

Critique: An Exercise in Metacognition

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Judith Burton reminds us that critique is fundamentally an activity of the mind.¹ The term *mind* connotes a sense of self, an awareness or agency, while the word *brain* refers to an organ and structure necessary for the conception of mind. Within this understanding, I propose that what we understand about the brain, particularly about teaching and learning, may inform this particular activity of the mind: the critique. The Remixing Art Education symposium gathers a group of reflective professionals that leads to purposefully writing this paper using first person pronouns. We are making sense of our world together.

I propose that critique in its best form must foster a certain kind of mindfulness referred to as metacognition: thinking about one’s thinking. It involves planning, monitoring, and assessing understanding and performance, including a critical awareness of one’s thinking and learning as well as oneself as a thinker and learner.²

We understand cognition, the process of learning, as an embodied phenomenon brought to popular understanding by neuroscientist Antonio Damasio.³ Our understanding of two processes linked to the brain help substantiate (and make more complex) this embodiment: First, neural pathways in the spinal cord respond to electrical impulses even after complete spinal paralysis. So even though the brain is an electro-chemical command center, complex motor control patterns, such as walking, may be formed in the spinal cord (think headless chicken running around).⁴ Second, the trillions of cells (one-to-three pounds) of bacteria in our guts regulate how we think and feel. Researchers are learning that our microbiomes may be implicated in autism, anxiety, depression, and other brain disorders.⁵

Two theories of cognition also underlie my proposition. The theory of situated cognition informs the proposition for critique as a mindful engagement in the development of metacognition. Learning, the theory goes, occurs within experiences, contexts, and cultures that illuminate the impossibility of isolated knowledge. Learning is a social activity.⁶ The relationship of situated cognition to critique should be evident. Similarly, the theory of distributed cognition further expands learning from a brain, to a brain in a body, to a body/brain in a context, to a body/brain/context filled with other bodies/brains/context, all contributing to the making of meaning and to learning. And of special note for our purposes: distributed cognition recognizes the role of objects in cognition.⁷

Let us now take our understanding of metacognition within our background of situated and distributed cognition and seat them at the table with my pedagogical pal, constructivism. Constructivist educators build their pedagogy on the understanding that we construct our knowledge; we learn by doing within an environment. As such, we may have similar but not the exactly the same experiences as another – or we may have vastly different experiences. This epistemological stance argues for understanding that is shared and arrived at collaboratively.⁸ Often the teacher’s roles in a constructivist educational

setting are creating the appropriate environment to stimulate experiences and collaboration and to be lead framer of questions to deepen the expression of thinking, thus the construction of knowledge. Questions may extend thinking or challenge thinking, reflecting the complexity of the task at hand. Taking the critique as an opportunity for constructivism, a structure is required that can simultaneously remain flexible.

The structure for creating a metacognitive experience using a constructivist paradigm for critique must be characterized by dialogical and dialectical methods. Dialog is the overriding structure through which to construct meaning in the constructivist critique. I, and perhaps you, have experienced a very different form of critique that was more dogmatic with a diatribe thrown in for good measure. Dialogic demands a certain amount of releasing of control on the part of the facilitator/teacher. Rather than imparting a specific understanding, the group develops an understanding in relationship to contexts, disciplines, prior knowledge, and goals. This engages the dialectic in that competing opinions must be placed into communion in efforts to discern the truth (with a lower-case 't'). The process of discernment must be open to both the logical and emotional if we are to be true to the underlying tenets of embodied, situated, and distributed cognition.

In this structure, the teacher becomes a model of metacognition. This kind of teaching is what I call transparent teaching: allowing students to understand your thinking and decision-making. In doing so, students can observe metacognitive strategies for learning including dealing with novelty and being adaptable. By 'thinking aloud' you process questions, seek deeper understandings, and guide the group in their dialogic discernment of the truth. Rather than separating metacognition in to some sort of reflection exercise or discrete unit on 'how to do metacognition,' the process must be embedded within other structures that use and develop metacognitive abilities, like the critique. But, the effort needs to be explicit and purposeful, in service of the goals of the critique, which I hope includes the further development of the students' voices (individual and collective).

To expand on the connection between goals for critique and metacognition, let me provide two examples of ongoing projects that hope to inform our understanding of this kind of thinking within art and design schools and about critique, specifically. First, eight institutions in the Association of Independent Colleges of Art and Design (AICAD) are collaborating on the development of shared language and understanding of common learning goals.⁹ As you might expect, there is wide agreement on the need to learn technical skills, as well as historical and cultural contexts. In addition, the learning goals of these institutions directly or imply several dispositions, specifically personal qualities and creative and cognitive capacities. Personal qualities include resilience, tolerance for ambiguity, and a sense of purpose. Creative and cognitive capacities include curiosity, imagination, and metacognition. In the spring of 2017 a survey will be distributed to all AICAD members to determine if the similarities from the initial six institutions holds across a significant number of others. We are also interested in developing a culture in which assessment strategies such as critique for metacognition may be shared with respect to each institution's autonomy and unique missions.

