

WE ARE ALL DIFFERENT

How Multiple Intelligences Use In The Art Classroom



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MATH TEACHER

Introduction

“You sit with your classmates in the same classroom, listen to the same teacher, and do the same assignment. Why is your math grade lower?” my middle school math teacher asked after an exam. Facing this question, as an eleven-year-old me did not know how to respond to her. I questioned myself for many years until I read Howard Gardner’s Multiple Intelligences (MI) theory. Gardner indicates that everyone has their own intelligence profile (Gardner, 1983; 2011). In other words, everyone is different. When I was in middle school, art was my best subject, but it was the least important discipline in my teachers’ minds. However, “many researchers, educators and theorists cite the importance of creativity in education” (David, 2016, pp. 91-92). Art, as one of the first impressions in the human brain and an interdisciplinary realm in education, plays an essential role in our lives. This paper discusses how MI theory is used in the educational field to guide people by motivating their intelligences through child initiated activity, teachers as observers, and adult initiated activity in the art classroom.

Theory

MI theory serves both teachers and students because it helps them reach vocational and avocational goals that are appropriate to their particular spectrum of intelligences (Gardner, 2011). Gardner proposes that human beings have nine intelligences: 1) Linguistic intelligence — an individuals’ ability to understand reading and writing; 2) Logical-mathematical intelligence — as the name implies, is logical ability which can identify connections and mathematical skills, as well as scientific ability; 3) Spatial intelligence — deals with comprehending three-dimensional images and shapes;

4) Musical intelligence — involves ability of music performance, composition and appreciation; 5) Bodily-kinesthetic intelligence — the ability to solve problems or to fashion products using one’s whole body, or parts of the body; 6) Interpersonal intelligence — a kind of communication skill that lets people understand each other; 7) Intrapersonal intelligence — the ability to understand yourself and plan your own life. 8) Naturalist intelligence — the feeling of nature and the natural world for the individual; 9) Existential intelligence — the ability to use collective values and intuition to understand others and the world around. All these nine intelligences compose the human intelligence profile.

Art has strong interdisciplinary connections to personal, community, cultural, historical, and scientific events (Ulbricht, 1998). Based on MI theory, Gardner discovered there are many connections between children’s minds and art (Gardner, 2011). He found that the ability to recognize patterns, and then to retain them, is discernible in the first years of life, and these capacities may serve as a sensitive measure for one’s inherent talents in one or another intellectual domain. In addition, the first and foremost expression that emerges in the mind is artistry. Artistic perception and production involve the use of symbols – a faculty which may well constitute the hallmark of human cognition. In K-12 education, art plays an essential role in bringing out students’ potentials. Involvement with the arts proves to be one of the best ways for children to explore their dominant intelligences; it is also an excellent avenue to allow them to present themselves to their own culture. In this way, art teachers can become self-motivated and self-expressing in their creativities. Teachers use MI theory and activities to create more opportunities for students to explore their experiences. As the educator Diane Jaquith

says, “Autonomy empowers young artists in their creative inquiry” (Jaquith, 2011, p. 17) and enables children to become enthusiastic and active learners (Jaquith, 2011). Danielle Jay Boone from Queensland University of Technology in Australia supports the idea that MI theory has transformed views of teaching and learning (Boone, 2007). In particular, educators have reflected on their own teaching pedagogies and the individual learning styles of children in their classrooms. Research has shown that teaching to a balance of students’ intelligences increases individual student performance (Sternberg, 2004).

Pedagogy

The use of MI theory in the education field serves individual centered classrooms, which can drive three major pedagogies: child initiated activity, teachers as observers, and adult initiated activity.

