# ENHANCING CRITICAL THINKING SKILLS AMONG AUTHORITARIAN STUDENTS

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## Abstract

*Critical thinking is a term that is given much discussion without much action. critical thinking is something that has been overlooked at the elementary, middle, and high school levels where students are taught how to learn, as well as how to analyze information. When these students make it to the level of higher education or the workforce, the educators and trainers are forced to begin by teaching critical thinking skills as opposed to beginning with the information that needs to be conveyed. Critical thinking can be infused in lessons throughout all disciplines by utilizing in depth questioning and evaluation of both data and sources. ). The educator's role as facilitator also encourages a peer review process, even in the youngest of children, and helps students to learn appropriate responses to conflicting evaluations and opinions. The ideal critical thinker is habitually inquisitive, well-informed, trustful of reason, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry, and persistent in seeking results which are as precise as the subject and the circumstances of inquiry permit.*

## Introduction

Critical thinking is a term that is given much discussion without much action. Educators and administrators are pushed to teach the necessities as dictated by the standardized assessments in

order to catch up the students to students of other countries.  In this push for better test scores, many students are leaving the education system lacking the critical thinking skills that are necessary to succeed in higher education or in the workplace (Smith & Szymanski, 2013).  There are several reasons that critical thinking is not being focused on, and the need to have better scores on assessments is just one of them. The aim of Critical Thinking is to promote independent thinking, personal autonomy and reasoned judgment in thought and action. This involves two related dimensions:

1. The ability to reason well and

2. The disposition to do so.

 Issues such as how to define critical thinking, how to teach critical thinking, and whether critical thinking should be taught or learned through social interaction plague educators who think about enhancing the critical thinking skills of their students (Choy & Cheah, 2009).

**Perceptions**

One of the significant aims of education is to produce learners who are well informed, that is to say, learners should understand ideas that are important, useful, beautiful and powerful. Another is to create learners who have the appetite the appetite to think analytically and critically, to use what they know to enhance their own lives and also to contribute to their society, culture and civilization Many organizations list critical thinking as a major intellectual and practical skill. This major intellectual and practical skill seems to be a skill that the majority of students coming into higher education and the workforce are not only lacking in function, but also in understanding what the concept is (Rowles et al., 2013; Choy & Cheah, 2009; Henderson Hurley & Hurley, 2013).  Oftentimes, critical thinking is something that has been overlooked at the elementary, middle, and high school levels where students are taught how to learn, as well as how to analyze information.  When these students make it to the level of higher education or the workforce, the educators and trainers are forced to begin by teaching critical thinking skills as opposed to beginning with the information that needs to be conveyed.  Halx and Reybold (2005) determined, after much review and research, that learning requires effort, but critical thinking requires maximum exertion of intellectual capability and that students and teachers alike find critical thinking discomforting because it requires personal reflection.  For this reason and the

lack of time available to educators, much critical thinking has been left for higher education to teach and utilize.

**Utilization of Techniques and Pedagogy to Enhance Critical Thinking**

Dany Adams explains how, "because the scientific method is a formalization of critical thinking, it can be used as a simple model that removes critical thinking from the realm of the intuitive and puts it at the center of a straightforward, easily implemented, teaching strategy," in Critical Thinking and Scientific Method. Research suggests that a more in-depth focus on enhancing critical thinking skills can add academic rigor and increase the scores on the standardized assessments (VanTassel-Baska, Bracken, Feng, & Brown, 2009; McCollister & Sayler, 2010; Snodgrass, 2011; Tsai, Chen, Chang, & Chang, 2013). By utilizing activities to enhance critical thinking, students are better able to understand why something has occurred as opposed to just understanding what has occurred. This deeper understanding allows the students to better analyze the circumstances surrounding the occurrence and differing viewpoints about the occurrence (Tsai et al., 2013). Critical thinking can be infused in lessons throughout all disciplines by utilizing in depth questioning and evaluation of both data and sources (McCollister & Sayler, 2010). Having students track patterns in information forces them to look at the information as a process instead of simply information to be memorized and helps them develop skills of recognition and prediction. Evaluation of information and sources helps students to learn appropriate procedures for finding and utilizing credible information, as well as helping students learn acceptable and appropriate ways to use discretion (McCollister & Sayler, 2010). These are skills that will help with reading comprehension and problem-solving skills, both of which play an important role in standardized assessments (VanTassel-Baska, Bracken, Feng, & Brown, 2009; McCollister & Sayler, 2010; Tsai et al., 2013). These types of activities could be worked into the normal instructional time, with little additional time needed, simply by utilizing things such as online discussion boards, in-class discussions, or alternative modes of assessment in classroom settings (Snodgrass, 2011). It is also important that any changes to the curriculum be met with training about the new activities and how to utilize them to their full effect. The establishment of professional learning communities allows educators to think critically about the methods they are using to teach, and is a good starting point for ideas about inclusion of critical thinking skills in the classroom (Smith & Szymanski, 2013).

