A Model for Stabilized Creative Education:
Using Creativity in the Arts to Promote Student Success

A PROJECT
SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL
OF THE UNIVERSITY OF MINNESOTA
BY

Timothy M. Brott

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF LIBERAL STUDIES

December 2016

Approved:

_____   _____
Advisor   Date

_____   _____
Instructor of LS 8002   Date

_____   _____
Director of Graduate Studies   Date

For Qwynn and Leo, whose bright futures inspire me.

CONTENTS

ILLUSTRATIONS

TABLES

ACKNOWLEDGEMENTS

CHAPTER 1: INTRODUCTION

When we ask for "creativity," do we know what we want? Do we know what we will get? Definitions and expectations of creativity are ever changing and difficult to agree upon. If we lead our proverbial horses, the students, to the water of creativity, do we know if they will drink? How much of the training and confidence that we hope to instill in our students will they carry with them and use to solve the problems of their lives and lifetimes?

A favorite adage of football coaches at all levels of the game is that if you do not give maximum effort every play, you leave yourself vulnerable to injury. We can make a similar argument for the curriculum intended to encourage student creativity: if the players (students, teachers, and administrators) do not dedicate themselves to the cause of creativity, they are vulnerable to lowered expectations or poor achievement and cannot support the school, in essence the "team."

With a team that has long suffered from a lack of creative education in public schools, educators have responded to poor achievement by seeking to change varied aspects of the educational system. Whether it concerns curriculum, testing methods, or the physical school itself, reforms often come in simultaneous ripples and waves. In the present system, when funding is predicated on test scores, schools can "fail" or even close when scores are not high enough. Some reforms are successful responses to severe deficiencies and needs, while others turn out to be nothing but expensive fads. There are not enough hours in the day to teach everything we would like our students to know, and not every teaching method can be reconciled with the mission of the school.

What *can* be reconciled with the mission of every school is a dedication to student creativity. Engagement in student creativity is a school-wide effort that, when executed correctly for a school's unique social climate, can help students thrive and achieve, rendering moot the concept of the failed school.

While it is important to be able to identify exceptional creative talent, or "giftedness," on an individual level, many more students will be positively affected by an environment where creativity is encouraged for everyone daily. Clues to the value of creativity come from various disciplines and can be extracted from scholarly writings of the 1930s up to the present day. This thesis will put a name to the logical summation of those clues and provide evidence, from theory and the real world, about the necessity and efficacy of

creativity in K-12 education. Through these studies, I have developed a model for stabilized creative education to provide additional structure for our schools' creative environment.

This Model for Stabilized Creative Education (MSCE) is a multifaceted approach to improving students' educational experiences in K-12 schooling. MSCE incorporates a system for recognizing, understanding, and nurturing student creativity into an arts-enriched school environment. A crucial element of the Model for Stabilized Creative Education is the belief that creativity should be supported at the school and district organizational levels. This model stands in stark contrast to the ebb and flow of school "failure" and "rescue reform" that has plagued public schools in low-income urban and suburban areas in the last fifteen years.

Our public schools battle budgetary problems, trying to pay teachers what they are worth while providing students with up-to-date technology and course materials. Teachers, administrators, and parents do not always share the same priorities and expectations for schools and student outcomes. One generally agreed upon point is that creativity and problem solving are important undertakings for students. But because of differences between schools within and across districts, it is not always clear how to provide opportunities for student creativity.

With that problem in mind, the Model for Stabilized Creative Education is built around five basic assumptions:

1) The school *must* provide access to arts courses with visual, manual, performance, and literary components (the arts are a vital vehicle for creativity, and creativity enhances learning experiences within the arts);
2) Teachers and administrators must know what creativity is, how to foster it in students, and how to recognize when it is occurring;
3) Schools should trust that student creativity, when guided properly through the arts, has a profound and positive impact on students' involvement and success on measurable tasks like standardized tests and course grades. (This is an effect of *transfer*. James Catterall's extensive and convincing work on the subject is discussed later in this paper);
4) Learning to teach for student creativity does not require a huge time investment, nor will it cost schools a great amount of money.

5) The student creativity that results will be consistent, reliable, and predictable.

This project began several years ago in modest fashion with an investigation into the roots of American anti-intellectualism and how it affects arts learning and artists. The next step on the journey was to explore poet/philosopher Sir Herbert Read's *Education Through Art* and its bearing, if any, on arts and education in our present day. Further considerations about school culture and the psychology of creativity, on both an individual and sociological level, led to the consideration of this topic in its present state.

CHAPTER 2: COMPONENTS OF THE MODEL

Psychological Components of Creativity

This Model for Stabilized Creative Education is best understood by first reviewing its basic components. These components draw heavily from the field of psychology.

Creativity is the solving of problems through novel methods rather than a predesigned algorithm, and can be noted by four main components of idea generation, defined in J.P. Guilford's theory: *fluency*, *flexibility*, *elaboration*, and *originality* (Guilford, 1950, p. 453, Amabile, 1996, p. 24). These are part of a larger, 15-factor theoretical model of the Structure of Intellect proposed by Guilford and Philip Merrifield in 1960 (Torrance, 1962, pp. 34-38).

Fluency refers to the quantity of relevant creative ideas an individual can produce; *flexibility* can be interpreted as adaptation to unusual or unexpected circumstances when problem solving; *elaboration* is the ability to parse solutions in great detail; and *originality* is just as it sounds: using novel problem-solving methods or answers, whether completely new or previously unknown to the individual.

Creativity researchers have long known that fluency, flexibility, elaboration, and originality can be measured. In the 1950s, Guilford (as president of the American Psychological Association) and others pointed out the shortcomings of IQ tests because these tests lacked activities that reliably measured creative idea generation (Torrance, 1962, p. 18) and devised several creativity tasks such as Unusual Uses, which challenges participants to come up with many unique uses for an everyday object, such as a brick, in a certain amount of time (Torrance, 1962, p. 44). For example, suggesting that a brick could be used as a doorstop or paperweight does not display flexibility, elaboration, or originality, and, if those are the only two ideas, very little fluency as well. However, someone with fifty ideas, including using the brick as a door*knob* or as a writing utensil to compose a poem or operetta shows a great amount of fluency, as well as flexibility, originality, *and* elaboration.

While at the University of Minnesota in 1958, psychology professor E. Paul Torrance expanded on Guilford's methods and developed the Minnesota Tests of Creative Thinking to explore and understand creativity and "giftedness" in schoolchildren.

Torrance (1962), after Wallas (1926), defined creative thinking as "the process of sensing gaps or disturbing, missing elements; forming ideas or hypotheses concerning them; testing these hypotheses; and communicating the results, possibly modifying and retesting the hypotheses" (p. 16). He also sees this process as having four steps: *preparation*, *incubation*, *illumination*, and *revision*.

Preparation is gaining familiarity with the problem; *incubation*, the time spent considering the problem, along with its variables and possible solutions; *illumination* is the point of insight, the "eureka" moment; *revision* is an analysis of the success or failure of the solution, along with any necessary corrections.

Divergence is a person's inclination toward independent, nonconforming thought and can be problematic in the context of contemporary traditional education, where rote learning and adherence to rules are the expectations of a culture based upon standardized test results.

Divergent thinking and the ability to make concise, appropriate inquiries into a subject are hallmarks of creativity, and it is my belief that almost anyone can be given opportunities to practice these habits and skills to improve what Guilford (1950) called "sensitivity to problems" (p. 451).

But, as Torrance (1962) pointed to in *Guiding Creative Talent*, "A high degree of sensitivity, a capacity to be disturbed, and divergent thinking are essentials of the creative personality. Frequently, creative children are puzzled by their own behavior. They desperately need help in understanding themselves, particularly their divergence" (p. 10).

Philosopher Jeffrey Maitland (1976) writes on the essence of creativity in his simply-entitled article, "Creativity," stating that it is "a form of human freedom," regardless of whether it falls under the category of creative problem-solving or creative performance (p. 397). Harvard University professor emerita Teresa Amabile's (1996) conceptual definition of creativity has two imperative elements. The "product or response will be judged as creative to the extent that (a) it is both a novel and appropriate, useful, correct or valuable response to the task at hand, and (b) the task is heuristic rather than algorithmic" (p. 35).

"Appropriate" and "useful" were not always part of the definition. As psychologists Sidney Parnes and Angelo Biondi (1975) pointed out in *Creative Behavior: A Delicate Balance*, the admonition to "stay loose" to be creative in the 1960s was not the whole truth:

> An increasing number of similar messages, repeated time and time again, gave birth to a new era; it became fashionable to be unconventional, uninhibited, and undisciplined. With time it became apparent that these new behavioral patterns weren't producing the desired results. While **uniqueness** seemed evident, what transpired often lacked **relevance.** (p. 149)

Creativity, it must be remembered, was in its infancy after less than twenty years as a discipline in the field of psychology. It is not surprising, then, that even its very definition was revised into a fuller conception of the creative process when results did not meet expectations.

Torrance, Maitland, and Amabile's definitions of *divergence* taken together support the idea of creativity as a human freedom, in that they allow and expect one to make inquiry *and* break from old methods in search of new problem-solving processes and previously undefined answers and facts. And, as Torrance reiterates in his chapter entitled "Identifying Creative Talent," "One cannot know what he is capable of unless he tests his limits" (1962, p. 74). Risk-taking, he says, seems essential in the development of the self-concept. Without opportunities to exercise and test creativity, students are the robotic, unfulfilled humanoids that philosopher Herbert Read feared we would become in the future unless our public schools provide arts courses to the students. Read's ideas will be explored in more detail later in this paper.

Maitland also proposes that the artist (though for our purposes, "student-creator") responds to "mistake-signaling twinges" during acts of creation that inspire her/him to revise a part, or parts, of the product or solution (1976, p. 398). These "mistake-signaling twinges" are the philosophical analogy to Guilford's psychological concept within creativity of "sensitivity to problems," and point to a multidisciplinary agreement on core attributes of creative behavior.

Convergent thinking, or narrowing the field of many potential solutions to one viable and relevant solution to apply to the problem, follows the creator's divergent thought process (Sawyer, 2012, p. 129). As Parnes and Biondi suggested, the "delicate balance" comes

6

from the creator knowing how and when to winnow many solution options to one best first attempt, then, if the problem remains unsolved, revisit a few of the solutions armed with newly-acquired knowledge and make another selection. Without this stage of the creativity cycle, the creator still has a problem but no resolution.

Figure 1 illustrates the creativity cycle as analogous to a beam of light (problem) spreading through a prism (divergence), then focused into multiple streams with a lens (critical thinking), and, finally, one stream filtered out (convergence on a single solution)
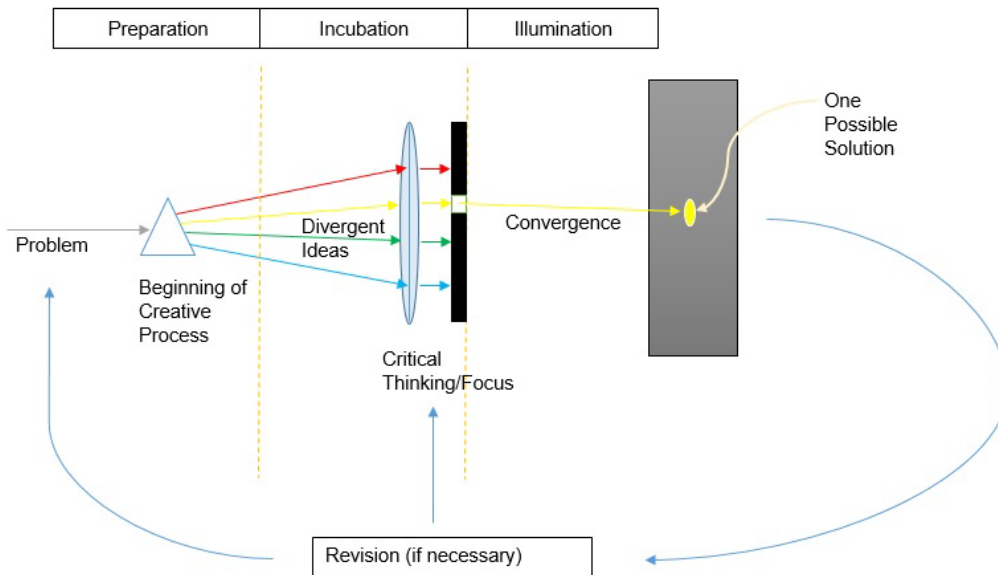

Figure 1: Creative Thinking Process Diagram (Brott)

Teresa Amabile, in her seminal text *Social Psychology of Creativity* and reprised in the updated 1996 volume *Creativity in Context*, outlines creativity-relevant skills and places them in contrast to domain-relevant skills. *Domain-relevant skills*, according to Amabile, are "familiarity and *factual knowledge* of the domain in question: facets, principles, opinions about various issues in the domain, knowledge of paradigms, performance "scripts" for solving problems in the domain, and aesthetic criteria" (1996, p. 85). As can be surmised, these skills are generally learned, and, while possessed by creative people, not determinate of a person's creative aptitudes and abilities. People acquire domain skills through the most basic of tasks: practice and repetition. Depending upon

the discipline, the practice might come in the form of reading, writing, drawing, musical performance, discussion, or dozens of other study methods.

