

The Challenges of the XXI Century – Development of Critical Thinking among the Students

Abstract: Developing critical thinking skills in students is a challenge in the 21st century education. It involves not only active searching for information, but also making connections between the acquired knowledge and experiences, but also comparing it to other research. Critical thinking helps students understand their studies and achieve high results. According to the national goals of general education and the modern paradigms of education, the aim of teaching is to form a creative, literate, informed and responsible citizen who is able to think and research as well as make decisions independently and accomplish their own achievements in creating new material, intellectual or spiritual values. Students develop these skills during the learning process. Therefore, a teacher is a key guide for the student to develop critical thinking. The perspectives and future of modern education are not only dependent on the latest technologies, but also on the people who will use them for their respective purposes. The study of the problem conducted in the Shota Meskhia Zugdidi State Teaching University can act as an important guideline.

Key Words: Critical thinking, Research, Technology, Educational Material, Feedback

The researchers had started discussions about the importance of the critical thinking since 50s of the last century. The forms of thinking and complicated thinking manner gained their attention, as it covered thinking on several divergent opinions at the same time, understanding different considerations and perceptions of others. It is the multifaceted and

comprehensive approach to the problem. During critical thinking, a person identifies a fact, understands its root causes and consequences, specifies what to believe and what to reject.

The techniques for critical thinking development came under the attention of pedagogic theorists in the 90s of the last century, and many followers of this theory appeared in the educational practice. The technique is considered as one of the aspects of developmental education and is given the function of improving thinking and life.

A person reviews the educational material for the critical thinking, searches for required arguments and takes a decision, seeks for counter-arguments, discusses a possible opinion, specifies, summarizes the subject and makes a conclusion.

This form of thinking is not a criticism or negative discussion. This behavior is opposite to superficial reception of the information. Thinking, intelligent judgment, a diverse and comprehensive approach to the issue are characterized for it. Critical thinking develops the ability of a person to make independent, thoughtful decisions and promotes the active involvement of students in the learning process. A student learns to respect the opinion of others, develop successful learning relationships, develop curiosity, ask questions and seeks for answers. It allows the student to use his knowledge to fill in uncertain situations with clarified thought.

Development of critical thinking by pedagogical and psychological assessment implies the formation of reflexive and evaluative skills. It emerged together with human as the form of a vital importance and it characterizes to human nature similar to consciousness, thinking, memory, etc.

Reflection is a continuous process, it is a special cognitive activity that clarifies and explores how knowledge and ideas are generated. It is a way to open up the potential in a person and to overcome the doubt about own abilities. Development of the critical reflective style is an important factor for the students. Critical and reflective style includes

The means of opening the potential up in a person and overcome a doubt in one's abilities. An important factor is the formation of a critical reflexive style in students. The critical-reflexive style includes:

- Relationship of a student with a teacher and partners; Constructive dialogue with them. The ability to defend own point of view regardless the opinion of others', to admit its unfairness after substantiated counter-evidence by the opponent;
- Relationship of the student about self-diagnostics based on the comparison of own thinking results with the given patterns
- Openness of a student towards the new information, objectives and solutions by means of extraordinary ways of solving;
- Motivating of a student to check information, reject and believe, make comprehensive analysis and share. Identification and analyzing the progress, quality, internal peculiarities and reasons.

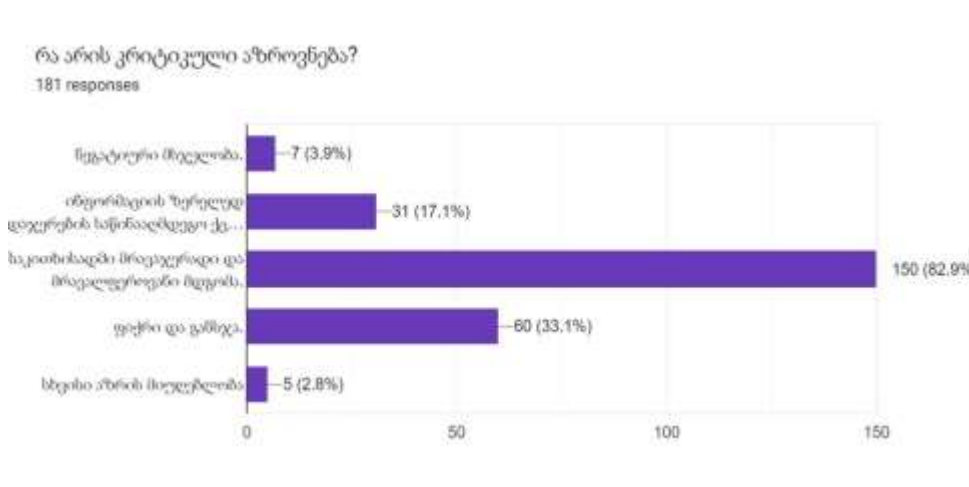
The practice shows that such way of thinking is the precondition for the teaching quality. It is discussed in close connection with the problem-based learning. Applying of this technique will not be productive if students do not think critically.

