Spring 2014

Creativity in the elementary art classroom: Incorporating strategies for encouraging creativity

Hannah Kim Sions
James Madison University

Creativity in the Elementary Art Classroom:

Incorporating Strategies for Encouraging Creativity

Hannah Kim Sions

A thesis submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY

In

Partial Fulfillment of the Requirements

for the degree of

Master of Arts

In Art Education

May 2014

Dedication

This thesis project is dedicated to my father, Sam Kim, who believes in the importance of education. Thank you for always encouraging me to continue my studies, and inspiring me by being a lifelong learner.

Acknowledgements

I would like to thank the following individuals for their contribution to the completion of this thesis: Dr. Katherine Schwartz, for her insight and constant support throughout the entire thesis process; Dr. Roger Tomhave for his expertise in formatting and details; Dr. Karin Tollefson-Hall for insightful feedback and words of encouragement, Dr. Marybeth Cancienne for helping me set the foundation for my study; Dr. William Wightman for his wisdom over the years; Laura and Krista, for all the late night phone conversations; my sister, Esther, for her optimism and kind words of support; my friends and family for cheering me on, and lastly, to my husband Chris Sions, for all the nights you kept me calm, gave me words of encouragement, and made dinner so that I could write. I will never be able to fully express my gratitude to all of you. Thank you.

Table of Contents

Table of Contents

Table of Contents

List of Figures

Abstract

Virginia art educators base their lesson plans on the Visual Arts Standards of Learning for Virginia Public Schools. Although creativity is implied in these standards, they are not directly mentioned; it is possible that lessons are not encouraging student creativity. Through a review of literature, this study explored the role of creativity in the elementary classroom, the role of creativity in the art education classroom, and strategies to encourage creativity in students. Findings suggest that creativity can be incorporated into lessons through a variety of strategies. Creativity is a lifelong process, and strategies that are incorporated into lesson plans, will help cultivate student creativity. The strategies were then combined with the National Coalition for Core Arts Standards and charts were created to help art educators implement the strategies into lessons. Recommendations include art educators aiming to integrate creativity into lessons and making creativity a goal in their classrooms.

Chapter I

Introduction

Background of the Study

According to the National Standards for Arts Education (Blakeslee & Boston, 1994), some of the benefits of providing elementary students with art education are to: 1) offer students unique learning experiences, 2) teach students to recognize and interpret their visual culture, 3) encourage students to explore their creativity, and 4) provide students with opportunities for artistic self-expression. However, a search on the Internet for "art lesson plans" reveals that the majority of lessons provide guided instructions to create beautiful, but identical, works. This is especially the case in elementary art. These lessons may help students to learn to follow directions but they may not be inspiring students to create unique solutions to their own artistic problems.

Art lessons in Virginia are guided by Virginia SOLs for visual arts. In the visual art SOLs, creativity is implied but it is not directly mentioned. Since creativity, specifically, is not required, it is possible that lessons are not encouraging student creativity. After four years of teaching elementary art, I discovered that my students' personal connections to their art making improved when I provided them with multiple opportunities to be creative. Art lessons that provided limited student choice inhibited student creativity and did not challenge them to think. Therefore, art lessons that do not encourage creativity actually limit students' opportunities to develop important problem-solving skills.

Statement of the Problem

The purposes of this study are to:

1. investigate the role of creativity in elementary art education;

2. identify strategies for teaching creativity in elementary art education, and;

3. incorporate creativity in existing elementary art lesson plans.

Statement of Need

Standardized testing has taken over our current education system. "In recent years, conversations in U.S. schools have focused largely on improving standardized test scores" (Starko, 2013, p.54). As state benchmarks become higher and higher, the focus on testing becomes more predominant, stripping our education system of the opportunity for student critical and creative thinking (Milbrandt & Milbrandt, 2011). Teachers are tempted to teach to the test and students are taught that every question only has one answer. "But if schools focus all their efforts on preparing students for tests, they will not be successful in preparing students for life. The 21st century pace of change as well as the global economy, demand young people who can learn on their own, solve problems, and respond to situations unlike any their parents or teachers can envision" (Starko, 2013, p.55). The art program should counterbalance this lack of creativity. Through art classes, students should be provided an opportunity to think for themselves, self-reflect, connect to others through images, and find responses to (visual) challenges that are as unique as they are. Unfortunately, this is not often the case due to school and program limitations, including, but not limited to: time, teaching schedules, budget, planning periods, and support. Referencing Sandell, Perkins, and Carter (2011) quoted that the "structure,

setting and time allotted in most art programs often tend to repress creative studio activity and critical response" (p.21).

Despite these limitations, art teachers need to inspire students to be creative while they are engaged in a comprehensive art education curriculum. In a study meant to measure different aspects of creativity of children, Kincaid (1961) states that "…fluent imagination reaches its peak during the years of beginning adolescence" and "…raises the question as to what can be done during these critical years to promote even a greater creative power up to and including adulthood" (p.51). Unfortunately, the creative process for children starts declining at an early age. In a study measuring the problem-solving and general thinking of students, Covington(1967) found that by 5th and 6th grade, "there is an appalling lack of ideas, even poor ones, little or no appreciation for and understanding of the key concepts of ingenuity and originality…often the child's primary focus is not on attaining an individualized product, but rather seeking the safest, most acceptable, and simplest way to complete the job" (p.26). Art education is an essential program that plays a significant role in nurturing the creativity of our students for the rest of their lives. Through the use of open-ended lesson plans, creative problem-solving activities and strategies, and providing opportunities for personal decision-making, art teachers should be able to provide students with a classroom that nurtures creativity.

Research Questions

This research project will be guided by the following questions:

1. What is the role of creativity in elementary education?

2. What is the role of creativity in elementary art education lesson plans?

3. What teaching strategies can art teachers use for encouraging creativity?

4. How can art teachers incorporate creativity into existing art lesson plans?

Assumptions

The assumptions about creativity and elementary art education for this study include:

1. Creativity is a necessary component of art and should be a fundamental part of art education.

2. Elementary art lessons should focus more time and explicit strategies on nurturing creativity.

3. Students can become more creative when they are encouraged to be creative, with art lesson plans that include creative problem-solving activities.

4. Creativity can be incorporated into existing art lessons without losing the focus on the art content.

5. The existing art lesson plans included in this study address state and national art standards.

Limitations

This study is limited to the following:

1. elementary art lessons that can be taught in 30-60 minutes,

2. one art lesson plan for each elementary grade K-5,

3. existing budget, resources, and materials for art lessons.

Definition of Terms

Accommodation - Modifying internal thoughts to fit reality

Art criticism – Process of presenting artists or artworks to students where the educator, through a sequence of questioning strategies, guides the student to a better understanding of the work

Artistic causality - the strong desire to create (self-initiated)

Assimilation - The categorization and adaptation of external stimuli and is the origin of the creative process (Ayman-Nolley, 1999)

Brainstorming – The process in which creative ideas are born from connections and juxtapositions that are unexpected and innovative

Creative process – The four stages an individual goes through to create new ideas:

- **Preparation –** Initial step in the creative process in which the individual gathers the information and examines each idea as if it were a piece of a puzzle

- **Incubation –** Second stage of the creative process in which the individual tries to fit the various pieces of the puzzle together. During this stage, the individual may decide to put the idea on the "back burner," to walk away from the problem and to come back to it at a later time

- **Illumination –** Third stage of the creative process, where either through active thinking, daydreaming, or even sleeping, the solution/inspiration will come to the individual

- **Verification –** Final stage of the creative process in which the individual tests the validity of the idea (Lewis, 1971)

Creativity- The process in which the individual creates something new from where there once was nothing. The product that is created does not have to be a physical object; rather

it can be a new idea, solution to a problem, method or device, or an even new way of thinking

Creativity-centered lessons – Lessons focusing on the enhancement of student creativity

Elaboration – Fourth level of creative thinking in which the artist extends his or her thoughts(Heid, 2008)

Flexibility – Characteristic of creativity defined as the change of mental set from one unit of principles to another

Fluency – Characteristic of creativity defined as the quantity of items generated

Heid's Creative Process –The steps students take to transform their creative ideas into a physical creation:

- **Perception –** The first step of visual inquiry in which students practice fluency and flexibility, generating multiple ideas, brainstorming, and making connections within those ideas

- **Conception** – Second level of creative thinking in which students practice originality and elaboration to come to an abstract idea

- **Expression** – Third level of creative thinking in which students begin to cement their ideas into physical form

- **Reflection** – Final stage of creative thinking in which students reflect on their progress(Heid, 2008)

Idiosyncratic meaning - personal connection and meaning bound to life experiences

Intentional symbolization - turning the desire to create and express life experiences into an object or image

Intrinsic motivation - Motivations wherein the child is encouraged to invent or imagine unusual forms, e.g., strange machines, environments, and animals. So many times it is believed that the only desirable motivations should include the child himself (Kincaid, 1961)

Originality - Characteristic of creativity defined as the relative uniqueness of each item

Problem finding – The process of exploring situations and inquiry

Skill-based lessons (traditional) – Lessons focusing on the enhancement of student fine motor skills. These lessons usually have a pre-determined teacher made outcome and require students to follow step-by-step procedures.

Visual culture - The collection, and study of, visual images in an individual's daily life

Procedural Overview

  This study investigated the role of creativity in elementary art education, the strategies that can be used to encourage creativity, and how to incorporate these strategies into existing elementary art lesson plans. These topics were explored through a thorough investigation of education and art education literature. The methodology also included the incorporation of creativity into a selection of the researcher's lesson plans for grades K-5. One lesson plan from each grade was modified to incorporate strategies that encourage creativity. The lesson plans were modified to correlate with the 2014 draft of the National Coalition for Core Arts Standards (NCCAS) and the 2013 Visual Arts Standards of Learning for Virginia Public Schools (VA SOLs). The revised National Standards have a focus on student creativity by addressing enduring understanding and essential questions in four artistic processes: creating, presenting, responding, and connecting. The combination of content that is addressed in the VA SOLs and the focus on creativity

introduced in the NCCAS, provides art teachers with identified strategies for teaching

creativity in elementary art education.

Chapter II

Review of the Literature

The review of the literature related to this study is separated into three sections: 1) creativity in education, 2) creativity in art education, and 3) strategies for teaching creativity.

Creativity in Education

Definition of creativity. Educators need to understand the role of creativity in education to successfully integrate and nurture student creativity. However, this can be a difficult task because creativity can be a difficult word to define. A common definition of creativity is based on the word "create." in which the individual creates something new, or finds a new answer to a challenge. The product which is created does not have to be a physical object; rather it can be a new idea, solution to a problem, method or device, or even a new way of thinking (Webster, 2013). Marshall (2005) states that creativity and learning are both rooted from the same practice: finding and making connections. According to Hanson & Herz (2011), this translates in the art classroom into a different method of thinking and point of view that is refined over a lifetime. In an interview with Gardner, Henshon (2006) records Gardner's views on creativity: "Creativity, we believe, means doing something that changes a domain. Big "C" creativity refers to major domain changes such as Picasso and Einstein" (p.192). This definition offered by Gardner is very similar to the one that Hetland (2013) gives in which "creativity, at its core, pushes against the edges of the known and bursts open new perspectives, shifting the sense of what is possible or even real"(p.68). Although there are slight variations in wording, the

general consensus is clear: creativity is a lifelong process in which the individual strives

to go against the norm and find new possibilities that previously were unknown.

    The role of creativity in education. Creativity exists within everyone and helps us

interact with the world around us (Burton, 2009); and creativity gives us the ability to

interact with the world around us allowing us to adapt and change with everyday life

(Milbrandt & Milbrandt, 2011). Adapting to change is a skill that is necessary in all

aspects of life, including personal, work, and school. Because of this necessary life skill,

Sawyer (2003) compares creativity with psychological development, going as far as

saying that "Piaget's constructivist theory of development was fundamentally a theory of

creativity"(p.12). These examples describe why creativity can be considered a

fundamental skill that is necessary beyond the art classroom. Milbrandt and Milbrandt

(2011) argue:

> In the wake of No Child Left Behind (2011) there is growing concern that the convergent, 'one correct answer' mentality that our educational system is encouraging in students results in an inability of students to seek, confront, and solve non-linear, divergent, open-ended problems. This unbalance in education experiences and competencies is leaving a gap in the preparation of future citizens and leaders. In his forecast of our collective future, Daniel Pink (2006) speculates, "We've progressed from a society of farmers to a society of factory workers to a society of knowledge workers. And now, we're progressing yet again to a society of creators and empathizers, of pattern recognizers, and meaning makers (p.58).

Bastos and Zimmerman (2011) make a similar argument, stating that:

> Recent inquiry demonstrates that around the world other countries are making creativity a national pedagogical priority, while standardized curriculum, rote memorization, and national testing have predicated against developing creativity, innovation, and imagination as being the vanguard of our country's educational agenda (p.5).

With new technology and problems arising daily, it is essential that we teach our students

to become creative problem solvers (Wong & Siu, 2012). "Certainly, the development of

creativity in students could be emphasized more strongly as a goal throughout the entire

educational program in many fields of science" (Taylor, 1961, p. 16).

With the correlation between creativity and all subjects in schools, one may

inaccurately link intelligence with creativity, believing that the more intelligent one is,

the more creative they must be as well. Despite popular belief, intelligence is not

correlated to creativity (Zimmerman, 2009). This lack of correlation is the case because

although intelligent people can be creative, the core of intelligence is advancing the

norm, while the core of creativity is encouragement of going against the norm (p. 386).

Another large distinction between creativity and intelligence can be that an intelligent

person with a wealth of knowledge in their field may not necessarily have done anything

creative to call their own (Taylor, 1961). This statement from Taylor (1961) emphasizes

the importance of the role of creativity in education: creativity challenges students to take

what is taught them and create something that is their own.

Creativity inspires students to go beyond simple repetition by solving their own

problems. Starko (2013) elaborates by saying "If we want students to master the content,

they must do something with it beyond simple repetition. They must use it in meaningful

ways and make it their own" (p.55). Repetition has become more commonplace in

classrooms since the emphasis on standardized testing. Jorgeson (2012) supports these

arguments in his article about how standardized testing does not prepare our students for

their future job market:

> What don't standardize test scores measure? We know that they don't measure a
> child's creative ability. They don't require children to research, explain, debate,
> elaborate, present, rebut, or improvise. They don't demand public-speaking skills.
> They don't reflect decades of research demonstrating that children come to school
> with an array of individual learning styles and perhaps nine or more different
> types of "intelligence," only one or two of which educators can measure with a

paper-and-pencil test…How ironic that these standardized tests, which offer only one right answer to every problem, can't capture the innovative pioneering thought purportedly so valued by business and industry…memorizing and regurgitating facts for a multiple-guess exam—"sit-get-spit-forget"—certainly doesn't prepare students for creative or entrepreneurial leadership" (p.14).

Creativity and the ability to excel in non-routine work is now expected as a basic requirement in the work force (Zimmerman, 2010), and yet, emphasis is shifting away from this necessary skill. In an article about business majors, Baker and Baker (2012) stress the importance of creativity: "Creativity is an important learning outcome for business classes: It requires and enhances critical thinking skills and paves the way for innovation" (p.704). They go on to state that: "[in a] Harvard Business Review article, Pink recognized the importance of creativity but declared that "the MFA is the new MBA," implying that creativity is more the purview of the arts" (p.705). A study from Duke University looked at the degree majors for leaders in 500 companies in Silicon Valley and found that surprisingly, forty percent of the population majored in math, science, or engineering, but 60% majored in the arts and humanities (Salter, 2013). Because employers usually want innovative thinkers, it is not surprising that creativity is being introduced to business majors, especially since "the definition of a creative person, according to Stein, is someone whose thoughts or actions change a domain or establish a new domain" (Milbrandt & Milbrandt, 2011, p.9). Education is about preparing our students for their future:

> Ultimately, great schools are measured not by the accomplishments of their students, but by the extraordinary lives led by their graduates. With all that standardized tests subtract from the learning process, in our determined march towards high test scores, we fail to prepare today's students to lead the extraordinary lives they deserve (Jorgenson, 2012a, p.15).

Taylor (1961) even argues that education, as a whole, is not being supported in society because intellectual skills that lack creativity are not as necessary as one would expect (p.10). The purpose of emphasizing creativity in education is not to have the arts replace math and science, but rather to have it equally integrated into the curriculum to enrich them (Shuqin, 2012). Pavlou (2013) believes that the consequences of not nurturing creativity in our education system would be a steadily increasing gap in society between the leaders and the followers. Zimmerman (2009) quotes an NAEA News headline that supports this argument:

> Americans are concerned that we are falling behind as a nation and that imagination, innovation, and creativity have been the foundation that moved the United States into a world leadership role…To maintain our competitive edge, we need to balance instruction, encouraging our children to be creative and develop their imaginations (p.382).

Many people believe that unless we, as a nation, want to slowly shift our roles from being leaders to followers, it is imperative that creativity becomes a necessary component in our curriculums. In South Korea, (practical) art education is a required course for elementary students because of the belief that the arts promote learners' understandings of their daily lives by providing them basic skills and attitudes necessary for performing work (Chung & Ro, 2004):

> That is why the Ministry of Education in Korea identified the practical arts subject as "practical living" subject, a "creative problem-solving subject," and an "integrated knowledge subject." Moreover, goals of practical arts education help develop students' problem-solving and creative thinking skills (Chung & Ro, 2004, p.116).

Referencing R. Buckminster Fuller, Costantino, Kellam, Cramond, and Crowder(2010) describe "one of the best arguments" made for nurturing creativity (p.50):

> [R. Buckminster Fuller]…recalled that during his childhood at the turn of the century, people tried to predict the future and could not begin to conceive of

automobiles, electrons, travel the moon, or even air wars as reality. At that time only about 1% of the world was literate, and fewer still thought of humanity in world terms. How can we be so confident as to think that we can predict the challenges that face us in the future any better than did our ancestors? In fact, the rule of geometric progression shows that any one innovation begets many more, so, if anything, we should expect the rate of change to accelerate and diversify. Such successful adaptation of world change and enrichment of our world depends on creative endeavors. As Hoffer, a self-educated social writer and philosopher once said, "In a time of drastic change, it is the learners who inherit the future. The learned find themselves equipped to live only in a world that no longer exists." Without instilling creativeness as a necessity in all our students, we are merely preparing a group of "learned" students who soon will be ill equipped in this ever-changing world (Costantino et al., 2010, p.50).

The future is full of uncertainties; however, encouraging students to be creative will allow them to be better prepared for the unknown.

   The creative process. Creativity is usually defined in four parts: the person, the process, the environment, and the product; as well as the relationship that these four parts have with each other (De Backer, Lombaerts, De Mette, Buffel, & Elias, 2012). The individual goes through a process to create a product that gathers a response that is reflective of the realms in which it is presented (Cowdroy & Williams, 2006). Sometimes, creative activities can be completely internalized as ideas and concepts and not necessarily expressed or turned into physical form (Cowdroy & Williams, 2006). If the creator actually produces a physical form, the process of producing a work of art parallels the creative process the artist must go through to conceptualize the product. Ayman-Nolley (1999) explains this relationship by stating that assimilation, the categorization and adaptation of external stimuli, is the origin of the creative process. Finally, through the process of accommodation, modifying internal thoughts to fit reality, does this thought bear fruit to a creative product. The process of creating the artistic product is similar to the brainstorming process, in which artist must, through a process of

assimilating and accommodating, manipulate the medium with all its potential and limitations to create the final piece (p.270-272).

Lewis (1971) references Wallas in separating the creative process into four stages: *Preparation*, *Incubation*, *Illumination*, and *Verification*. The *Preparation* stage is where the individual gathers the information and examines each idea as if it were a piece of a puzzle. Then the individual goes into the *Incubation* stage, where they try to fit the various pieces of the puzzle together. During this stage, the individual may decide to put the idea on the "back burner," to walk away from the problem and to come back to it at a later time. Whether it is through active thinking, daydreaming, or even sleeping, the solution will come during the *Incubation* to produce *Illumination*. Through these definitions, we acquire a better understanding of creativity and the process of creating. Creativity is not always a final or physical product but a state of mind and a way of thinking.

> Creativity includes both analysis, to break apart information with insight, and synthesis, to put it together into an original whole. It never underestimates the importance of knowledge. Rather, it recommends a different emphasis. The knowledge and deep understanding are fundamental, and judgment is applied to recognize and evaluate the relevance of the information (Forster, 2012, p.285).

Creativity as a lifelong process. Creative growth happens over a lifetime. This does not mean that it is pointless to teach in the art classroom where there are time limitations; by encouraging creativity in the art classroom, students are provided the opportunity to consistently engage their creativity. Bastos and Zimmerman (2011) state that "creativity is a habit" and that:

> the best creative work is the result of good work habits. Therefore, it is critical that we engage in discussion of how to infuse classrooms with more legitimate pedagogy that nurtures and promotes core dimensions of the arts, such as creativity, innovation, and imagination (p.6).

By integrating creativity into the classroom, art teachers are introducing a new way of

thinking to students that has the potential to change their perspective permanently.

Creativity must be introduced in schools so that creative growth can begin now and

continue to grow over students' lifetimes.

    Creative behaviors in students. What are the characteristics of a creative individual?

Lewis (1971a) references MacKinnon by defining creative people as:

> discerning, curious, receptive, reflective, and eager for experience. They make
> fine distinctions and seek deeper meanings than less creative individuals. Simple
> factual statements do not satisfy them. They observe a great deal, collect
> evidence, but withhold judgment. Creative people are able to tolerate seeming
> disorder, in which they discover subtle ordering principles (p.33).