Child initiated Activity

A child initiated activity is a class activity which is solely decided upon by the child and is the result of their own motivation to explore a project or express an idea. The student takes total ownership of the activity and may change it to a different purpose than originally intended by an adult (Sial, 2018). Child initiated activity mainly involves the intrinsic motives that are done for their own desire (White, 2005), so it provides a lens through which teachers may understand their students’ learning styles and gain insight into their metacognitive process (David, 2016). Gardner also mentions that teachers should address the ways in which each child’s profile of intelligences can be assessed in the individual centered classroom (Gardner, 1983). In the child initiated art learning, stud-

ents examine, interpret, appropriate and embed within their worlds of fantasy, imagination, and personal narrative and reveal themselves through self-initiated artwork. This results in a variety of visual repertoires from which children readily draw upon during their creative engagements (David, 2016). Furthermore, empowering students to become critical agents through choice and autonomy leads to art-based approaches of inquiry and spontaneous creative learning experiences (David, 2016). Exploring children’s creativity is not only a topic in the art class, but “self-initiated creative engagement is also beneficial to other types of learning such as helping children understand their environments, make sense of the world, and develop their self-governance competencies” (David, 2016, p.21).

Teachers as observers

The second pedagogy driven by MI is teachers as observers. Gardner suggests that it is better to assess intelligences by watching people. Research suggests that students learn by observing one another’s creative investigations and teachers can learn from the students’ artistic activities and observe how these activities can inform classroom practice (Thompson, 1999). Teaching is an art medium. To plan, present, and evaluate art lessons as artworks, and to view the content and outcome of the students’ work in the light of contemporary is an art process (George, 1988). The teacher and author, David Rufo, put this idea, teachers become observers, into practical, so according to him, being present with his students for the duration of their time in his classroom, allowed him to find out what the self-initiated creativity of children in the classroom. It tells us about the ways in which children go about the learning process and navigating a classroom space. The artmaking

process may show students' domains and the curricula become the field in the assessment (David, 2016). As can be seen, teachers assess students' intelligences through observing students' domains, which are their interests and behaviors that influence others in the artmaking process, and can help them to improve other intelligences by lessons they designed.

Adult initiated activity

Adult initiated activity the third pedagogy, is an activity that led by instructors. Students have free access in the process, but these activities focus on a specific learning purpose and aim to "ensure a balance across the curriculum" (Sial, 2018). Teachers excavate the extrinsic motives of students, which is considered appropriate desires (White, 2005). In the activity process, teachers trigger students' potentials in purpose and teach knowledge with a specific learning intention in mind. Children have some free areas,

which may feed their experience. For example, the tools and forms are unlimited, which provides broad space for children's creativity. Even though in the teachers' drive activities, children can use art behaviors to perceive and explore the world, and narrate their experiences. "The process of artmaking is more important than the product because it could and should involve thinking and problem solving" (Eliza, 2003, P.23). In an individual centered art room, several intelligences are activated simultaneously, as evidenced by the different media that are explored during one class period (Andrew, 2005).

History Context

The individual centered classroom as called the children-centered classroom appeared in the 1880s, and was known as The Expressive Stream (Efland, 1990). Educator Franz Cizek in Vienna, Marion Richardson in England and



others in the United States claimed children are artists and their art is “primitive” art and valuable. They built a new pedagogy based on this concept called creative self-expression or free-expression. Franz Cizek’s philosophy was to provide a free space for children’s self-activity avoiding all adult influence in the child’s art. Cizek’s philosophy was also called hands-off philosophy. From the 1920s to the 1940s, an educator group including Marion Richardson, Florence Cane, Natalie Cole, and Victor D’Amico, contributed to this new pedagogy. They believed that children could depict their inner natural desires through art, and those teaching the children must be artists themselves. Florence Cane was the biggest contributor to the first child-centered school, Rugg and Shumaker’s The Child-Centered School, in 1928.

At this point, psychologists considered artistic aptitude as a special talent that was not relevant to general intelligence (Efland, 1990). Malcolm Cowley also described the expressive ideology from this era in his book *Exile’s Return: A Literary Odyssey of the 1920s*, “The idea of salvation by the child. He explains that each of us at birth has special potentialities which are slowly crushed and destroyed by a standardized society and mechanical methods of teaching” (Cowley, 1994, p. 60). Freud similarly assumes that the unconscious human mind is the primitive inner motivation, and he put creative self-expression in the scientific sanction of Freudian psychology. Based on Freudian psychology, educators thought art could be a channel for children to express emotions (Efland, 1990).

