helpful in starting a conversation on the topic being studied. If you briefly talk about the topic and then ask students to prepare at least one question using the table above, then it will be possible to agree with the students to explore aspects of the topic that interest them.

First graders need to be taught to use this method as well as other methods of forming critical thinking.

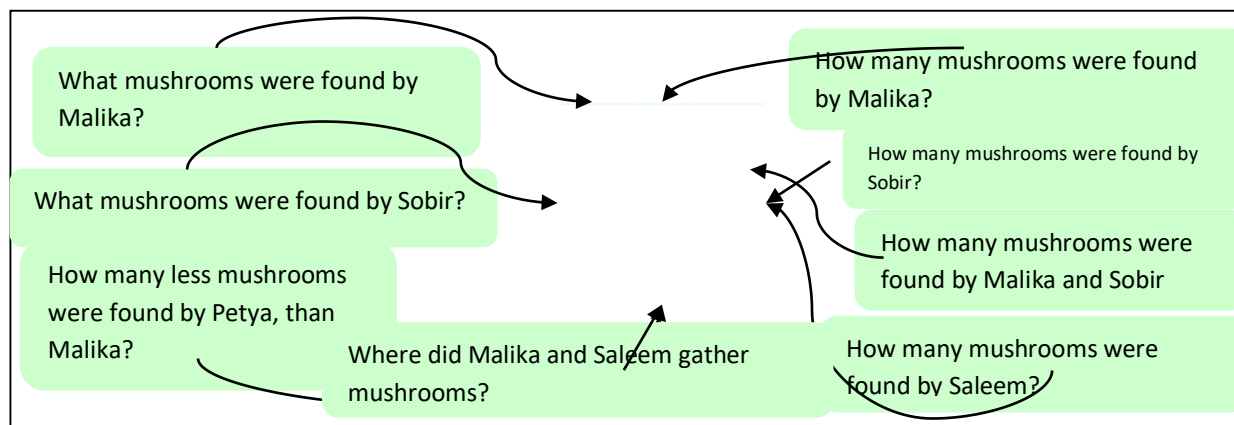
First, students learn to prepare questions on a schedule. Of course, it’s easier to ask short questions to first graders, and it’s best to teach them slowly to ask long questions.

In later stages, students learn to formulate questions based on the text. This method is then used in the process of studying the topics.

I will give fragments of lessons.

Maths class. 1 class. Subject: "Solution of tasks". At a stage of judgment of contents reception "A basket of the ideas" is used. At this lesson it allows to develop abilities to find relationships of cause and effect and to differentiate essential and insignificant signs.

Pupils read a statement of the problem: "Sobir found 8 mushrooms, and Malik – is 3 mushrooms more". The teacher hangs out the picture of a basket on a board and declares that in this basket the ideas about what question can be asked about this condition will gather.



Pupils at a lesson offered such questions for a basket of the ideas: - How many mushrooms were found by Malika? – What mushrooms were found by Malika? – What mushrooms were found by Sobir? – how many less mushrooms were found by Sobir, than Malika? – How many mushrooms were found by Sobir and Malika together? – How many mushrooms were found by Saleem? – Where did Sobir and Malika gather mushrooms? – How many mushrooms were found by Sobir?

All called questions collected in "a basket of the ideas". Then by means of the teacher each question is substituted in a task. Children by the end of work draw a conclusion: that the task turned out, it is possible to use two questions: - How many mushrooms were found by Malika? – How many mushrooms were found by Sobir and Malika together?

At a lesson of the story by M. Zoshchenko "Daft business" reception "The table of thick and delicate questions" was applied also at a judgment stage (work with the text during reading). By each part of the story pupils had to make on one question of each look. Here such, for example, questions were made by the first part.

Full ?	Thin ?
Why mother was surprised?	How many times did Sobir fall?
Why Sobir did not explain to mother that he happened to him?	How many years were Sobir?
	What mother considered the son?