The study was planned and conducted in the Shota Meskhia State Teaching University of Zugdidi, with the aim to learn students' opinion about importance of critical thinking and its introduction quality it in the educational process.

There are 900 students studying at 13 specialties of Public Sciences and Healthcare/ Shota Meskhia State Teaching University of Zugdidi. 190 students participated in the anonymous survey, what is 21% of the total number. Several findings from the study are given below:

Do you know what a critical thinking is? - 89.4 % responded that they know; 9.4% said that they are aware in general, while 2.2% answered that they do not know. Despite the fact that majority knows what is critical thinking the in-depth interviews showed the following situation: 3.9% notes that this is negative discussion; 17.1% thinks that this is the opposite behavior to the superficial trust of the information; while 82.9% selected multiple and

diversified approach to the issue and 2.8% considered critical thinking as non-acceptance of other's opinion.



Why critical thinking is important? 97.2% of the respondents think that they will achieve better results, while 3.2% think that it can be useful.

52.8% of the respondents think that the critical thinking was developed at the certain level in the university; 45 % answers that it was developed quite quickly; while 3.2% thinks that it is not developed.

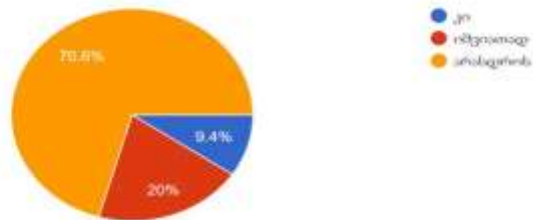
What is the level of the teachers in order to teach critical thinking? 70% of the respondents considers that it is high; 27.8% considers it as medium, while 2.2% thinks that it is low.

What kind of process is critical thinking? 63.1% considers that it is continues process; 35.4% thinks that this process is consistent, while it is single time process for 1.7%

Do students apply the suggested concepts, sources related to the critical thinking? 68.7% of the respondents declare that they actively use them, 27.9% says that they do it rarely, the answer of 3.4% is that they do not.

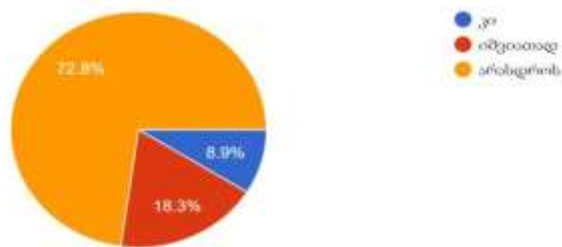
The answer of 70.8% of respondents on the question whether teachers reject the results of the student's research was "never", while 20% answered "rarely" and 9.4% answered "yes".

ახდენენ თუ არა ლექტორები იგნორირებას სტუდენტის კვლევის შედეგზე?
180 responses



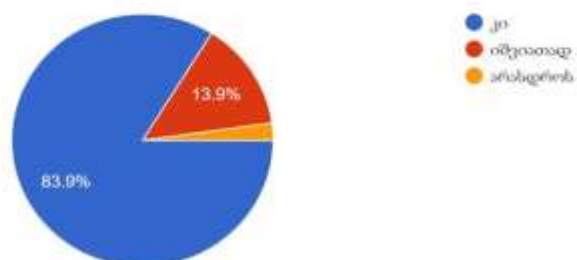
Do teachers make you emotional discomfort? 72.8 % of the respondents answered “never”, while 18.3 % answer “rarely” and 8.9% said “yes”/

