The Art of Contemporary Cognition

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Introduction

Contemporary perspectives about cognition and cognitive theory encourage art pedagogy that re-imagines traditional ideas about perceptions, imagination, and the value of artmaking. Outdated ideas surround the importance of artmaking and conceptions of what art can be are eradicated. Cognitive theory acts to understand how the human mind works to form a thought, and how the process of thought influences how we understand and interact with the world. Cognitive explanations of learning went through six major stages of development, 1. The mind as a computer, 2. The body in the mind, 3. Changes in theories of language, 4. Constructivist views of learning, 5. Metaphors as mapping, and 6. Visual metaphors. Through imaginative thinking, the boundaries of language are dissolved. Designing a curriculum that encourages free thought, creative and critical thinking facilitates empathy and understanding.

Dissolving Boundaries

Throughout most of the 20th century, education practice was guided by behavioral psychology and had little use for imagination. Its program of research was largely limited to investigations of stimulus and response conditionings and Intelligence was characterized by the IQ (Efland, 2004, p. 752). Efland (2004) states six major developments had to arise before cognitive explanations of learning could arise. The first of which occurred in the latter half of the 20th century, as "**The mind as Computer**" (p. 752). The mind, from this "functionalist" perspective, was seen metaphorically as a kind of abstract computer program that could be run on any appropriate hardware. A consequence of the metaphor was the hardware…[the body] was

seen as determining nothing at all about the nature of the program (Lakoff and Johnson, 1999, p. 75-76). This approach to the human mind brings to light the similarities of the use of symbols. Both humans and computers operate based on a symbolic system of understanding, however, computer languages do not assign value to individual symbols, rather a combination of symbols. Howard Gardner's multiple intelligence theory expands on cognition by describing symbolic forms unique to each intelligence, which led to the next stage of development for cognitive theory.

The second stage of major development is the viewpoint of "**The Body in the Mind**". This generation of cognitive theory demonstrated that abstract concepts and reason were far more dependent on bodily and sensory encounters (Efland, 2004, p.753). The construction of metaphors and categories in human thought showed the interconnectedness of the mind and body.

The third stage of development, "**Changes in Theories of Language**" saw the influence of the formalist, Noam Chomsky who thought that language was seen to be an "autonomous facility of the mind with its innate universal grammar and syntax independent of aspects external to the body" (p. 753). The 1980s and 90s saw constructivist viewpoints demanding rigid differentiation between the literal and figurative use of languages. *I believe this approach lacks imagination.*

The fourth stage of development, "**Constructivist Views of Learning**" is largely derived from Piaget's late writing on constructivism. Emphasis is placed on meaning-making and knowledge-seeking purposes (p. 754). Recent understanding of constructivism incorporates a social context and allows for both independent study and cultural practices.

The fifth stage of development, "**Metaphors as Mapping**" incorporates the ideas of Lakoff (1993) who argued metaphorical expressions are thought forms based on the underlying conceptualization of reality. "Metaphor involves the way we conceptualize one mental domain in terms of another" (Efland, 2004, p. 754). Lakoff (1993) further explains metaphor was "not just a matter of language but thought and reason". This viewpoint of metaphor as opposed to the view that metaphors are linguistic expressions. It is proved correct with the realization that linguistic expressions *do* result in different metaphors. "We can't turn back now" would constitute another, entirely different metaphor…Yet we don't seem to have dozens of metaphors here. We have one… (Lakoff, 1993, p. 208). "linguistic relativity" — harkens back to the 1930s. This hypothesis asserts that language doesn't just express ideas, it actively shapes them, determining how we understand the world around us (Madhusoodanan, Skibba & Feeney, 2019).

The sixth stage of development, "**Visual Metaphors**" recognizes metaphors whose meaning is conveyed directly by images rather than by words. Man Ray's photomontage "Vilon d'Ingres (1924) qualifies as a visual metaphor (Efland, 2004, p. 755).

Designing Curriculum

Understanding the evolution of cognitive theory allows art educators to implement the findings. Art is a subject that allows for cognition beyond the "acquisition of knowledge found in books and lecture complied and organized by scholars" (Efland, 2004, p.756). The implications within art education can be seen as a method of enhancing the cognitive capabilities of individuals through domains calling for an array of abilities and differing approaches. In other words, improving the learner through different approaches that excite different intelligences.

"The arts are cognitive activities, guided by human intelligence, that make unique forms of meaning possible. (Eisner, 1981, p. 48). Eisner disproves the view that cognition requires that ideas be linguistically mediated, next he argues that all concepts are sensory in charter, he then asserts people invent new forms of representation or borrow from those already available in culture. (Eisner, 1981). The arts are not a mere diversion from the important business of education they are essential resources. (p. 52). Artmaking can extend beyond the reproduction of ideas or techniques and towards the creation of new ideas.

Free thought, Empathy & Understanding

Creative self-expression in art education was a child-centered approach that had its roots in psychology that was dominant in the field as early as the last 1930s and has lasted for over 50 years (Zimmerman, 2009, p. 284). The core of this movement is to express the inherited creative ability of each student without interfering in their innate ability by providing support, resources, supplies, and motivation. (Zimmerman, 2009) Assessment should be focused on not only the end result but the creative process itself.

Creativity is an indispensable force in intellectual, social, cultural, and economic development (Sternberg & Kaufman, 2018). Teachers are rewarded not for creativity, but for preparing students for standardized tests, which themselves do not measure creativity but measure understanding based on memorization. Sternberg & Kaufman (2018) assert the bottom line is that scholastic tests, in large part, are reflections of what a society values and tests in the United States and much of the world fail to measure, and hence to reward or even recognize, creativity (p.1). Resources and the availability of materials affect the educator's perspective,

Sternberg and Kaufman (2018) write, the Limited resources tend to encourage conservatism in ideation and hesitation to take risks. (p. 5).

In the article, “Connecting Creativity to Understanding” Lois Hetland writes about the need for new ways of thinking. “There’s a big difference between educating for creativity and educating students for factory workers” (Hetland, 2013, p. 66). She advocates the importance of understanding as an educational goal, and questions should education move towards creativity? She proposes Studio Habits of Mind (SHoM) as a basis for interdisciplinary habits to explore, play, learn, and take risks (Hetland, 2013). This approach to curriculum development allows for students to explore new ideas and form their own interpretations. This has vastly positive implications for implementing a curriculum that seeks to change the status quo.

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