Taylor (1961) completed a study to find these characteristics:

> were most frequently related to the creative contributions of scientists…creativity,
> drive, inner directedness, professional self-confidence, cognition, discrimination
> of value, a high minimum level of aspiration in quantity of research reports,
> independence, self-sufficiency, intellectual thoroughness, non-middle
> biographical response, and a high minimum level of aspiration both in original
> work and in theoretical contributions. Other characteristics…include
> resourcefulness, desire for discovery, flexibility, intuition, dedication to work,
> liking to think…" (p.12).

    It is not always apparent outwardly if students are being creative. What may seem

like daydreaming or laziness may, in fact, be the creative mind thinking of new ideas, or

taking a "time of rest" between thoughts (Gnezda, 2011). Learning about the neurological

process the mind takes when being creative, can better help educators understand the

creative process of our students. Gnezda (2011) introduces the experience of creativity:

> Creativity is a cognitive-emotional-manipulative experience that is accessible to
> all people. Creativity is cognitive because it is about innovating and developing
> ideas and occurs via specialized mental processes. It is emotional because
> emotions are integral and "loom large" in the creative process…Creativity is
> manipulative because idea development happens not only internally but also
> through interaction with a medium as an idea is being implemented (p.47-48).

Within the article, Gnezda (2011) goes on to explain that creative thinkers think in different gears: lower energy at first, as they get inspired; then higher energy thinking, as they explore how they can express their ideas in physical form. This process is not only for visual artists, but for scientists as well. Gnezda goes on to explain that "Einstein, for instance, "saw" the inspirations for his creative theories as mental images when they first occurred to him, then later had to figure out how to translate them into written mathematical notations" (p.48). This process of translating ideas from a mental capacity into a physical form is not usually an easy one. The creative author must transition between different forms of thinking, and must use a whole new skill set to recreate their ideas. Ayman-Nolley(1999) paraphrases Piaget saying that the creative process can only reach full potential when integrated with other aspects of thought.

Many creative people get frustrated during this process, especially when their attempts do not match their inspiration (Gnezda, 2011). Many educators can sympathize with this statement, remembering students who get frustrated because their artwork doesn't "look right." To what do they compare what is "right"? Students have a concept in their mind, and this frustration emerges when their inspiration is not reflected in their work. For this reason, some creative students may prefer the innovation process rather than the creation of the product. The lack of ability to create work that meets a student's standards is not the only deterrent for students on creating a physical product. Creative individuals who have the tendency to output high numbers of new ideas can also struggle with production. These students can find the process of invention more enjoyable than creation or get bored during production and get tempted to work on a new idea that they have thought up (Gnezda, 2011).

Creative behaviors can be broken down into three characteristics: "fluency-quantity of items generated, originality-relative uniqueness of each item, and flexibility-change of mental set from one unit of principles to another" (Russell, 1981, p.43). This definition of creative behaviors allows us to better understand the various ways our students express their creativity, and in turn, help nurture their creative behaviors. Through an understanding of the cognitive process of creativity within our students, educators can better understand their student's individual approaches to a creative problem and educators can adapt lessons to accommodate students' individual creative processes.

Creativity in Art Education

Integrating creativity into the curriculum has also become a requirement as noted in the 2014 revised National Coalition for Core Art Standards. The new NCCAS removed focus from skill-based benchmarks, and integrated art criticism, self-reflection and creativity-specific goals. These goals require art teachers to allow student choice and include evidence of the student's voice in their work, which is essential for artistic causality - the strong desire to create (self-initiated), idiosyncratic meaning - personal connection and meaning bound to life experiences, and intentional symbolization – turning the desire to create and express life experiences into an object or image (Zurmuehlen, 1990), which can be hard to come by in traditional, skill-based lessons. Hathaway (2013) states that in a skill-based lesson, the benefactor of the lesson is the teacher, not the student. As an alternative Hathaway (2013) says "by respecting the child as artist, the art teacher sets the stage for creative exploration" (p. 15). Creativity is taught

with student choice, autonomy, and creative freedom; and it is paramount that art

educators stress artistic behavior over product for creative growth.

    The role of a creative arts education in schools. The goal of an arts education

classroom should not be to create an artist out of each student. Covington (1967) states:

> I will not suggest that we can, or even should, make a practicing professional artist out of each school child, nor will I flirt with the idea of fostering an increase in artistic aptitude. But what I suggest is that most children do not fulfill their potential for imaginative, creative thought as expressed in their art work and that by the use of appropriate teaching techniques we may be able to enhance to a substantial degree the quality of the ideas which children represent visually and to increase the ingenuity with which they solve visual problems (p.18).

Parnes (1961) supports this argument with a quote from Lowenfeld:

> And above all, remember you are not trying to make your child an artist. It is his creativeness you care about: his sensitivity, originality, adaptability, fluency, flexibility, and the powers of synthesis, analysis, and redefinition. You can encourage all of these in his daily life. Some day they may come home to roost in unexpected fields like medicine, business, law, or science; and you may have reason to be extraordinarily proud of that little boy or girl who sprawled on the livingroom rug with a box of broken crayons, filling large sheets of cheap paper with figments of childish imagination (p.39).

As both authors state, it is creativity, not skills, which should be emphasized in an art

classroom; and a creativity-centered art education is a powerful thing. Burton (2009)

references John Dewey and Sir Herbert Read that art education "could exert a powerful

influence on repairing a fragmented world by providing the resources for creative

practice and mental integration" (p.325). Taylor (1961) also states, "Art education may

be more valuable in this age of science than is generally realized" (p.16). He supports his

statement by explaining "in contrast with science education, my impression is that art

education has always had the encouragement and development of creativity as its central

goal or at least one of its most central goals" (p.16). To Taylor (1961), the importance of

art education lies with its dedication to creativity. Despite the importance of creativity,

"Art education has been dismissive of the topic of creativity for the recent generation of art educators because of their lack of understanding of the topic" (Milbrandt & Milbrandt, 2011, p.6). Milbrant and Milbrant (2011) explain, "In the United States, our collective definitions, perceptions, and myths about creativity have, at best, produced an uneven understanding of what it means to be a creative person" (p.8). But it is imperative that we re-shift our focus onto creativity:

> Art educators are endowed with a rich history and passion for the value of creativity that seems to have been lost in the past two decades and must again be embraced in our ever-changing global contexts. Our profession and our students will benefit from a renewed focus on creativity and innovation, as we offer greater clarity of meanings, process, and purposes" (Milbrandt & Milbrandt, 2011, p.13).

What does creativity provide that failure to teach it in schools introduces such dire consequences? Creativity, first and foremost, helps develop and fine-tune their minds (Eisner, 2002). Das, Dewhurst, and Gray (2011) explain that creativity accomplishes this goal through the benefits it provides: self-motivation, confidence, curiosity, and flexibility. Lowenfeld (1952) supports the argument by explaining that

> Art Education, introduced in the early years of childhood may well mean the difference between a flexible creative human being and one who, in spite of all learning, will not be able to apply it and will remain an individual who lacks inner resources and has difficulty in his relationship to the environment (p.2).

Creativity also helps make sure that no child is *truly* left behind. Andrews (2005) references Eric Jensen by stating that the arts help a wide range of students learn and build the student's "process of learning" by developing student's "integrated sensory, attentional, cognitive, emotional, and motor capacities," which supports all types of learning (p.36). Creativity also encourages students to be curious and ask questions, an integral part of the learning and artistic process. Eisner (2002) states that educators need

to develop in students the ability to find multiple answers and ask questions. This process

of creative inquiry gives students ownership over the material that they are learning and

in turn gives students a personal connection to the materials they learn. Pitri (2013)

explains, "Ideally, artistic activities motivate students to think and be engaged in

purposeful activity" (p.42). In the art classroom, this connection manifests as a personal

signature in their work. Marshall and D'amo (2011) emphasize that questioning stresses

the thought process, not the actual artwork, which is the more important step. They go on

to state that art making should be more about the process and not the individual image or

product. By introducing and applying creativity in the art classroom, students are

familiarized with creativity, enabling them to introduce creativity into other subjects

(Booth, 2013). This allows creativity to permeate into our education system; and it all

starts in the art classroom.

  One of the most common reasons that art teachers do not emphasize nurturing

student creativity is because they do not know how.

> Many art teachers tend to favor bona fide practices and teaching strategies. Many
> novice and experienced art educators often believe in using methodologies that
> include discrete and sequential steps that deliver standard instruction, incorporate
> simple assessment measures, and assure a well-managed classroom (Bastos &
> Zimmerman, 2011, p.6).

Teaching has its fair share of challenges, and the difficulty in teaching creativity is that it

is a process geared to the individual, which can present a difficulty in group-oriented

settings, such as a classroom (Herz & Hanson, 2001). However, other countries have a

different approach to art education, despite having some of the same challenges. In

speaking about her own art education experience, Bastos in Bastos and Zimmerman

(2011) claims,

I have never seen a demonstration in an art class. We experimented with materials, searched in books or in our school's library; our work was individual and did not resemble our classmates' endeavors. Only in the 1990s when I arrived in the United States to attend graduate school, did I witness for the first time an art teacher showing her class a 'sample' of the work she expected her students to produce and then walk them through a step-by-step process that set out how to do it (p.6).

In a time when budget cuts threaten the very existence of our programs, it is important that art educators advocate the purpose of providing the arts in schools. Art educators need to steer away from the traditional arts education program in which instruction is "so profitable for the talented pupil… [but] quite dispensable for the general run of the school population" (Broudy, 1979). These lessons with prescriptive step-by-step directions actually may limit or hinder creativity (Jaquith, 2011a). And yet, it is a common go-to for many art educators (Bastos & Zimmerman, 2011). Teaching skills *is* an important part of art education. Many creative thinkers struggle through the process of manifesting their ideas into products (Gnezda, 2011). By teaching students craftsmanship and skills, art educators are providing students the means to express their ideas in physical form; it just should not be the only focus of the day's lesson:

Of deep concern is that this [teaching skill] is the point where art teaching and learning in many contexts do not progress further. Sometimes art teaching proceeds to a next step where an art teacher still has a firm notion about types of student products that meet more open-ended criteria for success. It is only at a next level that creativity takes place: that is when teachers cannot predict results and are surprised by their student outcomes. To reach this level, students are encouraged to conduct art-based research that has direct application to their own interests and abilities and where they establish their own bodies of work (Zimmerman, 2010, p. 88-89).

When skills are taught, it is imperative that lessons be creative in nature. An observation of school art shows that school art usually embodies a distinct style that is unlike any art created in the real world (Gude, 2013). In other words, school art is not an accurate

representation of what art is like in the world. Referencing Efland, (Gude, 2013) explained that "these school art styles did not actually create possibilities for free expression for youth, but instead served the symbolic purpose of representing to others that there were opportunities for creativity and free play in otherwise regimented school systems" (p.6). When creativity is not incorporated into the lesson, the purpose of the art program comes into question.

One may argue that as long as students are creating *something*, they are being creative. Even the word "creativity" is rooted to the word "create." However, how are students being creative when they produce identical works of art, or artwork that follows the teacher's prompt? "Creativity involves more than just making something, even something new. It is a process of knowledge construction that emerges from within a person and provides an experience rich with thought, emotion, challenge, insight, and hard work" (Gnezda, 2011, p.50). Gnezda (2011) then references Booth, quoting that creativity is "rather than the things you make, it is…the experience [that is] a particularly powerful act" (p.50). Lewis (1971a) further explains how students are not being creative when they follow the teacher's example:

> When the ends are successfully achieved by novel means, the process is creative. When an initially creative solution is repeated the process is not creative. To copy or imitate another artist or even oneself devalues the achievement regardless of how skillfully it is done (p.33).

An educator may be being creative when conceptualizing the initial image that they want their students to create. Once they have created the image, however, to have students repeat the process is no longer creative in any way. Students can be challenged to be creative in the art classroom by implementing lesson plans that encourage creative

behaviors. Educators should present lessons to students where the educator does not control most of the creative decision-making.

> Instead, lessons can be designed to engage students in their own ideation processes and experience their own inspirations… Creativity is enhanced when we coach students as they develop their own processes. We need to resist the impulse to pre-plan subject matter and procedures for the assignments we make, and we need to let go of preconceived notions of what the student artwork will turn out to be (Gnezda, 2011, p.51).

This change may force an educator to exclude their favorite lesson, or change the structure of their class. To this, Gude (2013) states "we must be willing to let go of some of the old familiar projects (and their myriad variations) in order to make room for other sorts of projects and other kinds of art experiences" (p.6).

Because each student works in different ways than their peers, teaching methods should be individualized to help accommodate all the different levels and methods of creativity that students will encounter (Gnezda, 2011). "Teachers and students need to be risk-takers and allow bodies of work to evolve over time through self-directed learning because this is where true creative self-expression can be supported and valued" (Zimmerman, 2010p. 88-89). Teachers should pay attention to any independent ideas students create, and motivate them to explore those impulses and interests. The teacher should take on the role of a researcher by observing and questioning student's activities. This provides students the opportunity to become co-creators of the curriculum and make choices on what topics they will explore (Rufo, 2012).

Strategies for teaching creativity

Creativity is sometimes viewed as a gift that some individuals are privileged to have and that those who do not have it are at a loss. However, that assumption is not the case. "Creativity manifests itself in all fields of life, from science to gardening, and not

everyone is equally creative in all fields" (De Backer et al., 2012, p.54). Whether they are

a scientist or an artist, creativity is a fundamental aspect of human thinking. And while

creativity works differently for different people, the potential to be creative is there. This

potential, however, does not assume that every student is creative in the same way. Time,

product creation, and brainstorming results vary from person to person (Ayman-Nolley,

1999). Because creativity is such an individual process, teaching it can seem like a

daunting task, especially because not all students learn alike. Covington (1967) states

"bearing in mind all these important considerations about the creative process-the variety

of skills and attitudes required—the task of fostering creativity indeed appears to be a

formidable one" (p.19). While discussing Gardner's multiple intelligences, Beliavsky

(2006) explains that a good educator must be able to teach students different methods of

researching a singular answer. "Creative teachers design innovative lessons, create

stimulating classroom environments, and engage their students in interesting projects"

(Starko, 2013, p.55). Art educators must be creative themselves and strive to find new

and innovative ways to teach themes, artists, skills, all while managing the classroom.

The challenge may seem like a formidable one, but the exceptional educator strives to

meet his or her own high expectations of what is possible in the classroom.

Basic interventions to encourage creativity. So where does the art educator begin?

The priorities of certain art courses in the United Kingdom are "initiative, self-

motivation, creativity, communication, and teamwork" (Allen, 2013, p.366); not a bad

place to start. Pitri (2013) provides a list of interventions teachers can use to encourage

creativity:

- Identify the locus of control. Be mindful of the purposes of instructional
  activities.

- Restructure lessons to give learners ownership of problem finding as well as problem-solving
- Minimize effects of extrinsic motivators. Limit information, downplay grades, and use extrinsic motivators to support - not control - creativity
- Organize lessons around intrinsic motivators, including choice, play, divergent thinking, and making relevant connections
- Focus more on process than product and look forward to a surprise of open-ended solutions
- Incorporating teacher-directed lessons are effective for skill building that is essential for creativity
- Allow student choice whenever possible
- Count to ten before intervening in a student's process of thinking or making
- Help students identify intrinsic motivators that influence their creativity
- Encourage metacognition through examination of choices, analysis of relationships, and recognition of the stages of creativity (p.43-44).

Starko (2013) states that "Teachers can create a classroom in which creativity flourishes by doing three key things: (1) developing a creativity-friendly classroom environment, (2) teaching the skills and attitudes of creativity, and (3) teaching the creative methods of others" (p.55). Perkins and Carter (2011) employ the CVC method: Choice-providing student choice, Voice-exploring their own voices as well as other artists' narrative, and Challenge-including a degree of difficult enough to encourage deeper thinking and productivity. Many of these interventions highlight student choice, intrinsic motivation, learning about creative behaviors, and challenging students. These classroom goals can be met by incorporating strategies for encouraging creativity within the classroom.

Strategies for student learning. The following strategies can be used within the art lesson to encourage creativity in students:

- Model creative behaviors and attitudes (including studying lives of creative people)
- Talk about creativity as an educational goal
- Use open-ended tasks (with many possible solutions)
- Encourage students to define/redefine problems (brainstorm)
- Find purpose in art making through intrinsic motivators
- Link ideas and perspectives (connect to others)

- Ask questions
- Encourage sensible risks and tolerate mistakes
- Value originality
- Incorporate other senses (Booth, 2013; Hanson & Herz, 2011)

Integrating these strategies into lesson plans will incorporate creative behaviors into lessons. The following sections will explore these strategies and their role in art education.

   Viewing artists and their art. Creativity is not just in the choices that students make. Pavlou (2013) believes that art viewing is an essential element to creativity. In a qualitative study with a second-grade classroom, Pavlou (2013) found that art viewing opened students up to new point of views. The purpose of viewing art is not to memorize the artists' style and regurgitate a work that replicates the artist's style. When educators require students to do that, then art mimics other subject areas where students are no longer allowed to think for themselves (Taylor, 1961). Educators should learn a range of methods for engaging students in art criticism and presenting artists to students. Depending on how the artist is presented to the student, the student can either be inspired to make their own art, or decide to copy what they see. When presenting various artists' works, educators can avoid the temptation to only lecture students about the artwork, and instead engage in an art criticism activity where students are questioned about the artwork. The process of questioning students forces them to look deeper into the image and create personal connections to the work of art (Szekely, 1981). This can be done at every grade level, with different strategies to accommodate the developmental level of each age group. Through questioning strategies, art educators can encourage students to slow down; students frequently scan things superficially and do not really see what they are looking at (Garner, 2013). Although the idea of viewing art may concern some

educators that students would be compelled to copy the artwork, Pavlou (2013) argues

that this mimicry is not the case. Instead, Pavlou (2013) encourages teachers to challenge

students to "think differently and to explore how ideas found in the artwork could be used

in their artworks" (p. 84-85). If students are provided the nurturing environment stated

above, they should feel comfortable enough to explore and create a work of art that holds

idiosyncratic meaning. Chin (2013) observed an elementary classroom where the art

teacher engaged students through:

> (1) investigation of each artist's contextual influences and experiences in his/her conceptualization process as springboards for ideation; (2) fluid discussion in an open and safe forum in which interpretation, speculation, building on ideas, and honoring multiple perspectives was encouraged; and (3) development of further connections and understandings about artists' contextual influences, experiences, and conceptual inspiration through the envisioning and creation of students' own artworks, which drew on aspect of an artist's conceptualization process (p.28).

In this classroom, Chin (2013) observed that the art teacher introduced contemporary

artists to the students and spent an extensive time on the art viewing activity. The art

viewing was less of a lecture, and more of a discussion led by the teacher, where students

made their own assertions about the art in which there was no one, right answer. The

teacher paused after students' responses to really reflect on their answers. The teacher's

reflection on each student's answers showed respect for the students' opinions, cementing

in the students' minds the importance of their feedback. This behavior modeled by the

teacher provides the safe environment necessary for students to explore their creative

ideas.

Creative behaviors are not only evident in the lives of the artists about which the

students learn, but can be modeled by teachers and students as well. In Andrews (2005),

the classroom was one where students helped each other learn skills in which they

excelled. Students enthusiastically observed work created by their peers and the observations provided students an extrinsic motivator to learn new skills and allowed students to learn from their peers. "The teacher is no longer the sole individual championing the arts. Each student actively participates in this opportunity…when we nurture students' passion for the visual arts: we promote a future generation of art makers and art supporters" (Andrews, 2005).

During the creative process, students need to be encouraged to "possess a tolerance for the complexities, ambiguities, and uncertainties inherent in all creative enterprise" (Covington, 1967). As mentioned in Chapter 1, the process in which the creative idea manifests into a physical form can be a stressful one for the creative person. This can especially be the case for children who sometimes lack the skills to create a work that they feel successfully translate their ideas. In this instance, "the most important attitude possessed by the creative person" that should be taught to the student is "a basic confidence in his own ability to carry on creative activities in the face of recurring frustrations and obstacles to thinking. Moreover, he must place high value on creative work generally and must be fully convinced that his own products and ideas are worthwhile" (Covington, 1967). To do this level of self-esteem, educators must continue to praise creative works and not overly stress skills. When students are finished working, the process is not over yet. "We must recognize that the experience continues even after the brush is put down" (Szekely, 1981). Self-evaluation and reflection is a necessary part of the process that allows students to grow as artists. Included in the exercise of viewing the works of artists, it is imperative that students study their *own* works and reflect on their choices as well.

Open ended tasks and creative problem-solving. One of the main benefits of

teaching art in schools is providing students the opportunity to think and produce

multiple solutions to a single challenge.

> Problem-solving helps children become aware of alternatives, cope with
> difficulty, and feel empowered, rather than vulnerable. Creativity is not a
> requirement for solving problems but creative production is one of the situations
> that require problem-solving. Creativity is essentially a special form of problem-
> solving (Pitri, 2013, p.42).

Lewis (1971a) references Ecker in defining artistic production as: "artistic activity is

problem-solving in which qualitative means (i.e., lines, colors, planes, textures) are

arranged to achieve a qualitative end (such as a particular style, i.e., cubist

impressionistic etc.)" (p.33). By this definition, one can argue that the process of creating

a work of art is nothing more than creative problem-solving at its finest. James (1997a)

supports this argument by referencing Wolf (1988): "Dispelling myths about artmaking

as a spontaneous expression of emotion and the subconscious…making art is a 'range of

rigorous thinking processes' that must be investigated in terms of underlying

developmental, cognitive processes" (p.76). Creative problem-solving challenges

students to slow down and think about their artwork. As they slow down, students are

then able to process multiple solutions to their (visual) problem. Through this process,

students not only encourage their creativity, but also enhance the quality of their artwork.