Amabile's literary work centers on the assertion that creativity, while being an individual activity as Torrance demonstrated, is affected by social and environmental factors in profound ways. In an educational setting, these range from teacher behavior to competition within and across groups. In her chapter from *Creativity in Context* on these influences, Amabile (1996) shares her clear belief that, "Of all the social and environmental factors that might influence creativity, most can be found in some form in the classroom. Moreover, not only is the incidence of such factors perhaps the highest in educational environments, but it is probably easiest to control them there, as well" (p. 203). This is more than just a hint to those who would pursue creativity research in the most malleable, and thus reliable, of settings; it is a call to the observant educator that with some effort change in the classroom for the sake of creativity is plausible.

Cognitive style is the manner in which one generates and processes thought, and is at its root neurological and physiological. According to psychiatry fellow Robert Prentky (1980), and perhaps counter to general perceptions about creativity, a combination of divergent and convergent thinking culminates in creative output (p. 47). Keeping that in mind, Amabile defined a cognitive style of creativity beyond mere divergence comprised of nine features: 1) *breaking perceptual set;* 2) *breaking cognitive set;* 3) *understanding complexities;* 4) *keeping response options open as long as possible;* 5) *suspension of judgment;* 6) *using "wide" categories;* 7) *remembering accurately;* 8) *breaking out of performance "scripts";* and 9) *perceiving creatively.*

In addition to these cognitive traits, creativity-relevant skills also include *knowledge of heuristics* and "*work style* conducive to creative production" (Amabile, 1996, p. 89). Heuristics, or problem-solving achieved through experience, stand in contrast to *algorithms*, which are predetermined methods or formulas for solving problems that in most cases require less creativity to recall and implement than a solution born from experience.

Amabile's construct for the ideal *work style* of creative people features four characteristics, compiled from the work of others in the field of creativity:

> "a) an ability to concentrate effort and attention for long periods of time (Campbell, 1960; Hogarth 1980; Prentky, 1980); b) an ability to use 'productive

forgetting' when warranted—an ability to abandon unproductive search strategies and temporarily put aside stubborn problems (Simon, 1966); c) a persistence in the face of difficulty (Roe, 1953; Walberg, 1971); and d) a high energy level, a willingness to work hard, and an overall high level of productivity (Bergman, 1979; Bloom, 1956; Davis & Rimm, 1977; Simonton, 1980b; Wallach & Kogan, 1965)" (Amabile, 1996, p. 90).

Certainly, some of these characteristics are inherent in a person's make up but others, like "productive forgetting," could be coached by an informed authority or mentor.

Intrinsic and Extrinsic Motivation and Constraints

At the individual and organizational level, respectively, Torrance and Amabile identified motivations for creativity, as well as constraints on creative success. Torrance's (1962) work in *Guiding Creative Talent* was squarely centered on the external pressures experienced by creative individuals, especially schoolchildren, when their idea is the only one of its kind and does not fit the standard ways of thinking within the peer group (p. 104). This is one form of *extrinsic motivation* which generally has a negative effect on the creative individual's self-concept and the valuation of her/his own ideas, in some cases leading to a decrease in creative confidence and limiting the internal, or *intrinsic*, motivation to pursue creative endeavors.

Torrance was clear that certain extrinsic influences are important for guiding and fostering confident student creativity. He suggested that teachers and administrators can fill any of six roles aside from their typical roles in the school. These six roles are: 1) providing the highly creative individual a "refuge," 2) being his "sponsor" or "patron," 3) helping him understand his divergence, 4) letting him communicate his ideas, 5) seeing that his creative talent is recognized, and 6) helping parents and others understand him (Torrance, 1962, p. 7-8).

In her investigations of *extrinsic motivation by reward*, Amabile mostly observed negative effects on students' fluency, originality, and elaboration while creating images, poems, or solutions when a material reward was expected or offered in advance of the task. However, the speed of solutions actually increased when the task was algorithmic in nature. In a few cases, the productivity of study participants taking creativity tests

9

increased with anticipated rewards when the solution was open-ended or involved heuristic problem-solving techniques (1996, pp. 157-159). Overall, these findings by Torrance and Amabile further reinforce the assertion that the ideal work style for creativity is intrinsically motivated and externally supported to ensure students' continuing confidence in their creative abilities. Knowing these motivations and support factors gives educators a frame of reference when initially figuring out what makes creative students tick.

Category	Creativity Characteristic or Behavior
Universal Components of Creativity	Fluency, Flexibility, Originality, Elaboration
	Preparation, Incubation, Illumination, Revision
	Divergence/Convergence
Variables in the Teaching/Learning Environment	Heuristic versus Algorithm
	Creativity-relevant skills
	Domain-relevant skills
Student Behaviors	Cognitive style
	Work style
	Intrinsic versus Extrinsic Motivations

Table 1: Matrix of Creativity Components (Brott)

Taking all of these considerations of creativity into account, I have arranged them into a matrix for understanding and evaluating interview answers that will be discussed in Chapter 4. Table 1 illustrates skills, behaviors, and environmental factors associated with creativity.:

School Failure

The failure of schools is a relatively new occurrence. Inability of a school to adhere to minimum graduation rates and test score standards in the "No Child Left Behind" era, coupled with school choice and the readily accessible instant pedagogy of charter schools has made school closures based upon inadequate progress an easy business decision. If one public school goes down for achievement reasons, several charter schools with sponsor corporations are waiting in the wings with funding sources and a plan in hand to take its place.

With some definitions for creativity, at the individual level and from the sociological perspective, and the processes of rescue reform and school failure, my investigations will reinforce the notion that the arts in education can be more than a luxury. They are integral to education.

The Problem of the Art/Education Dichotomy

Before creativity study began in earnest in the 1950s, the best approximation of what the arts-enriched and creativity-centered K-12 curriculum should reflect was *education through art*, envisioned by Herbert Read in a series of writings and books beginning in the 1930s.

For a little over 100 years, the science of education studies has been a double-edged sword. Efforts to make education more efficient and equitable also lead to unintended consequences, an effect known as *iatrogenesis* (Milner & Howard, 2004, p. 294). Iatrogenesis is a medical term that has been applied to sociological studies of educational desegregation in the post-*Brown* civil rights era of the 1950s through 1970s but serves well to describe a general lack of anticipation among education policy makers.

Poet-philosopher-art historian Herbert Read noted changes to education forsaking arts as early as the 1930s. In 1943, Read published his text Education Through Art*,* a book still considered revolutionary by professionals in the field of arts education (Cannatella, 2007, p. 2), as this was the first time anyone had brought the research from education, psychology and the arts together to bear on this issue. Following this "revolution," a concerted international effort between arts education experts, including Read, and the

United Nations Educational, Scientific and Cultural Organization (UNESCO) produced the International Society for Education through Art (InSEA) in 1954. Among other organizations holding similar stakes in arts education advocacy in the U.S. are the National Art Education Association (1947) and the Arts Education Partnership (1995, renamed 1999). Read's approach was the first to codify the various perspectives on art and education by incorporating views from the disciplines of philosophy, psychology, and the new science studying education pedagogy in the early twentieth century.

In his book *Redemption of the Robot*, Read (1966) tackles the progress in installing "a policy called 'education through art'" (p. xxviii). Reflecting upon the twenty-three years since he published *Education Through Art*, Read makes an observation of his own beliefs, enlightening the reader to the core issue surrounding the subject. Assigning reflexive definitions to both the terms "art" and "education," Read states:

> The main difficulty encountered in our exposition of this policy is due to a misunderstanding of what we mean by the word art – a word as ambiguous as the word education. But again one must persist in using the conventional word and trust that the challenging association of these two misunderstood words will produce some illumination in the public mind. What I have in my own mind is a complete fusion of the two concepts, so that when I speak of art I mean an educational process, a process of upbringing; and when I speak of education I mean an artistic process, a process of self-creation. As educators, we look at the process from the outside; as artists, we look at the same process from the inside; and both processes, integrated, make the complete man. (p. xxix)

This relationship is more than simply a link: by this definition, education and art occupy the same space and perform the same function. This misunderstanding in the public mind to which Read refers carries the greatest force in shaping approaches to educating students through artistic means. Only through some traditional form of measurement, demonstrating the effects of art on the formation of complete and unique students, will the "public mind" be convinced that art and education are one entity.

One of Read's tenets is the understanding that successful education will fully prepare the student for any challenges to her/his creativity and problem-solving abilities, and therefore does not need to be geared toward one particular career path. As Read (1958)

put it, the purpose of education is to produce the "citizen," an organic unit of society, not the "artefact" [*sic*] known as the "scholar" (p. 225). Through a series of arguments invoking the philosophies of the ancient Greeks, namely Plato, nineteenth-century Germans Marx and Engels, and aspects of Freudian and Jungian psychology, the whole of education through art is revealed to the reader as an inherent part of childhood learning, and cognitive and social development. According to Freud, the creativity of the student is, unfortunately, engineered out of her/him by a "suppressive" function of education, the aim of which is to homogenize the educational experience and turn out like-minded individuals (Read, 1966, pp. 88-92). This type of teaching is often accompanied by a detachment of the instructor from the students, and leads to a further distancing of the student from her/his schooling. Education through art is meant to counteract this tendency in the education pedagogy through a student-focused curriculum in which students' questions, interpretation and unique thought are encouraged, and the teacher is directly engaged with students in creative projects and dialogue about their observations of art.

Read directly exchanged ideas with contemporaries such as psychologist Carl Jung about art and education. While developing a very singular opinion about the role of the arts in education, he was not developing his perceptions on an island. Read's opinion that there was no carry over effect of skills from one learned task to another was based upon the research of the day, and has since come into question, as in some of the literature from the Arts Education Partnership, which will be discussed later in this paper.

A concerted effort to quantify the effects of education in the arts is relatively young. Herbert Read (1958) made his case in the mid-twentieth century to the arts-uninitiated that education through art was a method not just for creating students, but also *citizens* (p. 255). David Tyack and Larry Cuban (1995), both professors in the Stanford Graduate School of Education, reiterated the reasoning for providing and continuously improving a democratic, public education, that these public schools are meant "to serve broad civic purposes as well" (p. 38). If school reform is continuous and gradual instead of reactionary and overwhelming, the need for rescuing schools from the brink of failure could be eliminated.

Stanford University's Elliot Eisner more recently brought to the fore an understanding of arts education and its meaning as an integral and indispensable part of education, but

there is still a great deal of ground to be covered. Artists and instructors—those with high stakes in the discussion—do not generally have the standing within their organizations or adequate training to argue effectively for the inclusion of a "proper" arts education and its effects on students many years later. They are not in position to acquire an adequate amount of cultural capital to propel the arts back into the heart of elementary and secondary education. Basically, not enough teachers are artists, and not enough artists are teachers.

There is research that points to this gap in social and political capital among teachers in general, as well as art teachers specifically. James Spillane, professor in Northwestern University's School of Education and Social Policy provides evidence to support Eisner's assertion. Looking at Spillane's "Forms of Capital and the Construction of Leadership" and digging into the numbers regarding teachers' tragically low opinion of cultural capital possessed by "specialists" (Spillane, Hallett, & Diamond, 2003, p. 6), one can see there is a problematic relationship between the two groups in advancing the educational mission of the school. True, the specialist will not always be the most qualified to teach in that specialization but, according to independent education scholar Laura Chapman (2005), 92 percent of all U.S. elementary teachers do some sort of art instruction even though only 10 percent of those teachers have arts or arts education credentials. An alarmingly small percentage of elementary arts specialists across the country, a mere 21 percent, have a Master's degree in art education (p. 124). It seems an uphill battle to expect cooperation or respect from colleagues, administrators, and parents when such a huge gap in teaching expertise exists, even if the specialist has a high level of formal arts training. In order to build confidence in the stable of art teachers there must be identification of the systemic shortcomings of hiring and retention of these so-called "specialists."

Chapman (2005), referring to a survey by the National Center for Education Statistics, states that in 2000, 87 percent of elementary schools had some sort of arts education offering (p. 120), 68 percent of schools have a written guide for arts curriculum, and only 20 U.S. states have official guidelines for arts education in public schools (p. 122). This situation points to a disconnection inside individual schools, and across school systems on a local, state and federal level. The low priority and wavering support of arts education is negatively influencing the lag behind NCLB standards, creating a culture where discernment and critical thought, not only about aesthetics but on any subject, is

diminishing. And technological advances are beginning to create a perception of the arts as obsolete.

