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Jena Gilbert-Merrill , '16

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Art & Experiential Education: How a Deweyian Perspective on Art as the Key to Holistic Learning and Growth Can Inform Contemporary Art Education

By Jena Gilbert-Merrill
April 1, 2016

Special Major in Studio Art & Educational Studies
Advisors: Elaine Allard & Randall Exon

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By Jena Gilbert-Merrill

Abstract

Dewey's conception of the role that experience should play in learning and development has implications for art education. This essay explores Dewey's philosophy of experiential education and the ways in which his theory resonates with artistic experience and practice. It overviews the history of art education in the United States, as well as various arguments for and trends within it; and contains three case studies – Montessori schools, Waldorf schools, and Black Mountain College – whose practices, pedagogies, and underlying philosophies are examined from a Deweyian, experiential perspective. Throughout this investigation, implications for contemporary art education are considered. Dewey's writings and the case studies together reveal that a holistic art education in which artistic, aesthetic activity and experience are integrated into all aspects of the curriculum and classroom environment and emphasized by virtue of their ubiquity, students may develop a perceptual awareness and aesthetic sensibility that benefits them in their learning and their daily life.

Introduction

Art has an important role to play in education and in society and culture at large. As a creative endeavor that impacts the way we see and experience our surroundings and each other, studying art is a crucial component of a well-rounded, holistic education when it is taught in an appropriate manner. As an artist myself and, more generally, a person interested both in how learning happens and in how art functions in society, I sought to investigate how John Dewey's conceptions of experience and art can illuminate the role that art can play in learning, education, and development on philosophical and practical levels. The present essay is an exploration of Dewey's experiential educational philosophy. It looks at the ways in which Deweyian beliefs about education have been and can be put into practice, as well as the benefits and implications of these, and similar, philosophical and pedagogic approaches as they have been implemented in art education.

This investigation is made up of three main sections. The first chapter examines Dewey's writings on experience and education, and explains the role that art can play in the kind of

education for which Dewey advocates. The second chapter consists of three case studies, examples of educational models that either directly or indirectly resonate with Dewey's theory and raise questions about experience-based art education and how it functions in individual, school, and broader social contexts. The acclaimed Montessori and Waldorf educational models, as well as the eminent Black Mountain College, make up these three case studies. The third chapter investigates the implications and applications of a Deweyian analysis of the case studies. It also considers how some of the current trends in education and in the art-world may be relevant in designing a philosophy, pedagogy, and curriculum for a contemporary art education that places value on experience-based learning. Finally, it examines the arguments for the inclusion of art in our STEM focused, high stakes testing educational environment, as well as the value that a holistic, experiential art education has for individuals and culture at large.

Chapter 1:

Theoretical Framework: *Dewey's Philosophy of Experience, Education, and Art, and a Historical Overview of Art Education in America*

The following section examines Dewey's philosophy of experiential education and its contribution to learning and growth. For Dewey, firsthand experience between individuals and their surroundings, as well as use of the knowledge and information gained from these experiences, make up the cornerstone of the intelligent action and activity that lead to growth and learning. In particular, Dewey views art, creative activity, and artistic experience as being the most tangible and effective sources for developing the perceptual faculties that contribute to one's capacity for intelligent action and learning in all walks of life. Dewey's theory is important to consider in the context of art education because his ideas lay the foundation for the approaches to progressive education that have developed over the last century, educational

models in which the arts can be emphasized and can play a central, influential role in students' lives and developmental trajectories. In the present chapter, an explanation of Dewey's experiential educational philosophy leads into an examination of how he positions art and artistic activity within his greater understanding of experience-based learning and growth. Finally, I turn to a broad overview of the history of art education in America, as well as the arguments for and trends within it. This in turn opens onto questions of how these theories position art within a conception of learning, schools, and society at large.

Experience and Education

The idea that experience is the central component of education and life itself is present throughout Dewey's philosophy and writings. Dewey defines experience as the interaction between an individual and her environment or situation (Dewey 1938, p. 43-33). The environment consists not only of an individual's physical, material surroundings, but "whatever conditions interact with personal needs, desires, purposes, and capacities to create the experience which is had" (p. 44). As we move between and across situations, we amass a collection of experiences that over time contribute to our growth.

Learning for Dewey is essentially synonymous with the widening and deepening of experience (Dewey, 1938, p. 74) that occurs as we engage purposefully and intelligently with the environments in which we find ourselves. According to this broad and experiential conception of learning, sound educational experiences "involve, above all, continuity and interaction between the learner and what is learned" (p. 10). In other words, the experiences that lead towards growth and contribute to our learning are impactful when they are, according to the terms that Dewey uses, "continuous" and when there is "interaction" between them.

For Dewey, learning, and the experiences that contribute to it, do not happen in isolation; in order to be educative and to promote future learning, experiences interact with those that came before and must build on what learners already know or have. Dewey highlights the importance of prior experience, noting that the various contexts in which we exist shape the way that we experience and move through the world (Dewey, 1938, p. 48), and that since our present selves are the products of our past experiences, there is “interaction” between who we are and who we become. At the same time, the material and subject matter with which learners engage should be organized along an “experiential continuum” (p. 28) according to “the principle of continuity of experience” (p. 35) – since experience is continuous across time, the order in which we have experiences and encounter ideas matters. In the context of schools, this principle should be manifested in the temporal organization of the curriculum, which should be crafted so that the experiences it produces “both [take] up something from those which have gone before and [modify] in some way the quality of those which come after” (p. 35). Together, these two conditions imply that educative experiences are “progressive” (p. 82) in that there should be a clear progression between them and that they always tend towards further educative experience. In this respect, learning can be defined as dynamic, cumulative, and constantly in process.¹

This notion of the dynamic nature of knowledge and learning has implications for the way in which education orients itself towards the past. In *Art and Education* (1947), Dewey, Alfred Barnes, his student and founder of the Barnes Foundation, and Violette de Mazia and Mary Mullen, two theorists and educators associated with the Barnes Foundation, describe the role that history should play in education. Dewey believes that, rather than ignoring or rejecting

¹ This “progressive” understanding of learning is even more apparent when contrasted with the definition that can be inferred from the traditional educational methods against which Dewey contrasts his own; in the traditional definition, material is “static” and learning refers to “acquisition of what is already incorporated in books and in the heads of the elders” (Dewey, 1938, p. 19).

it, educators should treat the past as a resource that can be leveraged to promote further understanding and growth in the present. He notes that, in some progressive schools and educational frameworks, history and tradition are jettisoned in a misguided attempt to center on the learner, emphasize her present experience, and permit her free self-expression.² This approach, however, puts students at a disadvantage by denying them access to a body of information that, if taught and used properly, would give them a richer and more expansive toolkit upon which to draw in their own learning and experience in the present and future. Dewey argues that “present experience should enable the learner to cope with the problems of the present and future,” and that “the achievements of the past” – whether personal, social, or historical – “provide the only means at command for understanding the present” (Dewey, 1938, p. 77). In other words, history can be understood and employed in education as a kind of secondhand past experience that provides another means of encouraging interaction and continuity of experience.

For Dewey, an education that is based on a strong philosophy of experience should aim towards the development and realization of individuality, freedom, and self-control, and this development should build and progress continuously over time. Education should result in the formation of purpose, which is achieved through intelligent activity, reflection, and consolidation of experience and knowledge. Dewey explains the trajectory of this goal – we have an impulse towards a certain action and some foresight into the consequences of this action, which is based on prior knowledge and experience; subsequently, when we act on this impulse, we interact with our surroundings and exercise our observational capacities; in reflecting on the action, interaction, and observations, more impulse is generated, leading to more informed activity and,

² Dewey critiques this approach to the role of history in education as it was implemented in some of the early forms of progressive education, and he addresses this problem in his reframing and respecifying of what progressive education should look like in *Experience and Education*.

ultimately, to growth.³ Through this continual process of engaging in intelligent activity, and of “observation, information, and judgment” (Dewey, 1938, p. 69), we grow, learn, and form not only purposes and intentions, but the self-control that allows us to keep working towards fulfilling our intentions. In this respect, there is a circularity to the learning and growth of a Deweyian experiential education in that, within this model, we are constantly building upon and enriching the knowledge that we already have. Experience is central to this in that it takes into account the all-encompassing nature of this process – the fact that learning cannot be isolated or set aside from the everyday, and that what happens within, around, and between us profoundly influences the shape of our development.

Art as Experience and Learning

Much of what Dewey says about experience in education has implications – both practical and philosophical – for art education. On the one hand, Dewey deals directly with education in the arts, and his theory of experiential learning has been further conceptualized and applied to art education and instruction (Dewey, et al., 1947; Jackson, 1998; McConkie, 2005). In addition, the specific language that he uses to describe experience, interaction, and development has more philosophical and metaphorical resonances with the practice of art-making that shed light on how and why his framework fits so well in the context of art. The

³ Dewey explains that the formation of purpose involves having an impulse that is transformed through a confluence of exercising one’s observation, understanding the significance of what we observe, and making judgment about how the observation and what we already knew will influence future action, or our fulfillment of the impulse (Dewey, 1938, p. 68-69). An example can be found in the “intelligent activity” necessary in the creative process of making an artwork. I had an idea for a sculpture that I wanted to make out of concrete but had never used this material before. In order to work towards executing my idea, I needed to study and observe how to work with concrete, and then to contextualize this new information with other construction materials and methods I had used before in order to finally evaluate the feasibility of this project given time and mechanical constraints and to determine whether or not I would act on my initial idea. Ultimately, I made the decision to hold off on making the sculpture – a conclusion I would not have reached had I acted blindly on my initial impulse and attempted it as soon as I had the idea – but rather formed the purpose or goal of working on this sculpture when I would have the time to do so in a more informed and methodical manner.

following section will examine Dewey and a number of his disciples' views on art in the context of education by looking at the importance he placed on perception and its role in experience, learning, and growth.

Education should have the general goal of training our perceptual faculties (Dewey et al, 1947, p. 6). In the context of art, perception has clear importance in that it is the means through which we translate life experiences into art objects, and by which we experience works of art. However, Dewey believes that perception is an invaluable faculty because, when we train and develop it, it attunes us to our surroundings in a way that enhances experience and therefore growth. For Dewey, perception is developed when students learn through the scientific method – “*the method of observation and of interpretation of what is observed*” (p. 5) – and live in an intelligent, directed manner, which involves making connections between and among the internal and external factors (not only “facts and principles,” but action and emotion) that influence how we make meaning and define our values. The educational methods used to develop perception should attune the student to previously unnoticed “features and relations” in objects by developing new ways of seeing; it should promote the “habit of objective seeing,” a habit which students should carry into all subsequent seeing and processing of visual experiences (p. 7).