In a study at the University of Buffalo questioning whether or not creativity can

be increased, Parnes (1961) found that students who were in the creative problem-solving

group showed "substantial gains in quantity of ideas" over the control group (p.43). In the

same study, the creative problem-solving group showed "clear superiority" over the

students in the control group on three tests of idea quality (p.43). Although the tests were

conducted within a limited time frame, the importance of creative problem-solving is apparent in its findings. Zimmerman (2009) supports this theory by arguing that at the individual level, creativity is all about the ability to problem-solve, and that is something that can be taught. But the word "think" is broad and vague in terms of education, and so Lampert (2006) begins with the definition of critical thinking: decision-based thinking, focused on a single solution; aesthetic inquiry, the discussion of art in general; and creative inquiry, the discussion of a single, specific work of art. Lampert then goes on to explain how critical inquiry helps guide students to think deeper and use their critical-thinking skills. Pavlou (2013) supports this theory by stating that the process of creating art is a series of decision-making, problem-solving, information-gathering, and activities (evaluative and experimental). The suitability of creative problem-solving is further explored:

> If multiple possible solutions to a problem are probable then creative problem-solving processes are appropriate…Often a creative problem-solving process involves an initial proactive phase of problem (or opportunity) finding and problem definition. The expectation for multiple solutions in a creative problem-solving process is based on a broad range of alternative possible, because knowledge or ideas can be re-combined and manipulated multiple times through a problem solver's use of personal and established knowledge and relevant experience. The structures for creative problem-solving processes determine pathways a problem solver may elect to follow. These structures include many processes or strategies familiar to visual problem-solving in the art classroom. Brainstorming, analogical thinking (using analogy and metaphor), transformational thinking, and visualization and forced or remote associations are but a few examples of strategies for generating new ideas (Milbrandt & Milbrandt, 2011, p.12).

"Fostering students' divergent thinking skills is integral to developing creativity" (Chin, 2013, p.28). Challenging students by presenting questions with more than one possible answer is an essential component to creative thinking. Pavlou (2013) also

defines creative thinking as "possibility thinking" (p. 74). James (1997) references Getzel and Csikszentmihalyi and their research where they found that students' ability to solve creative problems increased through open-ended exploration. Through this process of exploring, students took on a "discovery-oriented attitude" which allowed them to make sense of the artistic problems and find fitting solutions. "Creative problem-solving involves logical thinking and analysis as well as irrational thinking, such as play and fantasy…Olson's conclusion was that problem solvers are capable of recognizing problems, and engaging their conscious and unconscious mind to solve it" (Pavlou, 2013, p.42). The stages of creative problem-solving can be broken down into the following sequences: problem finding - exploring situations and inquiry, investigation - inquiry about situations and subjects that can lead to problem finding, planning - thinking about the process before creation and brainstorming, commitment - concentration and elaboration on a problem, imagination, playing, and flexibility - the ability to adapt to new problems (Pitri, 2013). Covington (1967) argues the characteristics one must have to be successful at any problem-solving task is the ability to: "state a problem in the broadest and least biasing fashion, seek relevant information through question-asking, generate unique and clever ideas, and judge the appropriateness of these ideas with regard to the constraints of the problem" (p.19). Covington (1967) suggests mystery and detective problems, which are usually engaging and motivating to children, where students must ask questions, generate new ideas and ultimately find solutions to practice skills that are required for creative problem-solving. Bryant (2010) suggests introducing metaphors and symbolism to exercise creative problem-solving skills that can be incorporated into the art piece itself. However, in the end, teaching creativity is not a one-

sided endeavor. Herz and Hanson (2011) reference Osborn-Parnes' statement that creativity is more than just problem-solving; it is the process of asking and creating; it is about teaching our students to obtain their own unique perspective on things. This, they argue, is the most important thing that we can teach our students.

Brainstorming. A University of Buffalo study found that "quantity breeds quality" (Parnes, 1961). The study supports the theory that through quantity of ideas, the quality of the ideas increases as well. (Marshall, 2005) references Koestler when explaining that creative ideas are born from connections and juxtapositions that are unexpected and innovative. Wilson and Thompson(2007) believe that creativity is not about unrestricted creation, but rather, controlled experimentation. Educators can help students create connections and experiment through the process of brainstorming. The book 13 Tools for Thinking (Root-Bernstein & Root-Bernstein, 1999) provides 13 thinking habits that creative individuals share:

1. Observing: honing all the senses to perceive acutely and accurately
2. Imaging: creating mental images using any or all of the senses
3. Abstracting: discovering simplicity in complexity by eliminating all but one essential characteristic
4. Recognizing patterns: perceiving similarities in structure or properties among different things
5. Forming patterns: creating or discovering new ways to organize or arrange things
6. Analogizing: discovering functional similarities between structurally different things
7. Body Thinking: using motor memory, physical feelings and emotional states to recognize and address problems
8. Empathizing: becoming the thing you study, be it animate or inanimate
9. Dimensional Thinking: translating between 2, 3 or n dimensions; shrinking or expanding within a dimension (e.g. size or duration)
10. Modeling: creating a simple analog of a complex thing in order to test, modify or play with its properties
11. Playing: goal-less activity performed for fun that incidentally develops skill, intuition, and knowledge
12. Transforming: using some set of the previous tools to think and make in a serial, integrated manner

13. Synthesizing: knowing things in multiple ways simultaneously, subjectively as well as objectively, intuitively as well as intellectually; i.e. the result of fully using your imaginative tool box.

These habits can be used as exercises in the classroom to guide students in the brainstorming process. Brainstorming, and the ability to brainstorm with ease, is but the first level of creative thinking. The four levels of creative thinking can be defined as:

> *Fluency*, as a creative thinking skill, suggests that students can brainstorm easily and can thus generate many ideas…*Flexibility* in creative thought is the ability to move easily from one idea to another…This request suggests a more complex level of thought than in fluency and a creative shift. The third level of creative thinking is *originality*…Originality is often associated with fluency of thought or the ability to come up with many ideas. Those that brainstorm many original ideas are likely to come up with multiple solutions. The fourth level of creativity is *elaboration*. By elaborating an idea or image, the artist extends his or her thoughts. Art teachers often say that they ask students to push the idea. This sort of exercise tends to promote divergent rather than convergent thought (Heid, 2008, p.42-43).

Russell (1981) breaks down fluency, originality, and flexibility in detail, and describes each step. To understand these steps allows educators to better incorporate the strategies into their classrooms:

> Fluency has three dimensions: a) Associational—the generation of items, images, techniques, etc., that can be associated with a predetermined theme such as materials that are moldable, where curved lines may be found, or the possible variety of marks that may be made with a crayon; b) Ideational—the generation of ideas of how to use an item, image, or technique, as in ways to use moldable materials, or ways to utilize curved lines in a work; and c) Expressional—the generation of arrangement of composition or communication, as in ways to make a sculpture flow visually, ways to depict a distasteful subject to make it appealing, or ways to make a living environment fit your personality.

> Originality has only one dimension, the generation of remote and unusual ideas or applications, with special emphasis upon items of particular statistical infrequency, and considered to be unique, novel, or rare in occurrence.

> Flexibility has two dimensions; a) Adaptive—the ability to break away from fixations and use radical changes in mental set from one unit of principles to another in adapting to new media or circumstances (problem-solving), as might be observed in the process of converting lines of a drawing to edges of a sculpture, or

in finding ways to lift an image from a page as, transferring, photocopying, tracing, etc; and b) Spontaneous—the continuous shifting of ideas and responses from one unit of principles to another as a means of exploring diverse ideas or possibilities, e.g., using a piece of Styrofoam to build, to reinforce, to cast, to print, to texture, to scrape, etc (p.43).

As students progress through the levels of creative thinking, the creative process towards a *creation* is initiated and students move "fully into the first stage of the cycle of visual inquiry-*perception*" (Heid, 2008, p.44). *Perception* is the first step of visual inquiry in which students practice fluency and flexibility, generating multiple ideas, brainstorming, and making connections within those ideas (Heid, 2008). Once students begin to formulate the concept for their ideas, the second step, *conception*, initiates. In conception, students practice originality and elaboration to come to an abstract idea. Subsequently, students will move through the *expression* phase, as they begin to cement their ideas into physical form and then the *reflection* stage, where they reflect on their progress. During expression and reflection, students frequently double back to perception and conception to further investigate ideas until they are satisfied with their artistic product (Heid, 2008). Educators can encourage brainstorming and incorporate it regularly in the classroom. When students produce many ideas, it is important to help them explore which idea is the one they can explore. "Asked about his process for coming up with his ideas in chemistry, the Nobel Prize winner Linus Pauling is said to have recommended having many ideas, most of which will be wrong, but it is important to know which ideas should be thrown away" (Forster, 2012, p.283). Familiarizing students with the brainstorming process, as well as introducing them to brainstorming methods is the initial process of the creative cycle.

Intrinsic motivators. Many researchers have testified to the connection between intrinsic motivation and creativity (Booth, 2013; Hanson & Herz, 2011; Jaquith, 2011; Pitri, 2013). Intrinsic motivation is an important factor in encouraging creativity because it provides the self-reliance students need to work through any challenges that they may encounter. Intrinsic motivation, however, does not mean that the lesson has to be child-centered. In the study by Kincaid (1961):

> It was found that more creative drawings resulted from motivations concerned with unusual objects than from motivations dealing with familiar objects, e.g., the child himself. Therefore, a child's imagination can be definitely boosted by use of motivations wherein the child is encouraged to invent or imagine unusual forms, e.g., strange machines, environments, and animals. So many times it is believed that the only desirable motivations should include the child himself; however, the study reported on here strongly indicates that creative ability is promoted to a much greater degree by use of motivations concerned with novelty or fantasy (p.52).

One might wonder, then, what role the art teacher might have if the students are motivating themselves. The role of the art teacher is to help motivate students in the way that the adult artist might motivate himself (Asch, 1974).

> That is, children, unlike professional artists, sometimes need help in getting started in their art work, in gathering ideas and developing ways of creatively using materials. The "motivation" therefore, whether it be provided externally by a teacher or internally by an artist's natural drive for expression, supplies that all-important inceptive material. A motivation may involve questions and discussion, visual aids such as slides, a walk through a selected environment, a materials demonstration, etc. Whatever the nature of its content, recipients of such experiences are expected to derive certain positive benefits (p.17).

Each student brings to the art classroom their own personal stories, and interests. To accommodate the diverse population of students, art educators can allow the curriculum to be driven by student's personal desires when possible. Students who had a voice in their curriculum were more likely to understand the learning process (Andrews,

2005). In Andrews' (2005) classroom, students do not learn from lectures, but from their

own discoveries (p.40).

> A student-driven curriculum is more than a choice about art project options; it is a responsibility. Students teach, discuss, seek out job sites, and create their art curriculum; they are active learners, not passive…the teacher is no longer the sole individual championing the arts. Each student actively participates in this opportunity (Andrews, 2005).

Gude (2013) challenges educators to value projects in which students may tell stories

about their lives and to value art that blurs the line that separates life and art; encouraging

educators to find new ways to engage students by providing intrinsic motivators.

    Linking ideas and perspectives. Art lectures can be designed to encourage

students to *observe*, rather than just see. Presentations can include a well thought out art

criticism activity that engages students with the image they are viewing. In an exercise to

modify creative behaviors, Russell (1979) required:

> The student selects an art concept with which to work, then *focuses attention* on the characteristics of unique uses of the concept. S/he follows this with a *comparison* of common-to-unique uses of the selected concept and attempts to *generate and list* the most unique use that the student can imagine. The experience concludes with the teacher *extending words of encouragement* for the more successful attempts at generating unique uses of the concept by each student (p.20).

This process of focusing attention, comparing, listing, and rewarding combines creative

behaviors with cognitive behaviors, which trains the students' minds to think more

creatively (Russell, 1979).

    Russell's exercises can be applied to visual images outside of the art room.

Martlew and Grogan (2013) quote Csikszentmihalyi that "creativity does not happen

inside people's heads but in the interaction between a person's thought and sociocultural

context" (p.1037). They go on to make a great argument for the role of visual culture, the collection of visual images in an individual's daily life, in creativity:

> Thus, those working with children can help them develop their creativity by examining the sociocultural context in which the children and adults are operating. Once examined, that context can be shaped, manipulated and enriched in ways that will nurture creativity. The sociocultural context that children find themselves in include the physical environment, the quality of the space offered to children, the resources that are available to the children and the quality of the interactions between adults and children and between children and children (p.1037).

Duncum (1997) believes that "although art educators believe in educating through art, students live through the mass media" (p.69). For Carter (2008), the study of the images that an individual interacts with in daily life, visual culture, is the bridge that connects art and multiple aspects of society. Broudy (1979) explains "aesthetic literacy is as basic as linguistic literacy" (p.349); to understand the images is equivalent to language. Incorporating visual culture into the curriculum is tantamount to teaching our students another language. "Our relationship and use of visual culture is seen both as a creative act and as a dialogical activity" (Carter, 2008, p.97). In fact, one may say that visual culture comes *before* language. Duncum (1997) argues that before it is anything, an image is a language in and of itself where it "…like language, serves particular social, political, and economic struggles. Imagery is a battleground of meaning, a site of ideological struggle, where competing interests co-opt meanings, censor, recontextualize, appropriate, and otherwise manipulate meanings to serve their ends" (p.70). Duncum argues that the future for art education is in the study of visual culture. For this proposal to happen, visual culture can no longer take a "back seat" role to "high art," but be an active participant in the curriculum. This approach "would not exclude high art from education, but only give it the prominence that it has in society as a whole" (Duncum, 1997, p.71). Visual culture

is an essential part of the art curriculum that can easily be incorporated into the standard lesson plan. Educators could even challenge students to work on murals or posters to take ownership over their visual culture. When Gude (2013) asked students to make a mural, the students chose to depict all the representatives for their own sports teams. The mural "reshaped the physical environment of the school and also the relationship between the athletic department and the art department" (p.13). This new approach to the standard school mural is an example of how educators can challenge themselves to rethink the norm. "For art education to have a healthy future, it must be remade" (Duncum, 1997, p.77).

Risks and play. Many researchers believe that the origin of creativity is in play. According to Hanson and Herz (2011), Piaget believed that the origin of creativity was in play, specifically symbolic play. Hetland (2013) supports Piaget's views by stating that there are three essential elements of creativity: play, learning from mistakes, and embracing opportunities by taking risks. Norlund (2013) compares the process of playing with the creative process:

> During play, the player reconciles, translates, and internalizes with what is being learned, creating a personal scenario or private reality. Play can be a creative construction of one's own knowledge of the world and one's place in it. When making art, we essentially play: translate and construct our world, create new things, and take risks with the unknown (p.16-17).

Unfortunately, play and creative inquiry are not always embraced in the classroom. Garner (2013) states,

> Most young children enter school bright-eyed, full of questions, eager to learn, and willing to try anything. All too soon, they learn that their imaginative ideas and questions are not valued in the classroom…that's unfortunate, because imagination is the beginning of the cognitive process through which we create meaning (p.50).

And yet, play is an essential part of art and life. Prager (2013) believes that the Dada art movement was entirely devoted to the notion of "play as a fundamental expression of humanity" (p.241). Through play, a student is able to explore new ideas and take risks without the negative repercussions of failing. Not only does this process open the student to new ideas, but also the relaxed atmosphere provides a safe environment for risk-taking and other creative behaviors.

The idea of encouraging risks and tolerating mistakes is a fundamental notion in nurturing creativity. Gude (2010) quotes Carl Rodgers who states that there are three components to creating an environment that allows "psychological safety and psychological freedom" (p. 34), which is necessary to create a safe place for the students to experiment with creativity. For students to feel secure enough to be creative, art educators need to create a classroom that is not only psychologically safe and free, but the art educators themselves could mirror those concepts in their actions and words as they interact with our students (Gude, 2010). Gude (2010) stresses, "playing, a necessary component of any creative process, is the first (and foundational) principle of the possibilities that can emerge from a quality art curriculum" (p. 35). Booth (2013) suggests similar methods of instruction as Gude by stating that we must teach students to be resilient and take risks. Because students are not used to the notion that failure can be a good thing, educators must provide a safe place for students where they can cultivate a positive relationship with failure.

Gude (2010) used her knowledge as she developed the curriculum for the Spiral Workshop, a Saturday art program for teens at the University of Illinois at Chicago. At the workshop, every first day was designated as a play day where students get to

experiment and explore in a lighthearted manner. But not all days are fun and games. Playing, personal interest, and curiosity provide intrinsic motivation and are closely correlated with creativity, and thus should be an important factor in an arts education curriculum (Jaquith, 2011a). "Play is associated with both problem-finding and solving; opportunities for play lead to divergent thinking and flexibility… [Play] encourages creativity and activates ideas…Art ideas of young children are often motivated by play" (Jaquith, 2011a, p. 18). Lessons should also be play*ful*. "Creativity arises when activities are presented in a permissive and game like fashion" (De Backer et al., 2012, p.55). A former student of Bastos and Zimmerman (2011) who is now an art educator, challenges students to "surprise her": "In her syllabus, she invites them to "embrace the unknown," experimenting beyond conventional boundaries. In doing so, she teaches students simultaneously about the impossibility and undesirability of closed-ended outcomes in art" (p.6).

Through play, students can engage in another important aspect of the creative process: self-reflection. Self-reflection (and the anxiety that goes with it) is a necessary struggle that students must endure to grow creatively (Gude, 2010). These three factors; playing, exploring, and self-evaluation are what are necessary in our lessons to develop creativity according to Gude (2010). This process of creative exploration does not provide guidelines to creating art with a predetermined aesthetic outcome, nor does it give much emphasis on the instruction of teaching students specific skills. "…Creativity for children is not a singular act, but an ongoing presence taking on a variety of purposes and modalities, and sometimes children "do not draw the way we expect them to draw" (Rufo, 2012, p.45).

Students do not always have to understand the medium/technology as they create.

They can figure it out as they go (Black & Browning, 2011). This does not mean that

teachers should no longer teach students the basics of using art materials.

> Just as it is difficult to build a house without blueprints drawn by an architect, it is difficult to master inventive activities in the visual arts without "blueprints" that spell out basic principles of construction. Each art object, or piece of art criticism, or documentation of historical authenticity, or aesthetic argument is a blueprint in the following respect: each conveys certain concepts selected from the body of artistic knowledge that it represents. The artistic concepts that these objects share are what we call their aesthetic properties (Rush, 1997, p.3).

As stated earlier in this chapter, skill development is an important part of an art

education. However, there is more to art education than just skill development; art

education allows students to interpret art at a deeper level. It is essential that students be

provided an education where all aspects of art education are addressed and the teaching

of skills is not be the primary focus of the curriculum. Students should control their art

making and be guided by intrinsic motivation (Jaquith, 2011). Jaquith (2011) provides a

list of some intrinsic motivators that can be used in the classroom:

- Content has personal relevancy
- Preference for and enjoyment of certain media
- Curiosity
- Divergent thinking through play
- Satisfying a need by making a purposeful object for play or for a gift
- Collaboration or proximity to others with similar interests
- Work that is challenging and personally rewarding

Introducing intrinsic motivators can be a new concept to some art teachers. Unless a child

is already excited about "art class," traditional lessons provide little intrinsic motivation

for most of the population. To introduce more intrinsic motivation into the classroom, the

art curriculum needs to incorporate "contemporary uses and practices of a medium, over

curriculum that merely recapitulates the history of the medium" (Gude, 2013, p.7). Art

classes can challenge students to take what they have learned and make it their own, not just repeat and reenact what they have just observed. By doing so, educators can engage students to work in an "authentic artistic processes over making facsimiles" (Gude, 2013, p.8). There are many more ways to provide intrinsic motivators to students in the art classroom, and a good way educators can challenge themselves is to ask "are there other ways of teaching this content that provide more compelling learning experiences…?" (Gude, 2013, p.12).

Multisensory experiences. The benefit of incorporating a multisensory experience in art education is to provide students with a more, well-rounded education (Duncum, 1997). Garner (2013) believes that a multisensory experience is responsible for the initial inspiration, stating that "creation always starts with some form of sensory input through sight, hearing, smell, taste, or touch" (p.52). By introducing a multisensory experience, educators are pushing the boundaries of the rules of art-making, challenging students to think outside the box and find answers with rules that they did not know existed. Once students are challenged with a multisensory problem, they can explore ideas and find new problems to solve. This process of problem-f*inding*, allows students to find their own problems, instead of forcing students to adapt to problems that are presented to them (Tillander, 2011).

Covington (1967) incorporated hearing into a project by reading a book to a child and then challenging them to create an illustration to reflect a specific part of the reading. This exercise challenges students to listen to the story, comprehend the story, and then create a physical form to visualize but also scene and the emotions that are embedded into the scene as well.

