



Critical Emotioning and Critical Thinking: Improving Second Language Learning

Elham Zandvakili¹, Omid R. Zandvakili²

University of Massachusetts, Amherst, USA^{1,2}

Abstract

Teachers and researchers ignore the importance of emotions in second language learning. This essay on "critical emotioning" is a first step in highlighting the importance and primacy of emotions in second language learning. Critical emotioning comes before critical thinking. It is controversial to make the claim that Emotions come before thinking. In this essay I will show the evidence for this claim and present a methodology for critical emotioning. In recent years there was a controversy as to the primacy of emotions or thinking but that issue is now settled science, emotions come first, and thinking comes second. Thinking has an important place in "critical emotioning" and it will be shown that critical emotioning is an important step in improving second language learning. This is an essay on critical emotioning. Emotions are not simple feelings that sweep over us. Emotions are complex sequential experiences that include images, feelings, bodily reactions, thoughts, judgments, and action tendencies.

Keywords: Critical Emotioning, Critical Thinking, Second Language Learning.

1. Critical Emotioning In The Classroom

Critical emotioning is a set of procedures to help students understand their emotional experiences in and out of the classroom. [1] proposes that Self-Awareness, May Just Be A Mirage, and the conscious self, has limited access to the parts of the brain that are the actual sources of judgment, problem solving, and emotions. We know there are feelings but not how or why. He argues that we know so little about our motivations that we make up stories, confabulations, to explain our behaviors. The purpose of critical emotioning is to help students become consciously aware of their emotions and thinking about emotions.

Critical emotioning is the process of applying patterns of critical thinking to the emotions in a classroom. Critical thinking is a language with a syntax [2]. The language of critical thinking is a pattern of information processing which includes the questions "what, who, when, where, how, why". The application of these critical thinking questions is a natural process because human beings are inquisitive, curious, and question-asking beings. The application of the critical thinking questions is a complex process in which thinking skills are applied to emotions, a language that is only partially available to consciousness.

Critical emotioning is a four-step process which begins with: 1) identifying the emotions in a classroom with the Emotional Climate Scale; 2) learning about and applying concept maps and 3) applying the language of critical thinking, 4) Critical emotioning is the application of critical thinking to emotions, using concept maps to make conscious the emotions that are largely unconscious. The result is an awareness of and access to the motivational power of emotions and the cognitive skills to organize the power of emotions. (Figures 1 and 2).

1.1 Stage I: Emotional Climate in the Classroom

The Emotional Climate Scale (ECS) applies a 7 point Likert scale to assess the emotions of anger, sadness, anxiety, loneliness, calmness, excitement, happiness, and hope in the school settings. The ESC was used by [3] to study the emotional responses of minority and majority elementary school students to different settings within their schools. Specifically,in English Language Classes, minority children are more excited, angry and lonely than their white peers. The critical emotioning begins with assessing emotions in the English language classroom using ESC.

1.2 Stage II: The Concept Maps

The idea of concept maps originated at Cornell University in 1984 by Bill Trochem and a doctoral student, Dorothy Torre [4], and by Novak and Gowin the same year. Concept maps are a form of visual or picture thinking with great educational potential. Picture thinking is fast, automatic, effortless, often unconscious, and brings images to mind, spreading neural activation, enabling the individual or





group to respond more easily than before. Concept maps are a portal into visual thinking. When we understand something, we say that we "see" it. We arrive at the solution to a problem through "insight." To better communicate our ideas, we aim to make them "clear." Such metaphors likening cognitive processes to visual experiences are so pervasive as to suggest a close correspondence between how we think about and how we see the world [5].

Concept maps are situated in the visual thinking tradition in which signs on maps represent knowledge in space. These maps represent what [6] calls mind tools. Mind tools are cognitive amplification and reorganization tools which exceed the limitations of the human mind by doing things more accurately and at a higher speed, and extend the use of other mechanical tools. Mind tools are generalizable from one setting to another engaging and facilitating cognitive processing. They help learners think for themselves and make connections between concepts and create new knowledge.

1.3 Stage III: Critical Thinking Concept Map

[7,8] were the first to examine the development of patterns of critical thinking by applying the critical thinking questions to a concept map. Figure 1 is a sample of a critical thinking-concept map.

Asking questions or interrogation is a part of the natural history of human beings. According to [9] children ask an average of 107 questions an hour using conversation as a purposeful way of gathering information to fill in gaps in their knowledge. Critical thinking is defined as applying the questions of "what, when, how, who, where, and why". According to [10] the critical thinking questions were identified by Aristotle as the dispositions necessary to take virtuous actions. These questions were adapted by Cicero as rhetorical tools to be used in the courtroom. Later these questions were adapted by journalists as a framework for telling a complete story. The application of the critical thinking questions to the links in the individual concept maps is the first step to making students aware that critical thinking is something they do during the activities of the day. Applying critical thinking questions is a blend of visual and verbal thinking? Translating a written text into a concept map is visual thinking. Some students find the visualization of the concepts to be a very helpful experience while others do not find it helpful.

1.4 Stage IV: Critical Emotioning: The Application of Critical Thinking Concept Maps to Emotions

Critical emotioning is the application of the critical thinking questions: "what, who, when, where, why, and how" to emotions. Emotions are evolutionary mechanisms whose functions are to regulate the relations within and between individuals in groups. Emotions are complex sequential processes that include: images, feelings, bodily reactions, thoughts, judgments and action tendencies. Emotions may be conscious or unconscious or partly so as they influence the routines of daily classroom life. The methodology of critical emotioning provides English language learners with the clarity of feelings and thoughts that will make them better learners and good team members.