More than half a century ago, in an opinion on teaching for creativity, superintendent of Air Force Schools Garland Wollard (1962) stated that, "schools haven't touched the surface in teaching the already known discoveries" (p. 433). This assertion cuts to the core of why, even today, the school fears creativity: that teaching for creativity will cause us to teach even fewer of the "already known discoveries" that students are missing. However, those who study creativity know well that discipline-based knowledge is necessary to build a foundation for creativity. Making room for more of the already known discoveries would enhance the atmosphere, not diminish it.

In a 2015 interview, University of Minnesota professor emeritus of Creativity and Innovation Studies, Fred Amram, echoed Wollard's concern about facts, and elaborated why creativity is so vital in the world today:

> I think there is nothing more important, absolutely nothing more important than enhancing student creativity. They will never learn all the facts that exist. More and more they will be "Googling" their world and it's what they do with the information that really matters.

Indeed, knowledge by itself has limited function.

Howard Cannatella (2007), professor of Visual Art at Coventry University in England, in his address "Education through Art" disagrees with some details of Read's hypotheses (foremost, the insistence that children need not be bothered with the history of art). He generally agrees, however, with the thoughtfulness and depth of Read's assessment of the need for arts education on the child's terms rather than teaching to appease the adult. Cannatella's understanding of the need for such an approach, as well as a nuanced observance of Read's experiences, was simply that, "Education through art would reinforce what we are in danger of losing; namely an aesthetic culture." (p. 2) It is unclear whether Cannatella is speaking only of the United Kingdom or the world at large. What is clear is the startling image of an anti-aesthetic school culture. Creative, critical thought and expression go missing in the "teach to the test" environment. Also, achievement in coursework and test scores declines, and with so much prestige and money resting on the results, the typical response by schools is to buckle down and

focus even harder on preparing for testing. A gradual decline in the quality of the school is followed by more problems and an even more rapid devolution as the cycle repeats faster and faster. The loss of an aesthetic culture, one that is truly able to appreciate and create art, would be a travesty.

Anti-Intellectualism: The Downfall of Creativity and Arts

British educator A. L. Stone was careful to note in "Story of a School," a study on arts education, that even in 1949 the arts bolstered education in what was deemed to be a "discouraging" environment (Read, 1966, p. 116). In other words, an environment in which the previous model of rote learning, combined with disadvantages such as poverty, had left these schools and their students in a desperate state. It was the combination of these conditions and an increased reliance upon mechanization, forcing the average worker to become more "robotic," that prompted Read to suggest that art would take on the role of "redemptor" (1966, p. 144). In its simplest and most ideal application, art would save the worker from boredom and obsolescence. But the implication of all these things taken together is that art would eventually be used preemptively in primary and secondary education to both eliminate dehumanization and promote individuation.

Nothing is deadlier to the ideals of creativity than the practice of anti-intellectualism. Two years prior to Herbert Read's *Redemption of the Robot,* Richard Hofstadter, a professor of American history at Columbia University, released his 1964 Pulitzer Prize-winner *Anti-Intellectualism in American Life.* This book exposed the struggles between political factions over the value of intellectualism and the cycle of suppressing the intellectual in America from the time of the Puritans in the 1600s, to the presidency of Andrew Jackson (a notoriously anti-intellectual figure) in the 1820s, and concluding with an increasing dislike for "highbrows" and "eggheads" during the Eisenhower administration in the 1950s (Hofstadter, 1963, p. 9). This devaluation of intellect coincided with an increase in the political power of social conservatives, and became even more pervasive during the presidencies of Richard Nixon, Ronald Reagan, and George W. Bush, who famously stated while in office that he did not read books. Hofstadter does not offer any suggestion that the repetition of anti-intellectual sentiment in America will ever be broken. However, he does imply that intellect and individualism are sorely undervalued,

and a complete swing toward anti-intellectualism in our culture *could* occur if political power and knowledge remain separated.

Csikszentmihalyi: "Flow" in the Act of Creation

> Many people give up on learning after they leave school because thirteen or twenty years of extrinsically motivated education is still a source of unpleasant memories. Their attention has been manipulated long enough from the outside by textbooks and teachers, and they have counted graduation as the first day of freedom (Csikszentmihalyi, 1990, p. 141).

Mihaly Csikszentmihalyi concludes his chapter on "The Flow of Thought" from *Flow* with this disappointing but true culmination of an anti-intellectual approach to schooling. He elaborates on those effects by stating, "A person who forgoes the use of his symbolic skills is never really free. His thinking will be directed by the opinions of his neighbors, by the editorials in the papers, and by the appeals of television. He will be at the mercy of 'experts.'"
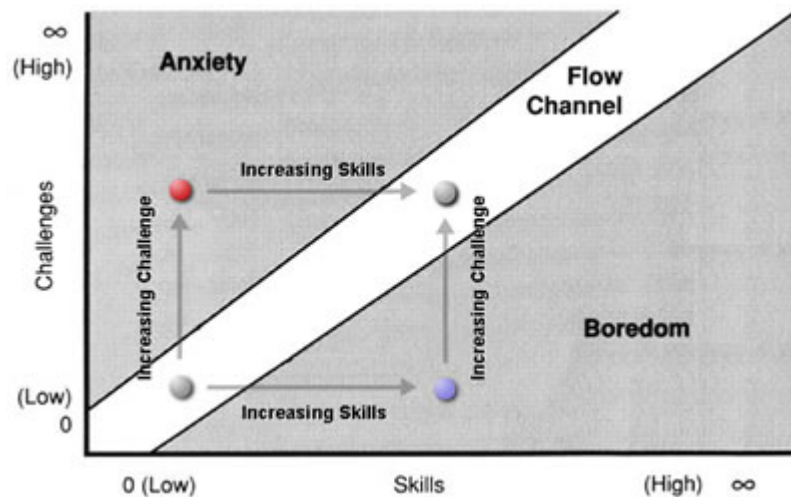

Figure 2: Csikszentmihalyi's "Flow" in graphic form (Csikszentmihalyi, 1990, p. 74)

Csikszentmihalyi echoes Hofstadter's admonition that people, particularly students, are pressed into a particular conforming way of thinking that makes them reliant on others for their own solutions and opinions later in life. Vital to counteracting this phenomenon,

in Csikszentmihalyi's estimation, is a continued evolution of involvement and enjoyment of activities that balances skills and challenges into what he labels a "flow channel" laying directly between states of boredom and anxiety (see Figure 2).

This is the dilemma teachers face on a continual basis: helping their students to find the sweet spot of "flow" in its precarious and narrow channel between boredom and anxiety.

Through the overview of major concepts from creativity study, education through art, anti-intellectualism, and school failure, this chapter has laid out the basis of the Model for Stabilized Creative Education. I will now investigate some reasons and evidence for why such a model is necessary in Minneapolis and Saint Paul's public high schools, as well as why the arts are a crucial part of the Model.

CHAPTER 3: NECESSITY FOR A MODEL OF STABILIZED CREATIVE EDUCATION

Why Bother to Encourage Creativity through Arts?

The science of education was inspired in the late-nineteenth century by a desire to regulate and improve schooling and student achievement, to make it more accessible and equitable. The perceptions of "accessibility" and "equity" evolved over time as civil rights for non-white Americans became a wide-spread social issue. Education later became a place for corporate, monetary profit. The adoption of budgeting techniques from the business world in the 1960s and 1970s like the Program Planning and Budgeting System (PPBS) was seen as a panacea for financial accountability in public schools (Tyack & Cuban, 1995, p. 114). University of Oregon education and anthropology professor Harry Wolcott's ethnographic study of PPBS in Oregon schools found that teachers considered the system to be "obtrusive and meaningless make-work rather than as a help in planning and accounting for their work" (Tyack & Cuban, 1995, p. 116). Shortly thereafter came attempts at for-profit schools like Texarkana, Arkansas' Rapid Learning Centers, begun by Dorsett Educational Systems in 1969. The schools were marketed toward potential drop-outs and offered students transistor radios and portable televisions as rewards for advancements in the program (p. 117). Teresa Amabile's work on extrinsic motivation, discussed in Chapter 2, showed quick success through the use of algorithms but negative effects on creativity and critical thinking. Because of this, it is difficult to ascertain whether a reward system like the one in the Rapid Learning Centers was actually teaching children how to read and do math or simply teaching them how to get to the next prize level.

David Tyack and Larry Cuban laid out a somber picture of school reform in *Tinkering Toward Utopia*, beginning with the earliest days of education science in the 1890s and early 1900s. The stress of reforms was initially placed upon regimenting and segmenting public schools, moving from the one-room schoolhouse model to a primary-secondary dichotomy to the introduction of kindergartens and the junior high school, as well as focusing on legislating changes to curriculum, testing, and funding. These milestones in the progression of school reform have provided mixed results, with no consensus on

whether the American educational system is better or worse off after major reforms have been made.

Often ignored in school reforms is the fact that artistic expression is an instinctive part of early learning. One strategy that recognizes the importance of artistic expression is the Visual Thinking Strategies (VTS). VTS is a curricular application of art study, particularly the observation and analysis of visual art for kindergarten through second grade, and is a fine example of how curriculum can use art to direct young children toward a lifetime of critical thinking while introducing teachers to the necessary background skills for teaching through art. What VTS demonstrates is that education through art requires a great deal of effort on the part of teachers. The key to overcoming the stigma created by the necessary effort of students and teachers alike is to begin teaching in this manner at a very early stage. VTS has been determined by psychologist and VTS co-creator Abigail Housen to be most effective when taught in the kindergarten through second grade (Housen & Yenawine, 2000, p. 4). As students and teachers practice this way of thinking, it will become easier to teach students through art as they continue on to secondary school. Ultimately, there will be less time spent teaching the foundations of interpreting and understanding art and more of that time transferred to another core activity of early learning, hands-on creative projects.

In the 1970s and '80s, Torrance developed his Incubation Model of Teaching for creativity, a tangible form of Read's vision in the 1940s. This model involved student-centered curriculum and instruction in a time when "back to basics" and the "excellence movement" in K-12 education was demanding results and forcing a homogenization of the student experience. Co-authored by H. Tammy Safter, *The Incubation Model of Teaching* is an instructional guide for teachers, having had its heyday in the early 1990s. *The Incubation Model* stresses teachers' patience for allowing children to make discoveries and, as the title suggests, allowing students' minds time to incubate thought through the entire creative problem-solving process (outlined in Chapter 2). Teachers are encouraged in this model to limit learning processes that are detrimental and unnecessary for creativity, such as "learning by authority" or encouragement through reward and punishment (Torrance & Safter, 1990, p. 13). Torrance and Safter (1990) reiterate the long-understood creative pillar of intrinsic motivation, which is well supported when teachers are receptive and responsive to students' original ideas (p. 15). Viewed from this perspective, a child's motivation to be creative is inherent and

natural, anchored in "cognitive and aesthetic needs" which "are served by creative ways of learning which develop the motivations and skills for learning throughout life" (Torrance & Safter, 1990, p. 13). As adults, teachers, role models, mentors, and guides, children's creativity is *ours* to lose.

The International Baccalaureate (IB) Programme, a worldwide nonprofit organization founded in 1968, provides an advanced curriculum model (for a fee) to schools from preschool through twelfth grade which meet IB's acceptance criteria. In addition to the math, science, and language core, there is a Creativity/Action/Service component, as well as performance and testing requirements for courses in the visual and performing arts. The IB consists of the Primary Years Programme in primary school, the Middle Years Programme for students aged eleven to sixteen, and the Diploma Programme and Career-Related Programme that culminates in the high school as students prepare for college (International Baccalaureate website, 2016). Because measurable student creativity is an integral part of the system, the expectation precedes instruction and assessment, making an impression on school decision makers who require specificity before changing policy and curriculum.