The experiences and disciplines of studying and making art can be understood as putting Dewey's experiential theory into practice. On a basic level, art is both a process through which we engage in “primary experience” (Reed, 1996, p. 4) of an environment, interacting with information in the form of ideas and physical materials, and transforming and communicating the experience of interaction through the creation of an art object. In *Art & Education* (1947), Barnes considers the ways in which art is a means of communication. In this same volume, Buermeier links this idea of art as communication with Dewey's experiential focus – in explaining the

creativity in art-making, Buermeyer notes that art can be viewed as a consolidation and statement of the artist's experience of the world. He tells us that "the creativeness of art...resides in its extraction, from the vast number of forms given in experience, of those which are peculiarly significant for emotion, and its reworking of these forms into...a single coherent design," namely, the work of art, which, as a result, "is a grasp or understanding of the world" that is creative because of the translation the artist puts it through in her experience of conceiving of and making it (Buermeyer in Dewey et al, 1947, p. 58). Paint, clay, paper, wood, and fiber are the materials that make up our environment and with which we engage in primary, firsthand experience, but they are also the materials through which we make sense of and communicate these experiences to ourselves and others. Experience is present in our work with raw materials as well as in the transformed shape that we give to them. Art, therefore, is both the process and product of experience.

The idea that what defines art and artistic activity is the creative and intelligent translation of experience relates to the concept of "learning to see" (Barnes & De Mazia in Dewey et al, 1947 p. 148) a universal goal for education that has specific, concrete implications and applications in art and art education. This idea is in certain ways a reframing of Dewey's goal of developing perception. However, where Dewey was interested in the way that sophisticated perceptual skills applied to any number of experiences could enhance our abilities to learn from these experiences, Barnes and De Mazia's conception seems to have a more focused emphasis on artistic experience; they highlight developing the ability to synthesize the objective and subjective qualities of material reality and experience – for example, what an artwork physically looks like and the feeling or ideas it evokes – into an understanding of meaning, significance, and value – what an artwork means or conveys. There is creativity and

artistry both in *making* a work of art – in acting intelligently to translate, craft, and communicate an experience into material form – and in *perceiving* one – observing its formal elements and objective facts, unifying the story it tells with one’s fabric of prior experiences, and deriving meaning in the process. The application is clear in the case of tangible visual artworks but Barnes and De Mazia explain that the “seeing” in which we engage when looking at an art object is the same for any other kind of object. They state that “to see means to perceive what in any object or situation makes it significant for experience” (Dewey et al, 1947, p. 148). Our perceptions of art and everyday objects alike should allow us “to grow in experience by increasing the value of what [we] already [know]” (p. 148), and should do so “through perception of new relationships and values,” through “the qualities of the object itself as they appear to the senses” (p. 149). In other words, true perception should involve the assimilation of an objective situation – a sculpture, painting, or weaving, for example, but can even include the objects and concepts that we encounter in daily life – with our wealth of prior knowledge, and our perceptions and understandings of its formal qualities should lead to enriched experience. This idea that “seeing” or “perceiving,” both in art and in everyday experience, is valuable for growth and learning further manifests the metaphor of art as experience and learning, and highlights the interconnection between these fields and ideas.

Art, therefore, is a productive way of understanding the role of experience in education, because it is a relatively concrete example of the ways in which perception – attunement to, observation of, and reflection upon artworks, material objects, and physical environments – influences learning and growth. According to this logic, art is valuable in education insofar as it develops students’ perceptual faculties in their experiences of art and in daily life.

While the philosophy that Dewey and those who came after him highlights the ways in which artistic activity and experience can be metaphorical and tangible conduits for learning and growth, art education itself has not always taken a form that resonates with these ideas. Where educational, social, and cultural values have shifted over time, so have the shape of art education and the arguments for it. What follows is an overview of the history of art education in the United States and a mapping of the reasoning behind and trends within the trajectory it has taken.

According to Peter Smith in *The History of American Art Education: Learning About Art in American Schools* (1996), art education has existed in the United States for as long as there have been skilled people making objects that hold some kind of meaning. Smith tells us that, “an object, made by human beings intending the object to embody symbolic or affective meaning, is one definition of a work of art. To make such an object requires education and skills...The maker requires art education, and the beholder, to grasp its meaning, requires art education” (Smith, 1996, p. 12). Despite the length of its informal history, Smith attributes the introduction of art instruction into formal schooling to Horace Mann in the mid nineteenth century, and explains Mann’s reasoning for his incorporation of drawing instruction. He tells us that Mann saw art as “potentially creating a new emotional climate, one that had some regard for the need for activity on the part of the students,” that he “wanted school to be less harsh and more considerate of the needs of the growing child,” and that this new instruction was an attempt to move schools “away from the head-cramming and anti-affective learning” that had dominated the schools up to that point (p. 20).⁴

⁴ This early example of art education and the way in which its inclusion in formal schooling was explained is indicative of a trend in how the inclusion of art in schools has been justified. Smith describes Schmid’s system of drawing instruction as prescriptive and “rigidly mechanical” (Smith, 1996, p. 20). While this may seem at odds with Mann’s goals for education and reasons for including art in schooling, this choice may reflect either the fact that Mann lacked the background in art that would have led him to an alternative art education – one that perhaps made more sense in terms of meeting the needs of the child – or may reveal his own understanding of the value of art in

Smith also notes the important role that cultural values play in the effectiveness of a given pedagogy. In order for a certain approach to art education to be emphasized and to be successful, the broader culture and society in which that pedagogy is used must value that approach to and conception of art. In other words, what art education looks like at a given point in time must reflect and be attuned to the “educational rhetoric” and the “art scene” (Smith, 1996, p. 36), the educational and cultural values, of that time if the methods are to be successful. For this reason, the history of art education can also be understood as loosely mapping on to art historical trends.

With this art historical awareness in mind, Smith notes three general categories into which the various trends, frameworks, and guiding principles for art education have fallen since its introduction into American schools. He labels and describes these as: Mimetic, Emotionalist, and Formalist. The Mimetic category in art education values art that is realistic and imitationist; it privileges an academic approach to instruction, in which students are taught to make work in the style of their experienced instructors, and works that accurately and convincingly represent their real-world referents (Smith, 1996, p. 36). The Emotionalist category can take many forms in terms of the look or aesthetic that is privileged, but the principle in this trend is that artworks are the embodiments of the the student or artist’s creative self expression (p. 37). The Formalist category takes the art-for-art’s-sake approach, privileging works that are about art itself, its structure, elements, and principles (p. 37). Each of these categories has resonance with different art historical periods or conventions: for instance, the Mimetic approach takes example from the

society – specifically “that he valued the word over the image as an ethical-moral imperative” (p. 20). While there is debate as to whether the methods and pedagogies he employed were sensible and effective given his goals, Mann’s understanding of art represents the trend of viewing art as a soothing developmental benefit for students that has periodically resurfaced as a goal for art education in the time since. In addition, this early example demonstrates how the pedagogies within art education can reflect the prevalent values and ideologies of a the time, and that the success of a given educational approach may be related to the broader cultural climate.

tradition of realistic portraiture, the Emotionalist approach resonates with periods ranging from the Rococo to Romantic to Expressionist periods, and the Formalist approach, which can be understood as an important basis for modernism, resonates with much of the painting and sculpture of the 1950s and '60s. However, while the fact that we can use art history to understand trends within art education is useful in so far as it illuminates the relationship between the teaching of art and the art world at large, the parallels between the two realms are not exact and there are other factors at work that inform the shape of art education.

Art education has been justified according to various rationales and held up to different standards throughout its history. The various ways in which it has been justified not only relate to what is occurring in the art world at the time, but are impacted by broader social, cultural, political, and economic factors.⁵ These factors combine to form a general attitude towards and conception of the arts that finds its way into schools and shapes the goals, pedagogies, and philosophies used to teach – or, as the case may be, to not teach – art.

Throughout its history, there have been two primary arguments in the way that art education has been justified: one that views art as instrumental to developing skills and mindsets that have useful applications outside of art, and another that views art as valuable in and of itself and believes that it should be taught for its own sake.⁶ Smith (1996) elaborates on the first of these arguments, describing three trends that have been present in the justification of art as instrumental: the economic benefit that skills and knowledge in art can provide; the psychological benefit that art can have in students' lives; and the idea that art can be used as a

⁵ The question of why the inclusion of art – whether visual art, dance, music, or drama – in a general education must be justified is an open one that I will not address directly in this paper. However, given Dewey's conception of the importance of experience in education and my analysis of why art (visual art in particular) fits this paradigm so well, should shed light on the inherent value of a strong arts education.

⁶ The latter perspective justifies the inclusion of art in schools according to the idea that studying art is valuable in and of itself, and, as a result, it is not elaborated here, since this argument is somewhat tautological – it justifies itself by placing value on art without considering why or to what end, and therefore is not a particularly strong or compelling argument.

tool for social change. These trends and arguments are reflected in various educational theories, psychological investigations, and pedagogical approaches to art education, such as the promotion of creative self-expression movement, aesthetic education, and discipline-based art education.⁷

While an in-depth review of the various defenses of art education is beyond the scope of this paper, a number of the key arguments, theories, and justifications merit further attention. In particular, these explanations may shed light on Dewey's theories of experience and learning which together may have implications for our contemporary educational context and the role of art within it. In addition to the theorists such as Smith, who have examined trends and philosophies throughout the history of American art education, research has also been conducted into the implications for including art in educational programs. This research has taken a number of different perspectives, explaining art and art education for its psychological, cognitive, metacognitive, and other potential personal developments, such as identity, agency, and mindset or affect. While much of the research has been on the benefits that art can have on an individual level, it has also been addressed for implications on interpersonal and communal levels. Finally, there is general consensus on the kinds of skills that art education develops and, as a result, it has also been justified for the transferability of these skills.