Such questions speak about rather deep understanding of the text by first graders and also force other children to get a grasp and reflect better over contents.

For development of critical thinking and its diagnostics it is important to know what intellectual abilities are its part. Having analyzed literature, I came to a conclusion that for pupils of elementary school such cognitive abilities is the following:

- ✓ ability to mark out essential and insignificant signs of objects and concepts;
- ✓ ability to analyze;
- ✓ ability to generalize;
- ✓ ability to compare and allocate the main thing;
- ✓ ability to establish relationships of cause and effect;
- ✓ ability to make hypotheses and some other.

Exercises on development of these abilities join in lessons of different objects. Now I make a set of exercises for their development.

For example, for development of ability to compare and allocate the main thing it is possible to use such exercise at Russian lessons:

The teacher calls pairs of words, designating various objects. Pupils have to answer, than they are similar and than are not similar.

Words for presentation.

Than are similar:

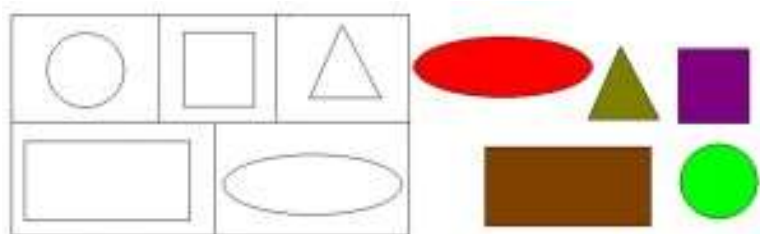
plum - a peach, orange - tomato,
butterfly - a bird, a cat - a mouse,
the bus - the trolleybus, a chair – an armchair.

What differ in:

crow - the plane, a tree - a log,
doll - the person, a pencil - the handle,
the book - a notebook, a cup - a pan.

On maths classes I use the Find the Place task.

Material: the scheme with drawings, a set of geometrical figures.



Task: to consider the scheme, to find among the offered geometrical figures same as on the scheme, to fill out the scheme.

The games "Find Superfluous" or "Mental Experiment" well are suitable for development of ability to establish relationships of cause and effect.

At lessons of the world around I hold such options of this game.

The task which they need to solve mentally is set for children. For example:

1. The iceberg reminds the global idea because ...
2. What cab be made of sand? (clays, tree, concrete)
3. What is necessary to feed all mankind?
4. How to save Yekaterinburg from garbage?
5. What will be if the person ceases to feel pain?

Exercises and games for development of intellectual abilities of critical thinking in educational activity it is possible to pick up a set.

IV. Analysis and results

The overall performance on development of critical thinking cannot be estimated without monitoring. The difficulty is that now there are no reliable techniques of a research of this type of thinking, especially at elementary school.

Having marked out the most essential abilities of critical thinking, I decided to investigate their development. The technique of Zambatsyavichene E.F. in which it was studied was for this purpose chosen: ability to exclude superfluous; verbal thinking; ability to generalize; ability to analyze. The test consists of four subtests including verbal tasks which were adapted by me taking into account program material of initial classes.

- 1 subtest - a research of differentiation of essential signs of objects and phenomena from insignificant.
- 2 subtest - a research of operations of generalization and derivation.

3 subtest - a research of ability to establish logical connection and the relations between concepts.

4 subtest - identification of ability to generalize.

The text of a technique is presented in the application. The levels of development of critical thinking and their indicators are also developed.

Having conducted a research of development of these abilities in pupils of 1 class, I received the following results.

In a class 24 persons study, from them only 29% of pupils had the average level of development of abilities of critical thinking, the others 71% were at a low level their development. At the same time the least developed there were abilities to differentiate essential and insignificant signs and to establish relationships of cause and effect.

For a year of work the situation changed. Dynamics of development of cogitative abilities can be tracked on the chart (fig. 1).

The text of a technique is presented in the application. The levels of development of critical thinking and their indicators are also developed.

