ABSTRACT

Research suggests that critical thinking is a major predictor of desirable life outcomes such as job success (Franco, Costa, Butler, & Almeida, 2017). Consequently, it stands to reason that teachers should strive to inculcate critical thinking skills to students in the classroom. Due to the challenges of bridging the definitional gap between academics and practitioners, however, it is critical that teachers affect a Dewey-like approach in order to accommodate the practitioner’s desire that problem solving skills are a byproduct of critical thinking. Teachers must also come up with better ways to assess their effectiveness in their pursuit of best practices.

**Keywords: Critical Thinking, Desirable Life Outcomes, Best Practices**

The Challenges of Teaching Critical Thinking Skills to Students When

Practitioners Want Problem Solving Skills Instead: The

Resuscitation of the Dewey Approach

**Introduction**

The central question for the present roundtable discussion is how can we teachers be sure that critical thinking skills learned in the classroom carry over to when students enter the "real world"—where they must apply said principles so as to give them the highest probability for success as managers, leaders, and citizens? Related questions include the relevant concerns regarding the challenges of teaching critical thinking skills and how to measure our effectiveness in doing so. One other major point of contention will be how to overcome the challenges in coming up with and applying a definition of critical thinking that is in line with real world practitioners. These questions are significant for teachers, students, and external stakeholders because all have some degree of expectation that students are receiving the necessary skills in the classroom to become productive critical thinkers when they join the "real world" (Banks et al., 2016).

**Theoretical and Teaching Implications**

Starting with a definition, I define critical thinking as the ability to evaluate a problem with keenness of thought while objectively and systematically analyzing all of its parts from all angles before making a final judgment. This definition is in line with how Dewey (1910) defined critical thinking, namely as “active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends” (p. 6); however, thanks to the likes of Ennis (1964) who truncated Dewey’s definition as simply “…the correct assessing of statements” (p. 599), the focus on goals has often been displaced by an undue focus on isolated thinking. In other words, asking students to think without pursuing a problem to be solved is a lot like asking a student to write a literature review on a subject without asking them to take their statements a step further, namely to think about ways to apply their statements to some objective.

This particular concern has been raised in popular media, for instance. In fact, according to McCadden and Davis (2014), academics and laypersons do not even agree on a definition, at least in practice. According to a blog they co-wrote for *Gallup*, whereas academics tend to gravitate toward a syllogistic definition (e.g., asking the question, “does the argument make logical sense?”), business people are more interested in divergent thinking skills, which leads to problem solving capability.

Generally speaking, however, critical thinking is a major predictor of desirable life outcomes. For instance, according to Franco, Costa, Butler, and Almeida (2017), critical thinking is a positive kind of “thinking” that has a remarkable impact on both academic and job success. In fact, Butler, Pentnoney, and Bong’s (2017) research suggested that critical thinking is a better predictor of life outcomes than intelligence is! Based on this research, it seems reasonable that the inculcation of critical thinking is necessary to help students become productive citizens once they traverse the bridge between the classroom and the “real world.”

One way we teachers have encouraged critical thinking in the classroom is through experiential learning activities. Historically, ever since Kolb (1984) defined experiential learning as "the process whereby knowledge is created through the transformation of experience" (p. 41), experiential learning has become increasingly common practice (Miettinen, 2000) by academics who strive to create a space for learning among students through "hands on" activities that, when designed correctly, are intended to strengthen students' holistic understanding of the application of sundry concepts learned in the classroom to the "real world."

According to Kolb (1984), experiential learning theory (ELT) stems from three primary areas of study: Lewin's (1957) action research, Dewey's (1980) learning process, and Piaget's (1952) model of learning and cognitive development. Kolb, Boyatzis, and Mainemelis (2000; also Kolb, 1971; 1984), explained that ELT encompasses four learning styles—diverging, assimilating, converging, and accommodating—that can be applied to two modes of experience—grasping and transforming. Whereas, with the grasping mode, people either learn through concrete experience (i.e., through the senses) or through cogitative analysis of abstract concepts, the transforming mode is marked by either passive, reflective observation or active experimentation (Kolb et al., 2000).

Despite the popularity of experiential learning from the viewpoints of both teacher and student, and despite the fundamental theoretical framework that Kolb (1984) provided for this highly touted pedagogical approach, a growing body of concerned scholars has broached the possibility that experiential learning activities must be supplemented by the more traditional approach to inculcate eclectic domain knowledge. For instance, as Kirschner, Sweller, and Clark (2006) argued, students are unable to accrue significant insights via an approach in which fundamental, robust knowledge is not also taught. That is, without a preponderance of knowledge in students' long term memories, these same students will not be able to evaluate and solve problems effectively and critically. Similarly, Willingham's (2007) précis on the failures of meta-cognitive strategies showed that whereas meta-cognitive strategies teach students to think about problems through a devil's advocate lens and to look for deep structures (i.e., "the underlying structure of the problem", p. 11), they offer very little impact upon students' ability to think critically without additional, prodigious amounts of domain knowledge to utilize at their disposal. In fact, without said domain knowledge, Willingham (2007) proposed that teaching critical thinking is virtually impossible.

**Session Description**

This roundtable’s session will consist of 60 minutes during which I will begin with a very brief introduction of the problem, no more than 8-10 minutes in length. The remainder of our time would ideally be spent discussing 4 questions. Depending on the size of the class (i.e., the number of participants), we would break up into different groups for “mini round tables” if needed, but ideally, if the number of participants is small enough, we would all spend about 12-13 minutes on each question as a single group. How it would work is that, with all of us seated in a circle, space permitting (we could even do this outside if the weather cooperates!), I would prompt participants with a question, and together we would discuss our experiences while attempting to come up with suggestions to solve the challenges we face in teaching critical thinking skills. The discussion questions are as follows:

* Are we teaching problem-solving oriented critical thinking skills? In other words, are we, in practice, a Dewey or an Ennis?
* How do we assess our effectiveness in teaching critical thinking?
* When we incorporate experiential learning, are we falling into the trap of sacrificing too much domain knowledge?
* What are best practices?

**Time Needed: 60 minutes**

**Equipment Needed: None**

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