⁷ Discipline-Based Arts Education (DBAE) was a pedagogy that sought to achieve a more comprehensive, rigorous approach to art education. It separated instruction into four categories – art history, criticism, aesthetics, and studio art – viewing each area of instruction as a distinct discipline and teaching with the goal of providing all students with a deeper understanding of the various facets of art as part of their general education. It has received praise for the fact that it, to some extent, brought a rigorous, respected art education into a mainstream educational context, but has also been criticized for rigidly separating art into artificial, arbitrary categories that assume universal, prescribed tastes and values with respect to art (Silverman, 1989; Dobbs, 1998; “Discipline-Based Arts Education (DBAE)”). In addition, McConkie (2005) has analyzed DBAE and believes that a Deweyian framework that focuses on art and experience in education is a better approach “because it is appropriately flexible and because it accommodates the postmodern penchant for ambiguity and contingency while remaining sympathetic to an emphasis on social context and the enriching aesthetic, but nonetheless practical, utility of the visual arts in K-12 curricula” (McConkie, 2005, p. v). Furthermore, DBAE falls short in that the lines it draws to define disciplines set up false distinctions between art and everyday activity and experience, ultimately creating a potential barrier to the continuity and interaction in experience that is central to Dewey's conception of growth and learning.

One of the central explanations for art education has centered on the view of art as a developmental or therapeutic tool employed to promote critical life skills and affects, to correct an emotional or psychological imbalance, or to meet a need that is otherwise not being met. Arda (2009) has examined the essential role that art can play in early education. She argues that when young children receive art instruction, they gain valuable life experience. Their creative efforts reflect their social and emotional growth and their development of opinions and worldviews; these activities influence their “future-life acquisitions such as self-confidence, decision-making competence, and perception of aesthetic values in their life” (Arda, 2009, p. 151). She believes that early art education develops students’ expressive and communicative as well as critical thinking, problem solving, and perceptive capacities, and that it gives them insight into and control over their emotions and actions. Various other authors have addressed the ways in which art works to develop these skills and affects, among others, outside of the context of early education (Lampert, 2013; Pitri, 2013).

Underlying Arda’s analysis is the view of creative, artistic activity as having a positive developmental effect on students, which relates to a more explicitly palliative, therapeutic explanation of art that understands artistic activity as productive both within general education and for students dealing with various kinds of struggles, disadvantages, and cognitive and neurological disabilities. The struggles and disadvantages for which art education has been examined for its corrective potential range from clinical mental health concerns⁸ (Anderson & Landgarden, 1973-1974) and academic disengagement due to social, racial, and economic

⁸ Art therapy is already generally accepted but is still a growing field that has produced benefits for individuals with a variety of cognitive and mental health issues. However, even without the validation, clinical research, and practice of art therapy in accordance with the standards that have been established since the foundation of the American Art Therapy Association in 1969 (Fard, 2015), art has been discussed for its general therapeutic effect at various points throughout the history of art education in the United States.

obstacles (Bolton, 1969; Heath & Roach, 1999; Shaw, 2013, p. 248). Some of the cognitive and physical disabilities have included autism and dystonia, among others (Shaw, 2013, p. 248-249).

While Dewey does not discuss art education explicitly in these terms, aspects of his philosophy enrich and are bolstered by this explanation of art education that understands art as providing therapeutic benefits. In particular, this therapeutic perspective mutually reinforces the importance that Dewey places on the development of experience and perception, as well as the idea that this growth is geared towards future experience and further development. If students who might otherwise be at some kind of disadvantage are nurtured by their participation in artistic activities, they are better able to engage in the learning and growth through perception and intelligent activity that Dewey describes.

More recently, the trend in how art education is justified has centered specifically on the idea that the intellectual and cognitive capacities that art develops are transferrable. According to this reasoning, “the arts have long been valued for their aesthetic contributions to education,” and research has sought to demonstrate how the arts “[contribute] to academic performance in an attempt to justify their inclusion in the curriculum” (Baker, 2013, p. 1). Baker (2013), for example, has investigated how cognitive development can be promoted when art is integrated with core disciplines. The goal of this kind of research is to examine the ways in which art instruction and activity can impact performance in other disciplines in order to understand whether it can and should be leveraged to enhance learning across disciplines and subject areas. In seeking to integrate art into general curricula and justifying its inclusion along these lines, this trend takes an instrumental view of art that sets it in stark contrast to the art for art’s sake justification of art education. This explanation is particularly relevant and salient in the current

context of educational benchmarks and high-stakes testing because it is geared towards improving performance in the core disciplines that are so heavily tested and measured.

A final framework for understanding and reinforcing the role of art in education can be found in Gardner's "multiple intelligence theory," the idea that we each possess individual and unique ways of knowing⁹ that color our learning and development. Gardner and later researchers define nine intelligences that describe the pattern of skills, preferences, and aptitudes an individual has. Two of these intelligences in particular – *spatial-visual*, or the "capacity to think in images and pictures, to visualize accurately and abstractly," and *bodily-kinesthetic*, the "ability to control one's body movements and to handle objects skillfully" (Northern Illinois University, "Howard Gardner's Theory of Multiple Intelligences," p. 11) – have clear relevance in the context of art making and art education in that they relate to visualization and manipulation of materials, two skills that are crucial within art making, though other intelligences certainly interact with these in the creative process of making, reflecting, and learning (Gardner, 1983).

Gardner's multiple intelligence theory is drawn upon when art education is justified by explaining that its inclusion in the general curriculum is important because it caters to students who are visual or spatial learners. This is an important argument in that it takes the varied learning profiles of different students into account, though it is still, in certain ways, an argument for art as an instrumental part of the curriculum, because it views art instruction for these students as the key to academic engagement and success in general. The theory is enriched, however, when we take into consideration Dewey's proposition that our individual set of

⁹ The phrase "ways of knowing" is borrowed from Belenky et al (1986), who use the term to refer to patterns in types of knowledge, self and world insight, and perspective that women demonstrate. While Belenky employs the term specifically in the context of women's lives and the ways in which women conceive of knowledge, I use it here because I see the idea behind it – that the ways that individuals view and interact with their surroundings and engage in their learning are dependent upon experience and context – as complementing and providing useful language for Gardner's multiple intelligence theory.

experiences define our individual processes of learning and development. The idea that any given student will have her own individual pattern of intelligences, ways of knowing, and experiences which may or may not be apparently conducive to art instruction, does not mean that all students would not benefit in some way from receiving a strong art education. Dewey's belief in the importance of perception for experience and learning – a continual cycle of experience and growth follows from “learning to see” or developing one's capacities of perception – furthers the argument for art education that relies on Gardner by highlighting the idea that the perceptual faculties we develop when we make and study art are universally beneficial when it comes to education, regardless of the intelligences that one has already developed. The elegance of these combined perspectives lies in that, together, they bring to the fore the idea that the ways in which we learn reflect the *pattern* or *fabric* of our individual experiences – that our learning processes are the product of an interweaving of factors that include our experiences, skills, preferences, and our ways of knowing ourselves, our surroundings, and how we interact with them. Dewey's theory of experiential learning, with the importance he places on intelligent artistic activity, encompasses, enriches, and is enriched by Gardner's multiple intelligence theory and the idea that we have individually specific ways of knowing. The artistic metaphors inherent in this description of knowledge and experience offer a poetic confirmation of the important role that art can play in our conceptions of learning.

Chapter 2:

Case Studies: *A Deweyian Analysis of Montessori, Waldorf, and Black Mountain College*

Case studies can be a useful tool for looking at how theory can be implemented and work in practice. The previous chapter sets the stage for a more concrete look into how three art educational frameworks resonate with aspects of Dewey's theory of learning. While a study of

educational philosophy such as Dewey's can illuminate aspects of art and the process of education as abstract concepts, in practice, these theories may look somewhat different; new questions or problems may arise that we cannot glean from thinking solely in abstract terms and which may influence the way that we, as a society, think about art and the role it comes to play in later curricula and broader social and educational contexts. An examination, analysis, and comparison of the approaches to art education taken in Montessori schools, Waldorf schools, and at Black Mountain College will serve, in the present context, two main functions: they represent concrete ways of examining how art has been addressed and incorporated into progressive educational curricula across different contexts and age ranges; and they reveal various practical applications of Dewey's views on the role that art and aesthetics can play in experiential education. While these case studies are not necessarily examples of typical art education per se, they are educational models in which emphasis is placed on development of aesthetic or artistic awareness and in which artistic activity and experience is organically and holistically incorporated into educational practices and ideologies. As a result of their progressive leanings and orientations towards the arts, these three cases are well aligned with Dewey's theory in that they manifest parallels between the ways in which we experience and interact with both art and our everyday surroundings, as well as the way we internalize and learn from these experiences. The questions that these cases raise when viewed in the context of Dewey's experiential philosophy and when compared and contrasted with one another can offer insights into the roles that art education can play in different educational situations. They reveal some of the benefits that students can experience from different kinds of art education, which extend beyond the realm of art itself and range from artistic ability to general aesthetic sensibility to improved educational outcomes in other disciplines. In turn, the concluding chapter will consider these

analyses in terms of how they can shed light on our contemporary educational context, informing the ways that we position art within a general education and how we put these theories and educational models of artistic learning into practice in the present and future.

Montessori Education

In Montessori education, a model developed by Dr. Maria Montessori in the late 19th and early 20th century in Italy, attention is focused on the child and his or her development and needs. The classroom dynamic is defined by a three way interaction between the student, teacher, and environment, and the method of inquiry fostered encourages creative, independent meaning-making by promoting personal initiative in learning. The teacher, who otherwise takes a hands-off approach, prepares and arranges the classroom, materials, and activities available to students and encourages free activity in this highly curated, intentionally designed and aesthetic environment. Classes consist of children of mixed age groups, and students learn both by observation of and work with their peers, but also by interacting on their own with concrete learning objects, each of which contains a specific puzzle or lesson and is carefully matched to the child's developmental level.¹⁰ The concrete nature of these objects is important, particularly for younger children: Montessori “[argued] that concrete materials should be used with young children...because young children’s thinking is inherently concrete,” and “young children tend to focus on the concrete aspects of objects (e.g., shape, size, color), and they are intrinsically motivated to manipulate (e.g., rotate, order, stack) the objects they encounter in the environment”

¹⁰ For example, Montessori’s Binomial Cube is a concrete learning object designed to “embody objective mathematical principles and laws.” It “is a puzzle containing eight wooden blocks painted red, blue, and black that provide a geometric expression of the third power of a binomial $(a + b)^3$. By taking the pieces apart and putting them together in the (predetermined) way indicated by the shapes, sizes, and colors, children acquire a concrete representation of how a cube can be divided and subdivided that supposedly prepares them to understand the binomial formula. A teacher’s goal is therefore to direct students’ interactions with the concrete materials toward a predetermined end product, so students will be able to make the proper associations and come to see the concepts inherent in the materials” (McNeil et al, 2003, p. 137).