Having conducted a research of development of these abilities in pupils of 1 class, I received the following results.



1	Differentiation of essential and insignificant signs
2	Operations of derivation and generalization
3	Establishment of relationships of cause and effect
4	Ability to generalize

Fig. 1. Results of implementation of subtests (GPA)

It is well visible that the level of development of all cogitative abilities of critical thinking of younger school students became much higher.

The following charts (fig. 2 and 3) give an idea of dynamics of development of critical thinking of pupils in general.

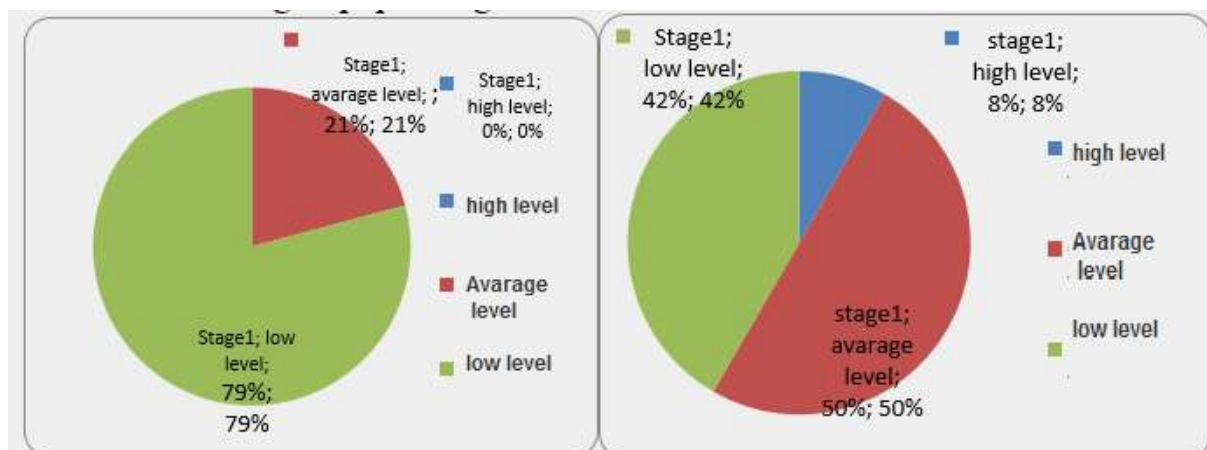


Fig. 2. Level of development of critical thinking of pupils of 1 class

Fig. 2. Level of development of critical thinking of pupils of 1 class

For a year of purposeful work the number of pupils with the low level of development of critical thinking was reduced by 29%, 8% of children moved to a high level of its development.

V. Conclusion/Recommendations

Thus, I came to a conclusion that the methods of development of critical thinking of pupils of initial classes used by me are effective.

Critical thinking is the open thinking, which is not accepting dogmas, developing by imposing of new information on life personal experience.

Teachers agree in opinion that critical thinking needs to train since spontaneous development does not provide due level. Training in critical thinking assumes mastering such, for example, abilities: to apply arguments in disputes, to look at the old ideas from the new point of view, to distinguish the facts from the assumptions, to carry out differentiation between a reasonable value judgment and unreasonable assessment, to allocate relationships of cause and effect, to see mistakes in the studied material, to establish rational ways of their elimination.

The special technology which can be used already in initial classes is developed for development of critical thinking of pupils.

During the work, I picked up diagnostic tools and defined that the level of development of critical thinking of pupils when using this technology grows.

I set the task to track as use of technology of critical thinking in 3 and 4 classes will affect dynamics of development of the corresponding abilities.

Intellectual abilities of critical thinking are a basis of a system of universal educational actions. Therefore I consider that the technology of development of critical thinking has to help to form UUD effectively.

In this regard now I master monitoring of formation of universal educational actions which will allow to track dynamics of their development when using technology of development of critical thinking.

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