# Student-engaging Strategies That Develop Critical Thinking

Name of author Institution/Affiliation Title Postal Address

E-mail:

### — Abstract —

Critical thinking is one of the most important compulsory skills in students. They need this skill to solve any problem by themselves instead of memorizing the given solutions. The educators should give enough thought about developing critical thinking of students while planning the instructional design. There are certain Student-engaging procedures that simultaneously improve critical thinking. This paper offers some insight into what makes an effective lesson plan and curriculum design that encourage critical thinking among students.

**Key Words:** Student-engaging strategies, instructional design choices, critical thinking, instructional techniques, instructional development.

### Introduction

"Critical thinking is skilled and active interpretation and evaluation of observations and communications, information and argumentation" (Fisher and Scriven, 1997). Students of all ages need to learn how to develop their critical thinking skills. This skill helps them to understand a situation and solve a problem by themselves. This skill provides them with the abilities to reason and solve real life problem. However, it can be hard for a teacher to know what will be effective for developing this skill in every student. This is where curriculum designers contribute to the process. They design the curriculum and include strategies so that this skill can be honed effectively.

# **Critical Thinking**

"Critical thinking is the intellectually disciplined process of actively and skilfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information that is generated by observation, experience, reflection, reasoning or communication, in order to guide belief and action" (Scriven & Paul, 2015).

"Critical thinking can be seen as having two components:

- 1) A set of information and belief generating and processing skills, and
- 2) The habit, based on intellectual commitment, of using those skills to guide behaviour" (Boelryk, 2004).

# Instructional design choices for developing critical thinking

The educators should create a compassionate, friendly and accepting environment in the classroom where students are allowed to make mistakes. The students can think independently and with confidence in such environment. Their thoughts must be given appropriate feedbacks that encourage their self-assessment and independence.

There are some skills in students that act as the foundation of being an effective learner. Instructional designers try to develop these among them in a flexible and creative way. "Critical thinking is often thought to be a general ability that students either possess or lack, but much of what critical thinking entails is specific to particular fields and can be learned. However, learning to think rarely enters the educational scene when 'covering' a fixed quantity of 'content' occupies center stage in teaching. Must acquisition of knowledge precede thinking, as many educators seem to believe?" (Kurfis, 1989).

"Productive thinking comprises the development of alternative models that serve mental simulations of possible outcomes, and thus, permit the anticipation of the consequences of specific operations" (Seel, Lehmann, Blumschien & Podolskiy, 2017). Developing thinking skills through challenging and creative methods can be overwhelming for the teachers but very useful for students. Some active learning strategies are most beneficial because they serve as learning goals and foster student-reflection.

# Questioning

Asking the right questions can significantly promote critical thinking among students but it depends on how the question is asked. According to Boelryk (2004), "Questions that lead to thinking about information, ideas, products, or performances generally have the following characteristics:

- a. Are open-ended begin with why, how, what, where, when, who, what if,
- b. Have many possible responses
- c. Explore context (historical, social, political, religious, cultural, economic)
- d. Focus on complexities, problems, and/or issues
- e. Probe for things such as
  - o assumptions, bias
  - o reasons, logic, evidence
  - o connections to prior experience, other topics, current realities, larger themes
  - o causes and effects
- f. Lead to hypothesizing, predicting, and making inferences
- g. Encourage reflection on values and/or motivations
- h. Focus on application, analysis, synthesis, and evaluation."

Similar to the inquiry-based learning, the students should be given enough time to think of an answer to the question asked, otherwise the skill will not be developed at all. The questions must be according to their grade levels and intellectual abilities. A question should address one or two issues at a time; if not, it can be mind-boggling for the students. When asked a question properly or given a problem, the student may use various critical thinking skills such as interpretation, analysis and recognition of assumptions to answer the question or find a solution.

### **Debates**

Classroom discussion and debates can promote critical thinking. When students are challenged to deal with the tension between the two arguments, they are forced to think critically. According to Devitt (2020), "debating can sharpen a student's critical thinking skills and let them examine the topic they've been given. Instead of passively accepting information, they're forced to hone their thoughts and discard concepts and theories that don't make sense and adopt ones that do.

Debating also helps them question the beliefs they hold and justify why they think a certain way."

Like the Think-Pair-Share strategy, debates are designed to provide students with time and structure for thinking on a given topic, enabling them to formulate individual ideas and share these ideas within the group. The debates also engage students through self reflection and encourage them to learn from their peers.

If an individual does not share the same beliefs as his group members or even his rival group, he realizes that one particular topic can be perceived from different perspectives. This kind of situation promotes diverse thinking and they compare the ideas which encourage their critical thinking skills.

Learners immerse themselves in the learning process while preparing for a debate and this enhances their engagement in the classroom. They love to learn in this way. Some learners feel more comfortable sharing their thoughts with a partner first before telling the whole class about those. When they feel confident, it boosts their mind to think about the topic critically.

### **Conclusion**

Students most likely will not learn from doing something that they do not want to do or are simply not interested in. Lesson plans need to be custom-made to each student's individual interests and methods of learning. If the learning environment and the instructional design choices are favorable to students, they learn better and more effectively. Critical thinking abilities help a person to be able to take the right decision and solve a problem rationally. If the students are taught creative and critical thinking abilities properly, they find themselves to be more capable and self-sufficient, prepared to tackle the real world and teachers get the satisfaction of knowing that their teaching will help the students even outside of the classroom, probably for the rest of their lives.

### **Bibliography**

Boelryk, A. (2004). Critical thinking across the curriculum: Essential skills booklet. Retrieved from:

https://pbl101.weebly.com/uploads/3/1/3/1/31318861/critical\_thinking\_across\_the\_curriculum\_1409.pdf

Devitt, R. (2020). 10 Benefits of Debating in Classrooms: Importance of Debate in Education. Rerieved from:

https://www.google.com/amp/s/howdoihomeschool.com/classical-homeschooling/benefits-debating-education-importance/amp/

Fisher, A. and Scriven, M. (1997). Critical Thinking. Its Definition and Assessment

Kurfis, J.G. (1989). Critical thinking by design. Retrieved April 20, 2004 from <a href="http://www.cstudies.ubc.ca/facdev/services/newsletter/89/nov89-S2.html">http://www.cstudies.ubc.ca/facdev/services/newsletter/89/nov89-S2.html</a>

Seel, N. M., Lehmann, T., Blumschien, P., & Podolskiy, O. A. (2017). Instructional design for learning: Theoretical foundations. Retrieved from

 $\underline{https://www.sensepublishers.com/media/3115-instructional-design-for-learning.pdf}$ 

Scriven, M., & Paul, R. (2015). National Council for Excellence in Critical Thinking Instruction. Retrieved from <a href="http://www.criticalthinking.org/">http://www.criticalthinking.org/</a>