

TECHNIQUES AND FACTORS CONTRIBUTING TO DEVELOPING CRITICAL THINKING SKILLS

G. Rakhmonova ¹

Abstract:

The article is concerned with the development and introduction of innovative technology into higher education curricula in order to develop skills for critical thinking among future experts. The paper aims to expose the factors that encourage students to develop critically thought at universities, in search of strategies and actualisation of student's creativity; as well as contributing to their emergence as independent beings. For teachers and students, the results of the research and the recommended methods for developing critical thinking skills can be useful. This paper explores a self-study action research project which took place within initial teacher education and focused on exploring approaches to critical thinking development.

Key words: creative thinking skills, higher education, metacognition, cognitive abilities, reflective, problem-solving experiences.

doi: <https://doi.org/10.2024/tzx4ep77>

Critical thinking during lessons means actively engaging with the material by analyzing, evaluating, and synthesizing information to develop deeper understanding, question assumptions, and make connections between concepts. It involves asking insightful questions, challenging assumptions, and considering different perspectives to enhance learning and problem-solving skills. UNESCO, the OECD and the Change Leadership Group at Harvard University have all identified critical thinking as a key skill necessary for future-proofed education, which prepares learners to live in the twenty-first Century (Ananiadou and Claro Citation2009; Luna Scott Citation2015; Wagner Citation2009). The purpose of critical thinking, promoted within the context of twenty-first Century Skills, is to enable learners to have a constructive and positive influence in addressing evolving problems and enact necessary change in responding to new and evolving challenges faced by communities globally (Luna Scott Citation2015). The ability to think critically allows you to understand and assess a situation through all relevant facts or information. In order to identify and resolve a problem, people can apply critical thinking skills for the creation or organisation of information, such as facts. The training of critical thinking skills during the lessons needs to be further explored. In the design of studies, critical thinking has to be clearly defined and appropriate evaluation strategies have to be established. It appears that higher education institutions are facing difficulties in developing critical thinking skills. But the opinion of students on methodologies which they consider to be instrumental in developing this competence is largely unknown. In order to answer this question, a total of 263 students from Spanish universities took part in the study and

¹ Rakhmonova Gulshada Askarovna, master student of Samarkand State Institute of Foreign languages

were asked what they understood about critical thinking and how it was developed most effectively. The results indicated that, based on students' points of view, there were six methodologies that mainly contributed to developing critical thinking: Debates, project-based learning, practices in real contexts, doing research, cooperative learning, and case studies. The results were unanimous regardless of the student's understanding of critical thinking: Analyzing, reasoning, analysis, questioning, asking for information, evaluating, making a choice, compromising and acting. The implications for teachers and educational institutions in relation to the development of objective thinking in Higher Education are significant, both quantitatively and qualitatively. Different strategies and techniques to be used in the course of the lesson hour are needed to make teaching effective. The methods and procedures used in the teaching process are also referred to as training strategies. The multidimensional nature of these teaching methods and the context in which they are applied have an impact on their effectiveness. During the lesson hour, these strategies are used by at least once. So there are several techniques that can contribute to developing critical thinking skills. Encourage questioning of preconceived notions and beliefs to foster a deeper understanding of topics. For example; When presented with an argument, critical thinkers question the underlying assumptions made by the author and evaluate whether they are valid and supported by evidence. Analyzing evidence teach how to critically evaluate evidence, sources, and arguments to discern validity and reliability. Analyzing evidence in critical thinking involves examining the relevance, credibility, and sufficiency of the evidence presented. Determine if the evidence directly supports the argument or claim being made. For instance, if the argument is about the harmful effects of smoking, evidence showing the correlation between smoking and lung cancer would be relevant. Assess the reliability of the source providing the evidence. For example, peer-reviewed studies from reputable scientific journals are generally considered more credible than anecdotes or opinions from non-experts. Socratic questioning, utilize the Socratic method to engage in dialogue and probe deeper into ideas, assumptions, and implications. Socratic questioning is a method of critical inquiry that involves asking probing questions to explore and clarify ideas, assumptions, and reasoning. Through Socratic questioning, this approach encourages the student to reflect on their assumptions, consider alternative perspectives, and critically evaluate their reasoning about climate change.