The modern study of intelligence can be traced back to Binet (1916), who began his study in the late 19th century and established intelligence testing. According to Binet, intelligence was generally believed to be a single inherited entity. He rationalized that hu-

mans could be trained to learn any material suitably. Gardner (1983) challenged Binet’s theory, as well as Piaget’s idea of cognitive development. Gardner also did not agree that intelligence could be measured from an IQ test. He said the IQ movement is blindly empirical. He said, “To put it in terms of the Soviet psychologist Lev Vygotsky, intelligence tests fail to yield any indication of an individual’s ‘zone of potential [or “proximal”] development’” (Gardner 1983, p. 19). Among those beliefs are the existence of a multitude of intelligences in human beings which are independent of each other, that each intelligence has its own strengths and limitations, and that the mind is far from imaginative at birth, so Gardner established his own theory— Multiple Intelligences theory in 1983 (Gardner, 1983).

Howard Gardner

There is no doubt that Howard Gardner is the father of the MI theory. He had devoted himself to studying developmental and cognitive psychology since the 1960s. Because of his experience working at Boston Veterans Administration Hospital, he studied the behavior and testimony of brain damaged individuals and discovered there were different types of intelligences of human beings. In 1976, he wrote an outline for a book based on his discovery called *Kinds of Minds*, which was the predecessor of *Frame of Minds*, which is his first book about MI theory. He developed his intelligences idea into MI theory in 10 years supported from a Dutch foundation, the Bernard Van Leer Foundation and Project Zero (a basic research group at the Harvard Graduate School of Education). After *Frame of Minds* was published in 1985, MI was becoming a hot trend among educators and ps-

ycologists, which was considered the first wave of interest of MI theory. There are two other research projects, had done by Gardner and his colleagues in the Harvard University, that grew out of the first wave: the first is Practical Intelligences for School, which is a middle school curriculum; and another is a set of curriculum-and-assessment instruments designed to document learning in graphic arts, music, and literary expression. By using these reference teachers can know and assess students' intelligences profiles; educators choose the greatest importance areas, topics, or ideas they focus on and present them in many ways. These make MI theory individualize and pluralize.



Gardner always said MI theory is like his child. During the middle 1990s, many people misinterpreted and misused MI theory, so he established the GoodWork Project, and published many articles to guide people in using MI correctly in the teaching and learning of the world. He said, "Multiple intelligences should not --- in and of itself--- be an educational goal. Educational goals need to reflect one's o-

wn (individual or societal) values, and these values can never come simply or directly from a scientific theory" (Gardner, 2011, p. xvii). To this day, he does not stop his research on the MI theory, and continues to develop it like a father caring for his children. After the first seven intelligences were published in 1985, he and his colleagues in the Project Zero continued researching other possibility intelligences. They added naturalistic intelligence in 1995, existential intelligence in 1999. He also mentioned another two intelligences, which are the pedagogy intelligence and intrapersonal intelligence in an interview in 2016 (Gardner, 2016). In May, 2019, he retired, but his research did not stop.

MI In School

In the spring of 1989, the New City School in St. Louis, Missouri, built a long-standing relationship with Gardner. The New City School began to incorporate MI into their curriculum. They try to provide opportunities for students to learn through a variety of intelligences based on three concepts from MI:

1. There are many different ways to learn.
2. Who you are is more important than what you know.
3. The arts are crucial.

(Hoerr, 2004, p. 41)



There are many different ways to learn

Teachers use MI theory as a guideline to teach skills and information a variety of perspectives, and students learn many different ways to solve problems. The school aims to provide a broad opportunities for students to explore different intelligences. The principle of the New City School, Tom Hoerr (2004) gives an example of a lesson. He writes, when students study the Civil War in history class, they do not only use their linguistic intelligence by going through the historical text. They might discover and understand the life of that period by discussing and analyzing Matthew Brady photographs or portraits of that time, so they may also develop their spatial intelligence through looking at the historical records. They can enhance, interpersonal intelligence by discussing with other classmates and sharing ideas, and naturalistic intelligence through looking at images of nature scenes and the world. Hoerr advocates, "Good teachers have always worked from students' needs, have always sought ways to tailor curriculum and help students learn" (Hoerr, 2004, p. 43).