(McNeil et al, 2003, p. 137).¹¹ These objects are designed for physical manipulation to help children learn specific sensory-motor, cognitive, and sense-based tasks and skills. They also contain built-in “control of error” mechanisms that allow the child to assess and reflect on his progress and learning as he goes. Some of the objects are delicate, but children are given autonomy and respect in deciding which to interact with and in taking care of them, the idea being that this independence and responsibility will allow them to learn from any mistakes they make. Independent, primary experience and reflection are key components in how children are meant to use these objects in their learning.

The aesthetic dimension of these objects and their arrangement within the general aesthetic experience of the classroom (Cichucki 2007) is central. Because of the importance that Montessori placed on physical learning, of engaging one’s body and senses in the learning process, the materials from which the learning objects are made, their textures, appearance, and the sounds they make, are crucial – plastic materials are generally avoided; rather, objects are typically made from natural materials such as wood, metal, or fabric (“Environment”), for their inherent aesthetic qualities and perhaps because their authentic nature may be intended to engender a more authentic kind of interaction than what might occur with cheaper, artificial materials. These objects are meant to give concrete form to the abstract concepts that are

¹¹ Montessori’s ideas about the concrete kinds of tasks that young children are most receptive to line up with Piaget’s “concrete operational” stage in his theory of cognitive development (Piaget, 1977, p. 458, 476-477; Ginsburg & Oppen, 1979, p. 153-155), a theory that has been a highly influential idea in education. At the same time, while various theorists and educators such as Piaget have focused on the importance of concrete materials in learning, not all have viewed their use as “linked to a child’s general level of cognitive development” (McNeil et al 2003 p. 137). Bruner (1966) and the other authors whose writings McNeil et al examine in this article, believe that “conceptual development occurs through a process of internalizing the environment,” and that this process “can happen at any age, provided that the environment is set up in a way that appropriately conveys the concept.” Bruner elaborates the idea further, detailing the conceptual development from concrete to symbolic into three phases and calling upon teachers to “use concrete materials when introducing novel concepts to students of any age because the most transferrable and economical understandings of a concept are constructed from a store of multiple concrete actions and images” (McNeil et al 2003 p. 137). While neither Bruner nor Piaget’s educational frameworks are the focus of this paper’s case studies, Bruner’s de-emphasis of cognitive development level is worth noting because it means that the hands-on, intelligent activity that are important for both Dewey and Montessori can influence an individual’s experience and learning at any stage in their life.

implicated in the lessons they teach; the hands-on activity and thinking that the objects encourage are meant develop in children a concrete foundation, as well as an attention to authentic, aesthetic materials, that allows them to move smoothly into learning in more abstract ways as they get older.

Art is important in the Montessori framework in so far as encourages students to explore, interact with, and learn from their environments. Montessori education is not an example of art education or instruction per se; according to Cox & Rowlands (2000), in its original form, “children in Montessori schools were given no formal lessons in drawing and art; copying and observational drawing were normally all that was advocated and, as children progressed, emphasis shifted to geometric drawing” (Cox & Rowlands, 2000, p. 487). Emphasis was placed on the child’s interaction with material reality, which is incongruous with the prevalent view of art in schools as imaginative and self-expressive; exploration of fantastical, ungrounded ideas was not promoted in Montessori classes and, as a result, when research was conducted into children’s drawing abilities, Montessori students were found to draw less imaginatively than traditionally schooled students (p. 487-488). However, the aesthetic dimension that encompasses all aspects of a Montessori classroom and the learning that occurs there resonates with Dewey’s emphasis on the ways in which aesthetic experiences can lead to learning and growth.

For Dewey, it is important that we develop our perceptual faculties, that we “learn to see” the things around us so that we may understand, assimilate with our prior knowledge, and learn from experiences of our surroundings, whether our interactions are with daily or fine art objects or with abstract ideas. According to the Montessori philosophy, “children acquire knowledge best by personal construction, rather than through direct instruction; they benefit from hands-on, multisensory experiences and active exploration” (Loughran, 2001, p. 208) – an understanding of

this early phase of development that is supported by Piaget's "concrete operational" stage in his widely accepted constructivist psychology (Duckworth, 1987; Ginsburg & Oppen, 1979, p. 153-155). In addition, the autonomy and independence students are given – the "freedom within limits" that allows them "to exercise control over many aspects of their daily lives and learn to attribute success and failure to their own actions based on direct experience with the consequences of their decisions" (Murray, 2011, p. 24) – provides students with free access to their carefully constructed surroundings, allowing them to construct knowledge and meaning firsthand, to reap the benefits of their hands-on experiences. If we take Dewey's perspective that intelligent action and perceptual experience itself are what is valuable for learning and growth, then, even while there is no explicit arts instruction in Montessori education and no art object is necessarily produced, children still learn to engage in the creative and thoughtful manipulation of materials. The preceding analysis in turn reveals how Montessori can be understood as a kind of art education, albeit one that takes place in a holistic learning framework that takes the entire child and her needs, inclinations, and developmental levels into account.

This holistic approach that takes place in Montessori classrooms can also be viewed as an argument for a kind of arts integration that may provide useful insight into the place of art in our present educational context. In order to understand what can be gleaned from this analysis in terms of future application, it may be helpful to examine how the holistic, all-encompassing aesthetic education that Montessori promotes impacts students' educational outcomes.

The idea that an early perceptual education sets a foundation for students' abstract mathematical thinking raises the question of whether this aesthetic approach actually has a demonstrated benefit for students' future abilities and academic performance. Science, technology, mathematics and engineering (STEM) are particularly relevant at this point in time

in examining outcomes, since these disciplines have come to dominate the focus and priorities in contemporary educational rhetoric in the United States. In particular, it is in service of these areas that art is often justified in education. The connections between STEM disciplines and art have been examined, but because of the emphasis and value currently placed on the former in these debates, when art instruction is included at all, it is often employed as a way of bolstering students' learning and success in math and science (Bequette & Bequette, 2012). In the current paradigm, the focus in education that integrates art and STEM is often on design, or "the study of aesthetics and utility of items in our daily lives" (Vande Zande, 2010, p. 249, cited in Bequette & Bequette, 2012, p. 40). This model, sometimes referred to as STEAM, is a framework for an applied art education: art and STEM disciplines are both viewed as being rooted in "problem-based learning" (Jolly 2014), and art instruction and activity are leveraged as a way of fostering students' creative and critical thinking, problem-solving, and other transferable skills in various applied disciplines (Fountain 2014). This format for arts integration – one that views art as instrumental to instruction and learning in other areas – is certainly based upon true similarities and overlaps between mathematical concepts, scientific thinking, and the processes of art-making and learning, but it does not develop the whole student and her interrelated capacities in concert in the way that a Montessori education attempts to.¹²

According to Dewey, the scientific method – the ability to learn from observation, perception, and interaction – is the ideal approach for artistic and educational activity in general; the privileging of this form of inquiry resonates with the Montessori model, which bridges aesthetic awareness and hands-on activity across all aspects of learning. For example, children in Montessori preschool classrooms are encouraged "to explore the perceptual qualities of

¹² The place and value of the STEAM model and its underlying assumptions and arguments will be further examined in the Conclusion section of this paper.

geometric forms such as cylinders, prisms, and cubes, and learn the names of the plane geometry figures” (Bickley-Green, 1995, p. 16). Montessori referred to these firsthand activities and manipulation of aesthetically pleasing objects not as geometry, but as the “*observation of form.*” The idea behind this approach is that this practice sets the abstract foundation that will prepare students for “true geometrical study” (p. 16) at the elementary level, and gives them aesthetic understanding and experience of these forms and materials in the process (See also Bruner, 1966, p. 10-12; his sequence of instruction that moves from enactive to iconic to symbolic resonates with Montessori’s theory here).

In order to assess how this holistic model develops students artistic and mathematical or scientific success, large-scale research into the specific educational and vocational outcomes that previous Montessori students achieve would need to be conducted. However, research into Montessori students’ preparedness for and performance in later schooling in general can prove useful in coming to understand what we can take away from the aesthetic education that takes place in the Montessori model. According to Kayili and Ari (2011), a Montessori preschool education contributes positively to students’ preparedness for secondary school, and Shankland et al (2009) found that Montessori, along with various other methods of alternative education, benefit students’ adjustment to higher education. Dohrmann et al (2007) found that high school students who had attended a public Montessori school in Milwaukee from preschool to 5th grade outperformed students in a comparison group in math and science, though there was no statistical significance between the two groups’ English/social study scores or GPAs, and the groups had similar high school experiences in general. According to this study, Montessori graduates may come to perform better in STEM disciplines than their traditionally schooled peers, and Langley’s analysis supports this conclusion by drawing attention to way in which the Montessori

“presentation of mature, exploration-based experiments that encourage a wide range of results” promotes development of scientific thinking by “encouraging children to be part of the lesson-making process” and “[promoting] creativity and problem-solving skills” (Langley, 2009 p. 36). In addition, Besançon et al (2013) concluded that the Montessori inclusion of “project work with an emphasis upon personal initiative” may “[provide] a socio-cognitive context...that helped to build the cognitive, conative or affective resources involved in creativity” (Besançon et al, 2013, p. 86). In other words, the method of inquiry developed in the Montessori approach may promote creative potential in general. While Montessori students’ drawings do not exhibit more technical skill or imagination than those of students who receive other kinds of education (Cox & Rowlands 2000), the fact that their performance in STEM areas is, at least in part, the result of the way that creativity is developed through hands-on activity and firsthand experience, lends support to the holistic approach that Montessori takes. Students may or may not become better artists than those who attend other schools, but the creative thinking and aesthetic sensibility that is inherent in all of their actions benefits them as individuals and as learners.

A Montessori education has an all-encompassing effect on the student’s processes of knowledge acquisition and growth and on the creative, attentive mindset that she brings to her learning. In this respect, what we can take away from this framework is the *holistic* nature of its arts integration – not necessarily employed to achieve a specific, measurable, or even artistic end, but to benefit the student’s overall learning process and ways of seeing and experiencing. This in turn, in conjunction with appropriate support and scaffolding from teachers that helps students to “gain insight into the meaning or purpose of what they are learning” (McNeil et al, 2009, p. 139), can begin to develop in students the creative, intelligent activity that Dewey sees as the basis of sound educational experience.

