Constructivism: A Perfect Marriage With Art Education.

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Abstract

There is a need for a clear definition of constructivism as it applies to education. Constructivism is the belief that humans actively construct their own meanings of the world by building upon prior experiences. Included in this definition are two broad translations of this philosophy, which are referred to as “developmental” and “sociocultural” constructivism. Developmental constructivism deals with how an individual constructs their learning, and sociocultural deals with the individual in relation to their social context. Individuals who had a direct influence with the origins of constructivism include: John Dewey, Jean Piaget, and Lev Vygotsky. Dewey believed human learning was a communal process where the learner gathers and constructs knowledge by being immersed in the real world. Piaget’s notion of learning involved four different stages of human development based on the learner’s age and personal experiences. Vygotsky developed a theory called the “Zone of Proximal Development” that said humans learn in a step-by-step process where knowledge is constructed while interacting with an adult. With the understanding of the constructivist theory, we begin to see the positive light it casts not only on education in general, but especially in relation to art education. There are unlimited ways that the constructivist approach can be used within the art classroom. With the development of DBAE, the constructivist art educator has been given a framework in which to build their curriculums. Together with constructivism, DBAE has also been used politically to help pull art programs back into mainstream curriculums of schools. Furthermore, the successful city run schools of Reggio Emilia, Italy prove that the constructivist approach to art education can help students make connections with information in the regular classrooms.
Constructivism: A Perfect Marriage with Art Education.

The constructivist philosophy of education has gained great acceptance as a current trend in art education, and in education in general for that matter, over the past 30 years. In fact, it is so prevalent in the academic world, it is almost unanimously praised. Education Departments at colleges and universities use it as almost a “given” technique for preparing beginning teachers. D.C. Phillips (1995) suggested that in regards to educational theory “constructivism has become something akin to a secular religion” (p. 5). The praise certainly seems to have a lot of substance to it. However, do we really know what constructivism means or where the ideas arose? A simple three or four line definition of the concept does not seem enough to explain its vast implications as an epistemology. Yet, there are countless nuances in the debate over constructivism as a philosophy about the nature of knowledge. So many, in fact that it’s meaning has become somewhat vague and confusing to many educators. We need a clear definition with the historical context. Furthermore, what positive implications does constructivism have in relation to art education?

The philosophy of constructivism deals with the nature of knowledge. The word constructivism comes from the root word construction. According to the Merriam-Webster Dictionary (2004) construction, a noun, means, “something built, created, or established” (p. 156). A metaphor for learning, constructivism becomes the acquisition of knowledge compared to the construction of a building (Fox, 2001). Hence, constructivism is a philosophy of learning based on the belief that human beings learn through actively constructing their own understanding of the world they live in by reflecting, adapting and building upon prior experiences (Simpson, 1996). Three
principles (Brooks & Brooks, 1995; Green, 1995; as cited in Prater, 2001) that guide the constructivist approach include these facts: 1) learning requires understanding of wholes rather than parts, and the connections between concepts are more important than the hierarchy of content, 2) curriculum reflects the inquiry process of the learner, 3) with the instructors guidance, the purpose of learning is for the individual to construct his or her own meaning by determining their own objectives and tasks. To constructivists, knowledge is more personal and regarded as something constructed from the learner’s prior beliefs and experiences. Individuals construct their own meaning in this way so that the knowledge that they create becomes subjective and, in this sense, is less of a set of absolute truths.

The constructivist approach to learning can be viewed as a rejection of the traditional models of teaching and learning and a behaviorist approach. The traditional or fact-based model of education is an approach where educators present knowledge as facts that appear as truths directly to the learners. The learners are viewed as empty vessels waiting to soak up information and knowledge. Michael Prater (2001) states that “from a traditional point of view, a discipline of knowledge is composed of facts that are “true” and considered constants, existing in a hierarchy that represents the structure of the discipline” (p.44). Furthermore, not only are these constant truths presented in a sequenced pattern of importance according to the subject matter, they are also removed from the learner’s experiences. The constructivist view holds the belief that the acquisition of knowledge is produced by the learner from existing experiences rather than the idea that knowledge is independent of the learner and based on acquiring facts that are viewed as truths (Airsain, Walsh, 1997). The behaviorist approach to learning is
based on the premise that individuals learn behaviors, and therefore, can also unlearn them. It is concerned with observable and measurable aspects of human behavior rather than an individual's mind or feelings. An example of the behaviorist method of teaching might be for an educator to encourage learners with a reward to answer questions correctly. This approach to fostering knowledge would also be rejected by constructivist because, alone, this method seems to simply make the learners comply with what the instructor wants rather than including any form of self-discovery. Donovan Walling (2001) noted that the behaviorist approach to education basically discounts the learner's prior knowledge, experiences, and self-inquiry. Again, by using this approach, knowledge becomes removed from the learner's own mind, feelings, and experiences.