**The Educator's Role in Developing Critical Thinking Skills**

It is important for educators to understand that the role they play in developing critical thinking is different than the role they are typically playing. In order to engage students in critical thinking, the educator needs to act as a facilitator to allow for discussion and encourage a freer thought process, as well as to encourage understanding that thinking critically does not always end with a right answer, but instead sometimes ends in more questions or differing evaluations of the topic (Halx & Reybold, 2005; Arend, 2009). The educator's role as facilitator also encourages a peer review process, even in the youngest of children, and helps students to learn appropriate responses to conflicting evaluations and opinions (Henderson-Hurley & Hurley, 2013; Tsai et al., 2013). Activities such as writing essays and utilizing questions that adhere to Bloom's Taxonomy higher order thinking are examples of ways to engage students in critical thinking in the classroom(Smith & Szymanski, 2013). Another option for an activity that helps to enhance critical thinking is the use of wikis in education. This activity can be utilized by having students create a wiki about the subject content they are studying or by having them analyze the information currently available in existing wikis (Snodgrass, 2011). This utilization of wikis, a web 2.0 application, also appeals to education in that it enhances the student's skills in technology, another vital skill for both higher education and the workplace. It is suggested that this endeavor for more critical thinking is a holistic endeavor, which would require cooperation among different departments, divisions, and classes (Henderson-Hurley & Hurley 2013). The development of critical thinking skills is not only applicable to core subjects such as reading, math, language arts, science, and social studies. Kokkidou (2013) sets forth ways that critical thinking can be developed in music education by examining musical environment, comparing and contrasting different eras or pieces of music, and self-evaluation of performance.

**Results of Increased Critical Thinking**

Working to increase critical thinking by students has shown some promising results for both students and educators. The ideal critical thinker is habitually inquisitive, well-informed, trustful of reason, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry, and persistent in seeking results which are as precise as the subject and the

circumstances of inquiry permit. Thus, educating good critical thinkers means working toward this ideal. It combines developing CT skills with nurturing those dispositions which consistently yield useful insights and which are the basis of a rational and democratic society."Arend's (2009) findings were very supportive of the use of online discussion boards to develop and enhance critical thinking, as well as to enable students to have a better understanding of the initial information and content presented to them in class. Tsai, Chen, Chang, & Chang (2013) found that enhancing the critical thinking among students in science classes helped the students better understand the scientific process as well as encouraging students to become more experimental and questioning of the different aspects of the sciences.

All proponents of thinking skills (critical, creative,...) emphasize the relevance of thinking for many aspects of life, not just those usually associated with "thinking." For example, the Critical Thinking Community says, "Critical thinking is the art of taking charge of your own mind. Its value is simple: if we can take charge of our own minds, we can take charge of our lives." In another page they describe the centrality of thinking, and a common educational problem: "Critical thinking is not an isolated goal unrelated to other important goals in education. Rather, it is a seminal goal which, done well, simultaneously facilitates a rainbow of other ends. It is best conceived, therefore, as the hub around which all other educational ends cluster. For example, as students learn to think more critically, they become more proficient at historical, scientific, and mathematical thinking. Finally, they develop skills, abilities, and values crucial to success in everyday life. Recent research suggests that critical thinking is not typically an intrinsic part of instruction at any level. Students come without training in it, while faculty tend to take it for granted as an automatic by-product of their teaching. Yet without critical thinking systematically designed into instruction, learning is transitory and superficial."

Education in critical thinking offers an alternative to a drift toward postmodern relativism, by emphasizing that we can "distinguish between facts and opinions or personal feelings, judgments and inferences, inductive and deductive arguments, and the objective and subjective." This definition would allow educators at all grade levels to enhance their current curriculum with activities and lessons that help to develop critical thinking among students and educators. Henderson-Hurley & Hurley (2013) found that developing critical thinking among authoritarian students in an institution perceived to be very traditional faced challenges that were unseen in other institutions, but critical thinking could still be accomplished.

**Research Questions**

There has been quite a bit of research done on critical thinking skills and their importance in education. When looking at the research using critical thinking skills, the importance of critical thinking skills has been established, but there are still questions that need to be researched further. These questions include:

What practices would enhance the ability of students to think critically about subject material?

In what ways can critical thinking be developed across curriculum barriers?

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