Arthur Efland, the 1996 winner of the National Art Education Association's Lowenfeld Award for his career of significant contributions to the field of arts education, delivered his message in "The Threefold Curriculum and the Arts." In this address, he detailed his observations of more than thirty years in arts education, picking up in the early 1960s where theorists like Herbert Read (who died in 1967) left off. Efland (1996) saw the years 1962 to 1972 as "a high water mark for education" in the United States (p. 50) in which the "curriculum reform movement" was ready to move into the field of arts education, with the enthusiastic support of scholars and the financial backing of the federal government. Unfortunately, the money expected to be earmarked for arts education reform was subsequently spent on other government initiatives, such as the Vietnam War, and the resulting approach to curriculum reform in all subjects was as follows:

> The dissemination of fragmented bits and pieces of knowledge resulted in a
> general "dumbing down" of schooling. Back-to-basics was a deceptive term
> suggesting to the public that schools were returning to a tried and true content,
> like the "old math" thought to be wrongfully abandoned by textbook writers and

curriculum experts. However, the educational behaviorists did not return to the

past but, instead, imposed a technocratic set of controls on classroom practices

that bored many children to the point of tears. They limited the options of

teachers who then had to teach only to the test. (Efland, 1996, p. 51)

Changes in schools remedied some of the "savage inequalities" endured by the poor
and people of color (Tyack & Cuban, 1995, p. 28), and at once lessened "the advantage
once held by middle class whites" (p. 29). Reforms in the past 30 years have again been
centered upon exclusivity, with the advent of vouchers to cover the cost of private school
choices and alternative, limited-enrollment charter schools, with some students relying
on lotteries to gain access, as highlighted in the 2010 documentary film *Waiting for
Superman*.

The authors lament the fact that schools of the 1970s (and certainly since) were not only
teaching to the test, they were actually *teaching the test* (Tyack & Cuban, 1995, p. 120).
The unfortunate approach of "teaching to the test" returned even stronger in 2001 with
the United States Congress's rededication to the 1965 Elementary and Secondary
Education Act, more popularly referred to by government reformers as "No Child Left
Behind" (NCLB). What has ensued is a system which penalizes schools that do not meet
the testing standards of the law by withholding funding and/or threatening closure of the
school with little consideration of the conditions causing the "failure." NCLB, the national
strategy for educational funding based upon test results, has been the standard of the
last decade and is noted for its "teaching to the test" underpinnings. Only recently
(December 2015) has the federal government finally confronted the ineffectual NCLB
and replaced it through an act of Congress.

Instead of unifying the educational system and leveling the playing field for low-income
neighborhoods, as was the purported aim of No Child Left Behind, there has been a
further stratification of the system, and this has become evident in places like the
Minneapolis Public Schools. Some examples of the Minneapolis Public Schools will be
addressed later in this chapter.

A Deeper Reason: Art Develops the Minds of Students

There has been a consensus building in the past 40 years, as psychology advances through studies in neuroscience, that arts education and participation improves development of the minds of students. Referencing the work of German perceptual psychologist Rudolf Arnheim, art education professor David Pariser (1983) states, "The ultimate justification for study of the arts, and art instruction is that by delving more deeply into the material world one finds new things to 'think about'" (p. 57).

Kimberly D. Elsbach and Andrew B. Hargadon of the University of California, Davis Graduate School of Management conducted research supporting an environment that incorporates short, scheduled "mindless" tasks, or "unstructured time," in most or all workdays. The "psychological safety" created by lowered performance and assessment pressure, and a corresponding lessening of the workers' cognitive load, leads to a marked upswing in creativity for problem-solving among both white- and blue-collar working populations (Elsbach & Hargadon, 2006).

Important to the Elsbach/Hargadon model is the recognition of constructing a work environment that improves intrinsic motivation for creativity. Some of these requisites are taken directly from Amabile's Intrinsic Motivation Principle. At the core of this principle is Amabile's revised 1996 definition of *intrinsic*: "any motivation that arises from the individual's positive reaction to qualities of the task itself; this reaction can be experienced as interest, involvement, curiosity, satisfaction, or positive challenge" (Amabile, 1996, p. 115). What is crucial to the support of students' intrinsic motivation for, and therefore interest in, using their creativity is an occasional allowance for divergent thinking without the burden of performance pressures.

Knowing how students learn is a necessary facet of being able to tailor the school environment to one that generally supports student creativity, but one that can also accommodate specific learning styles and abilities. An intriguing view into this potentiality is Richard E. Mayer and Valerie K. Sims' "For Whom Is a Picture Worth a Thousand Words?" (1994). In it, Mayer and Sims explore the use of multimodal instruction (in this case, a coordinated presentation of information in simultaneous audio and video formats) for students with both high and low spatial perception abilities, each group having students with low levels of domain-specific knowledge. Their experiments

validated the belief that high-spatial learners (also considered the more "creative" of the groups) benefited more from a concurrent, dual-mode presentation of information than did the low-spatial groups. These high-spatial learners possessed greater cognitive ability or mental "space" for working memory and could make connections on the fly, and these results pointed to problem-solving transfer (Mayer & Sims, 1994, p. 391). It was also easy for Mayer and Sims to predict that poor instruction was detrimental to both groups. Although this is just one example of different learning styles, it seems that both types of students are easily taught when instructors have the foreknowledge of the individuals' learning styles.

Viktor Lowenfeld was a leader in the early study of arts education and namesake of the National Art Education Association's highest honor. His most important discoveries about children's artistic and creative progress came by working with blind and poorly-sighted children in the Hohe Warte Institute for the Blind in Vienna, Austria, in the 1930s. Lowenfeld fought his peers' widespread perception that the blind could not be *taught* visual arts, especially sculpture, simply because they lacked the sense of sight. It was Lowenfeld's work in the Hohe Warte Institute that gave him insight into how *all* students can be optimally trained in the arts. He based expectations of aesthetics and achievement on young students' progress between early and later efforts, rather than basing evaluations on "adult imposition upon the mind of a child" such as the implied spatial relationships of perspective and shading in drawings of objects (Saunders, 1960, p. 8).

Through his own classroom experimentation, collaboration with other researchers, and observation and study of others' teaching successes and failures, Lowenfeld developed the "art motivation" (Lowenfeld & Brittain, 1982). The motivation, as Lowenfeld and W. Lambert Brittain explained it, can take many forms. It usually begins with environmental considerations, such as placement and availability of art materials, followed by conversations between teachers and students, or strategic choices about whether an individual or group approach is warranted.

Lowenfeld also favored a democratic approach to teaching, rather than extremes of either an authoritarian or *laissez-faire* style. He believed that teachers need to listen to students and their concerns, while giving them enough structure and guidance to maximize their chances to improve artistic facility and observation skills. His distinction between intellectual/visual stimuli ("things that can be seen") and haptic/emotional

stimuli ("things that can be felt") (Saunders, 1982, p.30) as different but equally valuable learning tools predates Mayer and Sims' work on multimodal learning by over thirty years.

Roadblocks to Student Creativity: Systemic and Personal

Standing in the way of a widely practicable model for promoting creativity through the arts are a host of problems, some inherent to the path of education pedagogy in the twentieth century, others produced in the field of arts education itself, and still more lying with student-creators. With a rich theoretical history spanning nearly seven decades, implementation of stabilized creativity in the curriculum has been sorely lacking. Attitudes toward the arts have affected this implementation, but policy shortcomings have emanated from the local, state and national levels of governmental and educational agencies. These shortcomings can largely be traced to the penchant for measurement of educational achievement and value, which arose in the nineteenth century from what Elliot Eisner calls a "technicized cognitive culture." That culture starkly contrasts with the sense of "rightness" in the world that one perceives through careful observation of line, color and form stemming from arts learning, says Eisner. In his 2002 John Dewey Society lecture, Eisner, a professor emeritus of Art and Education at Stanford University and one-time American Educational Research Association (AERA) president, summarized his far-reaching belief that arts education can have a positive impact on students, teachers, and the entire system of education.

In his article "Why Art Lacks Social Relevance," art professor Robert Bersson states that two major approaches in arts education – education *through* art (also referred to as "individual-centered" education) and education *in* art (or "discipline-centered" art, a concept developed by Elliot Eisner and others) – have "deemphasized the social dimension," or a recognition of varied social environments, for a number of reasons. Bersson (1986) argues, "The pursuit of wealth, material success, and upward mobility, values strongly promoted by capitalism, causes many to perceive art as a leisure-time pursuit, decorative addition, or symbol of affluence or social sophistication" (p. 43). In addition, he contends that the discipline-based camp is demanding a "democratization of high culture" as an extension of our nation's political system to afford all people the opportunity to be educated in "high art", to the exclusion of all other forms and cultural standards of art (p. 44). Students in the lowest quartile of family income are half as likely

as those in the highest income quartile to participate in the arts by the tenth grade, which is a wider gap than the same children experience in eighth grade (Catterall, 2002, p. 14). If people in government and education believe that "high art" should be exclusive to those students whose families can afford it outside of the school, they are, in essence, supporting policies that sanction the cycle of lower achievement and school involvement among low-income children.

Earlier, in a commentary entitled "Cultural Democracy in Art Education: Elitism Rebutted," Bersson (1981) noted the details inherent in this problem. According to the article, Ralph A. Smith, an art education theorist and consultant to the National Art Education Association (NAEA), departed from his "liberal" and "progressive" slant on arts education issues during the Carter presidency by calling for the "elimination of popular, folk, ethnic, applied, and social and political art as cultural forms worthy of federal support and art teaching" (p. 35). This elitist and single-minded turn toward Reagan-era social strategies in the approach to arts education curriculum created confusion, and was highly impractical. Bersson argued for a cross-cultural and multicultural approach, aligning well with Read's presumption that all schools should not be alike. Rather, schools should be reflective of the needs of the students and the community.

A key systemic and political ingredient weighing against arts and creativity in schools is low expectations. State graduation requirements that put little value on the arts, and limited ideas about how to increase arts participation in the public schools, pervade our states' mandates. In Minnesota, out of twenty-one-and-one-half credits needed for high school graduation, only one must be based in the arts (Minnesota Department of Education). New York State requires just one credit out of twenty-two to be earned in the arts (New York State Education Department). The State of Illinois provides a one-year requirement for art, music, foreign language or vocational education, without mandating that students study all of those subjects (Illinois State Board of Education, 2009, p. 2), unless a "Highly Qualified" student has adopted an arts core (2009, p. 6).

A brief survey of requirements from other state governments shows a similar one-credit minimum requirement to be an unofficial national standard. But even that meager standard is in jeopardy in some states. In September 2010, California's State Assembly approved a measure, AB 2446, which would allow students to substitute other subjects for arts requirements, bypassing them entirely in an effort to raise graduation rates.

Then-California governor Arnold Schwarzenegger vetoed the bill, which passed unanimously in both the Assembly and Senate (76-0 and 34-0, respectively), on the basis that it did not adequately inform school districts of new costs that might be incurred (California State Assembly, 2010). When not one of the 110 legislators voted "nay" on AB 2446, the implicit disdain for the arts from a political standpoint sounded loud and clear.

According to Enid Zimmerman (2009), chair of the Coordinator of Gifted and Talented Programs at Indiana University, "many visual art programs today claim to emphasize creativity as an outcome but do not have valid means for identifying creativity, constructs for developing curricula that include creativity, or a research basis upon which to assess creative outcomes" (p. 388). This observation strikes at the heart of the need for a Model for Stabilized Creative Education as a tool for schools' self-assessment and oversight.

Within the applied discipline of art education, educators and theorists have often disagreed about the direction that curriculum should take, as well as a standard language in the field. As Earl Smith (1970) stated:

> Any discussion concerning the imposition of more structure or organization, especially by outside agencies or individuals, is not likely to be well received. Even if the purpose is to assist in making more compatible the intended outcomes and the true results of instruction, there is great reluctance to reexamine what is currently being done. (p. 10)

Smith also points out that there were at least two taxonomies, or naming systems, actively used in theories of art education (Bloom in 1956 and Krathwohl in 1964), and also theories on the necessity of separating or merging the Bloom (logical) and Krathwohl (affective) models of art curriculum evaluation (Smith, 1970, p. 11).

Benjamin S. Bloom, while Associate Director of the Board of Examinations of the University of Chicago in 1949, planted the seed for an assessment tool that would aid in the creation of annual examinations. Bloom then assembled a group made up of measurement experts who contributed to what became the original *Taxonomy of Educational Objectives* in 1956. Bloom's *Taxonomy* became "a scheme for classifying educational goals, objectives, and, most recently, standards" (Krathwohl, 2002, p. 218)

and defined the six major categories of cognition: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation (Krathwohl, 2002, p. 212).

Syracuse University Education professor and former AERA president David Krathwohl (2002) further divided educational objectives into two major "dimensions": the Knowledge dimension and the Cognitive dimension. (pp. 214-216). He described the first iteration of the *Taxonomy* in this manner:

> The categories were ordered from simple to complex and from concrete to abstract. Further, it was assumed that the original Taxonomy represented a cumulative hierarchy; that is, mastery of each simpler category was prerequisite to mastery of the next more complex one.

Krathwohl went on to say:

> But, it is objectives that involve the understanding and use of knowledge, those that would be classified in the categories from Comprehension to Synthesis, that are usually considered the most important goals of education (p. 213).