Assessing creativity. Assessment is a necessary component of every lesson plan, and yet, "teachers do not appear to know how to initiate, conduct, or evaluate creativity" (Cowdroy & Williams, 2006, p.55-56). One of the first steps of assessing creativity may be to understand the different levels of creative ability. The different levels of creativity and creative ability can be broken down into the following:

- A high level of creativity commencing with conceptualization, and proceeding to iteration through schematization, and to actualization and crafting (leading to realization)
- A lesser (intermediate) level of creativity commencing with schematization (without a clear conceptual basis and therefore limited intellectual foundation) and proceeding to actualization and crafting (leading to realization)
- A lower level of creativity which must be recognized in actualization thinking in conjunction with crafting (leading to realization), but a minimal creative value in the absence of conceptual foundation and schematic development. Significant creative ability…must therefore include at least schematization and actualization thinking abilities in combination and high level creative ability must include conceptualization, schematization and actualization thinking abilities in combination (Cowdroy & Williams, 2006, p.105-106).

Like intelligence, each student comes with his or her own level of creativity as well as potential creativity. Understanding the levels of creative ability allows the educator to assess the growth of each individual student against their previous level.

One necessary component to assessment is our own personal evaluation and reaction to students' artwork (Szekely, 1981). Praise from a teacher can heavily influence the child artist, and so it is important that art educators praise creative choices that our students make (Russell, 1979). When educators give praise and reward, students are encouraged to continue making creative choices.

Creating a classroom that supports creativity.

Classroom Environment. Creativity requires students to explore ideas and thoughts. The art classroom must be a place where the student not only has the freedom

to be oneself, but also feel that risks can be taken without consequences (Martlew &

Grogan, 2013). Lewis (1971) references Rogers in describing the classroom that supports

creativity:

> An environment which is psychologically safe is characterized by empathy and
> acceptance of the unconditional worth of the individual. Openness to experience,
> an internal locus of evaluation, and the ability to toy with things and ideas
> characterize the inner state of a creative person. Recommendations for classroom
> practice…are: evaluation must not threaten the learner's self-esteem; external
> judgment must give way to self-evaluation; the child must be helped to resist the
> tyranny of the peer group (p.34).

For students to practice the creative behaviors that encourage creativity, the art classroom

must be one where they feel safe enough to practice these behaviors. An environment

where students feel comfortable enough to take risks and explore their creative thoughts

is the environment in which students will enhance their creativity.

> ***Student Choice.*** The creative classroom is one that provides student

choice (Booth, 2013; Hanson & Herz, 2011). Because each child is unique, each student

may have a preference as to how they wish to express themselves; this may also be the

case with what medium they choose to use. "Objects can be freed from their customary

uses and become part of sculpture or painting" (Lewis, 1971). To provide our students the

opportunity to choose the medium of their choice, classrooms must be well organized and

designed to encourage independent work. Being organized, however, should not consist

of pre-organized "packages" that have materials pre-prepared for the students.

> Making a routine of even such seemingly simple steps deprives students of
> preparing the materials themselves and exploring different containers, the
> consistency of paints, the mixing of different colors, the qualities of different
> applicators and the different means of applying paints to a surface. It is during
> such experimentation that the artist masters his or her materials and learns to play
> and wonder and dream in planning new work. The materials that we use influence
> our work immeasurably: whether chalks are new or used and broken; whether the
> paper we use is torn off a pad and presented to us or we unwind it from a roll

ourselves…each of these conditions communicates possibilities to the user and influences the limitations on the freedom of the work that follows (Szekely, 1981, p.15).

A choice-based classroom is not the only option for this classroom model; a well-organized classroom that invites student ownership is a possibility as well.

Time. Scheduling and other factors that are out of the teacher's control limit the time the teacher interacts with the classroom, while planning also encourages teachers to set a predetermined time limit to lessons. In these situations, it is difficult to provide students with an undetermined amount of time to engage in their artwork. "School art programs sometimes become so large that, in essence, the teacher is running a factory. The main concern becomes the logistical pressure of moving children, paperwork, and finished artwork into and out of and around our classrooms quickly and efficiently" (Szekely, 1981). Yet, it is important that students be provided with ample time to not only work with their ideas and materials, but also to work *through* their ideas as well (Lewis, 1971a). Teachers cannot expect "creativity upon demand," it is a process that cannot be forced, and should not be forced (Lewis, 1971a). "Children need time to create unfettered by systems, institutional expectations, and government-directed assessments. Art does not conveniently fit into, and should not be forced to adhere to, the ways in which other curricula are designed and put into practice" (Rufo, 2011, p.23). A solution to this predicament is to make time in lessons for wondering and discovery (Norlund, 2013). This may be through a series of brainstorming exercises, sharing with peers, or a playtime in which students can take the time to be inspired, rather than forcing the inspiration to come to them.

Having a well, structured class helps increase instructional time by decreasing the time spent on classroom management. In a classroom observed by Szekely (1981), students were engaged in a project as soon as they walked into the room. The teacher accomplished this task by preparing a small, engaging project that students were required to do as soon as they walked into the classroom. The structure of the class allowed the students to practice a necessary skill without spending the entire class on it. This also provided the teacher a stepping off point to introduce the lesson once the teacher was finished.

National Coalition for Core Arts Standards

The National Coalition for Core Arts Standards first published their guidelines for structure, delivery, and assessment of arts education in 1994 (Blakeslee & Boston, 1994). In 2013, the standards were revised to be compatible to current research in the fields as well as educational standards and policies. Creativity is a new component that has been introduced with the revisions and is incorporated into the four anchoring standards: creating, presenting, responding, and connecting. Although all components of the standards are viewed as creative the following are directly related to creativity:

Pre-K
- Creating
  - Engage in self-directed play with materials
  - Engage in self-directed creative making
  - Create and tell about art that communicates a story about a familiar place or object
  - Share and talk about personal artwork
- Responding
  - Interpret art by identifying and describing subject matter
- Connecting
  - Explore the world using descriptive and expressive words and art-making

K
- Creating
  - Engage in exploration and imaginative play with materials

- o Collaboratively engage in creative art-making in response to an artistic problem
- o Through experimentation, build skills in various media and approaches to art-making
- Presenting
  - o Select art objects for personal portfolio and display, explaining why they were chosen
- Responding
  - o Interpret art by identifying subject matter and describing relevant details
  - o Explain reasons for selecting preferred artwork
- Connecting
  - o Create art that tells a story about a life experience
  - o Identify a purpose of an artwork

1st

- Creating
  - o Collaboratively engage in exploration and imaginative play with materials
  - o Use observation and investigation to make a work of art
  - o Use art vocabulary to describe choices while creating art
- Responding
  - o Compare images that represent the same subject

2nd

- Creating
  - o Collaboratively brainstorm multiple approaches to an art or design problem
  - o Make art or design with various materials and tools to explore personal interests, questions, and curiosity.
  - o Experiment with various materials and tools to explore personal interests in a work of art or design
  - o Repurpose objects to make something new
  - o Discuss and reflect with peers about choices made in creating artwork
- Connecting
  - o Create works of art about events in home, school, or community life

3rd

- Creating
  - o Elaborate on an imaginative idea
  - o Apply knowledge of available resources, tools, and technologies to investigate own ideas through the art-making process
  - o Create personally satisfying artwork using a variety of artistic processes and materials
- Responding
  - o Speculate about processes an artist used to create a work of art
  - o Determine messages communicated by an image
  - o Interpret art by analyzing use of media to create subject matter, characteristics of form, and mood

4th

- Creating

- o Brainstorm multiple approaches to a creative art or design problem.
- o Collaboratively set goals and create artworks that are meaningful and have purpose to the makers
- o Explore and invent art-making techniques and approaches
- o Revise artwork in progress on the basis of insights gained through peer discussion
- Responding
  - o Analyze components in visual imagery that convey messages
  - o Interpret art by referring to contextual information, and analyzing relevant subject matter, characteristics of form, and use of media
- Connecting
  - o Infer information about time, place, and culture in which a work of art was created

5th

- Creating
  - o Combine ideas to generate an innovative idea for art-making
  - o Identify and demonstrate diverse methods of artistic investigation to choose an approach for beginning a work of art.
  - o Experiment and develop skills in multiple art-making techniques and approaches through practice
  - o Identify, describe, and visually document objects of personal significance
  - o Create artist statements using art vocabulary to describe personal choices made in art-making
- Responding
  - o Compare one's own interpretation of a work of art with the interpretation of others

Although other components of the standards can be creative, these were the ones that

seemed most directly related to creativity.

Chapter III

Methodology

Design

The goal of this qualitative research study is to address the role of creativity in the elementary art classroom, find strategies to encourage creativity, and incorporate these strategies into preexisting lesson plans. The role of creativity in the elementary classroom has been explored through art education literature, the Virginia Standards of Learning for Visual Art (Board of Education, 2013), and an examination of creativity benchmarks provided by the National Coalition for Core Art Standards (National Coalition for Core Arts Standards, 2014). The NCCAS provides benchmarks of creativity that encompass the entire creating process in art: creating, presenting, responding, and connecting. An examination of each of these benchmarks was broken down into each grade level. Strategies for encouraging creative behavior were researched through an examination of education and art education literature. A chart was created in chapter 4 by combining known creativity encouraging strategies found in chapter 2, and creativity related benchmarks from the NCCAS standards. The researcher's existing lesson plans were modified to incorporate the grade level strategies to inspire creativity.

Sample

Six art lessons, one for each grade K-5, are included in this study. The outline used for the lesson plans is based upon standard lesson plan requirements, including: lesson title, grade level, time, media, book, enduring understanding, lesson overview, Virginia SOLs, lesson objectives, visual culture, vocabulary, historical/artist/cultural

information, images and questioning strategies, lesson procedure, creativity strategies,

evaluation, special needs, and resources. See Appendix A (JMU lesson guide).

Instrumentation

A suggested teaching outline for including creativity in different parts of the

lesson is provided. This outline includes the following parts in addition to the standard art

lesson plan provided in the sample: responding, creating, and connecting. Responding

will be a guided art criticism activity where students are challenged to talk about what

they see and interpret the meanings of these visual cues. These questions are intended to

challenge students to think about artworks, their creations, and reflect on the pieces

they've created.

Creating is a necessary component of all lesson plans, where the teacher guides

the students with specific skill development. This does not mean that the teacher instructs

the whole class to create an identical piece of work, but rather guides and instructs them

on a specific technique that they may use to create a work of their choice. Student choice

goes hand-in-hand with guided practice, because it is here that students get to express

their own creative voice. Student choice is necessary so that students may create a work

of art that has personal meaning to them. This process of choice making creates a

connection between the student and the artwork, called artistic causality. Artistic

causality is an essential component to art making because it is when the student finds

meaning and purpose in art. This process creates students who value the importance of art

for the rest of their lives.

The last step of this process is connecting. At the elementary level, many students

are not used to taking a moment to reflect on their pieces. Students will be required to

stop in the middle of the creative process and think about their artwork. They will think about what they like about their pieces, and what they do not like about their pieces. Students will be asked if they can fix the aspects they find are less successful, and will be allowed to fix them if they wish. For grades 3 and up, this process will be done through a worksheet that is adhered to the back of their piece. By asking students to stop and review their artwork, the focus is shifted to quality and content in the individual pieces. The extra challenge also pushes students to problem solve any visual difficulties that may arise along the way.

Procedure

The procedures for the research include the following sequence: 1) substantial review of the literature found on the definition of creativity, the role of creativity in elementary art, and strategies to encourage creativity; 2) analyze National Standards for Art Education (Appendix B) for teaching creativity; 3) create grade level appropriate strategies for teaching creativity; and 4) incorporate strategies into lesson plans. The literature review reveals strategies for encouraging creativity; the analysis of art standards provides benchmarks that each grade level should address to promote creative behaviors. The literature review is organized in three sections: definition of creativity, the role of creativity in elementary art education, and strategies for encouraging creativity. The researcher compiled and presented a list of appropriate strategies for each grade level that encourage creativity. Strategies for teaching creativity have been incorporated into one existing lesson plan per grade level.

Chapter IV

Results, Conclusions, and Recommendations

The results and conclusions for this study were derived from a careful review of the literature, specifically examining the research questions posed at the beginning of this study. A review of literature helped define creativity to provide educators a better grasp on how to inspire students to be creative.

1. What is the role of creativity in elementary education?

Results

The results of this research indicate that creativity should be made a priority in elementary education for the following reasons:

- Creativity and learning both are embedded in the process of finding and making connections (Marshall, 2005).

- Creativity is a unique perspective that is refined over a lifetime (Bastos & Zimmerman, 2011; Hanson & Herz, 2011; Hetland, 2013).

- The consequences of not making creativity a required component in education is to have a widening gap between leaders and followers, with the United States, as a whole, falling under the latter category (Pavlou, 2013; Zimmerman, 2010).

- Creativity exists within everyone and helps us connect to our environments as well as adapt to new situations that occur in everyday life, thus making it a fundamental component of our development. Creativity also allows students to connect to the subject presented to them in a more personal manner (Burton, 2009; Milbrandt & Milbrandt, 2011; Sawyer, 2003; Starko, 2013; Wong & Siu, 2012).

- By providing students the ability to problem-solve, creativity prepares them for the workforce by creating innovative thinkers (Baker & Baker, 2012; Jorgenson, 2012b; Milbrandt & Milbrandt, 2011; Zimmerman, 2010).

- Creativity completes education, filling in the gaps left by standardized testing and memorization, allowing students to ask questions and find answers to open ended questions (Bastos & Zimmerman, 2011; Milbrandt & Milbrandt, 2011; Shuqin, 2012; Taylor, 1961).

- Encouraging creativity within students better prepares them for the unknown (Costantino et al., 2010).

- The creative process, and the creative individual, share similar traits regardless of what subject they are in (Gnezda, 2011; Lewis, 1971a; Taylor, 1961).

Conclusions and Recommendations

In conclusion, creativity is a balancing component to knowledge-based learning. By introducing creativity into the elementary classroom, students are provided opportunities to find their own answers versus always being handed the right answers. Creativity is not instantaneous, and is a habit and way of thinking that is refined over a lifetime. Integrating creativity into the classroom helps the learning process for the student because it helps students connect to the information that is provided to them. Everyone has the capacity of being creative because it is a fundamental component of development. Creativity is what allows students to adapt to their environment and new experiences in their lives. By encouraging creativity, students are better prepared for situations in their future in which the outcome is unknown. This ability to adapt to

situations and problem solve, prepares students for their future as employees as it encourages originality.

    2. What is the role of creativity in elementary art education lesson plans?

Results

    The results of this research indicate that creativity should be incorporated into elementary art lesson plans for the following reasons:

- The goal of an arts education should not be to create artists, but rather to encourage creativity and the ability to problem-solve (Covington, 1967; Parnes, 1961).

- A creativity-focused arts education is a valuable component in education, with the ability to provide students a skill that is necessary in life. Creativity fine-tunes student's minds by providing them self-motivation, confidence, curiosity and flexibility. (Burton, 2009; Das et al., 2011; Eisner, 2002; Taylor, 1961).

- Creativity has not been a focus in art deduction because of misperceptions and lack of understanding about the topic (Milbrandt & Milbrandt, 2011).

- Creativity emphasizes the process of creating over the product. This emphasis contrasts with traditional skill-based art lessons (Gnezda2011; Hathaway, 2013; Marshall, 2005).

- The questioning strategies used in creative inquiry help students make personal connections to the materials they are learning. This intrinsic motivator translates into a personal signature within their artwork (Booth, 2013; Pitri, 2013).

- Despite its compatibility with the classroom setting, prescribed step-by-step instructions can hinder creativity. Teaching skill is an important part of art

education, but the objective of the lesson should not end there(Bastos &
Zimmerman, 2011; Broudy, 1979; Jaquith, 2011b; Zimmerman, 2010).

- Student art that is created through step-by-step instructions are not an accurate
representation of art in the outside world. Despite creating something, the students
are not being creative when following step-by-step instructions because all of the
creative work has been done by the teacher (Gude, 2013; Lewis, 1971a).

- Lessons should be designed to allow intrinsic motivation and student inspiration,
even allowing room for students to be an active part in the direction of the
curriculum(Gnezda, 2011; Rufo, 2012b; Zimmerman, 2010).

- Art educators should be willing to let go of old, tried-and-true lesson plans to
make room for new, innovative ones. The art educator should challenge
him/herself to be innovative in the creation of their lesson plan (Gude, 2013;
Zimmerman, 2010).

- Educators should incorporate creativity in lessons through student discussion and
responses, during the creating process, and provide students the opportunity to
personally connect to the project (NCCAS).

Conclusions and Recommendations

In conclusion, incorporating creativity into art lessons provides students with
many benefits, including; self-motivation, confidence, curiosity, and flexibility.
Acquiring specific artistic skills is a necessary component of art education, but should not
be the only objective to the art lesson. Creativity and creative problem-solving should be
the focus of art education; prioritizing creativity advocates art education by encouraging a
skill that is vital. Art educators may have unintentionally neglected creativity because of

a lack of understanding of the topic. Emphasizing the process over product is important for creative development, as well originality and innovative ideas. Creativity helps students make connections to their artwork and encourages self-motivation, curiosity, flexibility, and ultimately, confidence. Student choice and intrinsic motivation should be an important factor in all art education lesson plans, and can be incorporated through student response, artistic creation, and the opportunity to connect to their artwork.

3. What teaching strategies can art teachers use for encouraging creativity?

Results

The results of this study indicate that there are multiple ways for teachers to encourage students to be creative, including the following strategies:

- Provide opportunities for problem finding and problem-solving (James, 1997a; Lewis, 1971b; Milbrandt & Milbrandt, 2011; Parnes, 1961; Pavlou, 2013; Zimmerman, 2010)

- Encourage intrinsic motivators and help students identify intrinsic motivators (Booth, 2013; Hanson & Herz, 2011)

- Shift focus from product to process, encouraging students to find new solutions to open ended problems (Chin, 2013; Covington, 1967; James, 1997b; Marshall, 2005; Pavlou, 2013; Pitri, 2013)

- Allow student choice whenever possible (Booth, 2013; Hanson & Herz, 2011; Perkins & Carter, 2011; Szekely, 1981a)

- Display creative behaviors (through teacher actions and studying the lives of artists) (Chin, 2013; Garner, 2013; Pavlou, 2013; Szekely, 1981b)

- Define creativity and present it as a goal (Covington, 1967)

- Encourage students to define/redefine problems through brainstorming and other methods (Booth, 2013; Hanson & Herz, 2011; Root-Bernstein & Root-Bernstein, 1999; Tillander, 2011)

- Ask questions and lead art criticism activities to encourage student connections (Chin, 2013; Garner, 2013; Szekely, 1981b)

- Introduce intrinsic motivators, such as visual culture, into lectures (Andrews, 2005; Booth, 2013; Broudy, 1979; Carter, 2008; Duncum, 1997; Gude, 2013; Hanson & Herz, 2011; Jaquith, 2011b; Pitri, 2013)

- Value originality and creative ideas over skills (Covington, 1967; Hathaway, 2013; Parnes, 1961)

- Incorporate other senses to inspire new ways of thinking/learning (Covington, 1967; Duncum, 1997; Garner, 2013)

- Encourage (sensible) risk-taking and tolerate mistakes (Covington, 1967)

- Provide a safe environment in which students feel safe to explore new ideas and risks (Andrews, 2005; Lewis, 1971b; Martlew & Grogan, 2013)

- Encourage play to enhance flexibility and activate ideas (De Backer et al., 2012; Garner, 2013; Gude, 2010; Gude, 2013; Hanson & Herz, 2011; Hetland, 2013; Jaquith, 2011b; Norlund, 2013)

- Encourage playfulness(Starko, 2013)

- Challenge students to self-reflect and self-evaluate their own works (Gude, 2010; Szekely, 1981b)

- Offer students open ended problems and challenge them to produce more than a single answer (Booth, 2013; Hanson & Herz, 2011)

- Introduce metaphors/symbolism to integrate into artworks (Bryant, 2010)

- Incorporate brainstorming, and producing multiple ideas, within projects whenever applicable (Heid, 2008; Marshall, 2005; Root-Bernstein & Root-Bernstein, 1999)

- Observe, imagine, abstract, recognize patterns, form patterns, analyze, empathize, play, model, transform, and synthesize information and ideas (Russell, 1979)

- Provide a classroom that encourages creativity through classroom environment, student choice, and flexibility with deadlines (as much as possible) (Starko, 2013)

- Extrinsic motivators, such as grades, rewards, deadlines, consequences, and influence of other student's art can hinder creativity(Pitri, 2013) but are an unavoidable component of a classroom setting.

Conclusions and Recommendations

In conclusion, teaching strategies that art teachers can use to encourage creativity include, but are not limited to each of the following: creating opportunities for problem-solving, employing intrinsic motivators, using open ended challenges, providing student choice, incorporating other senses, ensuring focus on process and not the product, encouraging the incorporation of metaphors/symbolism, facilitating the linking of ideas and perspectives, introducing and connecting visual culture, minimizing extrinsic motivators, and allowing for brainstorming. Teachers may also incorporate the following strategies to encourage creativity: provide a classroom environment that supports creativity, displays and studies creative behaviors, includes creativity in objectives, incorporates creativity in student discussion during the creating process, provides opportunities for personal connection, values originality,

encourages sensible risks and play, provides a safe environment in which students

feel safe to take risks, challenges students to self reflect/evaluate, and tolerates

mistakes.