Who you are is more important than what you know

People have their own dominant intelligence, so it makes everyone unique. Which intelligences we should put more focus on, is a question for facilitators. Gardner claims teachers, parents, or students can decide which they want to pursue (Gardner, 2011). Life is too short, so we cannot improve all intelligences. The New City School allows students sometimes choosing to use their dominant intelligence, but they are required to branch out using at least four other intelligences (Hoerr, 2004). The school has a Centennial Garden, which is an acre of their playground, and includes a dry creek bed, pla-

ground, and includes a dry creek bed, planting boxes, trees, a variety of plants and buffalo grass, large rock seats, benches and a pavilion. This place is where many intelligences can be explored, for instance, using naturalist intelligence to dig, observe, grow and explore plants; developing intrapersonal intelligence by reflecting in this place; and improving bodily-kinesthetic intelligence from planting. Students and teachers can mold learners' minds in this processes. The New City School teachers believe that each child has special talents and their job is to identify and cultivate them in order to let them discover who they are and what they need.

The arts are crucial

The influence of art is not overt, so people cannot see or notice it immediately. This is the reason why my teachers thought arts were not important. However, art as an interdisciplinary subject contains and triggers other intelligences, so the New City School uses the exhibition and presentation assessment, which evaluates curriculum project. It incorporates different arts. For example, students build dioramas to show the lives of the Native American tribes they learned about for their history class. At this point, my middle school math teacher would worry that making art is a waste of time or it is useless for the standardized tests. To answer concerns of scholastic skills from outside, Hoerr says, "Using MI does not mean lowering expectations, vitiating curriculum, or allowing students to pass through school without learning how to read, write, and compute" (Hoerr, 2004, p. 43). The school and teachers have a responsibility to help every student to gain the scholastic skills, but students can learn more than only the scholastic skills. This school uses art as a tool to let students express themselves and develop in other subjects. As

a result, through more than ten years of experiments, the New City School have succeeded. Their students' tests scores average many years above grade level on standardized tests. The most valuable part is their students enjoy school; they take leadership positions within their future school communities; they seek ways to solve complex problems; they know themselves as learners.

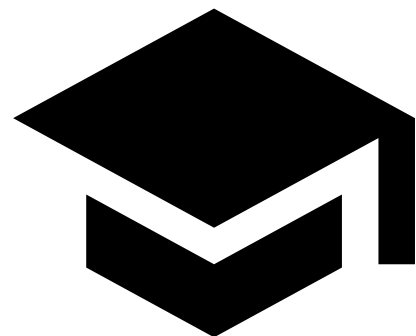
Conclusion

The theory has a strong power giving people language and knowledge to stand on. MI theory puts the individual in the center, which provides a lens for people to look at education differently. It gives a solid reason for me to teach and learn more individualized and diversity. Borrowing Bettina Love's idea, "theory is a 'location for healing,' like the North Star" (Love, 2019). MI theory is my North Star. I had been labeled untalented girl during my k-12 period. I had a strong sense that wants to tell my teachers, we are different, but I did not know-how. Fifteen years later, I am so grateful I read Gardner's book and had that imperfect studying experience. As an art teacher in the future, I highly suggest schools use MI theory in their art classroom. My personal experience proves that students might have trauma if their teachers did not know the MI theory. The concepts from other educators and psychologists support the idea that art is an essential subject in K-12 education. The practical example in the New City School explains the success of MI theory in a school for more than ten years. I hope this paper will help people, both educators, students, and parents, to understand that everyone is different.

Author Bio

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