Considering these observations, factual knowledge through memorization has some value, as do the other categories and subcategories of the *Taxonomy*. But even in a revised *Taxonomy*, memorization is just a small stepping stone to the more complex and important processes of cognition. The creative thinking and problem-solving processes of Guilford, Torrance, and others discussed in Chapter 2 are certainly intertwined with these important, latter stages of cognitive development and achievement. With this relationship in mind, it makes sense to find and utilize a curricular vehicle that encourages cognitive development in students. Arts taught in the public schools are a fitting vehicle for this aim.

Perception as a Precursor to Assessment of Educational Structures

"Faith in a fact can help create the fact."
--William James, from "The Will to Believe," 1896

America is well aware that its current education system is fraught with pitfalls and dilemmas based mainly in power structures that segment society by class, race, and gender. One problem that is particularly concerning is how perceptions of race, within

and across racial lines, affect opportunities and potential outcomes for students. More than actual difference, the more insidious causes of racial stratification are stereotypes, misperceptions of the expected difficulties of dealing with difference, and a misguided instinct to "correct" behavioral anomalies that do not fit with the majority experience. James's comment on "faith in a fact" was couched in a positive sentiment, but this method manifests itself in negative ways as well. Even though real problems based upon differences do exist within our K-12 educational system, unfortunate preconceptions within and across ethnic groups put students at a disadvantage before they even set foot in the classroom. This is important to note because some of the schools in our own back yard—Minneapolis and Saint Paul—have fallen victim to negative attitudes and perceptions from within and without.

Opportunities: Filling in Gaps and Picking at Scraps

Continuity in the Minneapolis Public Schools has been lacking for a number of reasons. The school district is working with its sixth superintendent in the last twelve years. Several schools have been closed in recent years. Some of these school closures resulted from a failure to meet the demands of No Child Left Behind's testing regimen and others due to declining enrollment stemming from the installation of a school choice policy in 2005, prompting parents to pull their children from poorly-performing and sometimes dangerous schools. The majority of these schools have been located in Minneapolis' North Side neighborhoods, known more for the crime and violence of an isolated area and its generally depressed economic state compared to the rest of the city. When enrollment at Minneapolis North High School dwindled from 1,143 students in 2004-05 to 265 students in 2010 and nearby neighborhoods failed to guarantee a minimum enrollment of 500 for the 2011-12 school year, then-Minneapolis Public Schools superintendent Bernadeia Johnson threatened to close the school, citing poor student achievement and a per-student cost of $3,970, highest in the district (Allenye, 2010).

Now, consider the case of Minneapolis Public Schools through the lens of Arthur Efland's (1996) "Threefold Curriculum." Using a concept associated with the theories of Austrian philosopher Rudolf Steiner, Efland proposes a cognitive approach based in "thinking, feeling, and willing" that encompasses a "moral sense" (p. 53), just like Read's expectation of the realization of the individual. On Minneapolis' North Side, the moral

sense of the constituency was expressed as an outcry of civic pride and the necessity for a school that represents the values of the area, an adamant opposition to the closing of North High School, which caused Superintendent Johnson and the School Board to change its stance on the closure just a few weeks later. In its place was a compromise that would see the development of a new North High School beginning in the 2012-13 school year, while the old North High and its final graduating class is phased out in 2014 (Mitchell, 2010). This is now the North Side Arts and Communication High School.

What remains to be seen in the plan for the new North High School is whether or not the curriculum model will support student achievement as has the north-side Patrick Henry High School in north Minneapolis, named the third-best high school in the state of Minnesota for 2015 by U.S. News and World Reports. Because of North's specialization in arts and communication, and Henry's involvement in the International Baccalaureate programme, comparison between achievements at the two schools may not be appropriate.

Patricia Burch, an assistant professor in the Department of Educational Policy Studies at the University of Wisconsin–Madison, has highlighted some of the problems of implementing new policies and curriculum from the perspective of institutional theory. Burch (2007) succinctly trained her focus on the effects of "No Child Left Behind" in this passage from her article "Educational Policy and Practice from the Perspective of Institutional Theory: Crafting a Wider Lens:"

> This is problematic: The actions of governing agencies will always lend meaning and shape to what happens in schools, but how teachers teach and what students learn also turns in important ways on the interactions of governmental and nongovernmental organizations. Current initiatives such as standards-based reforms place demands on governing agencies and schools that far outpace their capacity. To illustrate, under NCLB, schools were required to demonstrate adequate yearly progress on state-identified benchmarks. How schools attempt to meet these standards (and the resources available to classroom teachers for doing so) will be shaped in critical ways by the constellation of firms that contract with schools and districts for related services and products. This includes firms specializing in curricular development, staff development, test score analysis, and management consulting. (p. 86)

Burch (2007) makes evident the large number of players who have a say in curricular content. Each of these groups has a different way of interacting with curriculum based upon the perspectives of education within their own business specializations or scholastic disciplines, known as the "organizational fields" theory (p. 87). An art educator has a much different and longer-ranging set of goals, as well as a less clear and immediate method of measuring achievement, than a math teacher preparing students for eight months to pass a tenth-grade proficiency exam. If seeing is believing, then a result produced by the math teacher that can be held in one's hand, folded, and put in one's pocket will generally be the one that garners the attention of funders and lawmakers.

The Arts Education Partnership (AEP) was founded in 1994 as a cooperative, nonprofit endeavor between the National Endowment for the Arts and the United States Department of Education. AEP has dedicated itself to research and implementation in the field of arts education pedagogy. One of its signature contentions, expounding on the theories of cognition in education, is the idea of *transfer.* James Catterall (2002), professor emeritus of the UCLA Graduate School of Education and Information Studies, in an essay on transfer in arts education refers to the effects of prolonged experience in the arts as "cognitive restructuring" and a reorganization of neural pathways (p. 152). Catterall's twelve-year longitudinal study of eighth- through twelfth-graders with follow up at ages 20 and 26 is highlighted in the book *Doing Well and Doing Good by Doing Art.* Using data from the National Educational Longitudinal Survey for approximately 12,000 students across the country, Catterall showed a strong, positive connection between students' arts involvement and their achievements and attitudes both inside and outside the school. This effect held true across racial and socioeconomic boundaries. The most important quantifiable finding was that different types of arts showed transfer to academic subjects. Instrumental music transferred to math (Catterall, 2009, p. 22) and theater involvement increased language skills, as well as improving students' race relations and empathy (p. 24-37).

Catterall, also referencing Arnheim, summarizes the transfer effect as a reflexive activity in which learning through visual and performing arts positively affects other aptitudes and abilities, among them spatial and temporal reasoning skills; mathematical, reading and writing proficiencies; creative thinking and problem solving; and even ideas about interpersonal relations, self-concept and self-confidence (Catterall, 2002, p. 153). Those

aptitudes and abilities, in turn, improve the student's further learning. While these findings, based upon nearly 60 years of research on cognition, have debunked Herbert Read's (1958) adamant assertion that there is no transfer of learning from art to other disciplines (p. 248), a common thread remains: namely that creativity and art help to clarify and solidify the individual's identity to society and to himself.

An Example of Transfer in Action

Philadelphia's Charter High School for Architecture and Design (CHAD) provides one example of Catterall's "transfer" theory in action. Founded in 1999, CHAD began their mission by admitting ninth-grade students with serious academic deficiencies. According to Daniel Pink, author of the innovation studies text *A Whole New M*ind, one-third of the students come to CHAD reading and doing math at a third-grade level. Students are exposed to a design-centered curriculum, and as a result of the hands-on, creative projects they are required to undertake, eighty percent go on to attend two- and four-year colleges (Pink, 2006, p. 71). The major underpinning of its success can be found in CHAD's mission statement:

> The Charter High School for Architecture + Design is a learning community committed to an innovative program [of study], integrating the design process with the mastery of a strong liberal arts education. The school offers each student the opportunity for success and the preparation for life-long learning and responsible citizenship. CHAD is a thoughtful academic environment that engenders love of learning, intellectual curiosity, and new ways of seeing, and prepares students for higher education.

In addition, CHAD envisions its students as developing a sense of educational "ownership," and encourages them to embark on a journey of "self-discovery" through CHAD's liberal arts-based curriculum. (CHAD website, 2010) While considering this example of creativity-driven curriculum done right, it is important to note that this model will not look the same in every application but can achieve outcomes that far surpass the expectations of previous pedagogical models.

One of the successful schools to come out of a similar process is the Fine Arts Interdisciplinary Resource (FAIR) School in downtown Minneapolis, an arts immersion magnet high school run in cooperation with the West Metro Education Program and ten other metropolitan area school districts (West Metro Education Program website, 2010). This effort, begun in 1998, grew out of a previous charter school failure. In contrast to the one-credit minimum state arts standard, FAIR Downtown requires four credits (one course every semester for four years). What makes this second generation so successful is its arts focus combined with the intense oversight and scrutiny placed upon Minnesota charter schools' financial and educational outcomes by the state Department of Education. In 2014, FAIR's on-time graduation rate for its student body of over 400 was 88.37 percent, compared to 81 percent statewide. The next highest graduation rates in Minneapolis were at Southwest and Henry High Schools—each just over 85 percent. North High School's rate of 42.11 percent was the lowest of the eight major public high schools in the city for that year. This was also the final graduating class before the beginning of the North Side Arts and Communication High School (see earlier in this chapter). While the second attempt at FAIR benefited most from a new sponsorship group, the plan they developed—based upon an arts pedagogy—is what makes it unique to Minneapolis, in much the same way that the Charter High School for Architecture and Design fills a void in Philadelphia.

The merits of creativity through arts in public education and the perceptions of urban high schools featured in Chapter 3 offer theoretical and practical bases for the Model for Stabilized Creative Education. The next step in my investigation is to understand how these qualities are reflected by the creative arts environments provided to students in Twin Cities-area high schools.

CHAPTER 4: INTERVIEWS AND FINDINGS

Assessing Environments for Student Creativity in Twin Cities-Area Schools

There is not a single antidote to the problems of ineffective and slanted reforms but an emphasis on creative thinking in the classroom can help to battle anti-intellectualism. Progress begins when arts are allowed to flourish in schools, and monetary expense and time constraints are no longer used as excuses for streamlining to a bare-bones curriculum.

An institution's ability to self-assess its capabilities is key for supporting student creativity. Teachers and administrators should be able to define *creativity*, as well as recognize when their students are exhibiting creative behaviors, so that they can understand how their school can enhance students' opportunities to exercise creative thinking and problem-solving skills. A willingness and ability to set minimum guidelines for creativity in the schools should also be a top priority. Successful collaboration between departments within the school and collaborations with outside organizations enrich the possibilities for increased, sustained student creativity. However, the most important aspect is a belief across the social fabric of the school that creativity is important in all aspects of a student's educational development. Knowing these details about the culture of high schools can tell us a great deal about their capacity to promote student creativity.

To that end, I set out to interview a cross-section of educators in hopes of understanding the depth of awareness of creativity in Minnesota's Twin Cities metropolitan area public schools. Interviewees were chosen based upon their closeness to the day-to-day operations of the school and their affiliation with arts teaching or the International Baccalaureate program, two likely areas focused on enhancing student creativity. These seven interviews were conducted in person using an original questionnaire that I developed comprised of eight items related to the schools' social environments and three supplementary questions about students' creative behaviors, followed by any questions or insights the interviewees might have. These are the questions in interview order:

1. How do you define creativity?

2. In your opinion, how important is it to enhance students' creativity through activities within your school?

3. Which activities in the course(s) you teach (or the arts taught in your school) do you feel promote creativity in your students? In what way?

4. What methods or strategies do you incorporate in your teaching (or recommend to visual arts teachers) to enhance students' creative thinking and problem solving skills?

5. What guidelines for promoting students' creative thinking in arts education, if any, are set by the district, state, or International Baccalaureate programme Creativity/Action/Service requirement?

6. From your observations, does the social climate in your school promote more or less student creativity than other schools around the district? How? And upon what criteria do you base your assessment? (e.g.: number of offerings, quality of creative products, creativity testing, "eye test")

7. In what ways has your school collaborated on projects with community arts organizations? How have these projects affected student creativity in your school?

8. How does the social environment in your school and the district influence students' creativity?

Supplemental Questions on Student Creative Behavior

What behaviors identify a creative student?
When is a student demonstrating creative behavior?
What behaviors are creative behaviors?

To validate the quality and assess the effectiveness of the questions, I test interviewed creativity professor Fred Amram. He provided the definition of creativity, as well as answers to questions 2 through 6 and the Student Creative Behaviors, quickly and concisely. Questions 7 and 8 were not as clear and required modification to their present state.

Only the questionnaire, and no other preparatory material, was provided before the interviews to ensure that participants' answers would reflect no knowledge and opinions but their own. In-person interviews were digitally recorded for audio and fully transcribed for accurate interpretation. Answers from two interview subjects were delivered in writing. Participants' answers were evaluated by me to assess education professionals' knowledge and understanding of creativity using the Matrix of Creativity Components and definitions featured in Chapter 2 of this thesis as guides.