4. How can art teachers incorporate creativity into existing art lesson plans?

Results

The results of this study indicate that art teachers can incorporate creativity into

existing lesson plans by focusing on creativity during lesson plan development for each

grade level. Creativity can be reinforced in art lessons by using teaching strategies that

correspond to the NCCAS standards for art lesson plans. The NCCAS standards provide

benchmarks for students to obtain in art at every grade level in the following categories:

responding, presenting, creating, and connecting. The following charts were prepared to

help teachers incorporate research based teaching strategies, designed to inspire creativity

into existing lessons plans by correlating them with the NCCAS standards. The charts

include the NCCAS categories on the left, with corresponding teaching strategies learned

from the literature review and NCCAS guidelines on the right. The "presenting" category

was omitted from the chart, since it primarily dealt with the displaying of student artwork

and creation of a personal portfolio. Teachers can use the charts to incorporate creativity

into existing lesson plans. The left hand corner with the "x" is for educators to mark

which strategy was incorporated into the lesson plan. The strategies are numbered for

identification. The researcher also introduced creativity into the objectives and evaluation

to correspond with creativity objectives by categorizing them into responding, creating,

and connecting. The objectives were written to reflect visual art SOLs and creativity

strategies provided in the chart. By ensuring the incorporation of explicit creativity

strategies in student objectives and student assessment of every lesson, creativity can be

developed as a sustaining goal of the educator and students.

Summary of Data

The following charts are compiled from the NCCAS guidelines and creativity

encouraging strategies introduced in chapter 2.

Figure 1. Creativity strategies for Kindergarten

Responding	Are students provided with the opportunity to:	X
1	Describe details and objects in artwork to interpret art	
2	Identify details in artwork that has a personal connection to student	
3	Identify the purpose of an artwork	
4	Intrinsic motivators, such as visual culture, were introduced during discussion	
5	Analyze images to recognize patterns and synthesize information	
Creating		
6	Experiment and play with art materials	
7	Build skills with various media through play and experimentation	
8	Other senses are incorporated into lesson	
9	Students are provided the opportunity to solve (visual) problems	
10	Students are provided with the opportunity for personal choice	
Connecting		
11	Create art that tells a story about a life experience	
12	Obtain opinions about artwork (personal/artist) and explain	
13	Share and talk about personal artwork	
Additional Comments/ Notes:		

Figure 2. Creativity strategies for 1st grade

Responding	Are students provided with the opportunity to:	X
1	Analyze images to recognize patterns, form patterns, synthesize information, and interpret art	
2	Compare images that represent the same subject and discuss how different artists approached the same subject matter in different ways	
3	Describe details and objects in artwork to interpret art	
4	Identify details in artwork that has a personal connection to student	
5	Intrinsic motivators, such as visual culture, were introduced during discussion	
6	Display creative behaviors (through teacher actions and studying lives of artists)	
Creating		
7	Collaboratively engage in exploration and play with materials	
8	Use investigation to make a work of art	
9	Define creativity and present it as a goal	
10	Focus is shifted from product to process	
11	Other senses are incorporated into lesson	
12	Students are provided the opportunity to solve (visual) problems	
13	Subject matter is motivated by student interests and choice	
14	Students are provided with the opportunity for personal choice	
15	Risks are encouraged and there is room for student error	
Connecting		
16	Discuss and share personal artwork and reasons for personal choices	
17	Use art vocabulary to describe choices while creating art	
18	Form and defend an opinion about their personal work	
Additional Comments/ Notes:		

Figure 3. Creativity strategies for 2nd grade

Responding	Are students provided with the opportunity to:	X
1	Analyze images to recognize patterns, form patterns, synthesize information, analyze, empathize, and interpret art	
2	Identify details in artwork that has a personal connection to student	
3	Intrinsic motivators, such as visual culture, were introduced during discussion	
4	Display creative behaviors (through teacher actions and studying lives of artists)	
5	Value originality and creative ideas (over skills)	
6	Ask open ended questions and challenge them to produce more than a single answer	
Creating		
7	Challenge students to repurpose an object to make something new	
8	Collaboratively brainstorm multiple approaches to an art or design problem	
9	Experiment with various materials and tools to explore personal interests in a work of art or design	
10	Define creativity and present it as a goal	
11	Other senses are incorporated into the lesson	
12	Students are challenged to find multiple ideas within project	
13	Students are provided the opportunity to solve (visual/conceptual) problems	
14	Students are encouraged to take risks and there is room for student error	
15	Make art or design with various materials and tools to explore personal interests, questions, and curiosity	
16	Subject matter is motivated by personal interests and choice	
17	Students are provided with the opportunity for student choice	
Connecting		
18	Create works of art about events in home, school, or community life	
19	Discuss strengths in personal artwork	
20	Discuss and reflect with peers about choices made in creating artwork	
21	Students reflect on artwork and discuss what they would have done differently	
Additional Comments/ Notes:		

Figure 4. Creativity strategies for 3rd grade

Responding	Are students provided with the opportunity to:	X
1	Analyze images to recognize patterns, form patterns, synthesize information, analyze, empathize, and interpret art	
2	Identify details in artwork that has a personal connection to student	
3	Intrinsic motivators, such as visual culture, were introduced during discussion	
4	Display creative behaviors (through teacher actions and studying lives of artists)	
5	Value originality and creative ideas (over skills)	
6	Ask open ended questions and challenge them to produce more than a single answer	
7	Speculate about processes an artist used to create a work of art	
8	Determine messages communicated by an image	
Creating		
9	Elaborate on an imaginative idea	
10	Create art inspired by personal inspiration	
11	Apply knowledge of available resources, tools, and technologies to investigate own ideas through the art-making process	
12	Define creativity and present it as a goal	
13	Other senses are incorporated into the lesson	
14	Students are challenged to find multiple ideas within project	
15	Create personally satisfying artwork using a variety of artistic processes and materials	
16	Students use the process of brainstorming to produce multiple ideas	
17	Students are provided the opportunity to solve (visual/conceptual) problems	
18	Students are encouraged to take risks and there is room for student error	
19	Make art or design with various materials and tools to explore personal interests, questions, and curiosity	
20	Subject matter is motivated by personal interests and choice	
21	Students are provided with the opportunity for student choice	
Connecting		
22	Discuss strengths and weaknesses in personal artwork	
23	Make modifications to artwork in direct response to personal evaluation	
24	Discuss what makes their artwork successful	
Additional Comments/ Notes:		

Figure 5. Creativity strategies for 4th grade

Responding	Are students provided with the opportunity to:	X
1	Analyze images to recognize patterns, form patterns, synthesize information, analyze, empathize, and interpret art	
2	Analyze components in images that convey messages	
3	Intrinsic motivators, such as visual culture, were introduced during discussion	
4	Display creative behaviors (through teacher actions and studying lives of artists)	
5	Value originality and creative ideas (over skills)	
6	Ask open ended questions and challenge them to produce more than a single answer	
7	Determine messages communicated by an image	
8	Infer and analyze information about time, place, culture, and context in which a work of art was created	
9	Set goals as a class to create artworks that are meaningful and have purpose	
Creating		
10	Elaborate and create art inspired by personal inspiration	
11	Apply knowledge of available resources, tools, and technologies to investigate own ideas through the art-making process	
12	Define creativity and present it as a goal	
13	Other senses are incorporated into the lesson	
14	Students are challenged to find multiple ideas within project	
15	Create personally satisfying artwork using a variety of artistic processes and materials	
16	Students use the process of brainstorming to produce multiple ideas	
17	Explore and invent art-making techniques and approaches	
18	Explore best method of expressing personal idea	
19	Students are provided the opportunity to solve (visual/conceptual) problems	
20	Students are challenged to find questions to solve in their artwork	
21	Students are encouraged to take risks and there is room for student error	
22	Subject matter is motivated by personal interests and choice	
23	Students are provided with the opportunity for student choice	
Connecting		
24	Create artwork with personal message	
25	Make art or design with various materials and tools to explore personal interests, questions, and curiosity	
26	Discuss strengths and weaknesses in personal artwork	
27	Make modifications during the artmaking process in direct response to personal/peer evaluation	

28	Discuss what makes their artwork successful	
29	Discuss whether personal message was successfully communicated	
Additional Comments/ Notes:		

Figure 6. Creativity strategies for 5th grade

Responding	Are students provided with the opportunity to:	X
1	Analyze images to recognize patterns, form patterns, synthesize information, analyze, empathize, and interpret art	
2	Analyze components in images that convey messages	
3	Compare one's own interpretation of a work of art with the interpretation of others	
4	Intrinsic motivators, such as visual culture, were introduced during discussion	
5	Display creative behaviors (through teacher actions and studying lives of artists)	
6	Value originality and creative ideas (over skills)	
7	Ask open ended questions and challenge them to produce more than a single answer	
8	Determine messages communicated by an image	
9	Combine ideas to generate an innovative idea for art-making	
10	Identify and demonstrate diverse methods of artistic investigation to choose an approach for beginning a work of art	
Creating		
11	Experiment and develop skills in multiple art-making techniques and approaches through practice	
12	Elaborate and create art inspired by personal inspiration	
13	Apply knowledge of available resources, tools, and technologies to investigate own ideas through the art-making process	
14	Define creativity and present it as a goal	
15	Other senses are incorporated into the lesson	
16	Students are challenged to find multiple ideas within project	
17	Create personally satisfying artwork using a variety of artistic processes and materials	
18	Students use the process of brainstorming to produce multiple ideas	
19	Explore and invent art-making techniques and approaches	
20	Explore best method of expressing personal idea	
21	Students are provided the opportunity to solve (visual/conceptual) problems	
22	Students are challenged to find questions to solve in their artwork	
23	Students are encouraged to take risks and there is room for student error	
24	Students are provided with the opportunity for student choice	
Connecting		
25	Make art or design with various materials and tools to explore personal interests, questions, and curiosity	
26	Subject matter is motivated by personal interests and choice	
27	Identify, describe, and visually document objects of personal significance	

28	Create artwork with personal message	
29	Discuss strengths and weaknesses in personal artwork	
30	Make modifications during the artmaking process in direct response to personal/peer evaluation	
31	Discuss what makes their artwork successful	
32	Discuss whether personal message was successfully communicated	
33	Create artist statements using art vocabulary to describe personal choices made in art-making	
Additional Comments/ Notes:		

Conclusions and Recommendations:

Combining the NCCAS standards with creativity encouraging strategies from chapter 2

created the charts. The NCCAS standards were reviewed to find guidelines that are

correlated creativity. These standards were compared to the strategies found in chapter

two and were combined to create the charts.

The following lesson plans have incorporated relevant sets from the creativity

strategy charts for best fit to each lesson. The lesson objectives also incorporate

responding, creating, and connecting to introduce creativity as an objective in the lesson,

and as an important aspect of student assessment for the lesson. The lessons do not

incorporate all the strategies at once. Instead, it includes a handful of strategies in every

lesson, providing the opportunity for encouraging creativity over the course of the school

year.

Figure 7. Kindergarten lesson plan

Lesson Title: Designing clay bowls with personal symbols
Grade Level: K
Time: Four 30-45 minute classes
Media: ceramics
Book Connection: Dave the Potter by Laban Carrick Hill

Enduring Understanding: Artists and designers experiment with forms, structures, materials, concepts, media, and art-making approaches.

Lesson Overview:
Kindergarteners will be introduced to the term "artist," "potter," and functional pottery as an art form. Despite using pottery everyday, students do not always recognize all the different designs and decorations on their food containers. Students will discuss the various symbols on plates/bowls and will incorporate a personal element in their pottery by impressing a personal symbol into their functional bowl.

Virginia SOLs:
Visual Communication and Production
K.3 The student will follow a sequence of steps used in creating works of art.
K.5 The student will create works of art that connect to everyday life.
K.11 The student will use motor skills (e.g., pinching, pulling, squeezing, twisting, pounding, rolling, folding, cutting, modeling, stamping) to create two-dimensional and three-dimensional works of art.

Art History and Cultural Context
K.12 The student will identify people who make art as "artists."

History
K.6 The student will match simple descriptions of work that people do with the names of those jobs.

Lesson Objectives:
The student will:
1. **Responding**
   - Recognize how clay bowls are decorated with personal symbols in examples, artworks, and children's book.
2. **Creating**
   - Make impressions in clay with found symbols.
   - Make slab clay bowls and choose objects that personally represent them.
3. **Connecting**
   - Share and talk about the personal symbols on their bowls.

Visual Culture Component:
Students use bowls everyday. More often than not, children's plastic bowls have images of various cartoon characters and other recognizable elements from their visual culture. Food containers from restaurants also contain logos and brands to show the viewer the origin of their food. Students will recognize symbols in everyday bowls and will impress a personal symbol into their ceramic bowl.

Vocabulary:
Artist: people who make art
Potter: an artist who makes art out of clay, specifically functional items
Impression: imprint or indentation left on a soft surface (i.e., clay) after being pressed with an object.

Historical/Cultural/Artist Information:
Artists are people who make art. Some artists like to paint; other artists like to take pictures.
Potters are people who use clay to create functional pieces of art.
People in the past have incorporated a personal element into pottery by leaving a mark that is personal to them.

Images Used and Questioning Strategies:
What is an artist?
What are some kinds of ways you can think of to make art?

What is this picture of?
What colors are in this picture?
Can you describe what is in this picture?
Do you see any lines in this picture?
Do you see any patterns in this picture?
How do you think the artist created the picture on the pot?
How do you think the artist got his/her idea for what to draw?
Have you seen other pots like this before?
What do you think this pot is about?
Why do you think the artist drew these things on the pot?

What is this picture of?
What colors are in this picture?
Can you describe what is in this picture?
Do you see any lines in this picture?
Do you see any patterns in this picture?
Have you seen other pots like this before?
What do you think this pot is about?
Why do you think the artist drew these things on the pot?
How do artists learn from trial and error?

Lesson Procedure:
Day 1
- Prepare example pots and take out containers on table for students to touch as they get to their seat.
    - Ask questions about texture and what symbols are there.
    - Define impression
    - Ask students what the symbols could mean
    - Discuss connection between personal meaning with symbols
- Read *Dave the Potter* and present PowerPoint on ceramics.
    - Define potter
    - Ask questions about texture and what symbols are there.
    - Ask students what the symbols could mean
    - Discuss connection between personal meaning with symbols
- Allow students to practice making impressions on clay

Day 2
- Review what students did the previous day.
    - Who are artists?
    - What is an impression?
    - How did the artist show a personal connection to their work through the impressions?
    - How might you make a symbol about you?
- Introduce lesson: creating a ceramic bowl using found objects to create a personal impression.
- Pass out materials. Ask students that they may lightly touch the slab as they wait, but not to make an impression.
- Provide a variety of stencil shapes so that students can choose which shape to create their bowls
- Review how to make impressions
    - How hard should you push?
    - What happens when I push really hard into the clay?
- Discuss personal symbols
    - What could you push into the clay to represent you?
    - What are some things you have on you that only you have?
- Allow students to work and create impressions.
- Demo how to trace and cut out clay slab

o   Provide a variety of stencil shapes so that students can choose which shape to create their bowls
- As students finish, write their names on the bottom of the bowl and lightly push down slabs into Styrofoam bowls to dry in the bowl shape.
- Clean up.

Day 3
- Pass out bowls. As students take them to their seats, ask them to run their hands over the textures they have created. How do they feel? How did the bowls feel last week? How do they feel now?
- Where is your personal mark? Can you see it?
- Introduce the day's agenda: students will glaze their bowls.
- Explain the rules of how glazes are set up (each table has one glaze only, and a sample chip is present so students can see what each glaze will look like after firing).
- Ask students to paint the bowls 3 times and not to paint the bottom, and to not push on the brush too hard.
    o   Ask students to point to the top, bottom, inside and outside of the bowl to show understanding.
- Allow students to work.
- Clean up.

Day 4
- Pass out bowls. As students take them to their seats, ask them to run their hands over the textures they have created. How do they feel? How did the bowls feel last week? How do they feel now?
- Have students place bowls on the table, and as a class walk around to see every students' bowls.
- As a group, go to each table and have students quickly share their personal signature symbol with the rest of the class.
- Wrap up bowls and allow students to take home.

Creativity Strategies:

Responding	Are students provided with the opportunity to:	X
1	Describe details and objects in artwork to interpret art	X
2	Identify details in artwork that has a personal connection to student	
3	Identify the purpose of an artwork	X
4	Intrinsic motivators, such as visual culture, were introduced during discussion	X
5	Analyze images to recognize patterns and synthesize information	
Creating		
6	Experiment and play with art materials	
7	Build skills with various media through play and experimentation	
8	Other senses are incorporated into lesson	
9	Students are provided the opportunity to solve (visual) problems	
10	Students are provided with the opportunity for personal choice	X
Connecting		
11	Create art that tells a story about a life experience	

12	Obtain opinions about artwork (personal/artist) and explain	
13	Share and talk about personal artwork	X
Additional Comments/ Notes:		

Evaluation:

	Did the student:	Satisfactory	Progressing	Needs Improvement
Recognizing	Recognize how clay bowls are decorated with personal symbols in examples?			
Creating	Make impressions in clay with found symbols.			
	Make slab clay bowls and choose objects that personally represent them.			
Connecting	Share and talk about the symbols on their bowls.			

Special needs populations:
Students with special needs will be provided with unlimited assistance from the teacher and assistant (if applicable) as needed. Because the project is a tactile one that requires few fine motor skills, steps (and texture tools) can be modified to accommodate student's needs.

References:
http://media-cache-ak0.pinimg.com/236x/38/0e/fc/380efc810ac418f246cda50c4076570d.jpg
http://www.sothebys.com/content/dam/stb/lots/HK0/HK0393/T1377HK0393_O03_6D53Y_A.jpg.rend.760.760.jpg

Figure 8. 1st grade lesson plan

Lesson Title: Finding shapes in our environment
Grade Level: 1st
Time: Two 30-45 minute classes
Media: construction paper squares and collage
Book: *I'm the Biggest Thing in the Ocean* by Kevin Sherry

Enduring Understanding: Creativity and innovative thinking are essential life skills that can be developed.

Lesson Overview:
Artists use shapes to help simplify complex drawings and lay out spatial relationships within images. Students will learn how shapes are connected (shapes within shapes) and deconstruct squares to make a variety of shapes. Students will discuss spatial relations of shapes and organize them by size and number of sides. They will then use these shapes to create a seascape, creating a variety of animals and objects with the shapes they created. To finish their seascape, students may incorporate additional scraps and/or markers/crayons to add details.

Virginia SOLs:
Visual Communication and Production
1.1 The student will examine a variety of solutions to art-making problems
1.5 The student will create art from real and imaginary sources of inspiration
1.7 The student will identify and use the following in works of art:
     3. Shape—geometric, organic
1.12 The student will use motor skills (e.g., cutting, modeling, molding, tearing, weaving) to create two- and three-dimensional works of art

Math
1.12 The student will identify and trace, describe, and sort plane geometric figures (triangle, square, rectangle, and circle) according to number of sides, verticals, and right angles.

Lesson Objectives:
The student will:
1. **Responding:**
   - Define "geometric shapes" and identify shapes in their surroundings and art images.
2. **Creating:**
   - Create a seascape consisting of a shapes of various sizes that depicts an understanding of size
3. **Connecting:**
   - Use art vocabulary to describe choices while creating art

Visual Culture:
Shapes constantly surround students, whether it is in their environment or in their classrooms. Shapes are a key component in art and are used as a fundamental step in many art processes.

Vocabulary:
Seascape: an artistic rendition of the ocean/sea
Geometric shape: shapes that are reviewed in math class

Historical/Cultural/Artist Information:
- Most things can be deconstructed into shapes. Many artists start a drawing by doing so. This helps them draw and figure out size relations.
- Giant squids can grow to be 33-43 feet long
- Blue whales can grow to be 98 feet long

Images Used and Questioning Strategies:

This picture was chosen for its diversity in sea creatures.

What is this picture of?
Can you describe what is in this picture?
Do you see any shapes in this picture?
How can you use shapes to create an animal in this picture?
Have you seen pictures like this before?
What can help us be more creative?

This work by Matisse was chosen because of his use of shapes in the seascape.

What is this picture of?
Can you describe what is in this picture?
Do you see any shapes in this picture?
How can you use shapes to create an animal in this picture?

Have you seen pictures like this before?
How does working together help us be more creative?
Lesson Procedure:
Day 1
- Begin class by reading *I'm the Biggest Thing in the Ocean*.
  - How big is a shrimp? Is it very big? Does that mean the giant squid has to be very big?
  - How big is a clam? Is it very big? Does it mean that the squid is big?
  - How big is a turtle? Do you know how big a turtle can grow up to?
- PowerPoint: discuss how artists use shapes to create more complex images
  - What are some shapes you see in the room?
- Exercise: Pass out a variety of squares in different colors to students.
  - With each square demonstrate how to make the following shapes: rectangles, triangles, small squares, circles, small triangles, and extra small shapes.
- Introduce lesson:
  - Students will be creating a seascape out of the shapes they just created.
- Discussion: Help students brainstorm how to create sea animals with shapes.
  - What are some sea animals?
  - Close your eyes. Imagine a sea animal in your mind.
  - What shape could you use to create its body?
  - Does it have fins/legs?
  - What shapes could you use to create them?
  - What shape could you use for its eyes? How might its expression change based on the shapes you choose?
  - How can you be creative?
  - Ask students to share with class as they brainstorm
- Clean up

Day 2
- Review contents of last week's lesson:
  - What is a seascape?
  - What are some animals you can make out of shapes?
  - How big are those animals? Should they be the biggest/smallest thing in your seascape?
  - How can you be creative?
- Pass out materials: shapes, construction paper (background), glue, scrap box
  - Students will rearrange shapes to create a variety of sea animals and underwater objects
  - Challenge students to use all shapes and that additional scraps may be added from the scrap box
  - Students may color finished work with markers/crayons/student choice.
- While students work, go around room and ask them to describe their choices.
- Clean up.