Waldorf Education

Waldorf education, which was developed by Rudolf Steiner in Germany in the early 20th century, is a student-centered educational model that focuses on the development of whole child. There is a lot of variety in the shape that a Waldorf education can take since individual Waldorf teachers, seen as those most capable of understanding the children they teach, are meant to have administrative control over the school (Bamford & Utne, 2016). That being said, Waldorf education is underpinned by philosophy and pedagogy that give the child a well-rounded core education by catering to his or her position in a developmental trajectory and making ample use of many kinds of artistic activity to do so.

Waldorf education places attention on a variety of areas including students' "intellectual, physical, artistic, creative, social, and spiritual development" (Guigui-Stolberg, 2014). The curriculum and pedagogy incorporates a range of subject areas that are also included in traditional, mainstream educational systems, but it stands out for a number of unique characteristics, one of which is the emphasis placed on participation and development in artistic activity. One such feature is the level of autonomy placed on individual teachers and schools to determine the content of the curriculum; however, subjects taught often include "reading, speech, foreign languages, social studies, history, math and geometry, science, art and music," as well as eurythmy, which is therapeutic, movement-based activity meant to "enhance children's sociopsychological development" and which is used to as a method for teaching in certain subject areas (Kwon, 1981, p. 374). In addition to the psychomotor skills that eurythmy is meant to promote, Waldorf education also includes many kinds of artistic activity – visual art, music, theater, and dance – with the goal of encouraging the development of personality and self alongside the curricular content that is also taught. The conjunction, interconnectedness, and

balance between the various aspects of a given Waldorf curriculum are meant to reflect the creativity and insight of the teacher, who remains with the same group of students from grade 1 through 8 (p. 374), but also to encourage “open-mindedness, flexibility, and a keen sense of perception” (Heyder, 1981, p. 375). In this respect, while the the Waldorf pedagogy and curriculum can take a number of forms in practice, its variety is united by the attempt to develop in all students these capacities on which artists rely but which are also important aspects of all types of intelligent, informed, and perceptive activity and learning.

Steiner believed that children pass through three developmental stages and, in order to work towards his vision of holistic learning, he designed a pedagogical approach that caters to the child’s needs at each stage. In the first stage (birth to age 6 or 7), “children learn by imitation, empathy, and experience...and so early childhood curricula should engage children in traditional life activities (e.g., baking, cleaning, gardening), cultivate feelings through the arts, and stimulate creativity and fantasy through imaginative play.” In the second stage (age 7-12 or 13), students “study visual and dramatic arts, movement, music, and foreign languages” out of their “need to learn through rhythm and images.” The third stage (from puberty, through adolescence, to young adulthood) focuses on “[developing] students’ capacities for abstract thought, conceptual judgment, ethical thinking, and social responsibility,” focusing on academics and specific academic subject areas. As students advance through their schooling, the activities in which they participate and the ways of interacting and thinking that are developed progress from hands-on and experiential to become increasingly abstract and conceptual. For instance, the fact that students in Waldorf schools learn to read around age 7 is based in part on Steiner’s belief in developing multiple forms of literacy beyond reading and writing – in particular, those forms of literacy associated with the arts, such as visual and musical – many of which he believed were

best developed in children's earlier years. This approach, particularly in the first two stages, can be understood as seeking to promote children's development of forms of literacy that might otherwise be unexplored or stunted in an educational context that does not include the arts (Waldorf school, 2016).

The Waldorf and Montessori philosophies are similar in a number of ways, but their distinctions are worth noting since they impact the implications for contemporary art education that we can draw from each framework. The Waldorf model is based upon Steiner's philosophy of Anthroposophy – a spiritual philosophy grounded in the idea that freedom is achieved through development of personal insight and knowledge (Anthroposophy, 2016) – and was designed in part as a reaction against the rigid, teacher-centered educational practices of early 20th century Germany, and as a result, the holistic approach in this framework has a spiritual, quasi-religious grounding that is not present in Montessori. While contemporary Waldorf schools are not associated with any religious sect or denomination, the framework's anthroposophical underpinnings have resulted in pedagogies that “are based on a belief that there is a spiritual dimension to the human being and to all of life” (“FAQs: About Waldorf Education”). One way in which this spirituality comes to light, and that sets this educational model apart from Montessori and other progressive and traditional frameworks, is in the value that Waldorf places on the arts. While the holistic nature of the Waldorf model is similar to that of Montessori in that both approaches view early education as setting a concrete foundation for later, more abstract learning, in Waldorf, emphasis is placed on creativity and imagination, and various kinds of artistic activity, including visual art, dance, and music, are incorporated into all aspects of the curriculum to foster this development.

The aesthetic experience is also central to both Waldorf and Montessori, but in different ways and for different reasons: Waldorf focuses explicitly on development through creative, artistic activity and aesthetic environments and experiences, while Montessori promotes aesthetic sensibility in a more general, less direct manner. Waldorf's grounding in anthroposophy is an important aspect of the reason that it places emphasis on the arts: "According to anthroposophy, art can be a bridge between the material and spiritual world. Rudolf Steiner believed that finding ways to commune with an objective, all-embracing, spiritual world can help each person achieve their highest creative and moral potential. In Waldorf teaching, the arts can be a source for spirituality" (Guigui-Stolberg, 2014). In this respect, the arts in Waldorf education are meant to contribute to students' spiritual development, influencing them by promoting creativity and imagination that extends into their daily lives and activities.

Aesthetic experience plays a similar, central role in learning in each framework; activities and environments are carefully designed so that their aesthetic, experiential qualities influence students' development by attuning them to their interactions with their surroundings – a practice that is supported by Dewey's belief in the potential of informed aesthetic experience to contribute to growth. For instance, in both Waldorf and Montessori, the architecture of the school and the layout of the classroom are understood to have important effects on the students and teachers who occupy and learn within these spaces (Foster, 1984, p. 229; Al et al, 2012, p. 1867). At the same time, because art itself is positioned and incorporated differently into each of these models, the definition of aesthetics that inheres in each setting is different, thereby leading to different kinds of aesthetic experience.

The development of imagination as a component of aesthetic sensibility is encouraged in Waldorf education. Writing about different imaginative modes, Fettes (2013) has examined the

interconnections between imagination and experience in education, noting, for one, that “the transformation of experience into meaning represents a kind of alchemy that imagination should, somehow, be involved in” (Fettes, 2013, p. 2). In other words, students who have been encouraged to exercise their imaginations in creative and academic endeavors in school have a valuable tool when it comes to learning throughout their lives, because these imaginative art experiences have given them heightened aesthetic awarenesses, developed reflective processes, and strong capacities for meaning making. In this respect, imagination operates in Waldorf education in service of improving the child’s ability to learn and grow from experiences, and imaginative capacity is developed through the arts. The curriculum during the first two stages of development is heavily and explicitly focused on art activities; the rationale behind this is the idea that free, creative play in early education develops students’ autonomy, learning tendencies, mindsets and affects, their aesthetic sensibilities, and their capacity to find meaning in and learn from aesthetic experiences (Mei-Ju, 2014, p. 167-168). Because this model emphasizes imaginative self-expression through art, and includes art activities in the curriculum, the drawing skills that students who received a Waldorf education exhibited, when compared to those of students with Montessori and traditional educational backgrounds, were rated more highly in terms of their quality, use of color, and inclusion of fantastical subjects, among other measures (Cox & Rowlands, 2000). The explicit incorporation of art as the central feature of early Waldorf schooling sets it apart from Montessori, which does not include art activities or instruction but which attempts to imbue the classroom environment and interactions with a general aesthetic quality. In brief, in Waldorf, aesthetic sensibility refers to participation in art activities and the awareness and benefits that art itself can develop, where in Montessori, it refers to sensory, perceptual experience and development more generally.

A comparison between Waldorf and Montessori can lead to similar conclusions about the ways in which arts integration can benefit the child by focusing on her holistic development, but the explicit emphasis on the arts in Waldorf adds an additional element to the question of the place of art instruction in the contemporary, mainstream educational context. Waldorf seeks to develop the child's "aesthetic, spiritual, and interpersonal sensibilities...in ways that enrich, enliven, and reinforce intellectual knowing," ultimately producing children who are actively and enthusiastically involved in their learning (Easton, 1997, p. 87). Aspects of this approach are arguably the goal of most progressive education, but, in Waldorf, this goal is achieved through students' active participation in and appreciation of the arts. This artistic focus, and the fact that it is supposed to develop the whole child and her various kinds of literacy, is important because it resonates with the Deweyian idea that aesthetic experience is a key to experiential learning in general; aesthetic experience, when properly supported and guided by the teacher – when continuous, interactive, and contextualized to the needs, experience, and developmental level of the specific child – is valuable for learning and growth. In addition, the Waldorf method is supported by Gardner's multiple intelligence theory in that it acknowledges that students possess a variety of ways of thinking, learning, and experiencing that are developed through different kinds of activities but which reinforce each other within the individual learner when developed in conjunction with one another. We can therefore take away from Waldorf education the idea that explicit art instruction and activity, perhaps in conjunction with the implicit development of aesthetic sensibility that is a defining factor of Montessori education, may be beneficial for the child's general ability to continue to grow from and to value a learning process that emphasizes her physical, firsthand experiences.

In contrast with the Montessori and Waldorf models, Black Mountain College was an experimental, unaccredited college in the mountains of North Carolina that existed from 1933 to 1957. The school, which was founded loosely on Dewey's progressive educational theory, was structured and operated democratically; two of the pervading themes underlying all that occurred at the college were community and experimentation, with hierarchies leveled as teachers and students all worked on the day to day tasks outside the classroom that kept the school running, and learned in conjunction with one another inside the classroom ("1930s"). While the school fostered a holistic, interdisciplinary approach to learning in the curriculum and pedagogy, it was founded and operated on the belief that to study and practice art were both essential for a liberal arts education, and so the arts and artistic experimentation were central, defining features in the school's mission and curriculum ("The Artists of Black Mountain College"). With the education that Black Mountain provided, students would be on their way toward a freedom of thought and action that would prepare them for true democratic participation to transform society. The utopic vision that was put into practice here can provide insight into what a holistic, experiential art pedagogy can look like in a liberal arts context, while also shedding light on the factors that influence the successes and struggles of this educational approach that places the arts at the center of the curriculum.