It would be important to add to the definition the fact that there are two broad translations of the constructivist philosophy. The first one is where the acquisition of knowledge is viewed from the standpoint of the individual learner, and the second version is where it is viewed from the standpoint of the individual learner influenced by their social context. Peter Airasian and Mary Walsh (1997) refer to the former as "developmental", and the latter as "sociocultural" constructivism. The former version mentioned is the more traditional philosophy that holds the belief that individual learners construct their own knowledge and meanings of the world. It is more concerned with the cognitive contents of the individual's own mind. The latter philosophy is a split from the more individual developmental standpoint, and holds the belief that the knowledge is gained by the individual in their social or cultural setting. The individual does not acquire knowledge as an independent entity, but rather by existing in a group or culture. An individual may create knowledge changes in the group or culture, and vice versa. The
main point of the social constructivists is that knowledge cannot take place within an individual without the addition of a social component (Arasian, Walsh, 1997).

So, where did the ideas of constructivist learning arise? There are many individuals who have had a hand in the development of ideas for constructivism. However, it seems to be a consensus among most authors and scholars that the ideas and key concepts of current constructivism models stem from the minds of three philosophers. These philosophers are the American born John Dewey (1859-1952), the Swiss born Jean Piaget (1896-1980), and the Russian born Lev Vygotsky (1896-1934).

Dewey is considered the father of modern American education. His beliefs were probably the most influential in the field of education in the twentieth century and beyond. In the first half of the twentieth century, Dewey wrote several poignant books such as Democracy and Education, Art as Experience, and Experience in Education that effectively dismantled the notion that the idea of a traditional education is valid. His ideas of teaching and learning would eventually be referred to as progressive education. Judith Simpson (1996) points out that although both progressive education and constructivism may have some differences in regard to teaching methods, the intent of both of these approaches is to build upon and make connections to student’s prior experiences. Dewey saw the human mind and its development as a communal process where the learner gathers knowledge by being immersed in the real world. He argued that education should not focus on the memorization of facts that are removed from the learner, but it should focus on the individual and the whole of their experiences. Dewey believed that learners should actively pursue knowledge and be encouraged to think for themselves. Not only did he refute the idea that humans learned passively, but he also
believed that they needed to learn how to learn in the first place. It is important to note that although Dewey never cared for the memorization of rote facts, he also believed that there should be control in areas of society, classroom discipline, and skilled practices. He realized that too much freedom could be a negative thing when trying to acquire knowledge (Garrison, 1999). Of course, at the time these books were published and Dewey was still active, the term constructivism had not yet been coined. However, his ideas were a great influence on the current educational movement.

Jean Piaget began his career as a biologist. However, he became interested in the scientific thought process, which ultimately led him to explore the intricacies of the thought process in general. He developed a theory of how children adapt to their environments by assimilating knowledge through different stages of development. He called this theory genetic epistemology. He proposed four cognitive structures to label the different stages of development. The first structure begins at birth to about age two and suggests that knowledge is gained through motor skills. The second structure involves the learning of symbols, language, and the properties of physical objects. The third stage of development is where the child can begin to conceptualize or think logically about concrete objects and events. Finally, by the fourth stage, a child can begin to think abstractly about these concepts. Piaget believed that humans learn by assimilating experiences into these existing cognitive structures and adapting these structures to make sense of the new information by, what he called accommodation (Webb, 1980). While Piaget believed that development is relative to age levels, he also believed cognitive development varies for each individual based on their personal experiences. Piaget’s theories provided a part of the bases for constructivist learning.
Airasian and Walsh (1997) believed he should be grouped as a developmental constructivist based on his framework where the individual is the meaning maker, and the development of the individual’s own mind is the goal of acquiring knowledge.

