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Developing Critical Thinking and Problem-Solving Skills

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Abstract--*In this article we identified the essence and efficiency of critical thinking and its importance in teaching process. Critical thinking is the ability to raise new, meaningful questions, develop diverse, supportive arguments, and make independent, well-thought-out decisions. The word "critical" implies an evaluation component. But assessment can and should be a constructive expression of both positive and negative attitudes. When we think critically, we evaluate the results of our thought processes - how correctly the decision we made or how successfully we coped with the task.*

Critical thinking also includes an assessment of the thought process itself - the course of reasoning that led to our conclusions, or those factors that we took into account when making decisions. Critical thinking is sometimes called directional thinking, as it is aimed at obtaining the desired result. This is a carefully considered, well-considered decision regarding any judgment: whether we should accept, reject or postpone it, and the degree of confidence with which we do it.

Key words--*Critical thinking, comprehension, learning process, strategies, thinking activities, creativity, pedagogical technology.*

I. INTRODUCTION

Critical thinking is a complex process of thinking that begins with the acquisition of information and concludes with a conclusion. But critical thinking is a pedagogical technology that promotes students' ability to work with texts, oral and written speech, and interacts with their classmates on this level as a high level of cognitive activity.

Mental activity skills that contribute to the development of critical thinking:

- Remembering is a critical thinking process that cannot be accomplished without a learning process, but it is fundamentally different from critical thinking. Computer memory is much better than any of us, but remembering does not mean critical thinking.
- Another type of "non-critical thinking" that is impossible without the learning process is the understanding of complex ideas.
- Another type of thinking that does not correspond to the concept of "critical thinking" is intuitive or intuitive thinking. Athletes, artists, and musicians have a hard time thinking, but they don't even notice it.

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Elements of critical thinking:

- critical thinking is independent thinking;
- information is the beginning of critical thinking;
- critical thinking begins with identifying a problem that needs to be asked and resolved;
- critical thinking seeks convincing evidence;
- critical thinking is social thinking.

Table 1: Stages of development of critical thinking:

Challenge	Comprehension	Thinking
1. Associate new information with known ones. 2. Student Activation. 3. There will be an interest in discussing the proposed topic and the purpose will be determined	1. Promote the inertia of interest and mobility and activity created during the challenge phase. 2. Use students' aspirations for self-realization. 3.Achieve new understanding of learning materials	1. Students should try to express new ideas and information in their own words. 2. When interpreting and rearranging what is understood, a personalized context emerges. 3. Live exchange of ideas is achieved.

Table 2: Strategies to Develop Critical Thinking:

Strategies used in the phase of the call	Strategies used in the understanding phase	Strategies used in the thinking stage
Free writing. Cluster. A brainstorming attack. Drawing B-B-B. A series of confused logical chains. Semantic Properties Analysis.	Semantic Properties Analysis. Drawing B-B-B. Training manual. Teaching each other. Ask each other. Two-part diaries.	The most basic concepts are repetition. Figure T The conceptual table. Venn diagram. The flower of lily. Five Minute Essay. A ten-minute essay.

Critical thinking is not an educational program or a phenomenon that needs to be learned in a context that is far from the general context of everyday life. Brown argues that learning skills separated from task and real-life goals may give learners a good chance to pass objective tests, but they will not be able to apply those skills in new

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situations. The definition of learning and thinking by Richter's interpretation is based on research in cognitive psychology, philosophy, and multimedia culture education.

The main results of these studies are:

1. Effective and continuous learning is the activity of students in learning, synthesizing and acquiring information.
2. Learning becomes more successful when using different district strategies for thinking activities. Such strategies make the learning process more conscious [1].
3. Learning and critical thinking develop when students have the opportunity to apply new knowledge to specific tasks [2].
4. Learning is enhanced only by relying on students' prior knowledge and experience. These enable students to link their knowledge with new information.
5. Critical thinking and learning comes only when educators understand and value the diversity of ideas and experiences. Critical thinking does not occur in the process of mentality, which accepts the "only correct answer".

