



# The Importance of Modern Teaching Technologies in Developing Critical Thinking

Islamova Karima Turdiyevna

Independent Researcher of the University of Public Security of the Republic of Uzbekistan

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**Abstract:** This article proposes a system-activity structural model based on the effective using of technologies to foster critical thinking and ensure the achievement of established educational objectives in geography education.

**Keywords:** Critical thinking, activity, risk-taking, exchange of ideas, discussion, reflection, creativity, imagination, hypothesis.

## 1.Introduction:

It is well known that if an individual does not adopt a critical attitude toward what they learn and know, they cannot achieve independence of thought in the process of cognition. Today, educating young people who are independent, free-thinking, and capable of critical reasoning is considered one of the most pressing tasks.

Therefore, organizing the educational process in schools, academic lyceums, vocational colleges, technical schools, and universities in a way that activates learners' cognitive activity and develops their independent and critical thinking skills has become an urgent necessity.

However, critical thinking does not develop spontaneously. It is not a subject to be studied, but rather the result of an instructional process. Critical thinking involves not only understanding existing ideas, but also analyzing them from the perspective of multiple viewpoints and comparing them with alternative ideas.

The emergence of digital tools and resources has

fundamentally transformed the field of education, creating unprecedented opportunities for interactive learning and active student participation. Nevertheless, the effective integration of these technologies into teaching practice and the full utilization of their potential require a carefully designed and systematic approach.

## **2. Method**

The creative origins of critical thinking date back to ancient times. The characteristic feature of the views of scholars such as Al-Khwarizmi, Al-Farabi, Al-Biruni, Ibn Sina, as well as their contemporaries and followers, lies in their constant focus on the process of abstracting the image of an object in the human mind. As a result, concepts reflecting the essence and specific characteristics of objects were developed and formed.

In the 1980s, critical thinking technology emerged in the United States. Since the late 1990s, this technology has become known in Russia under the name "Reading and Writing for Critical Thinking." Thus, critical thinking is not a single skill, but rather a complex of numerous skills and abilities that gradually develop throughout a child's growth and educational experience. The systematic incorporation of critical thinking into the educational process should lead to the formation of a distinct style of thinking and cognitive activity. A distinctive feature of this pedagogical technology is that the learner independently constructs the learning process, relies on real and specific goals, monitors their own developmental trajectory, and determines the final outcomes.

Critical thinking requires time. Pearson, Hansen, and Gordon emphasize that creating one's own ideas is akin to conducting an archaeological investigation of previous ideas, perceptions, encounters, and experiences [1].

According to Mihaly Csikszentmihalyi, when students actively participate in complex learning processes, they derive great enjoyment from their involvement in cognition and experience a deep sense of satisfaction [2].

One of the key factors in critical thinking is valuing the thinking process itself. In a well-organized thinking environment, when students understand that their ideas and perceptions are appreciated by the teacher, they respond with a heightened sense of responsibility and attentiveness. They strive to demonstrate respect for their own thinking processes and begin to take them and their consequences more seriously.

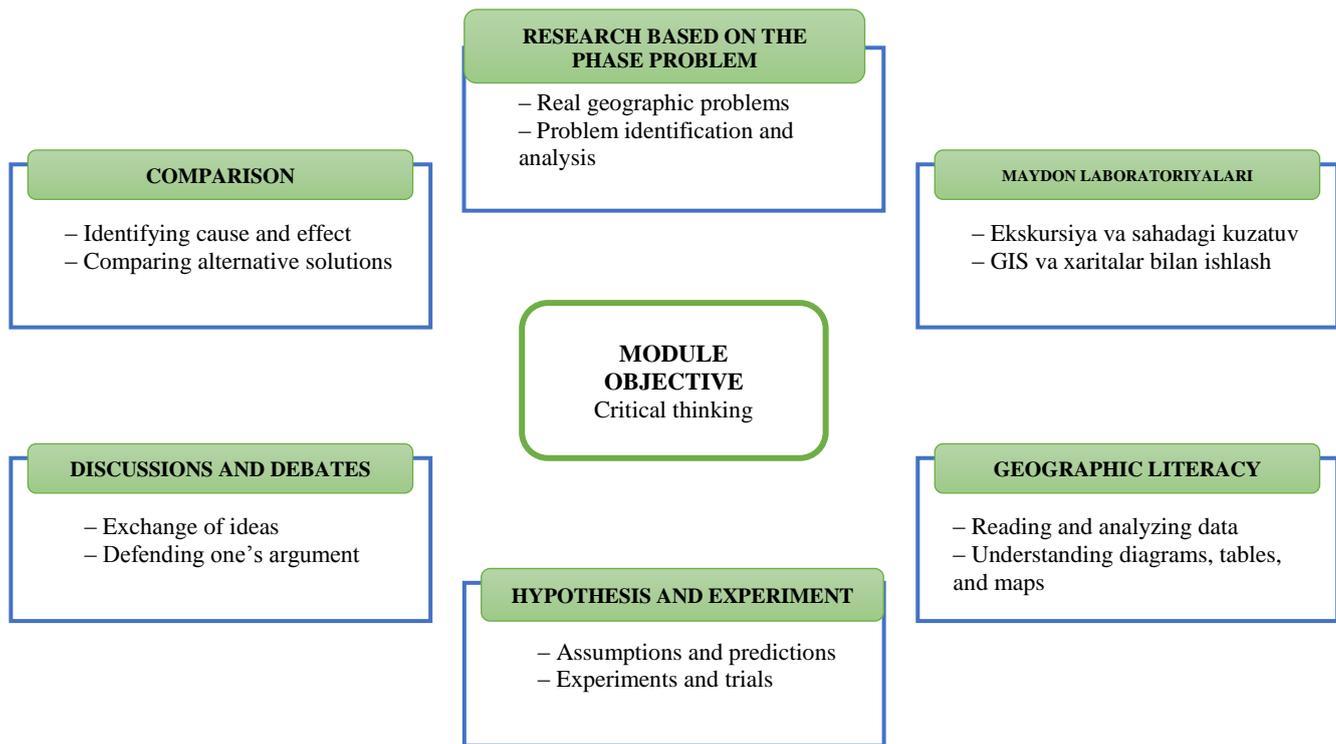
During the organization of the thinking process, it is essential to instill in students the understanding that their ideas and the results of their critical analyses are valuable. When a teacher requires students merely to process material, they should avoid relying on ready-made templates and rigid patterns. Otherwise, students may develop the misconception that mechanically reproducing others' ideas is the most important and valuable activity. In reality, it is crucial to demonstrate to young learners that their own thoughts, ideas, and perceptions are valuable, and to help them develop confidence in the worth of their own thinking.