The Russian born Lev Vygotsky began working on his theories about learning around the time of the Russian Revolution. He wrote many articles and a few books about his theories of learning and psychology. The most well known is his 1934 book entitled *Thought and Language*. He is best known for his ideas in educational psychology that lean toward a sociocultural theory. Therefore, today most constructivists generally group him as a sociocultural constructivist. In fact, his ideas form the most significant bases for sociocultural constructivism. He believed that learning was a step-by-step process that involved interactions with adults with tools and information about their culture to help the learner develop their own view of the world (Gallegher, 1999). Vygotsky observed that when students were tested on information and tasks on their own, they did not achieve at the levels other students were reaching while working with an adult. The adults in these experiments were not teaching the students how to perform the tasks outright, but rather were helping them simply refine their thinking or performance. Because of this, he developed a theory called the “Zone of Proximal Development”. To Vygotsky, the term “proximal” generally meant “next”. This theory was basically a model proposed where the learner is continually adding the “next” information until they are able to do something on their own (Atherton, 2005). This implies that the adult, or instructor must know what is contained in the learner’s “zone” in order to help them build upon prior knowledge so that they may eventually achieve independence in the discipline or subject.
It would also be important to mention the ideas of constructivism proposed by Ernst Von Glasersfeld. Glasersfeld is a psychology professor at the University of Georgia. He has written many articles and books about his theory of knowledge called “radical constructivism”. This philosophy states that because information assimilated by the learner is different in every individual’s social context, it is impossible to assume that absolute truths or facts really exist. Basically, this theory proposes the idea that there is no “real” knowledge and therefore, all knowledge is subjective and contained within the learner’s own mind. Radical constructivism was derived from the ideas that Descartes proposed where the mind is the only thing that exists. Galsersfeld is grouped as a sociocultural constructivist and his theories are very influential. However, he also has a lot of critics based on the fact that he refutes the idea that any true knowledge exists. Most educators would find this theory very hard to implement into a classroom since, really, anything goes. Because of this premise, the question of how an instructor would effectively assess student achievement arises.

A solid definition of constructivism given in its historical context; we then may discuss what implications this has for educators and students in the constructivist classroom. Constructivist learning implies that the classroom is no longer a place for students to passively acquire knowledge from the instructor. Rather, the educator acts as facilitator where students actively pursue knowledge. As a facilitator, educators must gain their students interest and act as a guide who prompts, gives feedback, and assesses the students understanding while they are actively seeking their own knowledge of the subject. What this approach implies is a shift of emphasis away from the teacher and towards the students. Also, it is important to note that a greater assimilation of
knowledge occurs when students are actively engaged in “hands on” projects of self-inquiry that build upon their experiences. This approach seems to lend itself very well to art education.

So, what positive implications does constructivist learning have on art education? John Dewey (1934, as cited in Simpson, 1997) argued that there exists a “common substance” between aesthetics and other disciplines, and that different cultural subjects and functions should be viewed from a single vantage point. He suggested something that is learned in one context or subject may be reinforced in another. Dewey also believed that art was an experience involving the whole person that linked the learner to their environment. With this notion, a connection between the constructivist approach and art education can be easily made. The main purpose of the constructivist approach to teaching is to have the learners absorb information in as many ways as are possible (Simpson, 1996). The visual arts are full of opportunities to make this happen. Constructivism can be used effectively in art classrooms, or it can also be used in a way that incorporates art into regular classrooms to help foster learning.