Creativity Strategies:

Responding	Are students provided with the opportunity to:	X
1	Analyze images to recognize patterns, form patterns, synthesize information, and interpret art	X
2	Compare images that represent the same subject and discuss how different artists approached the same subject matter in different ways	
3	Describe details and objects in artwork to interpret art	
4	Identify details in artwork that has a personal connection to student	
5	Intrinsic motivators, such as visual culture, were introduced during discussion	
6	Display creative behaviors (through teacher actions and studying lives of artists)	
Creating		
7	Collaboratively engage in exploration and play with materials	
8	Use investigation to make a work of art	
9	Define creativity and present it as a goal	
10	Focus is shifted from product to process	
11	Other senses are incorporated into lesson	
12	Students are provided the opportunity to solve (visual) problems	X
13	Subject matter is motivated by student interests and choice	
14	Students are provided with the opportunity for personal choice	X
15	Risks are encouraged and there is room for student error	
Connecting		
16	Discuss and share personal artwork and reasons for personal choices	
17	Use art vocabulary to describe choices while creating art	X
18	Form and defend an opinion about their personal work	
Additional Comments/ Notes:		

Evaluation:

	Did the student:	Outstanding	Satisfactory	Progressing	Needs Improvement
Recognizing	Define "geometric shapes" and identify shapes in their surroundings and images.				

Creating	Create an individual and unique solution seascape consisting of a shapes of various sizes that depicts an understanding of size				
Connecting	Use art vocabulary to describe choices while creating art				

Special needs populations:
Students with special needs will be provided with unlimited assistance from the teacher and assistant (if applicable) as needed. Because the project is a tactile one that requires fine motor skills, it will be modified to accommodate student's needs.

References:
http://www.pablopicasso.org/images/biography/threemusicians.jpg
http://www.michaelspornanimation.com/splog/wp-content/V/HowtoDraw%20Mickey2.jpg
http://www.topwallpapers10.com/2013/12/02/cute-drawings-to-draw/

Figure 9. 2nd grade lesson plan

Lesson Title: Connecting to your community
Grade Level: 2nd
Time: Three 30-45 min classes
Media: Pencil, paper, crayons, markers (student choice)
Book: *Elmer* by David McKee

Enduring Understanding: Through artmaking, people make meaning by investigating and developing awareness of perceptions, knowledge, and experiences.

Lesson Overview:
Taking self-portraits, or "selfies" have become a part of our visual culture. Through these photographs, individuals not only want to capture themselves, but capture information about their lives. Students will be challenged to create a self-portrait that is expressive of their unique characteristics. These self-portraits will be displayed as a class to visually demonstrate how each student is a contributing member to their classroom community while also visually representing their individuality.

Virginia SOLs:
Visual Communication and Production
2.4 The student will create works of art inspired by a variety of concepts, themes, and literary sources.
2.9 The student will create works of art from observation.

Analysis, Evaluation, and Critique
2.15 The student will categorize works of art by subject matter, including the genres of portrait, landscape, and still life.

English
2.3 The student will use oral communication skills
      b) Share stories or information orally with an audience
      c) Participate as a contributor and leader in a group

Lesson Objectives:
The student will:
1. **Responding:**
   - Recognize that each student possess unique qualities from the group
   - Define the term "self-portrait" and "community"
2. **Creating:**
   - Make a self-portrait that depicts student's unique qualities (physical and interests)
3. **Connecting:**
   - Share how they depicted personal qualities in work of art
   - Share and talk about personal unique qualities and how they can be used to help their classroom community

Visual Culture:
Every year students take a variety of portraits: school, family, cell phone, and self-portraits. Through drawing a self-portrait, students will be challenged to create a self-portrait that goes beyond a realistic rendition of them by expressing with background, dress, expression, objects, and symbols what makes them unique as an individual.

Vocabulary:
Portrait: an artistic rendition of an individual
Self-Portrait: an artistic rendition of one's self
Community: a group of people who share something in common, i.e., environment, neighborhood, classroom, etc.

Historical/Cultural/Artist Information:
Artists have been creating self-portraits for a long time.
Self-portraits were first created because photographs did not exist. With the invention of photography, artist used the self-portrait as a means to communicate personal information.

Images/Questioning Strategies:

This painting was chosen for Picasso's ability to convey emotion through the use of color, posture, and expression.

What colors are in this picture?
Can you describe what is in this picture?
How does this picture make you feel?
Why do you think the artist chose to show himself this way?
What do you think was important to the artist to show about himself?
Have you seen other pictures like this before?
How does making art enrich people's lives?

This photo was chosen because of Chagall's depiction of himself. He incorporated his artist palette to show he was an artist.

What colors are in this picture?
Can you describe what is in this picture?
Why do you think the artist chose to show himself this way?
What do you think was important to the artist to show about himself?
Have you seen other pictures like this before?

This photograph was chosen because of Fiddle Oak's style in which he incorporates his interests into the photograph.

What colors are in this picture?
Can you describe what is in this picture?
Why do you think the artist chose to show himself this way?
What do you think was important to the artist to show about himself?
Have you seen other pictures like this before?
How does making art help people connect to their surroundings?

This photograph was chosen as an example of a self-portrait.

What colors are in this picture?
Can you describe what is in this picture?
Why do you think the artist chose to show herself this way?
What do you think was important to the artist to show about herself?
Have you seen other pictures like this before?

Lesson Procedure:
Day 1:
- Start class by introducing the topic: our Community and our role in it

- o Define "community."
- Begin class by reading *Elmer*
  - o What was so different about Elmer?
  - o Was it a bad thing that he was different?
  - o Who was in Elmer's community?
  - o How did his being different help the other elephants?
  - o What are some ways that you are different from others in your family? Than your friends?
  - o Who is in your community?
  - o How do you think you can use what's different about you to help the class?
- Introduce lesson: Students will create a self-portrait depicting their unique traits.
- What is a self-portrait? Introduce by taking a "selfie."
  - o What did I just do?
- "selfie" is short for "self-portrait," Usually taken of yourself with a cell phone or other camera. How can we create a self portrait so that it may express you?.
- PowerPoint presentation: show students how artists have depicted themselves and used art to convey personal information.
  - o Can you think of some ways you can show what you like in your drawing? (Brainstorm with class).
- Pass out materials and provide students time to make sketches and brainstorm some of their unique characteristics/interests.
- Clean up

Day 2:
- Review material from last class:
  - o What is a community?
  - o What is a self-portrait?
  - o What are some ways you can show your interests in a drawing?
- Pass out materials and mirrors.
- Have students create a self-portrait with mirrors as reference.
- Clean up.

Day 3:
- Provide students time to finish their self-portraits.
- Display all students' portraits together and discuss how each is different and how each student contributes to the class as a whole.
  - o Ask students to go up individually to share how they are different, how they depicted their individuality in their artwork, and how their uniqueness allows them to contribute to the class.

Creativity Strategies:

Responding	Are students provided with the opportunity to:	X
1	Analyze images to recognize patterns, form patterns, synthesize information, analyze, empathize, and interpret art	X
2	Identify details in artwork that has a personal connection to student	
3	Intrinsic motivators, such as visual culture, were introduced during discussion	X

4	Display creative behaviors (through teacher actions and studying lives of artists)	
5	Value originality and creative ideas (over skills)	
6	Ask open ended questions and challenge them to produce more than a single answer	
Creating		
7	Challenge students to repurpose an object to make something new	
8	Collaboratively brainstorm multiple approaches to an art or design problem	X
9	Experiment with various materials and tools to explore personal interests in a work of art or design	
10	Define creativity and present it as a goal	
11	Other senses are incorporated into the lesson	
12	Students are challenged to find multiple ideas within project	
13	Students are provided the opportunity to solve (visual/conceptual) problems	X
14	Students are encouraged to take risks and there is room for student error	
15	Make art or design with various materials and tools to explore personal interests, questions, and curiosity	
16	Subject matter is motivated by personal interests and choice	X
17	Students are provided with the opportunity for student choice	X
Connecting		
18	Create works of art about events in home, school, or community life	X
19	Discuss strengths in personal artwork	
20	Discuss and reflect with peers about choices made in creating artwork	
21	Students reflect on artwork and discuss what they would have done differently	
Additional Comments/ Notes:		

Evaluation:

	Did the student:	Outstanding	Satisfactory	Progressing	Needs Improvement
Recognizing	Share and talk about personal unique qualities and how they can be used to help their classroom community				

	Define the term "self-portrait" and "community"				
Creating	Make a self-portrait that depicts student's unique qualities (physical and interests) through expression, background choices, dress, objects, or symbols.				
Connecting	Share personal artwork and showed how they depicted their individuality in a self-portrait				

Special Needs Population:
Students with special needs will be provided with unlimited assistance from the teacher and assistant (if applicable) as needed. Because the project does require fine motor skills, the lesson will be modified to accommodate student's needs.

References:
http://uploads1.wikipaintings.org/images/marc-chagall/self-portrait-1968.jpg
http://www.shootingfilm.net/2013/02/wet-plate-collodion-self-portrait-with.html
http://benvanderveen.files.wordpress.com/2013/05/screen-shot-2013-05-30-at-4-14-14-pm.png?w=550
http://www.haibane.info/wp-content/uploads/2007/04/picasso_self1901.jpg

Figure 10. 3rd grade lesson plan

Lesson Title: Commemorating Heroes Through Sculpture
Grade Level: 3rd Grade
Time: three 45-60 min classes
Media: Ceramics
Book: *D'Aulaires' Book of Greek Myths* By Ingri d'Aulaire

Enduring Understanding: People develop ideas and understandings of society, culture, and history through their interactions with and analysis of art.

Lesson Overview:
Students will create a sculpture out of clay to honor a hero/heroine in their lives. Students will study the Ancient Greek caryatids and Roman figurative sculptures to inspire their own sculpture. Students will learn that art can reflect times, places, and cultures. They will use what they learn from the ancient Greeks and Romans to produce a personal sculpture.

Virginia SOLs:
Visual Communication and Production
3.10 The student will use subtractive and additive processes in various media, including clay, to create sculptures.

Art History and Cultural Context
3.11 The student will identify how works of art and craft reflect times, places, and cultures.

Geography
3.4 The student will develop map skills by locating the countries of Greece and Italy as well as identify where to find Rome.

Lesson Objectives:
The student will:
  1. **Responding**
     - Examine sculptures from Ancient Rome and Ancient Greece in order to discuss the purpose the artists might have had for making the sculptures.
     - Locate Greece and Rome on a world map by circling the locations on their own paper map provided.
  2. **Creating**
     - Discuss methods used by Ancient artists to sculpt. After a demonstration, students will use subtractive and additive processes in creating their clay sculpture.
     - Create a sculpture of a hero/heroine in his or her life after a discussion on what makes someone a hero.

  3. **Connecting**

- Identify how works of art and craft reflect times, places, and cultures. Describe how their own work of art reflects their life and culture.
- Critique their personal sculpture by using a self-evaluation sheet.

Visual Culture:
Sculptures of veterans and historical heroes are a way we commemorate deserving people today. We see statues of heroes in historical buildings as well as on many college campuses. Students will identify a hero/heroine in their lives and create a sculpture in honor of them.

Vocabulary:
Carve: using a tool to remove clay
Subtractive: removing clay
Sculpture in the round: a sculpture that can be seen from all angles and sides (isn't flat)
Hero/heroine: a person you look up to or admire

Historical/Artist/Cultural Information:
Many heroes can be identified from Ancient Greece. Those who participated in or won the Olympics were regarded as heroes and artists were commissioned to make sculptures of them to commemorate their athletic achievements.
Augustus Caesar was the first Roman emperor. He was depicted as being a great hero in many sculptures and some believed he was the greatest emperor in the ancient world.

Images and Questioning Strategies:

An image of the WWII memorial statue, this image was chosen because it is a statue that is easily recognizable.

Do you recognize this statue?
Can you describe what is in this picture?
What are the heroes in this sculpture doing?
Why do they have a sculpture in honor of them?
How does the sculpture capture the heroism that the heroes portrayed?
How does art preserve aspects of life?

This statue of Abraham Lincoln was chosen because it is easily recognizable and is a great example of statues of heroes in history.

Do you recognize this statue?
Can you describe what is in this picture?
Have you ever seen this statue in real life?
Why do you think the man is sitting?
How does the sculpture capture the heroism that the hero portrayed?

This image was chosen to show students where Greece and Rome are located.

This statue of Augustus Prima Porta was chosen to show how even in ancient times, statues were created to honor heroes of the period.

Do you recognize this statue?
Can you describe what is in this picture?
Why do you think the man is pointing?

How does the sculpture capture the heroism that the hero portrayed?

This statue was chosen to depict a different kind of hero, the athlete.

Do you recognize this statue?
Can you describe what is in this picture?
What is he holding in his hand?
Why do you think he is holding the disk?
What do you think this man's heroism was?
How does the sculpture capture the heroism that the hero portrayed?
How does art help us understand the lives of people of different times, places, and cultures?

Lesson Procedure:
Day 1
- Read book on Greek myths about heroes.
- Ask students: What is a hero? Who is a hero in your life?
- PowerPoint
  o Lead discussion about images
  o Locate Greece and Rome in image by pointing them out on the map
  o Lead discussion about heroes
- Introduce lesson: Students will create a statue in honor of a hero/heroine in their lives
- Pass out paper
- Have students write about their hero
- Brainstorm/design their column
  o Must be a sculpture in the round
  o Figure will be standing up
  o Figure must be simple to ease the creation process
  o What are some ways you can show your hero's individual heroism?
- Allow work time
Day 2
- Review
- Have students finish brainstorming/designing statues

- Create statue
  - Roll clay into a thick cylinder
  - Stand the clay straight up like a soda can
  - Measure a couple inches down from the top of the cylinder and carve in all the way around to form a neck.
  - The top portion can then be shaped into a circular shape to form a head.
  - Carve in guidelines using the tip of a pencil to show where the waist might be or where the arms might fall.
  - Carve grooves into the two sides of the cylinder, creating arms. Students may need some help with this part. This sculpture should only be subtractive but it may be easier for the students to roll coils for the arms and attach them using the extra clay carved away so far.
  - Remind students to carve a little bit away at a time. It's much easier to cut out more than to put clay back on.
  - Carve in clothing on their sculpture keeping in mind what their hero might be wearing.
  - Details may be added to the sculpture such as eyes, hair, mouth, sleeves, shoes, etc.
  - Keep in mind what people look like and what their heroes look like when adding facial details.
  - Students should be reminded that their sculpture should be carved into all the way around, not just on the front, so that the person looks real.
- Clean up

Day 3
- Review
- Fill out self-evaluation sheet
- Glaze statues
- Clean up

Evaluation:

	Did the student:	Outstanding	Satisfactory	Progressing	Needs Improvement
Responding	Participate in a discussion about sculptures from Ancient Rome and Greece and discuss why these sculptures were made				
	Locate Greece and Rome on a world map				

Creating	Apply subtractive and additive processes in clay				
	Create a sculpture of a hero/heroine in their lives				
Connecting	Critique personal sculpture through a self-evaluation sheet				

Creativity Strategies:

Responding	Are students provided with the opportunity to:	X
1	Analyze images to recognize patterns, form patterns, synthesize information, analyze, empathize, and interpret art	X
2	Identify details in artwork that has a personal connection to student	X
3	Intrinsic motivators, such as visual culture, were introduced during discussion	X
4	Display creative behaviors (through teacher actions and studying lives of artists)	
5	Value originality and creative ideas (over skills)	
6	Ask open ended questions and challenge them to produce more than a single answer	
7	Speculate about processes an artist used to create a work of art	
8	Determine messages communicated by an image	X
Creating		
9	Elaborate on an imaginative idea	
10	Create art inspired by personal inspiration	X
11	Apply knowledge of available resources, tools, and technologies to investigate own ideas through the art-making process	
12	Define creativity and present it as a goal	
13	Other senses are incorporated into the lesson	
14	Students are challenged to find multiple ideas within project	
15	Create personally satisfying artwork using a variety of artistic processes and materials	
16	Students use the process of brainstorming to produce multiple ideas	
17	Students are provided the opportunity to solve (visual/conceptual) problems	X
18	Students are encouraged to take risks and there is room for student error	
19	Make art or design with various materials and tools to explore personal interests, questions, and curiosity	

20	Subject matter is motivated by personal interests and choice	
21	Students are provided with the opportunity for student choice	
Connecting		
22	Discuss strengths and weaknesses in personal artwork	X
23	Make modifications to artwork in direct response to personal evaluation	
24	Discuss what makes their artwork successful	
Additional Comments/ Notes:		

Self Evaluation Form:

Describe your artwork to me (in two complete sentences):_____

_____

What is successfully portraying the heroism in your sculpture?_____

_____

How is your hero/heroine's heroism not successfully portrayed in your sculpture?_____

_____

What can you do to change what you don't like about it? _____

_____

Special needs:

Students with special needs will be provided with unlimited assistance from the teacher and assistant (if applicable) as needed. Because the project does require fine motor skills, the lesson will be modified to accommodate student's needs.

Resources:

http://web.mit.edu/21h.402/www/primaporta/description/
http://www.tunliweb.no/Bilder_SM/_album_athen/a9_1024pixel.jpg
http://www.onlineartcenter.com/images/Myrondiscusthrower.jpg
http://lnx.ginevra2000.it/Disney/princesses1/Hercules33.gif
http://www.worldatlas.com/webimage/countrys/europelargesm.jpg

Figure 11. 4th grade lesson plan

Lesson Title: Inventing Machines: technology and society
Grade Level: 4th
Time: Two 45-60 min classes
Media: Mixed media (student choice)
Book: *Robots, Robots Everywhere* by Sue Fliess and Bob Staake

Enduring Understanding: Creativity and innovative thinking are essential life skills that can be developed.

Lesson Overview:
Robotic machines are a part of our everyday lives. They help make everyday tasks easier, and we often are dependent on machines on a daily basis. The student will use steps of the art-making process, including brainstorming, preliminary sketching, planning, and reflecting, to generate ideas for and create works of art. Students will invent a machine that will resolve a specific need in the student's life for the purpose of making difficult tasks easier. The students will incorporate rotated, transitioned, and reflected shapes within their machine.

Virginia SOLs:
Visual Communication and Production
4.1 The student will use steps of the art-making process, including brainstorming, preliminary sketching, planning, and reflecting, to generate ideas for and create works of art.

Analysis, Evaluation, and Critique
4.18 The student will analyze works of art based on visual properties and contextual information.

Aesthetics
4.21 The student will formulate questions about aesthetic aspects of works of art.

Math
4.11 The student will
   b) Recognize the images of figures resulting from geometric transformations, such as translation, reflection, and rotation.

Lesson Objectives:
The student will:
   1. **Responding**
      * Describe visual properties within an image in order to analyze contextual information about each artwork.
      * Define rotation, transition, and reflection and design the machine to incorporate shapes that are rotated, transitioned, and reflected.

2. **Creating**
   - List personal needs in order to brainstorm how a machine could accommodate them.
   - Construct a personal machine to meet their daily emotional/physical needs using a variety of materials (student's choice).
3. **Connecting**
   - Critique personal work, discussing the strengths and weaknesses of their piece.

Visual Culture:
Robotic machines have become so commonplace that most people interact with and depend on them on a daily basis. Many machines are created to help with a task or chore. Students will invent their own machine as a solution to a need in their daily life.

Vocabulary:
Machine: an apparatus that contains interworking parts that functions to fulfill a task.
Transition: Sliding the shape from one point to another without rotation
Reflection: A mirror image of a shape
Rotation: Turning the shape
Robot: A machine that is capable of executing complex actions

Historical/Artist/Cultural Information:
We interact with machines on a daily basis. These machines help us perform daily tasks, whether simple or complex.
Machines have been a part of art for a long time, whether it is as the subject of an artistic piece, or the creator.

Images and Questioning Strategies:

This image was chosen to show all the different machines we have that we interact with in our daily lives.

What is this picture of?
Do you know what these machines are?
Can you describe what these machines do?
What other machines do you have in your house?
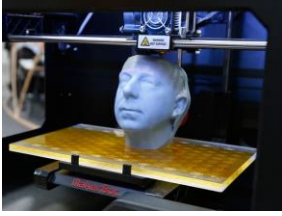
This image is of 3-D printer and was chosen to demonstrate innovative modern machinery and the various usages (functional and artistic) of these machines.

What is this picture of?
Do you know what this machine is?
Can you guess what this machine does?
How do you know the job of the machine?
Can you think of a machine that does a similar task?
Who is this machine helping by creating these 3-D prints?

This image shows a drawing machine from the 1700s. This image was chosen to illustrate the connection between artists and machines to help artists.

What is this picture of?
Do you know what this machine is?
Can you guess what this machine does?
How do you know the job of the machine?
Can you think of a machine that does a similar task?
Why do you think someone invented this machine?

Lesson Procedure:
Day 1
- Ask students: What is a machine?
- PowerPoint: Have question and answering
- Introduce lesson: Students will invent a machine to solve a problem in their daily lives.
- Pass out materials for brainstorming.
- Brainstorm
  - The student will use steps of the art-making process, including brainstorming, preliminary sketching, planning, and reflecting, to generate ideas for and create works of art.
  - The student will formulate questions about aesthetic aspects of works of art.