After placing this creativity analysis and educators' perceptions of school environments in the context of education through art and last-chance efforts to save failing schools, I will suggest appropriate actions and remedies to improve the environment for creativity in area schools.

The teachers and administrators I interviewed have a varied set of experiences. I chose the seven interview subjects based upon the types of art they teach and their places in different public secondary and high schools across the Minneapolis/Saint Paul Metropolitan area. The subjects were: one high-level district administrator, two visual arts teachers, one drama teacher, one music teacher, one guidance counselor, and one traveling/adjunct teacher. It was vital to survey teachers from the visual, literary, and performing arts to broaden my analysis of teachers' experiences beyond the confines of a single medium. One district in the Minneapolis/Saint Paul area that was to be a focus of this research would not allow Master's candidates to interview their employees.

(Note: names of the schools, districts, and individuals have been changed in the presentation of findings to protect their anonymity.)

Most have taught in schools of privilege as well as in schools where students have a wide variety of needs due to socioeconomic issues. These educators all share similarities in their passion for teaching, concern for students' achievement and well-being, and strong abilities for guiding and motivating students.

Interview Findings

The interviewees all had strong opinions about the importance of students learning creatively. Not surprisingly, arts teachers valued creativity expressed through the arts. None of the participants spoke using the same terminology that is common in the creativity field. They do, however, have insights on students' creative behavior that signify an understanding of the elements and processes of creativity.

There is no consensus between interviewees on the precise definition of creativity. This is not surprising as even experts in the field also define creativity in the context of their unique experiences and research goals. There is no benefit to a researcher to write about creativity if they are simply going to repeat their predecessors' words verbatim. Developing an environment in which student creativity can thrive is equally as difficult. The process as well as the product must be novel. There must be dedication by all participants to the goals. Time is a critical factor; students graduate and matriculate to the next level of life. The efforts and results, in most cases, stand by themselves. They are ripples into the future but often not the guiding force.

In rural Hennepin County, Minnesota, there is a small public school district made up of a kindergarten through fifth grade elementary school, a sixth through eighth grade middle school and a high school. The grade school is an arts magnet within a larger, regional super-district and the middle school a STEM (Science, Technology, Engineering and Mathematics) based school. The high school is slated for a curricular shift in the near future that would merge what the two lower schools espouse. "Steven Johnson," a high-ranking administrator in this Rural Hennepin School District had this to say about how to define creativity within the schools:

> How I view creativity as an educator is trying to unlock that, it's like the "lockbox," you know, trying to figure out, what's the magic code? What's the key to be able to unlock that lockbox. There's the lockbox of motivation, there's the lockbox of ability for complex theories and complex information and knowledge to be transferred to students. And so that, to me, that's always been the fun is trying to figure out, what's the way to unlock that combination so that I can tap this student's best, I can help that student to reach their highest level of potential.

> You might say, well, this is creativity and somebody else might say, this is "freedom." Somebody else might say this is—they use different terminology to

explain it and if you are somebody that kind of values the individual differences, you're not threatened by the fact that they're not all seeing it the same way.

Johnson draws his definition from his thirty-three years in local education, including appointments as principal at a Saint Paul charter high school and superintendent of a larger southern Minnesota school district. Previously an artist by trade, and a high school football coach for many years, his experiences have given him a broad base for accepting differences and the knowledge necessary for tailoring individualistic approaches to student learning.

In one of the largest urban areas in Minnesota is "Big City" High School, located in one of the economically poorest neighborhoods in the Twin Cities metropolitan area, yet one of the first schools to adopt the International Baccalaureate programme in the late 1980s. "Joe Williams," who has taught theater, speech, debate, and summer school at Big City since 2003, focused heavily on student experience and activity while relating his understanding of creativity:

> I define creativity in a way that children relook at imagination, and find ways to explore seeing pictures, drawing pictures, creating theater, creating the idea that it is okay to do something wrong, and then if you do something wrong you can find a creative way to do it right . . . And I think creativity is looking at as many different ways as you can to make something or do something that is different from how somebody else has done it in the past.

Again, this is not the typical definition from the creativity field but it does suggest that Williams sees the importance of originality and divergence ("different from how somebody else has done it in the past"), fluency ("many different ways"), and revision ("find a creative way to do it right").

"Elizabeth Jones," a digital photography teacher at Big City High School, asserted that some crucial aspects of creativity in her classes are, "not giving up with the first answer" and that, "we learn even from our failures." She, too, shows a sensitivity to the need for fluency and revision in day-to-day activities.

When considering algorithms and heuristic problem-solving methods, the terms "inside the box" and "outside the box" have been used, almost to a fault, to describe the two methods respectively. "Gregory Brown," visual arts teacher in the eighth through twelfth

grades at Suburban Charter Secondary, a charter school in a second-ring suburb in east central Minnesota, defined creativity as, "The ability to problem-solve, and . . . to think outside the box, and when a situation arises, just to be able to come up with a unique or interesting or different point of view, or take on it." Big City High's "Amy Smith" (Band, Orchestra, Drum Line and Guitar teacher) also sees creativity as imagination and thinking "beyond the box," regardless of the artistic medium, be it writing, music, or visual arts. "Outside the box" might also encompass divergent thought, and with such a definition, those students who are predisposed to convergent thinking might feel shut out of creativity if teachers don't explore methods for engaging convergent, concrete thinkers in imaginative ways.

From his viewpoint as a guidance counselor at "Middle Creek" Middle School in a suburb not far from the Rural Hennepin district, "Ryan Hoang" believes that creativity is "being able to express your feelings/emotions outwardly, whether through creating something physical, like artwork, or verbally and non-verbally." Hoang's answer about the definition echoes the sentiment that creativity is part of the individual student's constitution, not something that can be "mandated" (as Johnson put it).

Hoang notes from his experiences that "Some kids [like] to keep their hands busy and often become more open when they have something to play with, like a stress ball, Theraputty, Kendama toy, or therapeutic sandbox." Williams, too, sees the value in learning with objects. "In math class," Williams says, "allowing a student to, if they need to have manipulatives [defined by Merriam-Webster Dictionary as: objects (as blocks) that a student is instructed to use in a way that teaches or reinforces a lesson], then let them use manipulatives. If they don't need manipulatives, then don't use [them]. . . . There are some kids who can do math in their heads and others that can't." These comments reinforce the notion that students all have different learning styles. The use of a stress ball or math manipulatives for learning and personal expression supports the theories of learning through multiple methods and senses as noted in Mayer and Sims' findings on multimodal instruction (Chapter 3).

It is extremely important for each student to have a domain (activity) through which they can express creativity. Without domain-relevant skills and guidance, a student may or may not be able to properly direct their desire to create.

"Xia Thao," an award-winning Lao-American poet, playwright, and social activist in the Twin Cities, Minnesota area, teaches week-long creative writing workshops across the state of Minnesota. She defines creativity as:

> I've always, when I was younger, always thought that something was creative if I felt it was different and something that I wouldn't have thought of . . . and that was also beautiful, if that makes sense. I also feel that there are different types of creativity. Some is artistic, some are not.

Thao also sees that creativity has been stifled in children, much like Freud's theory of the function of education:

> I feel like you can't have solutions if you're not creative. I've said this before: I feel like we've always been creative people but, at some point, some nasty adult told us, No, not to do it this way. You can't paint… you can't draw the cat purple because cats aren't purple. Right? But maybe the way the sun reflected on the cat's fur made it look purple to me. Maybe in my reality, the cat's purple. Well, I feel we all have it, some are just more toned than others, and some have been completely suppressed.

The similarities between the visual and performing arts teachers' definitions of creativity and that of Torrance and Guilford are striking. Experimentation, novelty, and heuristics, all key parts of the psychologists' definition, and all paraphrased by each of the teachers. Johnson, as the top administrator in his district, no doubt has different priorities and perhaps a more idealistic view on the individual student. The "lockbox" for each student has a unique combination and the goal of the school as a whole, in Johnson's estimation, is to provide the foundation for the individual spirit to flourish.

In the teachers' descriptions of student activities in art classes, there does seem to be occasional conflation of domain skills with creativity itself.

Environmental, Social, and Economic issues

No school operates in a vacuum. All schools depend upon those within the school, community, and district to help define missions, goals, and attitudes. Some students live in single-parent homes and need to be primary caregivers while their parents work, in

the daytime or at night. Other high school students have infants and toddlers of their own which need to be cared for, creating time constraints that limit school participation. Both of these scenarios, and even situations with two-parent households, can occur in a wide range of financial situations. The families who send their kids to Suburban Charter Secondary, generally speaking, do not have the incidence of poverty or near-poverty that is seen with students at Big City High.

Joe Williams noted difficulties for many of his students: "When you work in an inner-city school, it's hard to teach creativity when the one need the child has is, 'Where is my next meal?'"

Of course, for many years, schools have had programs for free and reduced-cost lunches, and some provide child care for student-mothers. These alleviate some of the issues faced by disadvantaged students during school hours. Unfortunately, the school cannot provide all the social services helpful for students and their families around the clock, making it difficult, though not impossible, to achieve a productive creative environment.

Cultural differences between American children and the Hmong, Somali, and Karin immigrant populations add layers of difficulty to teaching for creativity. English language learners experience several problems with arts curricula. Lack of English language skills can hinder some students' domain skill acquisition and the understanding of creativity goals for assignments. Even with the equivalent of one-and-a-half full-time teaching assistants in his two English Language Learner (ELL) sections of a public speaking course, Williams sees problems for students in these classes:

> But what you see with first generation ELL who are coming to America . . . the Hmongs [*sic*] did this in the Eighties and Nineties and into the 2000s, they stayed within themselves. They're a community, they stay within themselves and they speak Karin, they go and do the majority of stuff with them and they don't have to speak any English. And these kids are coming and they're trying and there's some that really do well, and they're creative and they're finding ways to learn English and figuring out what they need to do. But then there's others that get so isolated within their own community that they're too afraid to try to learn more English and they just stay with what they know, and a large amount of our Karin

population is coming to America without knowing how to even write in their own language.

"Culture shock" might sound cliché, but it is certainly an appropriate description for this example of one of Williams' current students:

> One of my students, who's been on my speech team, has done a number of plays for me now. She told me three, four years ago she came out of the hills into a camp. She'd never seen electricity, she'd never seen the television, she'd never seen a white person. Now we're forcing them to live in a society that's twice as fast, or three times as fast, and these kids are going, "I'm learning!" But then mom and dad are falling behind. "How do I adjust to gain what I want over here but not lose what's going on over here?"

> But they're very creative. They try to find ways around and work with each other to get what they need.

Creative self-efficacy, or how one perceives their own creative ability, depends greatly upon a student's confidence level within a domain. In the case of Public Speaking at Big City, the domain is, ideally, a cordial yet somewhat formal style of American English. Coming into the class with a deficit and also little use for the English language at home can amplify the distance between goals and actual creative achievement.

Amy Smith did not indicate any difficulties for ELL students in her music classes. One can infer that understanding the language of music (in sound, time, and printed material) is more uniform across cultures than a course as intensely English-based as Public Speaking.

At Big City High School, Williams, Smith, and Jones certainly do not have the ideal environment for teaching arts to encourage student creativity. In Suburban Charter, Brown's classes do not have to break through barriers of language acquisition, although they do have to contend with unique social-environmental factors as Suburban Charter Secondary expands its enrollment to students coming in from other schools outside of the charter-school model:

> Unfortunately, I've kind of seen a shift because we've had a lot of—we've grown a lot as a school, as a charter school. And with some of that growth we've pulled in students that don't necessarily—haven't necessarily started from the beginning

and they don't embody some of the same values as the original student body did. So, unfortunately, I think we're seeing kind of a backward shift, at least at our school . . . kids are taking art because they think it should be "easy," and they shouldn't have to work. Which is not how I view art.

Students' attitudes and effort can be influenced by the school environment as well as their home lives. Elizabeth Jones spoke of one type of troubled Big City student:

He has some skill but there's enough chaos in his outside life that he's not able to wrangle in and plug in when he's here. So it's a matter of getting him to be able to plug in. If I can get him to plug in, then they're fine. But, definitely it takes a hit, the whatever is going on in their outside world that they bring in, definitely takes a hit. I think because the kids in general who are willing to come in and work and be creative and, you know, think outside the box in whatever class it is, if they don't have a lot of outside issues going on, then they're fine. But the ones that have too many outside issues going on, they're a loss.

Some of the issues students face revolve around identity and ethnicity. Xia Thao knows this about the students she teaches, in the Minneapolis/Saint Paul area and across Minnesota, and she has the unique position of being able to lead in these situations by example:

As a refugee artist, I *do* talk about that background. And for a lot of students, that's the first time they've met somebody who's proudly claiming a refugee identity. And then some of the Asian students, and the African students whose parents are refugees or whatever, that shame or embarrassment is taken away.