Experimentation was the cornerstone of the education that was enacted at Black Mountain College. While the various teachers who came through the school had different conceptions of and approaches to experimentation in their pedagogies and in their own work,¹³

¹³ Some of the pedagogies that different teachers at Black Mountain employed were conceptually at odds with one another, a fact which highlights the open, democratic nature of the school. Diaz explores the differences in pedagogy and philosophy between Josef Albers and John Cage, both of whom are important artists who taught and developed their work at Black Mountain College. Where Albers' pedagogy of experimentation is rooted in the disciplined, purposeful nature of the experiment, Cage's made use of an intentional harnessing of chance and embrace of what can come from unplanned, open-ended experiments. While experimentation is the thread that ties them together, and

the experiment-focused nature of the learning community was the thread that held everything together, and that made this approach the progressive, radical, and infamous effort that it was. Diaz (2015) characterizes experiment at Black Mountain College as a practice, a method of engaging in learning through which those who participated were able to freely explore new, uncharted territories and ideas. Experimentation “provided a shared terminology for College members to view their specific endeavors in relation to different though allied efforts in other disciplines,” and “was professed to be a practice that could be shared by *all* creative producers” (p. 4), regardless of their field, discipline, or the ends to which they aimed their experiments. Experimentation took different forms in the classroom depending on the teacher and subject material, but it often involved investigating the potential of artistic practices and techniques, such as John Cage’s incorporation of exercises that foregrounded chance and randomness into his teaching and musical composition; as well as testing out unprecedented ideas, such as Buckminster Fuller’s raising of the first geodesic dome at Black Mountain. This central idea of experimentation as the means through which new experiences are achieved resonates with Dewey’s belief that progressive, experiential education should promote the scientific method of inquiry that involves intelligent and purposeful activity and is dynamic, interactive, and continuous. Experiment, in this respect, can be understood as similar to Dewey’s framing of the role of experience in education, in that it involves reflection upon and interaction between prior knowledge and present information, and that it opens up the possibility of new experience and experiment as those engaged consolidate and assimilate the results they see into the fabric of their prior knowledge.

that suited their work and teaching to Black Mountain College, their methods were based on the differing underlying philosophies of control and discipline versus chance, respectively (Diaz 2015, Introduction).

While different teachers had their own ways of putting experimentation into practice, each of which was based on their own philosophies of the process and the way it played into their own work, Josef Albers' work at Black Mountain College offers an elegant example of the holistic, democratic experiment and experience for which Dewey advocated. Albers, a painter, and his wife Anni, a weaver, both of whom had previously taught at the Bauhaus, fled the Nazi regime in Germany to teach at Black Mountain shortly after the school was founded. Albers, steeped in Dewey's writings, developed an approach to education and to making art that positioned "the methodology of the experimental test as a forceful corrective against stagnant perceptual habits in the culture at large," maintaining that "learning to observe and design form made an essential contribution toward cultural transformation and growth" (Diaz, 2015, p. 18-19). This orientation towards the transformative potential of education is reflected in Albers' own artwork as well as in his teaching, where he refined some of the techniques that became central, defining features in his work. Albers' painting, drawing, and works in other media reflect an experimentation with color, form, and dimensionality; he investigated the process of human perception by devising techniques and creating compositions that "[produce] internal frictions and instabilities and must be provisionally extricated from multiple and contradictory dimensional readings" (p. 30).¹⁴ He developed through his teaching the techniques that he used in his own work to produce optical, cognitive, and perceptual dissonances that were ultimately meant to highlight for the viewer her own ideas about art and the purpose it serves.

Diaz refers to this approach as Albers' "ethics of perception," explaining that Albers viewed the study of art as giving us the ability to closely and critically examine our surroundings, how we interact with them, and how they impact and shape us, ultimately giving

¹⁴ For a concrete example of Albers' work and a visual representation of the ways in which he played with perception, see his series "Homage to the Square," "Variants," and "Structural Constellations," available at <http://www.albersfoundation.org/art/selected-works/>.

us an “understanding of the now, of modernity” (Diaz, 2015, p. 47). Studying art and developing new ways of looking and seeing would make us aware of and retrain our “perceptual habits” and the “routine cognitive associations and social constructions” (p. 18) that accompany them, producing forward social and cultural motion in the process. Albers’ “ethics of perception” recalls Dewey’s belief in the importance of training perceptual faculties in order to be able to engage in intelligent activity, learn from these experiences, and participate effectively in a democratic society.

Albers’ philosophy also resonates with Dewey in the way that it orients itself towards the past and the ideas, knowledge, and experience that can be gained from history. Albers was against the idea that knowledge is fixed, static, located in the minds of teachers, and passed down the hierarchy in the form of accepted facts; rather, similarly to Dewey, he came to view history as providing valuable information that should could be examined and tested through his pedagogy of experimentation (Diaz, 2015, p. 46), as if it were another material or factor to be worked with in an artistic experiment. In this respect, when viewed in the context of his ethics of perception, Albers understood knowledge and the role of education, particularly an experiment-focused art education, as capable of providing students with the ability to critically examine the past in order to creatively shape and define their informed, intelligent ideas and hopes for the future.

Albers’ pedagogy and art work took up “an expanded notion of art as mediating between material and culture” (Diaz, 2015, p. 29). This broad perspective on the definition and role of art meant that, in drawing students attention to “details of form,” he was hoping to build in them “an alertness to the ways in which the individual was sited in the larger field of social relations” (p. 29). In practice in the classroom, he employed strategies that were meant to give students access

to this kind of experience and reflection by having them experiment with new techniques of seeing and coming to understand what they see. For example, Albers taught foundational courses in drawing and color. In his Basic Drawing class, he conceived of drawing as a “test of seeing” (Albers, quoted Diaz p. 21), attempting to train his students observational capacities and draw their attention to the objective conditions and qualities of line and form in space. His Basic Design course focused on “explorations of the material constitution of form,” drawing attention to the differences between a material’s appearance and its capacities, arguing for the importance of understanding the materials that constitute form and their “underlying structure and technical capacity” (p. 24), since “[e]very art work is based on a thinking out of the material” (Albers, quoted in Diaz, p. 22-23). Finally Albers’ course in color study emphasized “the ability to see color and color relationship” instead of teaching a theoretical understanding of color. He drew upon the subjective, relative nature of color perception in order to “connect visual to social habits” (p. 26); in doing so foregrounded the idea that different people see and experience color in different ways due to physiological, cognitive, and personal factors, thereby working to connect the supposedly objective formal features that make up artworks to the different functions they can play for different people in society. He saw the classroom as a laboratory in which, through disciplined experimentation with observation, materials, and color, he and students could explore forms and their social and cultural meanings, thereby developing the ability to examine the conditions of modernity and to visually express and articulate their findings.

The approaches to and goals for education that were put into practice at Black Mountain College have parallels with those that underpin the Montessori and Waldorf models, but there are also significant differences, which together are useful in considering how these models influence the way we should view the role of art in education. All three of these frameworks take a holistic

and integrative approach to art education, though in Montessori and, in some cases, in Waldorf, art is not taught as an isolated subject, but rather artistic activity is the medium through which all kinds of learning and growth occur. At Black Mountain College, while artistic experimentation was meant to impact students' lives and ways of seeing and thinking in a holistic, far-reaching manner, art instruction was more explicit and intentional, as can be seen in Albers' foundation courses, which (though he employed experimental and non-traditional methods that we might not characterize as "instruction," per se) were unquestionably art classes. That Albers' courses were more recognizably art classes than those in Montessori and Waldorf may simply be because Black Mountain was a college and that teaching can happen in a more concentrated, abstract manner at the level of higher education. This, however, raises the question of whether and how this kind of experimental art instruction could be implemented at an elementary level, and what long-term benefits and impacts this early training of perception could have for students.

In addition, that Black Mountain College was an unaccredited institution that existed only for a span of twenty four years, when contrasted with the fact that Montessori and Waldorf have not only maintained themselves but whose approaches have become increasingly accepted in mainstream education, raises questions about the sustainability of such an experimental, utopic approach to education. The college, as well as various teachers and students associated with it, had come under scrutiny by the Federal Bureau of Investigations in the 1950s in part for suspected Communist affiliations, suggesting that the radical ideology that was implemented in the classroom and in the structure of the school was not sustainable in the broader sociopolitical context in which it existed. These investigations also concerned the school's suspected mis-usage of funding from the G.I. Bill, which apparently had been used to supplement the school's operating costs since it had gone into debt from decreasing attendance rates (Elliston 2015).

While it has been argued that part of the reason for Black Mountain's closing was that it had achieved its goal of creating an autonomous, self-defined educational environment ("The Artists of Black Mountain College"), it seems clear that the school's ideology and financial resources were also significant, problematic factors. It is possible that Montessori, Waldorf, and similar progressive, early educational models may have been able to sustain themselves over time and meet greater mainstream success than Black Mountain College either because their ideologies are less oppositional to the mainstream; because they have become watered-down so as to coexist and, in some cases, even be incorporated into mainstream public schooling; or because they often take the form of private schools that have more autonomy from federal funding and mainstream educational trends and pressures. In any case, that Black Mountain College has a legacy as a hub of artistic activity and creative innovation should warrant further investigation of the specific pedagogies and approaches to learning that were taken there.

These case studies provide useful information for considering the role of art in the context of holistic, experiential education, which in turn supports the value of this kind of education more generally. Specifically, they shed light on how art can function in different educational environments and the impact it can have in varying learning contexts. The Montessori and Waldorf models reveal that art need not be taught in isolation from other disciplines and activities, but that it can take on an integrated form, thereby benefitting the student by developing an aesthetic sensibility that extends into all aspects of her life and learning. Furthermore, the fact that these two models take developmental approaches and promote this perceptual awareness and intelligence from an early, malleable age implies that these qualities will become foundational and pervasive for future learning and experience. At the same time, the Black Mountain College model for art education reveals that, when students

already have some level of knowledge of art and interest in growing as artists and learners, a pedagogy in which experimentation is emphasized can lead to artistic innovations and deep awareness of one's surroundings and place within them, with an eye towards influencing them in the future. Together, an analysis of the case studies that keeps in mind Dewey's theory of learning and his conception of art reveals that certain philosophies and pedagogies from each of these models can enrich and complement one another, and that some form of experiential art education has value in the ways that it can influence students' learning and growth not only as artists, but in their daily lives. Finally, while this analysis reveals the importance and potential power that art education can have in general, it can provide particularly beneficial insights into the place that art can take in the present educational context that has decentralized and devalued arts education in favor of the more measurable and marketable STEM disciplines and outcomes.

Chapter 3:

Conclusion: *Implications for Contemporary Arts Education*

Thus far, this essay has investigated Dewey's educational theory along with a number of other theories and arguments that attempt to explain how art is learned and artistic development occurs; it has explored Dewey's views on the central role that art and perception should play both in a progressive, experience-based curriculum and in daily life; and examined from a Deweyian perspective three cases in which art education has taken a holistic, experiential form in which students develop aesthetic awareness and engage in processes in which experimentation drives their activity and learning. I now turn to a consideration of the implications that the case studies and the above analysis raise for determining the shape of and arguments for art education in the future.