სწავლის პროცესში გიქმნიათ ლექტორები ემოციურ დისკომფორტს?
180 responses



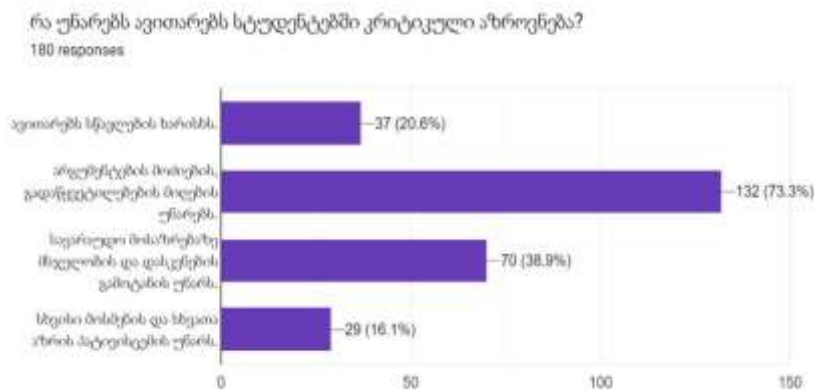
Do teachers support in innovative activities? 83.9% of interviewed answered “yes”; while 13.19 % answered “rarely” and 3.1 % answered “never”.

გებმარებთან ლექტორები ინოვაციურ მოღვაწეობაში?
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The answer of the 76.2% of study participants on the question whether they apply analysis, reasonable judgement, diversified approach and reflective evaluation, was positive, while 22.7% answered “rarely” and 1.1% answered “never”.

The answer of the 20.6% of respondents on the question, what critical thinking supports for students, was study quality; 73,3% thinks that it develops arguing skills and decision making; while 38.9% thinks that it helps to the ability to discuss viewpoints and make conclusions, while 16.1% mentions that this is for development of listening skills and respect other’s opinion.



In the comments, the students demonstrate satisfaction towards the teachers, noting that they provide information about the sources, the materials to prove, critical information in a timely manner and create conditions for free expression of their opinion. They demonstrate their desire for the need of being more polite during discussion by students. During solution of a problem, they indicate the role of a teacher as a facilitator of the process.

The moderate criticism in the information shall be adhered, excessiveness shall cause a mess and “failure to be informative”, but it is not acceptable to be limited just by the formally proved components, what is quite widespread and is not relevant.

One of the important factors of the critical thinking is the maintenance of the individual peculiarities, uniqueness, different level and planning skills of students, therefore, there are the following ways of problem solution:

1. The individual tasks of the students during the training;

2. Organizing work into pairs and in group;
3. Formulating open tasks for students considering their capacities and individual interests.

Critical teaching includes contribution of a teacher to development of a student's performance, what means supporting to setting and achievement of the educational goals.

Co-teaching means selection of the educational objectives by a student based on the individual peculiarities.

Traditional pedagogy did not require understanding of ongoing developments from teachers and students; it did not require reflective action. It served to so-called strengthening or generalizing of obtained knowledge. The set of tools for educational material are provided to a teacher. Critical teaching advises a teacher to solve the problem of setting study goal, development of the teaching plan, construing of a training system, formation of reflection and assessment.

In addition, the need for development of the situational pedagogy was emerged during critical teaching, which is based on intuitivism, heuristics and personality of a teacher and a student. Situational method has been already included in the functions of a teacher, as the form of teaching, which is applied by the innovator teachers. The method is heuristic itself, as a teacher creates it in an innovative way based on the creative intuition and educational environment. The situational method can be considered as the pedagogical product of a teacher created by means of heuristic method. Improvisation of a teacher is the technological element of a situational pedagogy; as a result, the new subjunctive and objective factors are created. For those teachers, who implement accompanying critical teaching, the improvisation product is the technical element of the teaching performance specified according to the situation. The contextual elements of the teaching include cultural and historical analogies, informative discussions, cognitive ways of teaching, challenges, generalization and activities, which stimulate critical activities of a student, like admiration, forcibility, etc. By cooperation, a teacher helps to a student not only in applying educational approaches, but also in self-defining

to learning forms like analysis of existing situation, reflection on the implemented actions, formulating of the goals and selection of the optimal ways for their achievement. I think, the article - „The Challenges of the XXI Century – Development of Critical Thinking among the Students” will support to teachers, students, concerned parties by the problem to plan and implement critical thinking oriented educational process. The study of the problem has not been completed and the further research is also planned.

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