Critical thought analysis: Bridging the gap between academia and business

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Critical thought has been taught to students in varying degrees over the years, but employers believe that critical thinking skills are still lacking in employees (Braun 2004). Some of the barriers between employer expectations and academia concerning critical thought arise from a lack of congruity regarding the meaning of critical thought. However, nearly all researchers agree teaching critical thinking skills is a desirable aim of education (Hemming, 2000). According to Cheung (2002), critical thinking covers four dimensions: (1) cognitive, (2) motivational, (3) ideological, and (4) behavioral. However, other definitions of critical thought range from critical thinking originating from the left hemisphere of the brain to critical thinking involving higher level thought (University of Phoenix 2007). Cognitive theorists also believe logic skills are not attainable until age six or seven (University of Phoenix 2007). Piaget (2007) stated cognitive development theory is comprised of four stages: (1) sensorimotor stage, (2) pre-operational stage, (3) concrete operational stage, and (4) formal operations stage. According to Piaget (2007), higher level thinking is attained at level four; however, according to Riegel (2007), higher level thinking is not attainable at stage four, and he has “postulated a fifth stage called Dialectical Reasoning” (para. 10-11). Critical thinking skills are critical for analytics due to the increasing amount of information dispersed to individuals and analyzing the credibility of the data. According to Lunney (2003), individuals have difficulty analyzing data, because critical thinking abilities vary from high to low; however, Lunney (2003) believes critical thinking skills can be learned through further education. The following further analyzes critical thinking definitions as critical thinking relates to education and how the analysis of critical thinking relates to thinking critically and further developing metacognitive awareness.

Analysis of Critical Thought

Critical thinking does not have one definition to define its meaning but numerous schools of thought exist about what critical thinking encompasses: “In general, ‘critical thinking’ is a mental activity of evaluating arguments or propositions and making judgments that can guide the development of beliefs and taking action” (Astleitner 2002, para. 2). A concern facing many individuals today is how to evaluate arguments or propositions with the rapid amount of information being dispersed: “Time is of the essence, and both managers and workers must sift through a growing volume of information to make decisions” (Braun 2004, p. 232). Critical thinking is necessary to determine the validity of data when using the Internet (Astleitner 2002). Lynch, Vernon, and Smith (2001) agree critical thinking is necessary to evaluate online information and see the vast amount of information available as an opportunity to increase critical thinking skills. Individuals can increase critical thinking skills by sharpening specific criteria, such as “noting a website’s domain, sponsorship, authorship, currency, scope, and accuracy” (Lynch, Vernon and Smith 2001, para. 3). Critical thinking is necessary in all fields of study to manage knowledge: “Gilster regarded critical thinking as the most important skill when using the Internet…Mandl…nominated critical thinking as the most important skill in economy…Kraak saw critical thinking” as the most important skill in education (Astleitner 2002, para. 2).

School systems need to teach critical thinking skills to students; however, critical thinking is not taught in daily instruction, and according to Astleitner (2002), the shortcoming is caused by teachers not being
educated in critical thinking. Bagayoko, Kelley, and Hasan (2000) believe critical thinking skills can be improved in teaching through academic problem solving. “To develop the problem-solving expertise of students” teachers need to make “concentrated and sustained effort to develop the following five categories: (1) knowledge base, (2) skill base, (3) resource base, (4) strategy-experience base, and (5) behavioral base” (Bagayoko, Kelley & Hasan 2000, para. 3). Braun (2004) agrees critical thinking skills are learned through academic problem solving but believes case studies are a more effective tool. Case studies build critical thinking skills in a stepwise method as prescribed in Bloom’s taxonomy. Some researchers follow Bloom’s taxonomy as his or her definition for critical thinking, which states “students must apply, analyze, synthesize and evaluate” data (Bourland-Davis 1998, p. 68). According to Greenlaw and DeLoach (2003), electronic tools can be used to teach students critical thinking skills:

Electronic discussion can be defined as any collaborative class activity organized to explore an issue, using an electronic medium such as electronic mail or Web-based discussion lists. Electronic discussion provides a natural framework for teaching critical thinking because it captures the best of both traditional writing assignments as well as in-class discussions (Greenlaw & DeLoach 2003, para. 2).

However, Cohen and Spencer believe writing is essential for critical thinking skills so students can develop logical analysis skills (Greenlaw & DeLoach 2003). In contrast, Hansen and Salemi believe in-class discussion is vital to students learning critical thinking skills (Greenlaw & DeLoach 2003). The common agreement between Cohen, Spencer, Hansen, and Salemi is that electronic tools cannot simulate in-class discussion or essential writing skills (Greenlaw & DeLoach 2003).

The term analyze appears to be consistent among a majority of the critical thinking definitions. Critical thinking has been tied to analysis through the concept of reflective observation, which “generates new and relevant combinations or associations of existing elements through lateral thinking” (Bourland-Davis 1998, p. 69). According to Bourland-Davis (1998), critical thinking means an individual needs to be open to new ideas, which can be attained through analogies and metaphors. Analogies and metaphors help individuals understand diverse points of view. According to Gambrill (2002), being able to understand diverse points of view is the first requirement of critical thought. However, LeBoutillier and Marks (2003) believe the first requirement of critical thought is an individual’s ability to be creative: “Rothenberg claims that creativity is enhanced through homospatial and ‘Janusian’ imagery, the fusion of pictorial stimuli” (LeBoutillier & Marks 2003, para. 1). However, “Suler believes that creativity follows from the emergence of an unconscious flow of imaginings” (LeBoutillier & Marks 2003, para. 1). Rothenberg and Suler’s explanations further identify the correlation between mental imagery and critical thinking. McDaniel (2004) argues the first requirement of critical thinking is critical literacy, because critical literacy requires readers to question what he or she is reading. Critical literacy requires metacognitive skills, which go beyond critical thinking skills (McDaniel 2004).

Creating Further Metacognitive Awareness

Different researchers define critical thinking differently, but overlapping themes are cognitive development, logic, and emotionality. According to Zhang (2003), cognitive style describes how one organizes information; logic illustrates how one learns about information; and emotionality characterizes how one thinks about information. Cognitive development, logic, and emotionality are
components of critical thinking skills but not the definition of critical thinking. Researchers have not come to a common definition of critical thought; however, the one thing all researchers agree on is the need for better and continued education concerning critical thinking skills. According to Hemming (2000), the issue with critical thinking in education is that critical thinking has not been driven by a conceptualized vision. By continuing to ask questions and probing for new knowledge, an individual will increase his or her metacognitive awareness (Hemming, 2000). Even when education does not appear to teach critical thinking skills, an individual can increase his or her critical thinking skills through continued questioning. When an individual begins questioning his or her surroundings, he or she will begin to discover small truths, which will lead to more questions. “Lundquist (1999) focuses on the importance for students to make mistakes and points out that it is natural and important for students to make mistakes…because learning involves some general experimentation” (cited in Hemming 2000, p. 175). In addition, the mistakes these students make will change their knowledge base, helping them to grow and become better critical thinkers.

Conclusion

Even though there appears to be a lack of congruity between academia and business concerning critical thinking skills, an individual can close the critical thinking skills gap through continued knowledge management. An individual’s accountability is the missing piece to the scholarship, practice, and leadership model. Businesses blame academia, saying that academia’s scholarship needs improvement; however, scholarship is only one aspect of the model. Practicing critical thinking skills happens all around us, not only in business, and a good leader will continue to learn to increase critical thinking skills and encourage followers to advance his or her critical thinking skills by questioning everything. In the end, the level of critical thinking skills an individual possesses is within his or her control.

References


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