When examined in the context of Dewey's experiential educational philosophy, the above case studies lead to a number of conclusions on their own and in comparison with each other. For one, the conjunction of prior knowledge or experience and developmental level is important in determining a child's readiness for a certain pedagogy or style of learning. Both the Montessori and Waldorf models rely on their own conceptions of child development with appropriate materials, new environments, and more abstract concepts introduced when students reach the proper age. However, the emphasis that these frameworks place on development of aesthetic sensibilities permeates throughout the entire educational process. Though they have different philosophies and employ different pedagogies to achieve their goals, the Montessori and Waldorf models both emphasize developing the child's aesthetic sensibility and awareness. In both types of schools, children engage purposefully with their surroundings. However, in Montessori, learning happens through children's mapped out interactions with carefully designed learning objects, with aesthetic sensibility arising from the beauty in the classroom environment; and in Waldorf, children explore and develop their imagination through creative, artistic expression directly, and aesthetic awareness arises from immediate, first-hand engagement in the arts.

In addition, the case studies reveal the powerful nature of experimentation for learning. For Albers at Black Mountain College, well-reasoned and methodical experimental activity was the means through which learning happened and progress was made. While the role of experiment is not made as explicit in Montessori and Waldorf philosophy, learning in these settings still involves experimentation insofar as classrooms and pedagogies are designed so that students will explore the environment, engage with and learn from carefully designed objects through hands-on, experimental activity, and to experiment with different forms of artistic and

imaginative expression, all of which exemplify Dewey's belief in incorporating the scientific method into education.

The analyses and takeaways from these case studies also have implications for the factors may be necessary to ensure the kind of art-based learning environment or experience that Dewey describes. In particular, these analyses raise connections between aspects of Dewey's theory and ideas from contemporary understandings of educational psychology. Students need access to resources – such as ample time and access to materials that are appropriate for the developmental level of the learner or the specific task, skill, or idea they are working to develop – to be able to experiment and explore as they learn (See also Duckworth, 1987). It is also important to keep the challenge and satisfaction that students get from their learning activities in balance in order to maintain interest and to keep students moving forward (Csikszentmihalyi, 1991). Theoretically, the learning materials in a Montessori classroom account for this by being suited to the child's developmental level: part of their design presumably involves keeping the child interested and engaged without overwhelming or over-challenging him. However, at a higher level and when students are older and more developed, interest may already need to be present in some form for students to learn through experimental methods. For example, at Black Mountain College, since attendance would have been self-selecting, students presumably already had interest in learning according to the philosophy and methods enacted there; students would have needed some prior knowledge and interest in the material they hoped to study in order to want to study it at a higher level, as well as to go to an experimental college in the first place. When learners work in the optimal channel between challenge and satisfaction (as they presumably would have at Black Mountain, and as the materials in Montessori classrooms are designed for them to do) interest can be sustained and learning can occur. Students will not learn if material is too easy or too

challenging to hold their interests, but if art curricula and activities are designed so as to promote students' experiences of "flow" (Csikszentmihalyi, 1991), advances in learning can happen on a deep, personally valuable and meaningful level. This kind of learning experience is well-suited to the growth that Dewey envisions occurs through intelligent, purposeful activity.

Finally, it seems that, in order to achieve the all-encompassing approach to experience as the material of growth, learning, and development, schools need to provide some kind of scaffolding, particularly for younger children, for students to translate and mediate between the different arenas of experience in their lives. For Dewey, part of the goal of education is to develop students into democratic citizens who keep the exploratory learning mindset of their schooling active throughout their experiences. The exact scaffolds that are used and built into the learning environments and materials in Montessori and Waldorf classrooms would need further examination in order to draw conclusions about how these methods can be used in other contexts, but the fact that students educated in these holistic models go on to do well in many areas may imply that students can absorb the aesthetic, perceptual awareness and values that are instilled at a young age and come to influence them in all that they do.

In addition to the above conclusions and practical implications that a Deweyian analysis of the case studies bring up, a number of other factors arise when considering what a contemporary art education should do and what it should take into account. Attention to students' developmental levels is important, but it should not be prescriptive or limiting, as there is no single critical point at which people are able to engage in and benefit from art learning. Younger children may be more open and unrestrained in their creativity than older students, but art and aesthetic, perceptual awareness maintain their relevance in our lives even as we get older and our learning becomes more specialized. If we accept the Deweyian argument that

appreciation and understanding of art, as the trace and manifestation of experience, is critical for continual learning and growth, and for developing students into intelligent, purposeful actors, then the role that art should play at all stages in our lives is crucial.

Because artistic activity and awareness can improve certain skills that are useful in other disciplines and areas, strengthening perceptual faculties and sensibilities at any point in the learning process that occurs over the course of life is beneficial and extends beyond the realm of arts education. For instance, according to Schaff et al (2011), when medical students at a university in California were exposed to a “constructivist approach to viewing and discussing nonrepresentational, contemporary art,” they were able to develop their “observational and interpretative skills in a safe, nonclinical setting,” and “to accept the facts that ambiguity is inherent to art, life, and clinical experience” (Schaff et al, 2011, p. 1272). Studying nonrepresentational contemporary artworks seemed to improve medical students’ skills in observation and interpretation, skills that are necessary in the clinical contexts of their work and in daily experience and interactions. This reveals that the kinds of opportunities for art in education actually expand as students get older since, with more content knowledge, developed interest, individuality in the learning process, and more abstract ways of thinking, the applications for learning in and through art are more diverse.

This example reveals not only that studying art can benefit individuals in diverse ways at different points in their lives, but that different kinds of art – historical and contemporary, for example – may have different educational effects and roles to play in the curriculum. Furthermore, an art education that takes an experiential approach may have something to learn from contemporary art practices. Many contemporary artworks and practices, including site-specific and social works, exist under an expanded definition of what constitutes art, and

represent a shift from the representation of experience, as in a painting, to treating experience itself as the *content* and *material* of the artwork itself. Certain contemporary, social practice artists take up ethnographic techniques to highlight interactions with people, communities, and places in the works they produce, which more often than not do not resemble the art-objects created by a visual artist or craftsman, but take the form of an event, performance, or site-specific work that engages the public and draws attention in some way to their individual and communal experiences.¹⁵

While this expanded conception of art is sometimes perhaps too socially or politically engaged, controversial, or opaque to have a direct place in schools, the idea behind it – that artists are finding new ways to highlight and position experience in their works – deserves attention in contemporary educational contexts for two reasons. On the one hand, these experience-based techniques are relevant and popular in contemporary art, and they deserve attention if art education is, as Dewey and Albers believed, to educate for modernity, with an understanding of the relationship between the past, present, and future. Ignoring contemporary artworks in art education would contradict Albers’ goal, and would go against Dewey’s belief that history should be leveraged in education for its ability to influence and shape current and future experiences and realities. In addition to the fact that much contemporary art is socially, politically, temporally, and therefore experientially relevant to the lives of students, the fact that these works in certain ways break from engaging in traditional practices and producing recognizable artworks may be helpful in moving schools away from the predominant self-expression paradigm in art education. The effects of this movement would be desirable in that

¹⁵ See Rirkrit Tiravanija’s “Untitled (Free)” for an example of this type of contemporary social practice art work, an exhibition in which Tiravanija set a makeshift kitchen up in a gallery in MoMA and prepared rice and curry for gallery goers, turning the traditional, sacred space of the art gallery into a communal social experience.

they might enrich the ways that students think about their experiences and the various factors that inform and shape them (Desai, 2002; Atkinson, 2006; O'Donoghue, 2015).

While reshaping art education according to contemporary art practices may be abstract and not necessarily beneficial or desirable in all situations, we can take away from this idea, and the Montessori, Waldorf, and Black Mountain College educational models, the role that a focus on experience, and the ways we make use of and process it, can play in learning and growth in both artistic endeavors and in daily life. However, because of the obstacles for art education that exist in the current educational climate – for instance, lack of funding and incentive to support the arts in schools because of an increasing focus on STEM disciplines, meeting and sticking to curricular standards and benchmarks, and the pervasive influence of high-stakes testing on pushing the arts out in favor of devoting time to the subject areas that are tested – the argument in support of art education may need to appeal to its potential applications and implications in order to be taken seriously and incorporated more extensively into schools. The STEAM model, for example, is one such integrated, applications-based method for including art in our social, cultural, and policy climate that places more time, resources, and value on STEM subject areas. However, more research that examines the specific way that art is positioned and integrated within the STEAM curriculum and pedagogy would be necessary to understand the extent to which this model can and does place the arts at the center of the curriculum in the manner advocated for in an approach to experiential education that combines Dewey's theories with the holistic philosophies of Montessori, Waldorf, and Black Mountain College.

The above analyses of various philosophies, frameworks, and types of arguments for art in education reveal that art and art instruction, depending on the form they take, are valuable for learners and for society. If the value of art and the learning that can occur through artistic activity

and aesthetic awareness is to be promoted, the most effective strategy for incentivizing its prominence and importance in schools may be to leverage the argument for experiential art education in terms of what it does for people in both concrete and abstract ways. For better or worse, in a context that does not subscribe to the idea that studying art is a valuable experience in and of itself, the argument for art education may be successful if it takes the form of how these artistic, aesthetic educational experiences contribute to students abilities to think and act intelligently, critically, and purposefully in their learning in all areas and throughout their lives in general.

Given the above theory, examples, and analysis, one final way of viewing this experiential art education that may serve as a beneficial argument for it is the idea that this type of learning develops an environmental intelligence that is valuable because of the awareness it gives individuals of the ways in which they interact with their surroundings and each other. The intelligent, purposeful activities and interactions that this educational model develops would encourage individuals to be constantly aware of their environments and how their actions impact and are impacted by the world around them; these environmental values may take a number of forms in different people's' lives, and whether they stem from aesthetic ideals or other experiential reasons, awareness of oneself in context is a valuable goal for education. Whether or not an arts-based education that promotes and privileges the development of observation and perception through hands-on artistic activity ends up producing visual artists, this kind of holistic education develops students' whole selves and all of their capacities in conjunction with one another, educates students towards democratic ideals, and has the potential to develop a moral culture.