Even though she generally has only a week to work with a class of students, Thao covers a lot of ground and encounters many different student (and teacher) behaviors along the way:

I only have so much time to, one, gain their trust and, two, to make them feel that they can feel validated, right? --for them to say, "She knows what she's talking about." Because they're skeptical, they're there because they have to be. I mean, not all students feel like that, but some do. Like they just don't want to be there. And those are the hardest, some of the more challenging students to accommodate. Because they just don't want to be there, they don't want to—they

don't care about the history lesson. They just don't want to be in school. And so I always ask the teachers to help me with that, like, how can I engage the students? And sometimes some teachers just tell me, "That's just how they are." And I feel a little defeated because I'm here looking for them, because they know the student longer than I do, to help me to figure out how to engage them.

The classroom teachers who teach the entire year must face this dilemma not just in week one but many times throughout the school year. Getting students to buy into the program predicates how they will receive the domain knowledge and opportunities for creativity that are presented to them.

Class length is a recognized problem in many schools. Big City High and Suburban Charter Secondary are no exceptions. Joe Williams' drama, debate, and speech classes are forty-two to forty-seven minutes long, while in Gregory Brown's visual art classes several minutes are being taken away to expand from seven to eight class periods per seven-hour school day in an effort to accommodate Physical Education. Physical activity and student health are extremely important but taking time from the arts to serve another subject sends a message of indifference about the value of the arts and, with that, student creativity.

As with any school subject, large class sizes can hinder student creativity through the arts. Most schools cannot afford to pair one teacher with ten to fifteen students to maximize opportunities for instruction, interaction, and feedback. Williams' class sizes illustrate just how dire the student-teacher ratio problem is at Big City:

> We're too afraid to put money into education to really, truly do what we need to do, which would be to get away from thirty to forty kids in a classroom to get down to fifteen to twenty kids in a classroom, where a teacher can actually manage the ability to see and deal with each of the children . . . I am, next semester, supposedly going to have thirty-seven kids in my theater, in my acting class. There is no way for a teacher, no matter how creative he or she may be, to physically give those kids the information they need to have to be as successful as they could be. And that's where we start getting the issues that our government needs to decide that education is important and if you have less kids in a classroom, you can be more creative. You put up more barriers when you try to fit more people in a room. So… less is more.

Recognizing Creative Behavior in Students

The waters of creativity, mentioned at the beginning of this paper, lay in an environment that values multiple, unique solutions to problems. But knowing that the environment allows—even embraces—these beliefs is not enough. Teachers and administrators need to know that the way students do what they do is in itself *creative*, that the students have been inspired to drink from the waters. These creative behaviors are demonstrated through fluency, flexibility, originality, and elaboration (detailed in chapter 2).

Each of the interview subjects who answered supplementary questions had unique yet parallel comments about what constitutes students' creative behavior. Joe Williams has observed that many students coming into his theater class cannot "read," as he put it:

> They can read the words, and sort of get the meaning to the words. But I think children who truly and utterly read, read with creativity because they are able to make those pictures in their mind, and they're able to have that story come alive.

He attributes the students' apparent lack of imagination to a dearth of arts instruction and creative thinking at the elementary level, where play has been replaced by rigorous curricular goals for acquiring factual knowledge:

> [The school says] "we have to learn 250 words by the end of first grade," and if we don't have those 250 words, we're behind. So then next year we have to learn more. And we take that creativity and play [away].

In addition to having opportunities for creativity through play and imagination, a student's creative self-efficacy is an important factor for continued creative effort after an initial success. Those successes can be supported through listening and encouragement. Torrance and Safter promoted this in the Incubation Model for Teaching and Learning, and Thao uses this strategy in her workshops:

> Sometimes when [students] talk people just go, "Uh huh, uh huh." And they get brushed aside and no one's really listening. But if they can talk to each other about their ideas and share it, and then when I come around I ask them, "Remind me again what your ideas are." I don't know, it makes them feel, like, validated and appreciated. I think that's really the most important thing.

At other times, students require solitude and reflection. Elizabeth Jones notes that the quiet environment in her digital photography classroom indicates that:

> [The students are] concentrating, they're focusing, you know, they're having that self-conversation. And you know, we talk about that self-conversation: "What can I do to make it better? Do I like this?" . . . and trying to have that internal conversation as they're working, which is hard for them to do and learn to do.

While Jones' example is tied into skill acquisition for a majority of students who are unfamiliar with digital photography *and* are English Language Learners, it also contains crucial aspects of persistence and assessing problem-solving strategies. The successful, creative students are also self-motivated and "openly ask for input and suggestions," according to Jones. Amy Brown's perception of student creativity in her music classes begins with seeing "a sparkle in an eye. You know that someone is creative when they've got the 'sparkle.'" That sparkle is curiosity and enthusiasm for discovery intrinsic to the creative individual.

Students who are creative must certainly be willing to self-start but there is always going to be the extrinsic motivation (or constraint) of adhering to school and classroom rules, assignment timelines, and completion criteria for the assignment. While some students might be able to navigate these external variables with little help, others might need extra encouragement to meet creativity and problem-solving goals in the face of environmental stresses.

Not all interviewees saw student behaviors that contribute positively to creativity. At Suburban Charter Secondary, Gregory Brown tells of a stifled mindset born out of teaching to the test in the academic subjects: "Students tend to want to give you an answer, like the right answer all the time, and they feel like you're looking for a certain answer." He goes on to suppose that this may be the norm in the academic subjects and does not wish to see his students "replicate something that's already been done." In this example, some of Brown's students display an undesirable type of convergent thinking that is not preceded by divergence.

In Jones' classes, some of her students behave in the opposite manner: too much divergence and no convergent thought to pull together a single, completed solution for the assignment:

> I have some kids who are super into research and you talk to them, it's like, "Oh, I'm all excited! I'm all excited! And this is my idea." Ok, great, get me the rough draft. Ok, I'm still waiting. The project was due Friday, or Monday . . . You know, [the student] has their great idea . . . but there's no follow through on the rest. Well, great, but it would have been nice to have the final execution.

This situation illustrates the fact that students can possess *creativity* and at the same time lack the follow through skills for creative *production.*

Joe Williams sees students who are using personal electronics, like iPhones and iPads, in between class activities to the detriment of incubation. On the day of the interview, he observed one of his students having a great conversation with peers about the scene that had just been played in class. While a new group was taking the stage, this previously engaged student took out her iPad and began playing an electronic game. When Williams asked the student why she felt the need to play the game on her device, she replied, "Well, nothing's going on. I need to do *something.*" He finds that some student creativity is lost because of a desire for the "instant, quick gratification" that electronics can provide. He went on to say:

> The reason you play video games is that you can make that next step, and you feel good because you made that next step. But that was a simple process… trying to get kids to come in and build scenery and paint and find it to be important to create a piece of theater that works harmoniously with one another is gone to the wayside, because all of my students are so worried about trying to be in fifteen different clubs than giving themselves time to dedicate to one piece or one thing. We're trying to get them to please and check all the right boxes so they can go to college. And they're not taking the time to be as creative as they could be.

The students' use of electronics is a personal behavior that can potentially be curbed by classroom and school rules (such as the ones posted on the wall of Jones' art room) or by personal choice and resolve. The issue of stretching one's time to meet the demands of college preparedness is, however, a broader systemic problem that lies in the definition of "college preparedness" itself.

Jones' Muslim students are supposed to adhere to the teachings of the Quran, which forbids them to depict human subjects. Because the Digital Photography course syllabus

has a portraiture component and is designed for students with a presumably Judeo-Christian/Deist/Atheist predisposition, this prohibition raises challenges for instructors and students of different faiths. Jones and her Muslim students demonstrate *flexibility* by adapting to the situation in a way that allows them to get the same benefits from the course that the non-Muslim students enjoy while adding an extra layer of creative thinking in coming up with solutions that meet or exceed the course requirements.

Teachers like Jones, a non-Muslim, white American who lives in western Wisconsin, are making culturally appropriate adaptations to art coursework. It would be foolish to think that others will be unable to transform art teaching for student creativity for the difficult environments in which they currently operate. A certain stubbornness is required to follow through.

Students, teachers, and administrators in Twin Cities-area secondary schools are facing a number of obstacles that limit student creativity. From students' personal issues in their home and school environments to constraints in policy, such as class size and duration, creativity often becomes the first curricular casualty in the schools. The final chapter of this thesis will offer a list of actions and remedies to these problems standing in the way of students' creativity in the arts.

CHAPTER 5: ACTIONS AND REMEDIES

Summary

Teachers should not be blamed for their lack of knowledge of creativity issues. However, someone does need to take responsibility for providing and disseminating this knowledge. Perhaps creativity cannot be mandated, just as school administrator Steven Johnson said, but that does not mean that administrators should not supply information and support for teachers to build students' creative abilities and confidence. Rather, school administrators must attempt to put their teachers and schools in the best possible position to help students achieve academically and develop as people. That includes arming teachers with as much good information about creativity as they can apply in their classrooms. This also requires schools to make the decision to go beyond any district or state conception of creativity in our schools.

The student populations of some of the success stories of education through arts and creativity are correctly imagined as homogeneous, as far as race and socioeconomic status are concerned. This does not mean they are without problems. The Philadelphia CHAD school had many underachieving, low-income students coming in at its inception, very similar to Minneapolis' near-North Side and "Big City" High School. Big City, however, has the additional difficulty of blending American-born students of many races with immigrant groups from eastern Africa and southeast Asia.

Creativity embraces the differences between races, ethnicities, religions, and sexual orientation. Fluent creative thought is needed to ensure acceptance of all these differences. Worry about how one's differences are perceived or the negative feedback one might receive about unusual habits or ideas often creates a personal block to reaching the heights of creative potential. Couple that with real and constant concern about where one's next meal is coming from, and the chances for creative success dwindle to near nothing.

With enough exposure to negative situations, students will most likely adopt avoidance behaviors. In the realm of creativity, this can cause students to hide their unusual or divergent ideas or aspects, stifling their creative development and ability to solve complex problems. Other students lack creative challenges in school. Torrance held that

repression of creativity in any form can cause behavioral problems, learning disabilities, or a faulty or uncertain self-concept. Big City High's Elizabeth Jones made an important point about students' in-school study habits being the same ones they take home with them. Sometimes the school can be a place of refuge from a difficult home life, but for some students, nothing in the school can overcome the outside difficulties one faces.

Schools cannot guarantee safe and comfortable home lives for their students, but there is no question that the school must be free of danger and want. This is basic to giving students any kind of valuable education, and even truer in providing ways for using and improving creative skills.

Recall from the definition of this Model for Stabilized Creative Education that (1) the school must provide access to arts courses; (2) teachers and administrators must know what creativity is; (3) student creativity has a profound and positive impact on student achievement; (4) learning to teach for student creativity does not require a huge time investment; and (5) that the results will be reliable. Keeping these factors in mind, remedies for a lack of student creativity and the actions that might be taken are largely based in changing the attitudes and perceptions which have previously devalued arts programs within the schools.

One remedy is for schools to add the goal of fostering student creativity through the arts to their mission statements. If faith in a fact can create the fact, as William James stated in 1897 in *The Will to Believe and Other Essays,* then an addition to the mission statement would be a positive step toward achieving the goal of this Model. One of the school's most valuable tools at the present time is the ability to communicate in real time via the internet. Placing an encouraging message about creativity goals at parents' and students' fingertips would be a smart and logical move. Most Twin Cities-area public high schools already state "college readiness for all students" as a major goal in their missions and readiness has become an expectation of a student's time in the school. Since mission statements do not simply change by themselves overnight, adjusting those mission statements to be creativity-inclusive may take time and compromise, but the efforts will certainly be worthwhile for building a strong foundation for student creativity.

This thesis provides useful information about creativity and education through art and is an appropriate primer for teachers and administrators in Twin Cities schools who are

curious about student creativity and would like to expand their knowledge base. The verbiage of the Components section in Chapter 2 can act as the basis for consensus on understanding and evaluating student creativity. Even if examples from the literature do not resonate with readers, they are likely to see reflections of their own classrooms and school environments in the teacher interviews.

Teachers must be able to speak succinctly about creativity in order to communicate ideas about it. They must also be able to convey precise, direct thoughts in a universal language so that there are no questions as to the identity of the quality or behavior they have observed. This common language will allow teachers to share their experiences of successes and failures in teaching through creativity and can only serve to make future experiences for students better. Training materials in written, graphical, and video form can easily be hosted on the internet, with an online quiz at the end of the module to track participation and comprehension. In this manner, the taxonomy and conceptual framework can be transmitted quickly and easily.