- o Encourage students to be creative during the inventing process.
  - ▪ What conditions, attitudes, and behaviors support creativity and innovative thinking?
  - ▪ What can encourage people from taking creative risks?
  - ▪ What can prevent people from taking creative risks?
- Recognize the images of figures resulting from geometric transformations, such as translation, reflection, and rotation.
  - o Think of personal problems that could use assistance
  - o Provide multiple solutions to how a robot could help resolve problems
  - o Conceptualize what kind of working parts the robot would need
- Create a thumbnail depicting machine
- Go over requirements for their sculpture:
  - o Machine can be in 3-D with found objects/boxes or 2-D and illustrated
  - o Machine must incorporate shapes that are transitioned, reflected and rotated (3-D machines can have these shapes as moving parts)
- Allow students to work

Day 2
- Review
- Pass out self-reflection sheet and have students fill them out.
  - o Ask students to really think about their feedback and make adjustments accordingly.
- Allow time to work.
- Clean up

Creativity Strategies:

Responding	Are students provided with the opportunity to:	X
1	Analyze images to recognize patterns, form patterns, synthesize information, analyze, empathize, and interpret art	
2	Analyze components in images that convey messages	
3	Intrinsic motivators, such as visual culture, were introduced during discussion	X
4	Display creative behaviors (through teacher actions and studying lives of artists)	
5	Value originality and creative ideas (over skills)	
6	Ask open ended questions and challenge them to produce more than a single answer	
7	Determine messages communicated by an image	
8	Infer and analyze information about time, place, culture, and context in which a work of art was created	
9	Set goals as a class to create artworks that are meaningful and have purpose	
Creating		
10	Elaborate and create art inspired by personal inspiration	X
11	Apply knowledge of available resources, tools, and technologies to investigate own ideas through the art-making process	

12	Define creativity and present it as a goal	
13	Other senses are incorporated into the lesson	
14	Students are challenged to find multiple ideas within project	X
15	Create personally satisfying artwork using a variety of artistic processes and materials	
16	Students use the process of brainstorming to produce multiple ideas	X
17	Explore and invent art-making techniques and approaches	
18	Explore best method of expressing personal idea	
19	Students are provided the opportunity to solve (visual/conceptual) problems	X
20	Students are challenged to find questions to solve in their artwork	
21	Students are encouraged to take risks and there is room for student error	
22	Subject matter is motivated by personal interests and choice	
23	Students are provided with the opportunity for student choice	
Connecting		
24	Create artwork with personal message	
25	Make art or design with various materials and tools to explore personal interests, questions, and curiosity	
26	Discuss strengths and weaknesses in personal artwork	
27	Make modifications during the artmaking process in direct response to personal/peer evaluation	X
28	Discuss what makes their artwork successful	
29	Discuss whether personal message was successfully communicated	
Additional Comments/ Notes:		

Evaluation:

	Did the students:	Outstanding	Satisfactory	Progressing	Needs Improvement
Responding	Describe visual properties within image and analyze contextual information				

	Define rotation, transition and reflection and design the machine to incorporate shapes that are rotated, transitioned, and reflected				
Creating	List personal needs and brainstorm how a machine could accommodate them				
	Construct a personal machine to meet their daily emotional/physical needs				
Connecting	Critique personal work, discussing the strengths and weaknesses of their piece				

Self Evaluation Form:

What does your machine do? _____

_____

Describe your artwork to me (in two complete sentences). What materials did you use to

build your invention?_____

_____

How does your machine successfully meet your needs with its

construction?_____

_____

Is there any way your machine's construction does not meet your personal/emotional

needs?_____

_____

What can you do to change how it is not successful?_____

Special Needs Population:
Students with special needs will be provided with unlimited assistance from the teacher and assistant (if applicable) as needed. Because the project does require fine motor skills, the lesson will be modified to accommodate student's needs.

Resources:
http://images.nationalgeographic.com/wpf/media-live/photos/000/671/cache/explainer-what-is-3d-printer_67141_600x450.jpg?01AD=3HJmFI-1Mzz7_vDgKIetXZHGARcxr1tIAXaDxuRlcCpXRpXfPsZeTEA&01RI=76AFE5EE9E288D4&01NA=
http://twistedsifter.files.wordpress.com/2013/11/pierre-jaquet-droz-the-writer-automaton-ancestor-of-modern-computer-2.jpg
http://epsaisite.com/wp-content/uploads/2012/07/Office-and-Household-Equipment-Vector.jpg

Figure 12. 5th grade lesson plan

Lesson Title: Draw Me a Story (storytelling)
Grade Level: 5th
Time: Two 45-60 min lessons
Media: Mixed media (student choice)
Book: *Chalk* by Bill Thomson

Enduring Understanding: Creativity and innovative thinking are essential life skills that can be developed.

Lesson Overview:
Students will combine their writing and drawing skills in designing a story and illustration. Students will be asked to visualize their story, setting, characters, etc., and then draw several iterations of possible illustrations for their story, resulting in a compilation final image in painting or other media. After their final image is created, students will write a fictional or non-fictional short story that includes the usage of quotation marks with dialogue, and a beginning, middle and end.

Virginia SOLs:
Visual Communication and Production
5.1 The student will use steps of the art-making process, including brainstorming, preliminary sketching, planning, reflecting, and refining, to synthesize ideas for and create works of art.
5.3 The student will express personal ideas, images, and themes through artistic choices of media, techniques, and subject matter.

Aesthetics
5.22 The student will select a preferred work of art and defend the selection.

English
5.8 The student will edit writing for correct grammar, capitalization, spelling, punctuation, sentence structure, and paragraphing.
　　e) Use quotation marks with dialogue.

Lesson Objectives:
The student will:
1. **Responding**
   - Write a story that includes the usage of quotation marks with dialogue, and a beginning, middle, and end.
2. **Creating**
   - The student will use steps of the art-making process, including brainstorming, preliminary sketching, planning, reflecting, and refining, to synthesize ideas for and create works of art.
   - Create an image that retells their short story using a singular image

- The student will express personal ideas, images, and themes through artistic choices of media, techniques, and subject matter.
3. **Connecting**
   - Justify personal choices in personal artwork.

Visual Culture:
Books, advertisements, and other media present images that convey a story to our students. Studying storytelling artwork and creating an image that tells a story will provide students the opportunity to analyze images beyond their initial interactions and enhance their creative problem-solving abilities.

Vocabulary:
Story: A narrative that is either fictional or non-fiction, that is meant to amuse, instruct, or interest the reader/hearer.
Quotation Marks: punctuation used to show the beginning and end of a character's speech.
Brainstorm: process of producing multiple ideas

Historical/Artist/Cultural Information:
Images can tell a story without the use of words.

Su Blackwell buys used books and creates scenes from the books by using the pages of the used book as a sculptural medium. By doing so, she integrates the idea of the story not only into the image, but into the actual production as well.

Hari and Deepti are a couple based out of Denver, Colorado. They originated from India and "brought a lot of stories with" them. Their illuminations are created from multiple layers of cutouts with a light shining from the back.

Images and Questioning Strategies:

This image was chosen because of its ability to tell a story within a single image. The artist actively worked to create an image that told a story.

Can you describe what is in this picture?
What kind of story is this image telling the viewer?
Can you make up a short story from this image?
Have you seen other pictures like this before?
If you could change this to better tell a story, how would you change it?

This image was chosen because of its ability to tell a story within a single image. The artist actively worked to create an image that told a story.

Can you describe what is in this picture?
Can you make up a short story from this image?
Do you know a story that this picture could be connected to?
Have you seen other pictures like this before?
What do you think is the most successful in this image in terms of conveying a story?
How does collaboration expand the creative process?

This image was chosen because of its ability to tell a story within a single image. The artist actively worked to create an image that told a story.

Can you describe what is in this picture?
Can you make up a short story from this image?
Have you seen other pictures like this before?
What do you think is the most successful in this image in terms of conveying a story?
What would you change to make the image be more successful?
What conditions, attitudes, and behaviors support creativity and innovative thinking?

Lesson Procedure:
Day 1
- Begin class by reading *Chalk*.
  - What is this story about?
  - How can you tell what is happening in the story by only looking at the images? What did the artist do to make this possible?
  - Which drawings specifically were the best to tell the story? Why do you think these were the most successful?
- PowerPoint on artists
  - Ask about personal preferences of the images and have students explain/defend personal opinions about artist work.
  - Ask questions pertaining to the use of imagery and storytelling.
- Walk students through the visualization process to create the image in their head.
- Ask students to sketch out thumbnails of their ideas to gather all possible images (at least 3).

- Have students choose image of their choice and create it using materials of their choosing.
- Pass out materials

Day 2
- Review and pass out self-evaluation sheets.
- Ask students to fill out form and reflect on the choices they made and will continue to make.
- Finish image.

Day 3
- Ask students to write a short story based on their image.
  - Must contain a beginning, middle and end (at least 6 sentences).
  - Must contain a conversation in which quotation marks are used.
  - Correct punctuation and spelling please.
  - Challenge students to be creative and "surprise me".
- Allow students to work.
- If students finish early, ask them to start brainstorming how to translate story into an image.
- Clean up

Creativity Strategies:

Responding	Are students provided with the opportunity to:	
1	Analyze images to recognize patterns, form patterns, synthesize information, analyze, empathize, and interpret art	
2	Analyze components in images that convey messages	X
3	Compare one's own interpretation of a work of art with the interpretation of others	
4	Intrinsic motivators, such as visual culture, were introduced during discussion	X
5	Display creative behaviors (through teacher actions and studying lives of artists)	
6	Value originality and creative ideas (over skills)	X
7	Ask open ended questions and challenge them to produce more than a single answer	
8	Determine messages communicated by an image	X
9	Combine ideas to generate an innovative idea for art-making	
10	Identify and demonstrate diverse methods of artistic investigation to choose an approach for beginning a work of art	
Creating		
11	Experiment and develop skills in multiple art-making techniques and approaches through practice	
12	Elaborate and create art inspired by personal inspiration	X
13	Apply knowledge of available resources, tools, and technologies to investigate own ideas through the art-making process	X
14	Define creativity and present it as a goal	
15	Other senses are incorporated into the lesson	

16		Students are challenged to find multiple ideas within project	X
17		Create personally satisfying artwork using a variety of artistic processes and materials	
18		Students use the process of brainstorming to produce multiple ideas	X
19		Explore and invent art-making techniques and approaches	
20		Explore best method of expressing personal idea	X
21		Students are provided the opportunity to solve (visual/conceptual) problems	
22		Students are challenged to find questions to solve in their artwork	
23		Students are encouraged to take risks and there is room for student error	
24		Students are provided with the opportunity for student choice	X
Connecting			
25		Make art or design with various materials and tools to explore personal interests, questions, and curiosity	
26		Subject matter is motivated by personal interests and choice	
27		Identify, describe, and visually document objects of personal significance	
28		Create artwork with personal message	X
29		Discuss strengths and weaknesses in personal artwork	X
30		Make modifications during the artmaking process in direct response to personal/peer evaluation	X
31		Discuss what makes their artwork successful	
32		Discuss whether personal message was successfully communicated	X
33		Create artist statements using art vocabulary to describe personal choices made in art-making	
Additional Comments/ Notes:			

Evaluation:

	Did the student:	Outstanding	Satisfactory	Progressing	Needs Improvement
Creating	Brainstorm multiple ways to translate their story into a visual image				
	Create an image that tells a short story within a singular image				

	Write a story that includes the usage of quotation marks with dialogue, and a beginning, middle and end				
Connecting	Justify personal choices within personal artwork and artist images preferences				

Self Evaluation Form:

Describe your artwork to me (in two complete sentences):_____

_____

How does your image successfully convey your story?_____

_____

What do you think is missing in your image?_____

_____

What can you do to make your image convey your story more successfully?_____

_____

Special Needs Population:

Students with special needs will be provided with unlimited assistance from the teacher and assistant (if applicable) as needed. The lesson will be modified to accommodate student's needs.

Resources:

http://www.thisiscolossal.com/2014/03/illuminated-cut-paper-light-boxes-by-hari-deepti/?src=footer

http://www.sublackwell.co.uk/wp-content/gallery/sculptures/2007-alice-a-mad-

Appendix A

JMU Lesson Plan Guide
Revised 9.5.2011

All lesson plans written for art education should contain the following information:

Your name, e-mail, and date

Lesson Theme: What is the BIG idea you are addressing in the lesson?

Grade level: What grade is the lesson designed for?

Time: How many class periods will it take to complete the lesson? Specify 50 minute or 90 minute class length.

Lesson Overview: Give a brief summary of what the students will learn and do by completing the lesson objectives. (3-4 sentences)

Visual Culture Component/RELEVANCE: How will the student engage visual culture in the lesson? Visual culture can be the focus of the entire lesson, or present only in a portion of the lesson, such as the motivation, presentation, art making or in the discussion. How and where visual culture is present in the lesson is up to the creator, but it should help students to understanding the relevance of the big idea and objectives for the lesson.

Virginia Standards of Learning: Which state art standards will the lesson meet? What standards from other content areas will the lesson address? List all standards that are addressed in the objectives and the assessments.

Lesson Objectives: What will the students know and be able to do as a result of this lesson? What will the students do to complete the lesson? Objectives usually begin with phrases such as, "the student will." Using Bloom's Taxonomy as a guide, list what the students are expected to know and do while completing the lesson including: knowledge, comprehension, application, analysis, synthesis, and evaluation. Use active verbs that are concrete actions that can be assessed. The lesson objectives and evaluation section should work together. Examples of appropriate verbs for objectives follow:

Knowledge: define, draw, list, locate, record, repeat, select, state, write
Comprehension: confirm, defend, describe, distinguish, document, match, predict
Application: apply, build, construct, make, perform, produce, show, sketch, use
Analysis: analyze, categorize, debate, contrast, investigate, research, take apart
Synthesis: create, compose, construct, design, develop, invent, originate, revise
Evaluation: critique, appraise, conclude, justify, recommend, solve

Vocabulary Words for Visual Analysis: What vocabulary words related to art, artists, media, technique, history or culture will the students learn or need to know to participate in the lesson? The vocabulary may be derived from all lesson content, including historical, cultural, artist information; visual culture; and skills and process. The vocabulary should be reflected in the objectives and the assessments, it may help to organize these either alphabetically or in the order that they will be introduced. Make sure that definitions are written in language that matches the developmental level of the students.

Historical/Cultural/Artist Information: What background knowledge of artists, art history, styles, cultures, or media is needed to teach this lesson? Discuss and list the important information needed to present the lesson to the class.

Image Descriptions: What images will be shown to the class during the lesson? Why did you choose this image to show the class? What do you need to know about the image to lead the discussion? Include low-resolution thumbnails of digital images in the body of the lesson plan when possible. Briefly describe each image and the aspects of the image that are pertinent for use in this lesson.

Questioning Strategies: What questions will you ask students to lead meaningful group discussions about images, artists, cultures, visual culture, etc.? The goal of the questions should be to create in-depth talk rather than simple question and answer interactions. Questions should move from simple to complex by asking students to respond, process information, and produce their own information. Question and response for elementary students generally begin with leading questions before moving on to process or productive questions. However, secondary students may be prepared for more productive questions. While there are endless possibilities for questions to guide discussions about art, a few examples follow:

Leading Response Questions:
This is a black and white image isn't it?
Are there any more?
Besides black and white, how would you describe the image?
In terms of value, what is the range from black to white?

Information Process Questions:
Does this image have texture/lines/space/shape/colors?
Are the texture/lines/space/shape/colors soft or sharp?
What texture/lines/space/shape/colors can be found in this image?
Is the composition simple or complex?
How are the forms arranged?

Productive Questions:
How did the artist create the texture/lines/space/shape/colors?
How would you describe the texture/lines/space/shapes/colors in this image?

What do the textures/lines/space/shape/colors mean? How would you explain the meaning of this image using the information discussed so far?
What else could the image be about?
What do you know about the history of the technique/image/or artist?
How does the image make you feel?
What other images or works of art make you feel the same way as this one?
Have you seen any images like this anywhere else? (visual culture)

Lesson Procedures: What will the teacher and students do to complete the lesson? What will you do when a student/s finishes early?
Provide specific details for what the teachers need to do for each step of the lesson as well as what the students are expected to do. Write the steps detailed enough so that a substitute teacher could walk into your room and teach the lesson. Procedures should be written beginning with the lesson introduction all the way through the evaluation. Include extensions to the lesson. Do not forget to allow time for clean up and include a detailed procedure for clean up. Include a meaningful closure to the lesson. For example, this could be a reflective question posed to students about content or a short summary of the day's objective(s).

Evaluation: How will the student learning for this lesson be assessed? What evidence will demonstrate that students know and/or can do each aspect of the lesson objectives? How will the lesson be graded? What criteria will the teacher use to determine the points or letter grades, etc.?
The evaluation should account for each objective of the lesson. There are many forms of evaluation that may be used for any given lesson. Some forms of evidence include; portfolio review, self-assessment, group critique, individual critique, reflections, rubrics, checklists, performance, peer review or critique, exhibitions, etc.
Some examples of grades include; points, letter grades, checks and minuses or some other denotation of rank.

Materials and Preparation: What materials are needed for the lesson? Are there special steps the teacher needs to perform to prepare materials for the lesson? Are there safety issues related to any of these materials? Are they grade level appropriate? Is special training needed for the safe use of these materials? If sharp tools (Xacto knives, etc.) are being used, how will they be accounted for at the end of the class period? Include all possible materials needed.

Resources: What resources are required to teach this lesson? List the websites, books, magazines, etc., where images or information can be found. Provide citations in APA style.

Special Populations: What accommodations can be made to extend the lesson to include special and exceptional students? This section should only be completed to address the specific needs assigned to each lesson plan by the instructor.

Extra Materials: What worksheets, handouts, or examples are needed to teach this lesson? Refer to these in the body of the lesson plan. Include these examples as an appendix to the lesson plan.

Appendix B

Artistic Process | Creating: Conceiving and developing new artistic ideas and work.

Anchor Standard | Generate and conceptualize artistic ideas and work.

Enduring Understanding	Essential Questions	PreK	K	1	2	3	4	5	6	7	8	Proficient	Accomplished	Advanced
Creativity and innovative thinking are essential life skills that can be developed.	What conditions, attitudes, and behaviors support creativity and innovative thinking? What factors prevent or encourage people to take creative risks? How does collaboration expand the creative process?	Engage in self-directed play with materials.	Engage in exploration and imaginative play with materials.	Collaboratively engage in exploration and imaginative play with materials.	Collaboratively brainstorm multiple approaches to an art or design problem.	Brainstorm multiple approaches to a creative art or design problem.	Brainstorm multiple approaches to a creative art or design problem.	Combine ideas to generate an innovative idea for art-making.	Collaboratively combine concepts to generate innovative ideas for creating art.	Apply methods to overcome creative blocks.	Document early stages of the creative process visually and/or verbally in traditional or new media.	Use multiple approaches to begin creative endeavors.	Individually or collaboratively formulate new creative problems based on students' existing artwork.	Visualize and hypothesize to generate plans for ideas and directions for creating art and design that can affect social change.
Artists and designers shape artistic investigations, following or breaking with traditions in pursuit of creative art-making goals.	How does knowing the contexts, histories, and traditions of art forms help us create works of art and design? Why do artists follow or break from established traditions? How do artists determine what resources and criteria are needed to formulate artistic investigations?	Engage in self-directed creative making.	Engage in creative art-making in response to an artistic problem.	Use observation and investigation in preparation to make a work of art.	Make art or design with various materials and tools to explore personal interests, questions, and curiosity.	Apply knowledge of available resources, tools, and technologies to investigate own ideas through the art-making process.	Collaboratively set goals and create artwork that are meaningful and have a purpose to the makers.	Identify and demonstrate diverse methods of artistic investigation to choose an approach for beginning a work of art.	Formulate an artistic investigation of personally relevant content for creating art.	Develop criteria to guide making a work of art or design to meet an identified goal.	Collaboratively shape an artistic investigation of an aspect of present-day life using a contemporary practice of art or design.	Shape an artistic investigation of an aspect of present-day life using a contemporary practice of art or design.	Choose from a range of materials and methods of traditional and contemporary artistic practices to plan works of art and design.	Choose from a range of materials and methods of traditional and contemporary artistic practices, following or breaking established conventions, to plan the making of a series of works of art and design based on a theme, idea, or concept.

Anchor Standard | Organize and develop artistic ideas and work.