As a visual art instructor, I have first hand knowledge of the positive benefits of constructivist learning in the art classroom. For example, before a unit on painting, discussing Isaac Newton’s color theory as a lead-in to different color schemes would not only help them make more effective color choices while painting, but also help reinforce information they have already been exposed to in a science class. Not to mention the fact that some of these same students will also be using these color schemes in an interior design class. Connections like these can go on and on with projects dealing in some way with social studies, mathematics, or literature to name a few.
With the development of Discipline Based Art Education (DBAE) the art instructor has been given a constructivist point of reference to base their projects upon. It is no coincidence that the development of DBAE and the constructivist approach to learning coincided at about the same time. Championed by the Getty Center for Education in the Arts, DBAE is a method of teaching art where four disciplines are included to better enhance the learning of art. These four disciplines are art production, art history, criticism, and aesthetics. This approach was developed to move away from art curriculums that were too centered on art production. By incorporating these disciplines into the art curriculum, students will be able to not only use art media, but will be able to read and critique art, be aware of art history and the personal context of what they are seeing around them, and will have a basic understanding of aesthetic issues (Greer, 1997, as cited in Walling, 2001). The possibilities of using this in the art classroom are limitless. For example, a lesson on Pablo Picasso’s painting of *Guernica* may be given. At the start of the lesson, the instructor could inform the students about Picasso’s life, the media the painting was made in, the date of the work, other facts about the events depicted with possibly some copies of newspaper clippings, and some other events of the time. Next, the students could be put into groups and asked why they believe *Guernica* is an important piece of artwork and present their views to the rest of the class. In this manner, the students would be critiquing the work, making aesthetic judgments, and learning about history. Not only that, but they would also be encouraged to make connections between their own interests and discoveries about the painting (Prater, 2001). Again, with so many different types, styles, and a vast historical context to pull from in art, the possibilities for these types of projects are unending.
Another positive of constructivism and the DBAE approach is that it has been used politically to help pull art back from the fringes and into the mainstream curriculum of schools. Walling (2001) points out that coupled with the influences of national goals and standards, postmodernism, and new technology, constructivist teaching and DBAE have helped push art education back into the heart of curriculums. *National Standards for Arts Education: What Every Young American Should Know and Be Able to Do in the Arts*, published in 1994, had one standard that was common to all of the arts disciplines. This standard was that students should be able to make connections among various art forms and other disciplines. Hence, with help from the constructivist and DBAE approach, the true substance of art and learning has been revealed to the general public and government agencies. No longer can or should art simply be seen as something “quaint” or “pretty” to be made by the students.

The constructivist approach to art education has been proven to help students make connections with information in the regular classrooms. A case in point would be the Reggio Emilia schools near Milan, Italy. These schools are so successful that policy makers and art foundations in the United States have begun to take notice. Marjorie Schiller (1995) explains that the city of Reggio Emilia runs about twenty of these public schools for children three to six years of age, and thirteen centers for infants and toddlers. They came into existence after World War I and have blossomed into wonderful institutions where the constructivist approach to the arts seems to be working quite well. Borrowing the philosophy of Vygotsky, the fundamental idea of these schools is that the children’s interactions and relationships with other students and adults are vital. Furthermore, great emphasis is placed on children’s symbolic art making to represent
their learning and assimilate information more firmly. They do this by instructors facilitating a curriculum integrated with art where they may have broad curriculum goals but also follow the lead and interests of the students. This is referred to as emergent curriculum. Art is not taught as a separate discipline or subject but is integrated into the children’s regular classroom work simply as an additional “language”. In addition to writing, visual art is used to explore, build upon, and revisit old understandings. Each of these schools employs what is called an atelierista, or art specialist who helps the regular classroom teachers see the visual possibilities of themes and projects that are not readily apparent to them. These art specialists can also work directly with the students to help them choose appropriate tools and mediums for their work and to offer technical advice. John Dewey, with his views of progressive education and a common substance existing between aesthetics and other subjects, would no doubt have endorsed these schools.

In conclusion, the purpose of this paper was to bring clarity to the philosophy of constructivism, relate where the foundations for the philosophy arose, and discuss some of the positive benefits it has in regards to art education. To be honest, when I set out to write this paper, it was my intention to also include some negative aspects that using the constructivist approach to learning and teaching may have on art education. However, after reading countless articles and searching for information, it became apparent to me that there are none, or at least not major ones. A few articles cited how the constructivist approach may be hard for educators to implement (mostly in regular classrooms). A few authors discussed how sometimes constructivism can be used in a shallow manner resulting in “DBAEisms”, or student art work such as Vincent van Gogh paintings made out of yarn. However, to me, these critics appear to be nitpicking. If art educators and
instructors in other disciplines are willing to work together and put the work in to this approach that is required, the positives simply seem to outweigh the negatives. The truth is, Dewey, Piaget, and Vygotsky all saw the value of art in relation to the human as a wholistic learner. All indications, especially with successful schools like the Reggio Emilia, say that they are right. The constructivist approach to teaching and learning can have a perfect marriage with art education.
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