Critical emotioning concept (CEC) maps are the graphical representation of individual emotions that are important tools in improving the achievement of second language learning. CEC maps are based upon the critical thinking maps framework developed by [8]. The critical thinking maps are graphical representations of knowledge using the critical thinking questions: what, when, why, where, who and how. In this study it was demonstrated that students learned to organize knowledge by asking the questions what happened, why, where, when. One of the dividends of this approach to knowledge construction is that students see their thinking on paper in the maps they constructed. Perhaps more importantly, when working collaboratively and sharing maps, students were able to see the thinking of their peers.

Critical emotioning concept (CEC) maps build upon the critical thinking framework. Constructing a CEC map begins with the student constructing a map of their emotions. At the center is the word emotions, and in a circle around the word emotions are the different emotions the students are feeling. Around each of the emotions the student is feeling, there is another circle that has the questions of what, when, why, how, and who. As you can see as the student fills out her map of circles of emotions using critical thinking, they will have a map of their emotions. As important is the fact that the student will be able to see and share their graphic feelings with their fellow students. As students share their emotions and feelings, their thinking and their feelings will become clearer to them.

2. Conclusion

Thinking is the handmaiden of the emotions is the way that [11) put it three hundred years ago, so understanding emotions is requirment for clear thinking. Critical emotioning is a humane process in which students use concept maps to apply the critical thinking questions to emotions. This process





makes visible the emotions in the classroom through the lens of critical thinking which is a powerful tool to understand the formal curriculum and the interpersonal and interpersonal relations of the classrooms. This process can be used in different classroom settings such as counselling and STEM. The critical emotioning process makes classrooms more humane environments for second language learners. As second/foreing language learners proceed with daily activities they are entering a new world and culture. It is easy to forget that students in the classroom participate in a complex emotional world in which they are learning as individuals and as groups. Students enjoy the hopefulness and happiness of learning, and they experience loneliness, sadness and disappointment when they are not successful. It is important to monitor the emotional climate of classrooms and to ensure that students have a positive emotional experience each day.

Critical emotioning applies critical thinking to the cognitive and emotional world and in the process provides a framework for understanding both. It can be said that critical thinking is that wheel that turns the cognitive and emotional wheels of learning. If students practice critical emotioning, they will be able to see the wheel of critical thinking within the wheels of emotions and cognition.

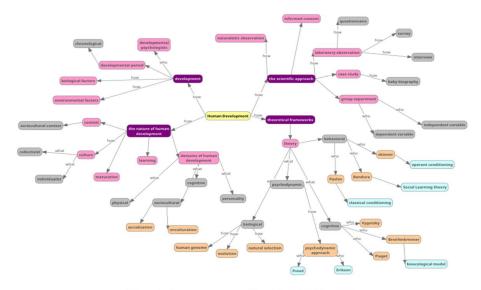


Figure 1. A concept map with critical thinking links

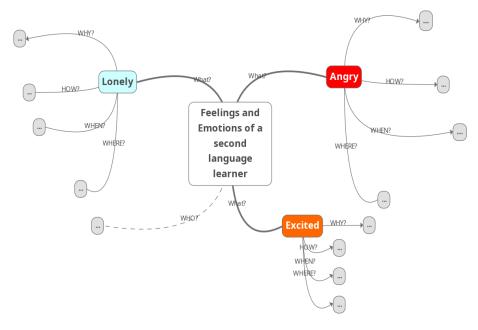


Figure 2. Emotional Thinking Concept Map





References

- [1] Brook, D. Is self-awareness a mirage. New York Times. 2021 https://www.nytimes.com/2021/09/16/opinion/psychology-consciousness-behavior.html
- [2] Roeper, T., & De Villiers, J. (2011). The acquisition path for wh-questions. In *Handbook of generative approaches to language acquisition* (pp. 189-246). Springer, Dordrecht.
- [3] Washington, E., & Zandvakili, E. (2019). The Emotional Climate Scale: Understanding Emotions, Context and Justice. Journal of Education and Learning, 8(1), 21-28.
- [4] Donnelly, J. P. (2017). A systematic review of concept mapping dissertations. *Evaluation and Program Planning*, *60*, 186193.
- [5] Fan, J. E. (2015). Drawing to learn: How producing graphical representations enhances scientific thinking. *Translational Issues in Psychological Science*, *1*, 170181.
- [6] Jonassen, D. H., Beissner, K., & Yacci, M. (1993). Structural knowledge: Techniques for representing, conveying, and acquiring structural knowledge. Hillsdale, NJ: Lawrence Erlbaum.
- [7] Zandvakili, E., Washington, E., Gordon, E., & Wells, C. (2018). Mastery Learning in the Classroom: Concept Maps, Critical Thinking, Collaborative Assessment (M3CA) Using Multiple Choice Items (MCIs). *Journal of Education and Learning*, 7(6), 45-56.
- [8] Zandvakili, Elham, Washington, E., Gordon, E., & Wells, C. (2019) Teaching patterns of critical thinking: The 3CA Model—Concept maps, critical thinking, collaboration, and assessment. SAGE Open 9 (4) 2158244019885142.
- [9] Chouinard, M. M., Harris, P. L., & Maratsos, M. P. (2007). Children's questions: A mechanism for cognitive development. *Monographs of the Society for Research in Child Development*, 72, 1129.
- [10] Sloan, M. C. (2010). Aristotle's Nicomachean Ethics as the original locus for the Septem Circumstantiae. *Classical Philology*, *105*, 236251.
- [11] Hume, D. (2000). An enquiry concerning human understanding: A critical edition (Vol. 3). Oxford University Press.