While many in higher education shy away (or outright run away) from discussions of assessment, we must recognize that critique is a primary source of qualitative assessment in art and design. They are the hallmark of assessment. They are also the most time-consuming and least efficient forms. However, no other form of assessment compares

to the depth of understanding derived from a critique held within the qualities described in this paper. More efficient forms of assessment exist, but they are more reductive quantitative measurements. Measuring the parts does not equal the sum in art and design. That does not mean that instruction cannot focus on specific aspects of developing one's practice. However, it never occurs in a vacuum, and the best teachers are able to hold both the specific and the whole simultaneously when working the students.

The second project involves six AICAD institutions, some overlapping with the first project, which is specifically investigating learning through critique.¹⁰ Led by the School of the Art Institute of Chicago (SAIC) with a grant from the Spencer Foundation, the following three questions guide the research:

1. What are the varieties of critique practiced at the six schools?
2. Is metacognition manifested and developed in and through critique?
3. What, if any, relationship exists among manifestations of metacognition and the types of critique used?

The premise for the research is that critique is virtually unique to art and design schools. Through critique, students learn to pause and reflect in a group of similarly focused classmates and teachers to seek the truth – whether that is aesthetically, technically, emotionally, and/or intellectually. Critique offers the chance to consider choices made, alternatives, goals and objectives.¹¹ As previously noted, students reflect on planning, monitoring, and assessing understanding and performance. They must bring a critical awareness of their thinking and learning as well as themselves as thinkers and learners. The researchers endeavor to determine if the evidence provides insight into the relationship between critique and metacognition in order to propose a more robust, longitudinal study of critique throughout the undergraduate experiences of a larger sample.

In conclusion, I turn to the introduction of the policy brief from the National Association of Schools of Art and Design (NASAD), *Assessment on Our Own Terms*.¹² Art and design professionals know how to do assessment. We spend our lives working to improve our practice. Our problem is not that we do not know how to assess; rather, “we are not as adept as we need to be in explaining to others what we do, how it works, and why it works.”¹³ In considering critique as an opportunity to develop and assess metacognitive abilities, I aim to contribute, with a host of colleagues, to a better understanding of what we do, how it works, and why it works.

¹ Burton, J. (November 18, 2016). Welcome and Opening Remarks. Remixing Art Education Symposium: Art School Critique 2.0. Teachers College – Columbia University.

² Chick, N. (2016). Metacognition. Retrieved from <https://cft.vanderbilt.edu/guides-sub-pages/metacognition/>

³ Damasio, A. R. (1999). *The feeling of what happens: body and emotion in the making of consciousness*. New York: Harcourt Brace.

⁴ Danner, S.M., Hofstoetter, U.S., Freundl, B., Binder, H., Mayr, W., Rattay, F., & Minassian, K. (January 2015). Human spinal locomotor control is based on flexibly organized burst generators. *Brain*, DOI: 10.1093/brain/awu372. Retrieved from <https://www.sciencedaily.com/releases/2015/01/150112082942.htm>

⁵ Kohn, D. (June 24, 2015). When Gut Bacteria Changes Brain Function. *The Atlantic*. Retrieved from <http://www.theatlantic.com/health/archive/2015/06/gut-bacteria-on-the-brain/395918/>

⁶ Aydede, M., & Robbins, P. (Eds.). (2009). *The Cambridge handbook of situated cognition*. New York, NY: Cambridge University Press.

⁷ Hutchins, E. (1995). *Cognition in the wild*. MIT Press.

⁸ Cooper, P. A. (1993). Paradigm Shifts in Designed Instruction: From Behaviorism to Cognitivism to Constructivism. *Educational technology*, 33(5), 12-19.

⁹ Columbus College of Art and Design, New Hampshire Institute of Art, Otis College of Art and Design, Rhode Island School of Design, California Institute of the Arts, Laguna College of Art and Design, Massachusetts College of Art and Design, California College of the Arts.

¹⁰ California College of the Arts, California Institute of the Arts, Maryland Institute College of Art, Massachusetts College of Art and Design, Rhode Island School of Design, School of the Art Institute of Chicago.

¹¹ Tenny, E. (2016). Spencer Foundation Proposal for Research Support: Critique as a Learning Strategy in Art and Design Education. Chicago: SAIC.

¹² Wait, M. & Hope, S. (January 2009). Policy Brief: Assessment on Our Own Terms. Reston, VA: NASAD.

¹³ *ibid.*