Works Cited:

- Anderson, F.E. & Landgarten, H. (1973-4). Art in Mental Health: Survey on the Utilization of Art Therapy. *Studies in Art Education*, 15(3), 44-48.
- Anthroposophy. (2016). In *Encyclopaedia Britannica*. Retrieved from <http://academic.eb.com.proxy.swarthmore.edu/EBchecked/topic/27550/anthroposophy>
- Arda, Z. (2009). Art instruction in pre-school education. *Procedural and Behavioral Sciences*, 150-153.
- The Artists of Black Mountain College. (2006, October 16). Retrieved March 19, 2016, from <http://www.pbs.org/wnet/americanmasters/artists-black-mountain-college/5719/>
- Atkinson, D. (2006). What is Art in Education? New Narratives of Learning. *Educational Philosophy and Theory*, 39(2), 108-117.
- Bagby, J., Wells, K., Edmondson, K., & Thompson, L. (2014). A Review of the Literature, 2010-2013. *Montessori Life*
- Baker, D. (2013). Art Integration and Cognitive Development. *Journal for Learning through the Arts*, 9(1), 1-15.
- Bamford, C., & Utne, E. "History of Waldorf Education." Association of Waldorf Schools of North America - Waldorf Education - Rudolf Steiner & the History of Waldorf Education. N.p., n.d. Web. 24 Feb. 2016.
- Belenky, M.F. (1997). *Women's Ways of Knowing: The Development of Self, Voice, and Mind*. New York, NY: Basic.
- Bequette, J.W. & Bequette M.B. (2012). A Place for Art and Design Education in the STEM Conversation. *Art Education*, 65(2), 40-47.
- Besançon, M., Lubart, T., & Barbot, B. (2013). Creative Giftedness and Educational Opportunities. *Educational & Child Psychology*, 30(2), 79-88.
- Bickley-Green, C.A. (1995). Math and Art Curriculum Integration: A Post-Modern Foundation. *Studies in Art Education*, 37(1), 6-18.
- Bolton, S. L.. (1969). An Introductory Study of Art as Creative Learning for the Rural Culturally Disadvantaged. *Studies in Art Education*, 10(2), 50-56.
<http://doi.org/10.2307/1319612>
- Cichucki, P.H. (2007). Montessori Environments as Works of Art. *Montessori Life*, 19(2), 9.
- Cox, M.V. & Rowlands A. (2000). The Effect of Three Different Educational Approaches on Children's Drawing Ability: Steiner, Montessori and Traditional. *British Journal of Educational Psychology*, 70, 485-503.
- Csikszentmihalyi, M. (1991). The condition of flow. In *Flow: The psychology of optimal experience* (pp. 71-93). New York, NY: Harper & Row, Publishers.
- Desai, D. (2002). The Ethnographic Move in Contemporary Art: What Does it Mean for Art Education? *Studies in Art Education*, 43(4), 307-323.

- Dewey, J. (1938) *Experience & Education*. New York, NY: Touchstone.
- Dewey, J., Barnes, A., Buermeyer, L., Mullen, M., & de Mazia, V. (1947) *Art & Education*. Philadelphia, PA: The Barnes Foundation Press.
- Diaz, E. (2015). *The Experimenters: Chance and Design at Black Mountain College*. Chicago, IL: The University of Chicago Press.
- Discipline-Based Arts Education (DBAE). (n.d.). Retrieved March 26, 2016, from <http://handbook.laartsed.org/models/index.ashx?md=44>
- Dobbs, S.M. (1998) *Learning in and through Art: A Guide to Discipline-based Art Education*. Los Angeles, CA: Getty Education Institute for the Arts.
- Dohrmann, K.R., Nichida, T.K., Gartner, A., Lipsky, D.K., & Grimm K.J. (2007). High School Outcomes for Students in a Public Montessori Program. *Journal Research in Childhood Education*, 22(2), 205-217.
- Easton, F. (1997). Educating the Whole Child, "Head, Heart, and Hands": Learning from the Waldorf Experience. *Theory into Practice*, 36(2), 87-94.
- Elliston, J. (2015). FBI investigation of Black Mountain College revealed in newly released file. *Carolina Public Press*. Retrieved from <http://www.carolinapublicpress.org/23088/fbi-investigation-of-black-mountain-college-revealed-in-newly-released-file>
- Environment. (2015). Retrieved March 19, 2016, from <http://montessori.edu/environment/>
- Fard, F.J. (2015). The Expanding Reach of Art Therapy. *Art Business News*. Retrieved from: <http://artbusinessnews.com/2015/12/the-expanding-reach-of-art-therapy/http://artbusinessnews.com/2015/12/the-expanding-reach-of-art-therapy/>
- FAQs: About Waldorf Education. (n.d.). Retrieved March 19, 2016, from https://waldorfeducation.org/waldorf_education/faq_about_waldorf_education#art
- Fettes, M. (2013). Imagination and Experience: An Integrative Framework. *Democracy & Education*, 21(1), p. 1-11.
- Foster, S.W. (1984). An Introduction to Waldorf Education. *The Clearing House*, 57(5), 228-230.
- Fountain, H. (2014). Putting Art in STEM. *The New York Times*. Retrieved from <http://www.nytimes.com/2014/11/02/education/edlife/putting-art-in-stem.html>.
- Gardner, H. (1983). Artistic Intelligences. *Art Education*, 36(2), 47-49.
- Ginsburg, H. & Oppen, S. (1979). *Piaget's Theory of Intellectual Development*. Englewood Cliffs, NJ: Prentice-Hall.
- Guigui-Stolberg, J. (2014,). Waldorf education - a century after rudolf steiner. *German Life*, 21, 46-48. Retrieved from <https://proxy.swarthmore.edu/login?url=http://search.proquest.com/docview/1544752920?accountid=14194>
- Heath, S.B. & Roach, A. (1999). Imaginative Actuality: Learning in the arts during the

- nonschool hours. *Stanford University and Carnegie Foundation for the Advancement of Teaching*, 20-34.
- Heyder, B. (1981). [Review of RICHARDS, M.C. *Toward Wholeness: Rudopf Steiner Education in America*. Middletown, CT: Wesleyan University Press, 1980, 210 pp.]. *International Review of Education*, 27(3), 374-376.
- Jackson, P.W. (1998). Introduction. In John Dewey and the Lessons of Art (xi-xvi). New Haven, CT: Yale University Press
- Jolly, A. (2014). STEM vs. STEAM: Do the Arts Belong? Retrieved from <http://www.edweek.org/tm/articles/2014/11/18/ctq-jolly-stem-vs-steam.html?qs=art+education>.
- Kayili, G. & Ari, R. (2011). Examination of the Effects of the Montessori Method on Preschool Children's Readiness to Primary Education. *Educational Sciences: Theory & Practice*, 11(4), 2104-2109.
- Kwon, A.S. (1981). [Review of OGLETREE, Earl J. (ed.) *Introduction to Waldorf Education: Curriculum and Methods*. Washington, D.C.: University Press of America, 1979, 491 pp.]. *International Review of Education*, 27(3), 374.
- Lampert, N. (2013). Inquiry and Critical Thinking in an Elementary Art Program. *Art Education*, 6-11.
- Langley, T. (2009). Creating a Curriculum that Fosters Scientific Thought. *Montessori Life*, 3, 32-36.
- Loughran, S. (2001). An Artist Among Young Artists: A Lesson for Teachers. *Childhood Education*, 77(4), 204-208.
- McConkie, J.E. (2005). *Artful Utility: Rethinking John Dewey's Theories of Experience, Education, and Inquiry in the Context of Contemporary Art*. (Unpublished doctoral dissertation). University of Utah, UT.
- McNeil, N.M. & Uttal, D.H. (2009). Rethinking the Use of Concrete Materials in Learning: Perspectives from Development and Education. *Child Development Perspectives*, 3(3), 137-139.
- Mei-Ju, C. (2014). In Celebration of Creativity Play: an Exploration on Children's Aesthetic Sensibility and Creativity in Waldorf Early Childhood Education. *Revista De Cercetare Si Interventie Sociala*, 47, p. 15-179
- Murray, A. (2011). Montessori Elementary Philosophy. *Montessori Life*
- Northern Illinois University, "Howard Gardner's Theory of Multiple Intelligences." Retrieved from http://www.niu.edu/facdev/resources/guide/learning/howard_gardner_theory_multiple_in_telligences.pdf
- O'Donoghue, D. (2015). The Turn to Experience in Contemporary Art: A Potentiality for Thinking Art Education Differently. *Studies in Art Education*, 56(2), 103-113.
- Piaget, J. (1977). *The Essential Piaget*. H.E. Gruber & J.J. Vonèche (Eds.). New York, NY: Basic Books, Inc., Publishers.

- Pitri, E. (2013). Skills and Dispositions for Creative Problem Solving During the Artmaking Process. *Art Education*, 41-46.
- Reed, E.S. (1996). *The Necessity of Experience*. New Haven, CT: Yale University Press.
- Schaff, P., Isken, S., & Rager, R.M. (2011). From Contemporary Art to Core Clinical Skills: Observation, Interpretation, and Meaning-Making in a Complex Environment. *Academic Medicine*, 86(10), p. 1272-1276.
- Selected Works. (n.d.). Retrieved March 19, 2016, from <http://www.albersfoundation.org/art/selected-works/>
- Al, S. Sari, R.M. & Kahya, N.C. (2012). A different perspective on education. Montessori and Montessori school architecture. *Prodecia - Social and Behavioral Sciences*, 46, 1866-1871.
- Shankland, R., Genolini C., França, L.R., Guelfi, J.D., & Ionescu, S. (2010). Student Adjustment to Higher Education: The Role of Alternative Educational Pathways in Coping with the Demands of Student Life. *Higher Education*, 59(3), 353-366.
- Shaw, M.P. (2013). Art Education Beyond the Classroom: Pondering the Outsider and Other Sites of Learning. *Harvard Educational Review*, 83(1), 247-250.
- Silverman, R.H. (1989). Discipline-Based Art Education. *Education Digest*, 55(2), 53-56.
- Smith, P. J. (1996) *The History of American Art Education: Learning about Art in American Schools*. Westport, CT: Greenwood Press.
- Waldorf school. (2016). In Encyclopaedia Britannica. Retrieved from <http://academic.eb.com.proxy.swarthmore.edu/EBchecked/topic/634450/Waldorf-school>
- Waldorf vs. Montessori. (2012, October 15). Retrieved March 19, 2016, from <http://blog.sgws.org/waldorf-vs-montessori/>
- 1930s. (n.d.). Retrieved March 19, 2016, from <http://blackmountaincollegeproject.org/History/1930s.htm>