Another important action will be for principals, board members, and superintendents to look deeply into a school's underachievement and investigate further than poor test preparation as the root of the problem. Learning is hard work but that does not mean that the process should be without enjoyment.

As with any addition to the school pedagogy, a Model for Stabilized Creative Education would be run as a pilot program in a few arts classrooms before being rolled out to arts classes at large.

Group work and collaboration among students is a crucial detail for enhancing student creativity and must be incorporated into any application of this Model. Joe Williams, Amy Smith, and Xia Thao noted this during their interviews. Thao's Evaluation Plan and lesson alignment to national standards for her playwriting workshops express this.

Thao also clearly states in her Evaluation Plan a dedication to creativity and divergent thinking:

> Assessing Creativity Through Healthy Risk-Taking: This workshop would be considered successful if I am able to foster openness and self-confidence in students to explore their imagination and new ideas; what it takes to work collaboratively (flexibility, problem solving, openness to experience); basic

playwriting knowledge; and most importantly – that students can recognize and understand their creative strengths and potentials.

This passage is very nearly ideal in its anticipation of student creative behaviors and expectations for self-realization and achievement. Schools would be wise to incorporate some form of this statement along with their expectations for good grades and test scores.

Additional considerations will arise as this Model is instituted. Among them:

Is there a danger of teachers becoming aficionados or amateurs, potentially misconstruing meanings and turning the quest for student creativity into something unproductive or even detrimental? This may depend upon what is considered "successful" in a particular school environment. If a class sees a decline in math test scores or grades because too much time and effort for creativity are distracting from other mission-based or mandated achievement goals, then that teacher has completely overshot the target. But if the focus is spread between the acquisition of domain-relevant and creativity-relevant skills, as discussed on page 7, and a Csikszentmihalyi-like "flow" (pages 17-18) is produced in the classroom on the path toward student and organizational goals, the teacher, the school, and the way of thinking for creative achievement have all done their jobs.

Teachers should not be on an island when it comes to the conveyance of creativity. Communication within and across academic departments would be beneficial. Information such as best practices and obstructions to progress might be isolated to a particular subject or domain, while other results might be common across subjects or throughout the school. In the higher grades (for example, eleventh and twelfth grades), it might be beneficial to involve a small group of students in an advisory capacity to gain insight into what might be helping or hurting students' creativity.

Do students know how creative they are? Ask them. Make them prove it, good or bad. Surprise them with the results. Make it all right for students to think and show their divergence, within acceptable bounds. Very early in the history of creativity studies, University of Utah professor Calvin Taylor showed a clear positive correlation between NASA scientists' creative self-efficacy and predictions of their creative output in a 1965 study. In a 1972 round table with other creativity experts, Taylor (1972) expanded his discussion to the plight of school-age students:

This may seem a little strange, but if in education you give students ample chance for creativity and other talents to be displayed through their entire academic careers, they will become quite well-aware of their own characteristics. . . . This is a strong recommendation to let them become acquainted with their talents and develop them in the educational system, possibly as the main focus, while they are adding to their knowledge. (p. 154)

Taylor also speaks directly to the likelihood of a "transfer of training" (as explained through the work of James Catterall in Chapter 3) that does not occur in the typical classroom setting, and his observations are no less important than they were forty years ago. We must convince students to trust their sensitivity to problems and anomaly, and the mistake-signaling twinge. The school needs to be a safe place for idea exploration.

Should students be aware of a quest for creativity? People who are advised to *be* more creative actually *become* more creative. Fred Amram consulted for corporations like IBM and 3M. When Amram told the engineers at IBM to be more creative, they responded with more creativity (measured in fluency of ideas and patentable designs), and 3M scientists who learned that a creativity consultant was going to be working with them became more creative before they received any instruction.

A student certainly has a right to ask, "Why are we doing this?" and know the reasoning if s/he feels the need. However, students should not be overloaded with details that could easily stay behind the scenes. As Taylor (1972) stated, "Youngsters probably aren't very much aware of their inner thinking and learning processes, of their multiple talents, of their inner resources" (p. 154). This is a clear indication to allow students' self-awareness to build naturally while at the same time giving clues and knowledge to students trying to understand their inner thought processes.

Conclusion

The following is a list of my recommendations for increasing student creativity, thereby improving the quality of public schools and eliminating some major causes for school failure and closure:

- Embrace difference and divergence
- Foster creativity by making it part of the school's mission

- Provide teachers with information defining creativity and its components, so that they can guide student creativity
- Creativity training for teachers and administrators (with quiz and feedback)
- Deep investigation into student/school underachievement to find root cause
- Pilot the proposed Model for Stabilized Creative Education to show it works; improve and modify for unique environments
- Encourage group collaboration within the school and with outside organizations for students and teachers
- Adopt "healthy risk-taking" strategies to create challenges for students, and to help them build their self-concept and creative self-efficacy
- Find a proper balance between creativity and other goals for students and the school
- Ask students how creative they are and then ask them to show it, believe it, and trust it

While the primary focus for this research has been on the high school, dedication to student creativity in early learning is extremely important. Age-appropriate lessons for creativity and problem solving at all levels of formal education are a necessity, from the earliest block-stacking exercises for preschoolers to incredible, gravity defying architectural models for advanced high schoolers. Both are rooted in play and inquiry; the difference in the latter example is that the high school student is expected to know the "how" and "why" that keeps their design from toppling over.

Education involves many things: acquiring knowledge, problem solving, the arts and sciences among them. School, on the other hand, functions as a place for teaching and learning but is the *de facto* locus where many relationships in education are forged. When schools are deemed to be failures, it strains and breaks relationships, and displaces students, teachers, and administrators. These disheartening outcomes are avoidable. While it is not a quick and simple process, the key lies with student creativity fostered through the arts. The health of our schools depends upon it.

BIBLIOGRAPHY

Allenye, S. (2010). Superintendent Johnson recommends phasing out of North
        community high school. Retrieved from http://mpls.k12.mn.us.

Amabile, T. (1983). The social psychology of creativity (Springer series in social
        psychology). New York: Springer-Verlag.

Amabile, T. (1996). Creativity in context. Boulder, Colo.: Westview Press.

Bersson, R. (1981). Cultural democracy in art education: Elitism rebutted. *Art Education
        34*(6), 35.

Bersson, R. (1986). Why art lacks social relevance: A contextual analysis. *Art Education,
        39*(4) 41-45.

Burch, P. (2007). Educational policy and practice from the perspective of institutional
        theory: Crafting a wider lens. *Educational Researcher, 36*(2), 84-95.

California State Assembly. (2010). A.B. No. 2446: Furutani: Graduation requirements.
        Retrieved from http://www.assembly.ca.gov.

Cannatella, H. (2004). Art education and *Bildung. Journal of Visual Art Practice, 3*(1), 61-
        74.

Cannatella, H. (2007). Education through art. Philosophy of Education Society of Great.
        Britain Annual Conference. New College, Oxford. 1 April 2007. Transcription.
        Web. 19 Oct. 2010.

Catterall, J.S. (2002). The arts and the transfer of learning. *Critical Links: Learning in the
        Arts and Student Academic and Social Development.* Washington, DC: Arts
        Education Partnership.

Catterall, J. S. (2009). *Doing well and doing good by doing art: A 12-year national study
        of education in the visual and performing arts: effects on the achievements and
        values of young adults*. Los Angeles: Imagination Group/I-Group Books.

Chapman, L. (2005). Status of elementary art education: 1997—2004. *Studies in Art
        Education, 46*(1), 118-137.

Charter High School for Architecture and Design Philadelphia. (2010). Mission
        statement. Retrieved from http://chadphila.org.

Csikszentmihalyi, M. (1990). Flow: the psychology of optimal experience. New York:
        Harper & Row.

Efland, A. (1996). The threefold curriculum and the arts. *Art Education, 49*(5), 49-56.

Eisner, E.W. (2002). What can education learn from the arts about the practice of
    education? John Dewey Lecture: Stanford University, Palo Alto. *Journal of
    Curriculum & Instruction, 18*(1), 4.

Elsbach, K.D. & Hargadon, A.B. (2006). Enhancing creativity through "mindless" work: A
    framework of workday design. *Organization Science, 17*(4) ,470-483.

Guilford, J.P. (1950). Creativity. *American Psychologist, 5*(9), 444-454.

Hofstadter, R. (1963) *Anti-Intellectualism in American Life.* New York: Alfred A. Knopf.

Housen, A. & Yenawine, P. (2000). *Visual Thinking Strategies, Basic Manual: Grades K-
    2.* New York: Crystal.

Illinois State Board of Education. (2009). Graduation Requirements: 105 ILCS 5/27-22,
    27-22.05, 27- 22.10. *December 2009 Guidance Document.* Retrieved from
    http://www.isbe.state.il.us.

International Baccalaureate Programme—Home. (July, 2016). Retrieved from
    http://ibo.org.

International Society for Education Through Art—About. (2010, October). Retrieved from
    http://insea.org.

James, W. (1897). *The Will to Believe and Other Essays.* London: Longmans, Green,
    and Co.

Krathwohl, D. (2002). A revision of bloom's taxonomy. *Theory Into Practice: Revising
    Bloom's Taxonomy, 41*(4), 212-218.

Lowenfeld, V. & Brittain, W.L. (1982). *Creative and Mental Growth.* New York:
    Macmillan.

Maitland, J. (1976). Creativity. *The Journal of Aesthetics and Art Criticism, 34*(4) 397-
    409.

Mayer R.E. & Sims, V.K. (1994). For whom is a picture worth a thousand words?:
    Extensions of a dual-coding theory of multimedia learning. *Journal of Educational
    Psychology*, *86*, (3), 389-401.

Milner, H., & Howard, T. (2004). Black teachers, black students, black communities, and
    Brown: Perspectives and insights from experts. *The Journal of Negro Education,
    73*(3), 285-297.

Minnesota Department of Education (2009). 2008 Minnesota Statutes 120B.024
    Graduation Requirements; Course Credits. Minnesota Academic Standards, K-
    12 2008. Retrieved from education.state.mn.us.

Mitchell, C. (2010). Rethinking north side schools. Retrieved from
        http://www.startribune.com.

New York State Education Department, (2010). Summary of diploma requirements.
        Retrieved from http://nysed.gov.

Pariser, D. (1983). The arts, cognition, and craft: Implications for teaching and research.
        Art Education, 36(2), 50-57.

Parnes, S. & Biondi, A. (1975) Creative behavior: A delicate balance. *The Journal of
        Creative Behavior, 9*(3), 149–158.

Pink, D. (2006). A whole new mind: Why right-brainers will rule the future (1st Riverhead
        Books pbk. ed.). New York: Riverhead Books.

Prentky, R. (1980). Creativity and psychopathology: A neurocognitive perspective. New
        York: Praeger.

Read, H. (1958). Education through art (3d rev. ed.). New York: Pantheon Books.

Read, H. (1966). The redemption of the robot: My encounter with education through art
        (The Credo series). New York: Trident Press.

Saunders, R. (1960). The contributions of viktor lowenfeld to art education: Part i: Early
        influences on his thought. *Studies in Art Education, 2*(1), 6-15.

Saunders, R. (1982). The lowenfeld motivation. *Art Education, 35*(6), 28-31.

Sawyer, R.K. (2012). Explaining creativity: The science of human innovation (2nd ed.).
        New York: Oxford University Press.

Smith, E. (1970). Towards a taxonomy of objectives for art education. *Art Education,
        23*(5), 8-15.

Spillane, J.P., Hallett, T., & Diamond, J.B. (2003). Forms of capital and the construction
        of leadership: instructional leadership in urban elementary schools. *Sociology of
        Education, 76*(1), 1-17.

Taylor, C.W. (ed.). (1972). Climate for creativity: Report of the seventh national research
        conference on creativity. Elmsford, N.Y.: Pergamon Press.

Torrance, E. (1962). Guiding creative talent. Englewood Cliffs, N.J.: Prentice-Hall.

Torrance, E.P. & Safter, H.T. (1990). The incubation model of teaching getting beyond
        the aha! Buffalo, N.Y.: Bearly Limited

Tyack, D., & Cuban, L. (1995). Tinkering toward utopia: A century of public school
        reform. Cambridge, Mass.: Harvard University Press.

West Metro Education Program. (2010). Fine arts interdisciplinary resource (FAIR)
        school downtown Minneapolis. Retrieved from http://wmep.k12.mn.us.

Wollard, G.S. (1962). Creativity in our schools. *The Clearing House, 36*(7), 433-434.

Zimmerman, E. (2009). Reconceptualizing the Role of Creativity in Art Education Theory and Practice. *Studies in art education: A journal of issues and research in art education, 50*(4), 382-399.