In developing critical thinking, students must possess self-confidence, engage in the exchange of ideas with peers and teachers, and be able to listen to others' opinions.

In the field of geography education, the development of students' critical thinking skills is of particular importance, as these skills help them understand and adapt to the complex and dynamic conditions of the modern world. At the same time, geography education plays a significant role in shaping students' ability to comprehend the world from a geographical perspective and in achieving established educational objectives. According to foreign researcher Syarif et al., in order to improve learning outcomes in geography, teachers should employ diverse strategies and approaches that take into account students' varying needs [3]. One effective approach is the integration of modern materials and technologies into the curriculum.

By utilizing such materials, teachers can provide students with a more comprehensive and engaging learning experience, which ultimately leads to improved academic outcomes. According to Astuti's research, the assessment of geographic skills is another important aspect of geography education [4]. Evaluating students' proficiency in various geographic skills enables teachers to adapt instructional methods to learners' specific educational needs.

This process contributes to the improvement of curricula and teaching strategies, aligning them more closely with the goals of geography education. Additionally, Csachová argues that integrating research activities and web-based platforms such as WebGIS into geography lessons makes the learning process more interactive and practical for students [5]. Through participation in real-life, application-oriented activities, students can develop a deeper understanding of geography and recognize its relevance in everyday life.



### Module 1

- Including tasks in every lesson that allow for problem analysis encourages independent thinking and teaches students not to be afraid of giving incorrect answers.

### 3. Conclusion

In conclusion, it is important to emphasize that using methods of information analysis, reflection, and reasoning makes it possible to address the following key tasks:

- Helps students understand their goals;
- Ensures their active participation in lessons;
- Encourages effective discussion;
- Assists students in formulating their own questions and expressing them in the -form of inquiries;
- Supports the expression of their personal knowledge;
- Promotes motivation for individual study;
- Fosters an attitude of respect toward all opinions.

The process involves arousing students’ interest in the event (phenomenon, rule) or fact under study, which creates the need for asking questions. These questions are then expressed in the form of certain assumptions (hypotheses), and students are guided to attempt their

verification.

### References

1. David Pearson, Jane Hansen and Christine Gordon. “The Effect of Background Knowledge on Young Children’s Comprehension of Explicit and Implicit Information”. *Journal of Literacy Research* 1979.
2. M. Csikszentmihalyi (1975). *Beyond Boredom and Anxiety: Experiencing Flow in Work and Play*. San Francisco: Jossey Bass.
3. Syarif E, Maddatuang M, & Saputro A. Geography learning: teacher understanding about advance materials. *E3s Web of Conferences*. (2023).
4. Astuti Y. Assessment concept of geographical skills on senior high school in indonesia. *American Journal of Educational Research*. (2017).
5. Csachová S. Using webgis platforms and inquiry-based activities to teach about world political map and world population. *Review of International Geographical Education Online (RIGEO)*.
6. M. S. Shamsiyeva “Tanqidiy fikrlashni shakllantirishda zamonaviy o’qitish texnologiyalaridan foydalanishning ahamiyati”. “*Science and Education Scientific*” *Journal* April, 2023.

7. M. F. Dadaxodjayeva, O.A.Abdurazzaqov. "O'quvchilarning tanqidiy fikrlash qobiliyatini rivojlantirish texnologiyasi". T.:2022.
8. F.A. Djunayev, D.B.Shovqiyeva. "Ta'lim jarayonida o'quvchi yoshlarda tanqidiy fikrlashni shakllantirish omillari" "Science and Education" Scientific Journal Volume 1 Issue.