Creating an environment of critical thinking. Developing critical thinking is not an easy task. This is not a task that was completed or forgotten at a certain age. At the same time, there is no completed path to critical thinking.

But there is a certain set of learning environments that help shape critical thinkers. For him:

- giving students the opportunity to think;
- to adopt different ideas and ideas;
- Ensuring students' active participation in the learning process;
- Students should be persuaded not to laugh;
- to build confidence in each student's ability to think critically;
- it is important to appreciate the emergence of critical thinking.

In this regard, students:

• building self-confidence and understanding the value of one's own ideas and ideas;
• Active participation in the learning process;
• Listening carefully to different points of view;
• Be prepared to formulate and retract their judgments.

Time. Critical thinking takes time.Pearson, Hansen, and Gordon (1979) argue that the creation of their own ideas leads to archaeological exploration of previous ideas, imaginations, encounters and experiences. Therefore:

• expressing their thoughts in their own words;
• exchange of critical ideas;
• be able to express their ideas and respond to constructive suggestions;

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• be able to express ideas in the form of specific ideas, in a comfortable environment, and to express their ideas fully and clearly.

Permission In order to be free of critical thinking, students must obtain permission to say what they think is best and what is not. Once students have an understanding of what is acceptable, they will be actively involved in critical analysis.

Access to critical analysis is based on the principle of consciousness. The difference between analysis and overdrive must be clarified. Permission to critical thinking is given in a friendly and productive environment, with a genuine purpose for reflection.

Colors. Different ideas and ideas emerge in the students' thinking process.Colored thoughts and ideas come into existence only when the notion of a single answer is eliminated. Students' thinking is restricted when expressing ideas is restricted. If there is only one answer, a variety of tools and processes should be used to help students find the answer.

Activity. Critical thinking is directly related to student activity. Typically, students tend to be passive listeners because they have a teacher knowledgeable or the text reflects his / her knowledge, which is why their knowledge is that the teacher is responsible. The active participation of students in the learning process and their willingness to take responsibility for their studies produce the expected results in critical thinking. The pedagogical approach, such as encouraging students to think, share ideas and ideas, increases their activity.

Risk Free thinking is based on risk. It is permissible to encourage those who are fearless in his or her learning activities. There may be cases in which the "stupid ideas" of thinking are put forward by a combination of ideas and concepts not made up of reason. The teacher should explain it to the students as a natural state of the learning process. It is important for students to think in an environment that is free of risk, that is, ideas are valued, and that students can be highly motivated in their thinking activities.

Appreciation. One factor in critical thinking is the value of students' thinking. In the course of organized thinking, students respond with deep responsibility and attention only when they realize that their ideas and ideas are valued by the teacher. Students try to demonstrate their appreciation of the thinking process and begin to take it seriously and its consequences.

Expensive. In organizing the thinking process, the student must be aware of the value of their opinions and the results of their critical analysis. When a teacher asks students to simply recycle specific material, they should be ready for the templates and templates. This results in students making sure that the mechanical feedback of others' ideas is the most important and valuable. In fact, it is important for students to show that their ideas, ideas and ideas about them are valuable. Students should also be able to make sure that their ideas are valuable. They need to acknowledge that their ideas are important and important in understanding and discussing the issue.

Dialogue. The process of reflection involves the communication of students. Student feedback is the foundation of their partnership in learning from each other. Students are required to open up to others the great ideas they have and the ability to make simple mistakes.

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II. CONCLUSION

Thus, students need to be careful about listening to their opinions, forcing their system of expression to the speaker and correcting other speakers. As a result, students will have the opportunity to use the ideas of others. As a consequence of a broader discussion, students become more capable of analyzing and identifying ideas that are relevant to them, and integrating them into the system of ideas they have created in their own knowledge and life experiences. We can identify several models of students' critical thinking processes. They are:

• self-confidence;

• to participate actively in the work;

• Communicate with friends and teacher;

• be able to listen to the opinions of others.

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