Reflective journaling encourage reflective thinking through journaling, where individuals can explore their thoughts, experiences, and insights. Reflective journaling in critical thinking involves writing about your thoughts, feelings, and experiences, as well as analyzing them critically. Students describe an incident or experience where you had to think critically. Analyze your decision-making process, what factors influenced your thinking, and how you could have approached the situation differently. Decision-making examples. Students must weigh options, consider consequences, and justify their choices. Decision-making examples in critical thinking involve assessing information, considering alternatives, and making reasoned choices. As an educator, they're involved in designing a new curriculum for university. Using critical thinking, they assess educational research, consider student needs and learning styles, consult with colleagues, and evaluate different pedagogical approaches to develop a curriculum that promotes student learning and success. Encourage awareness and control of one's own thinking processes, including monitoring, evaluating, and adjusting strategies for problem-solving and decision-making. Metacognition in critical thinking involves reflecting on one's own thought processes and strategy. Recognizing when you're jumping to conclusions without sufficient evidence and pausing to reassess your reasoning. Foster collaborative learning environments where individuals can exchange ideas, challenge each other's thinking, and learn from diverse

International Conference

ADVANCED METHODS OF ENSURING QUALITY OF EDUCATION: PROBLEMS AND SOLUTIONS

perspectives. Collaborative learning in critical thinking involves working together with others to analyze information, solve problems, and evaluate arguments. Students organize group discussions where participants can share their perspectives, ideas, and arguments on a particular topic or issue. Encourage active listening, respectful questioning, and constructive feedback to promote critical thinking.

Factors that promote critical thinking in students at higher educational institutions include teaching skills that develop critical thinking, teacher attitude, understanding of critical thinking, interest of student's parents, influence from colleagues and managers, and critical thinking assessment activities. University students of all disciplines are expected to display critical thinking. Critical thinking may, however, be impeded by psychological and sociological factors such as: belief and confirmation biases, framing, social pressure to conform and poor assessment of probability and risk. Education: Formal education systems that encourage questioning, analysis, and problem-solving help foster critical thinking skills.

Environment: A supportive environment that values inquiry, discussion, and diverse perspectives can enhance critical thinking abilities.

Exposure to diverse viewpoints: Engaging with different cultures, disciplines, and perspectives broadens one's understanding and encourages critical analysis.

Practice: Regular practice in evaluating information, reasoning, and making informed judgments helps to strengthen critical thinking skills.

Cognitive abilities: Individual cognitive abilities, such as openness to new ideas, analytical thinking, and curiosity, play a role in developing critical thinking skills. Receiving constructive feedback on one's thinking processes and arguments can facilitate growth in critical thinking abilities. Provide opportunities for constructive criticism and receiving feedback to refine thinking skills. Problem-solving experiences, facing complex problems and challenges cultivates the ability to analyze situations, consider alternatives, and make sound decisions. Engage in puzzles, debates, and real-world scenarios to foster logical thinking and decision-making. Reflection taking time to reflect on one's own thought processes, biases, and assumptions promotes self-awareness and enhances critical thinking skills. Encourage introspection and review of one's own thought processes and reasoning.

In conclusion, developing critical thinking skills involves employing various techniques and considering several contributing factors. Techniques such as analyzing information, questioning assumptions, evaluating evidence, and considering alternative perspectives are essential. Factors like open-mindedness, curiosity, practice, exposure to diverse viewpoints, and a willingness to challenge one's own beliefs also play significant roles in honing critical thinking abilities. Integrating these techniques and factors can lead to the cultivation of robust critical thinking skills essential for making informed decisions and solving complex problems effectively.

References:

[1]. Ananiadou, Katerina, and Magdalen Claro. 2009. "21st century Skills and Competences for New Millennium Learners in OECD Countries." *OECD Education Working Papers No. 41* (OECD Publishing).

[2]. Luna Scott, Cynthia. 2015. "The Futures of Learning 2: What Kind of Learning for the 21st Century?" Accessed 11 August 2021. <https://unesdoc.unesco.org/ark:/48223/pf0000242996..>

- [3]. Paul, R., & Elder, L. (2006). **Critical Thinking: The Nature of Critical and Creative Thought**. *Journal of Developmental Education*, 30(2), 34-35.
- [4]. Ennis, R. H. (1985). **A logical basis for measuring critical thinking skills**. *Educational Leadership*, 43(2), 44-48.
- [5]. Facione, P. A. (1990). **Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction.* Executive Summary "The Delphi Report"*.
- [6]. Brookfield, S. D. (2012). **Teaching for critical thinking: Tools and techniques to help students question their assumptions**. John Wiley & Sons.