Enduring Understanding	Essential Questions	PreK	K	1	2	3	4	5	6	7	8	Proficient	Accomplished	Advanced
Artists and designers experiment with forms, structures, materials, concepts, media, and art-making approaches.	How do artists work? How do artists and designers determine whether a particular direction in their work is effective? How do artists and designers learn from trial and error?	Use a variety of art-making tools.	Through experimentation, build skills in various media and approaches to art-making.	Explore uses of materials and tools to create works of art or design.	Experiment with various materials and tools to explore personal interests in a work of art or design.	Create personally satisfying artwork using a variety of artistic processes and materials.	Explore and invent art-making techniques and approaches.	Experiment and develop skills in multiple art-making techniques and approaches through practice.	Demonstrate openness in trying new ideas, materials, methods, and approaches in making works of art and design.	Demonstrate persistence in developing skills with various materials, methods, and approaches in creating works of art or design.	Demonstrate willingness to experiment, innovate, and take risks to pursue ideas, forms, and meanings that emerge in the process of art-making or designing.	Engage in making a work of art or design without having a preconceived plan.	Through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge in a chosen art form.	Experiment, plan, and make multiple works of art and design that explore a personally meaningful theme, idea, or concept.
Artists and designers balance experimentation and safety, freedom and responsibility while developing and creating artworks.	How do artists and designers care for and maintain materials, tools, and equipment? Why is it important for safety and health to understand and follow correct procedures in handling materials, tools, and equipment? What responsibilities come with the freedom to create?	Share materials with others.	Identify safe and non-toxic art materials, tools, and equipment.	Demonstrate safe and proper procedures for using materials, tools, and equipment while making art.	Demonstrate safe procedures for using and cleaning art tools, equipment, and studio spaces.	Demonstrate an understanding of the safe and proficient use of materials, tools, and equipment for a variety of artistic processes.	Utilize and care for materials, tools, and equipment in a manner that prevents danger to oneself and others.	Demonstrate quality craftsmanship through care for and use of materials, tools, and equipment.	Explain environmental implications of conservation, care, and clean-up of art materials, tools, and equipment.	Demonstrate awareness of ethical responsibility to oneself and others when posting and sharing images and other materials through the Internet, social media, and other communication formats.	Demonstrate awareness of practices, issues, and ethics of appropriation, fair use, copyright, open source, and creative commons as they apply to creating works of art and design.	Explain how traditional and non-traditional materials may impact human health and the environment and demonstrate safe handling of materials, tools, and equipment.	Demonstrate awareness of ethical implications of making and distributing creative work.	Demonstrate understanding of the importance of balancing freedom and responsibility in the use of images, materials, tools, and equipment in the creation and circulation of creative work.
People create and interact with objects, places, and design that define, shape, enhance, and empower their lives.	How do objects, places, and design shape lives and communities? How do artists and designers determine goals for designing or redesigning objects, places, or systems?	Create and tell about art that communicates a story about a familiar place or object.	Create art that represents natural and constructed environments.	Identify and classify uses of everyday objects through drawings, diagrams, sculptures, or other visual means.	Repurpose objects to make something new.	Individually or collaboratively construct representations, diagrams, or maps of places that are part of the students' everyday lives.	Document, describe, and represent regional constructed environments.	Identify, describe, and visually document places and/or objects of personal significance.	Design or redesign objects, places, or systems that meet the identified needs of diverse users.	Apply visual organization strategies to design and produce a work of art, design, or media that clearly communicates information or ideas.	Select, organize, and design images and words to make visually clear and compelling presentations.	Collaboratively develop a proposal for an installation, artwork, or space design that transforms the perception and experience of a particular place.	Redesign an object, system, place, or design in response to contemporary issues.	Demonstrate in works of art or design how visual and material culture defines, shapes, enhances, inhibits, and empowers people's lives.

Anchor Standard | Refine and complete artistic work.

Enduring Understanding	Essential Questions	PreK	K	1	2	3	4	5	6	7	8	Proficient	Accomplished	Advanced
Artist and designers develop excellence through practice and constructive critique, reflecting on, revising, and refining work over time.	What role does persistence play in revising, refining, and developing work? How do artists grow and become accomplished in art forms? How does collaboratively reflecting on a work help us experience it more fully and develop it more completely?	Share and talk about personal artwork.	Explain the process of making art while creating.	Use art vocabulary to describe choices while creating art.	Discuss and reflect with peers about choices made in creating art.	Elaborate visual information by adding details in an artwork to enhance emerging meaning.	Revise artwork in progress on the basis of insights gained through peer discussion.	Create artist statements using art vocabulary to describe personal choices made in art-making.	Reflect on whether one's artwork conveys the intended meaning and revise accordingly.	Reflect on and explain important information about personal artwork in an artist statement or another format.	Apply relevant criteria to examine, reflect on, and plan revisions for a work of art or design in progress.	Apply relevant criteria from traditional and contemporary cultural contexts to examine, reflect on, and plan revisions for works of art and design in progress.	Engage in constructive critique with peers, then reflect on, re-engage, revise, and refine works of art and design in response to personal artistic vision.	Reflect on, engage, revise, and refine works of art and design in response to personal artistic vision.

Appendix B Continued

Artistic Process | Presenting: Interpreting and sharing artistic work.

Anchor Standard | Analyze, interpret and select artistic work for presentation.

Enduring Understanding	Essential Questions	Performance Standard	PreK	K	1	2	3	4	5	6	7	8	High School		
													Proficient	Accomplished	Advanced
Artists and other presenters consider various techniques, methods, venues, and criteria when analyzing, selecting, and curating objects, artifacts, and artworks for preservation and presentation.	How are artworks cared for and by whom? What criteria, methods, and processes are used to select work for preservation or presentation? Why do people value objects, artifacts, and artworks, and select them for presentation?		Identify reasons for saving and displaying objects, artifacts and artwork.	Select art objects for personal portfolio and display, explaining why they were chosen.	Explain why some objects, artifacts, and artworks are valued over others.	Categorize artwork based on a theme or concept for an exhibit.	Investigate and discuss possibilities and limitations of spaces, including electronic, for exhibiting artwork.	Analyze how past, present, and emerging technologies have impacted the preservation and presentation of artwork.	Define the roles and responsibilities of a curator, explaining the skills and knowledge needed in preserving, maintaining, and presenting objects, artifacts and artworks.	Analyze similarities and differences associated with preserving and presenting two-dimensional, three dimensional, and digital artworks.	Compare and contrast how technologies have changed the way artwork is preserved, presented, and experienced.	Develop and apply criteria for evaluating a collection of artworks and or artworks for presentation and preservation.	Analyze, select, and critique personal artworks for a collection or portfolio presentation.	Analyze, select, and curate artifacts and or artworks for presentation and preservation.	Critique, justify, and present choices in the process of analyzing, selecting, curating, and presenting works of art for a specific exhibit or event.

Anchor Standard | Develop and refine artistic techniques and work for presentation.

Enduring Understanding	Essential Questions	Performance Standard	PreK	K	1	2	3	4	5	6	7	8	Proficient	Accomplished	Advanced
Artists, curators and others consider a variety of factors and methods including evolving technologies when preparing and refining artwork for display and or when deciding if and how to preserve and protect it.	What methods and processes are considered when preparing artwork for presentation or preservation? How does refining artwork affect its meaning to the viewer? What criteria are considered when selecting work for presentation, a portfolio, or a collection?		Identify places where art may be displayed or saved.	Explain the purpose of a portfolio or collection.	Ask and answer questions such as where, when, why, and how artwork should be prepared for presentation or preservation.	Distinguish between different materials and prepare or artistic techniques for preparing artwork for presentation.	Identify exhibit space and prepare works of art including artists' statements for presentation.	Analyze various considerations for presenting and protecting art in indoor or outdoor settings, in a temporary or in different format, on various surfaces or in different locations.	Develop a logical argument for safe and effective use of materials and techniques for preparing and presenting artwork.	Individually or collaboratively, develop a visual plan for displaying works of art, analyzing exhibit space, the needs of the viewer, and the layout of the exhibit.	Based on criteria, analyze and evaluate methods for preparing and presenting art.	Collaboratively prepare, and present selected artworks based on a theme, for display and formulate exhibition narratives for the viewer.	Analyze and evaluate the reasons and ways an exhibition was presented.	Evaluate, select, and apply methods or processes appropriate to display artwork in a specific place.	Investigate, compare and contrast methods for preserving and protecting art.

Anchor Standard | Convey meaning through the presentation of artistic work.

Enduring Understanding	Essential Questions	Performance Standard	PreK	K	1	2	3	4	5	6	7	8	Proficient	Accomplished	Advanced
Objects, artifacts, and artworks collected, preserved, or presented either by artists, museums, or other venues communicate meaning and a record of social, cultural, and political experiences resulting in the cultivating of appreciation and understanding.	What is an art museum? How does the presenting and sharing of objects, artifacts, and artworks influence and shape ideas, beliefs, and experiences? How do objects, artifacts, and artworks collected, preserved, or presented, cultivate appreciation and understanding?		Identify where art is displayed both in and outside of school.	Explain what an art museum is and distinguish how an art museum is different from other buildings.	Identify the roles and responsibilities of people who work in and visit museums and other art venues.	Compare and contrast how art exhibited in and outside of school in museums, galleries, and other venues, including virtual spaces, contributes to the community.	Identify and explain how and where different cultures record and illustrate stories and history of life through art.	Compare and contrast purposes of art museums, art galleries, and other venues as well as the types of personal experiences they provide.	Cite evidence about how an exhibition in a museum or other venue presents an idea and provides information about a specific concept or topic.	Assess, explain, and provide evidence of how museums or other venues reflect history and values of a community.	Compare and contrast viewing and experiencing collections and exhibitions in different venues.	Analyze why and how an exhibition or collection may influence one's personal awareness of social, cultural, or political beliefs and understandings.	Analyze and describe the impact that an exhibition or collection has on one's personal awareness of social, cultural, or political beliefs and understandings.	Make, explain, and justify connections between artists or artworks and social, cultural, and political history.	Curate a collection of objects, artifacts, or artworks to impact the viewer's understanding of social, cultural, and/or political experiences.

Appendix B Continued

Artistic Process | Responding: Understanding and evaluating how the arts convey meaning.

Anchor Standard | Perceive and analyze artistic work.

Enduring Understanding	Essential Questions	Performance Standard	PreK	K	1	2	3	4	5	6	7	8	High School Proficient	High School Accomplished	High School Advanced
Individual aesthetic and empathetic awareness developed through engagement with art can lead to understanding and appreciation of self, others, the natural world, and constructed environments.	How do life experiences influence the way you relate to art? How does learning about art impact how we perceive the world? What can we learn from our responses to art?		Recognize art in their environments.	Identify uses of art within their environments.	Select and describe works of art that illustrate daily life experiences of oneself and others.	Perceive and describe aesthetic characteristics of their natural world and constructed environments.	Speculate about processes an artist used to create a work of art.	Compare responses to a work of art before and after working in similar media.	Compare one's own interpretation of a work of art with the interpretation of others.	Identify and interpret works of art or design that reveal how people live around the world and what they value.	Explain how the method of display, the location, and environment influenced by culture and impact the experience of an artwork influence how it is perceived and valued.	Explain how an individual's aesthetic choices are influenced by culture and environment and impact the visual image one conveys to others.	Hypothesize ways in which art influences perception and understanding of human experiences.	Recognize and describe personal aesthetic and empathetic responses to the natural world and constructed environments.	Analyze how responses to art develop over time based on knowledge of and experience with art and life.
Visual imagery influences understanding of and responses to the world.	What is an image? Where and how do we encounter images in our world? How do images influence our views of the world?		Distinguish between images and real objects.	Describe what an image represents.	Compare images that represent the same subject.	Categorize images based on expressive properties.	Determine messages communicated by an image.	Analyze components in visual imagery that convey messages.	Identify and analyze cultural associations suggested by visual imagery.	Analyze ways that visual components and cultural associations suggested by images influence ideas, emotions, and actions.	Analyze multiple ways that images influence specific audiences.	Compare and contrast contexts and media in which viewers encounter images that influence ideas, emotions, and actions.	Analyze how one's understanding of the world is affected by experiencing visual imagery.	Evaluate the effectiveness of an image or images to influence ideas, feelings, and behaviors of specific audiences.	Determine the commonalities within a group of artists or visual images attributed to a particular type of art, time frame, or culture.

Anchor Standard | Interpret intent and meaning in artistic work.

Enduring Understanding	Essential Questions	Performance Standard	PreK	K	1	2	3	4	5	6	7	8	High School Proficient	High School Accomplished	High School Advanced
People gain insights into meanings of artworks by engaging in the process of art criticism.	What is the value of engaging in the process of art criticism? How can the viewer "read" a work of art? How does knowing and using visual art vocabularies help us understand and interpret works of art?		Interpret art by identifying subject matter.	Interpret art by identifying subject matter and describing relevant details.	Interpret art by categorizing subject matter and identifying the characteristics of form.	Interpret art by identifying the mood suggested by a work of art and describing relevant subject matter and characteristics of form.	Interpret art by analyzing use of media to create subject matter, characteristics of form, and mood.	Interpret art by referring to contextual information, and analyzing relevant subject matter, characteristics of form, and use of media.	Interpret art by analyzing characteristics of form and structure, contextual information, subject matter, visual elements, and use of media to identify ideas and mood conveyed.	Interpret art by distinguishing between relevant and non-relevant contextual information and analyzing subject matter, characteristics of form and structure, and use of media to identify ideas and mood conveyed.	Interpret art by analyzing art-making approaches, the characteristics of form and structure, relevant contextual media, art-making approaches, and relevant contextual information to identify ideas and mood conveyed.	Interpret art by analyzing how the interaction of subject matter, characteristics of form and structure, use of media, art-making approaches, and relevant contextual information contributes to understanding messages or ideas and mood conveyed.	Interpret an artwork or collection of works, supported by relevant and sufficient evidence found in the work and its various contexts.	Identify types of contextual information useful in the process of constructing interpretations of an artwork or collection of works.	Analyze differing interpretations of an artwork or collection of works in order to select and defend a plausible critical analysis.

Anchor Standard | Apply criteria to evaluate artistic work.

Enduring Understanding	Essential Questions	Performance Standard	PreK	K	1	2	3	4	5	6	7	8	High School Proficient	High School Accomplished	High School Advanced
People evaluate art based on various criteria.	How does one determine criteria to evaluate a work of art? How and why might criteria vary? How is a personal preference different from an evaluation?		Select a preferred artwork.	Explain reasons for selecting a preferred artwork.	Classify artworks based on different reasons for preferences.	Use learned art vocabulary to express preferences about artwork.	Evaluate an artwork based on given criteria.	Apply one set of criteria to evaluate more than one work of art.	Recognize differences in criteria used to evaluate works of art depending on styles, genres, and media as well as historical contexts.	Develop and apply relevant criteria to evaluate a work of art.	Compare and explain the difference between an evaluation of an artwork based on personal criteria and an evaluation of an artwork based on established criteria.	Create a convincing and logical argument to support an evaluation of art.	Establish relevant criteria in order to evaluate a work of art or collection of works.	Determine the relevance of criteria used by others to evaluate a work of art or collection of works.	Construct evaluations of a work of art or collection of works based on differing sets of criteria.

Appendix B Continued

Artistic Process | Connecting: Relating artistic ideas and work with personal meaning and external context.

Anchor Standard | Relate artistic ideas and works with societal, cultural and historical context to deepen understanding.

Enduring Understanding	Essential Questions	PreK	K	1	2	3	4	5	6	7	8	Proficient	Accomplished	Advanced
		Performance Standard										High School		
People develop ideas and understandings of society, culture, and history through their interactions with and analysis of art.	How does art help us understand the lives of people of different times, places, and cultures? How is art used to impact the views of a society? How does art preserve aspects of life?	Recognize that people make art.	Identify a purpose of an artwork.	Understand that people from different places and times have made art for a variety of reasons.	Compare and contrast cultural uses of artworks from different times and places.	Recognize that responses to art change depending on knowledge of the time and place it was made.	Infer information about time, place, and culture in which a work of art was created.	Identify how art is used to inform or change an individual's or society's beliefs, values, or behaviors.	Analyze how art reflects changing times, traditions, resources, and cultural uses.	Analyze how response to art is influenced by understanding the time and place which it was created, available resources and cultural uses.	Distinguish different ways art is used to represent, establish, reinforce, and reflect group identity.	Describe how knowledge of culture, traditions, and history may influence personal responses to art.	Compare uses of art in a variety of societal, cultural, and historical contexts and make connections to uses of art in contemporary and local contexts.	Appraise the impact of an artist or a group of artists on society's beliefs, values, and behaviors.

Anchor Standard | Synthesize and relate knowledge and personal experiences to make art.

Enduring Understanding	Essential Questions	PreK	K	1	2	3	4	5	6	7	8	Proficient	Accomplished	Advanced
	Performance Standard													
Through art-making, people make meaning by investigating and developing awareness of perceptions, knowledge, and experiences.	How does engaging in creating art enrich people's lives? How does making art attune people to their surroundings? How do people contribute to awareness and understanding of their lives and the lives of their communities through art-making?	Explore the world using descriptive and expressive words and art-making.	Create art that tells a story about a life experience.	Identify times, places and reasons when students make art outside of school.	Create works of art about events in home, school, or community life.	Develop a work of art based on observations of surroundings.	Create works of art that reflect community cultural traditions.	Apply formal and conceptual vocabularies of art and design to see surroundings in new ways through art-making.	Generate a collection of ideas reflecting current interests and concerns that could be investigated in art-making.	Individually or collaboratively create visual documentation of places and times in which people gather to make and experience art or design in the community.	Collaboratively make art to reflect on and reinforce positive aspects of group identity.	Document process of developing ideas from early stages to fully elaborated ideas.	Utilize inquiry methods of observation, research, and experimentation to explore unfamiliar subjects through art-making.	Synthesize knowledge of social, cultural, historical, and personal life with art-making approaches to create meaningful works of art or design.

References

Allen, F. (2013). Creativity V education. *Art Monthly,* (366), 12-14.

Andrews, B. H. (2005). Art, reflection, and creativity in the classroom. *Art Education, 58*(4), 35-40.

Asch, R. L. (1974). Why Johnny can't do his own thing in his art work. *Art Education, 27*(8), 16.

Ayman-Nolley, S. (1999). A Piagetian perspective on the dialectic process of creativity. *Creativity Research Journal, 12*(4), 267.

Baker, D., & Baker, S. J. (2012). To "catch the sparkling glow": A canvas for creativity in the management classroom. *Academy of Management Learning & Education, 11*(4), 704-721. doi:10.5465/amle.2010.0003

Bastos, F., & Zimmerman, E. (2011). Surprise me! *Art Education, 64*(1), 5-7.

Beliavsky, N. (2006). Revisiting vygotsky and gardner: Realizing human potential. *Journal of Aesthetic Education, 40*(2), 1-11.

Black, J., & Browning, K. (2011). Creativity in digital art education teaching practices. *Art Education, 64*(5), 19-24,.

Blakeslee, M., (Ed.), & Boston, B. O., (Ed.). (1994). *National standards for arts education: What every young american should know and be able to do in the arts—Dance, music, theatre, visual arts*. Reston: Music Educators National Conference (MENC).

Board of Education. (2013). Virginia Arts Standards of Learning for Virginia Public Schools. Richmond, VA: US.

Booth, E. (2013). A recipe for artful schooling. *Educational Leadership, 70*(5), 22.

Broudy, H. S. (1979). Arts education: Necessary or just nice? *Phi Delta Kappan, 60*, 347-350.

Bryant, C. (2010). A 21st-century art room: The remix of creativity and technology. *Art Education, 63*(2), 43-48.

Burton, J. M. (2009). Creative intelligence, creative practice: Lowenfeld redux. *Studies in Art Education, 50*(4), 323-337.

Carter, M. C. (2008). Volitional aesthetics: A philosophy for the use of visual culture in art education. *Studies in Art Education: A Journal of Issues and Research in Art Education, 49*(2), 87-102.

Chin, C. (2013). Cultivating DIVERGENT thinking: CONCEPTUALIZATION as a critical component of artmaking. *Art Education, 66*(6), 28-32.

Chung, N., & Ro, G. (2004). The effect of problem-solving instruction on children's creativity and self-efficacy in the teaching of the practical arts subject. *Journal of Technology Studies, 30*(2), 116-122.

Costantino, T., Kellam, N., Cramond, B., & Crowder, I. (2010). An interdisciplinary design studio: How can art and engineering collaborate to increase students' creativity? *Art Education, 63*(2), 49-53.

Covington, M. V. (1967). Teaching for creativity: Some implications for art education. *Studies in Art Education, 9*(1), 18.

Cowdroy, R., & Williams, A. (2006). Assessing creativity in the creative arts. *Art, Design & Communication in Higher Education, 5*(2), 97-117.

Das, S., Dewhurst, Y., & Gray, D. (2011). A teacher's repertoire: Developing creative pedagogies. *International Journal of Education & the Arts, 12*(15), 1-39.

De Backer, F., Lombaerts, K., De Mette, T., Buffel, T., & Elias, W. (2012). Creativity in

artistic education: Introducing artists into primary schools. *International Journal*

of Art & Design Education, 31(1), 53-66.

Duncum, P. (1997). Art education for new times. *Studies in Art Education, 38*(2), 69-79.

Eisner, E.W. (2002). *The Arts and the Creation of Mind.* New Haven, CT: Yale
University Press.

Forster, J. (2012). Creativity: The hub of real achievement. *Gifted Education*

International, 28(3), 281-299. Garner, B. K. (2013). The power of noticing.

Educational Leadership, 70(5), 48-52.

Gnezda, N. M. (2011). Cognition and emotions in the creative process. *Art Education,*

64(1), 47-52.

Gude, O. (2010). Playing, creativity, possibility. *Art Education, 63*(2), 31-37.

Gude, O. (2013). New school art styles: The project of art education. *Art Education,*

66(1), 6-15.

Hanson, M. H., & Herz, R. S. (2011). A "Toolbox approach" for developing thoughtfully

structured, creative art experiences. *Art Education, 64*(1), 33-38.

Hathaway, N. E. (2013). Smoke and mirrors: Art teacher as magician. *Art Education,*

66(3), 9-15.

Heid, K. (2008). Creativity and imagination: Tools for teaching artistic inquiry. *Art*

Education, 61(4), 40-46.

Henshon, S. E. (2006). The evolution of creativity, giftedness, and multiple intelligences:

An interview with ellen winner and howard gardner. *Roeper Review, 28*(4), 191-

194.

Hetland, L. (2013). Connecting creativity to understanding. *Educational Leadership, 70*(5), 65.

James, P. (1997). Learning artistic creativity: A case study. *Studies in Art Education, 39*(1), 74-88.

Jaquith, D. B. (2011). When is creativity? *Art Education, 64*(1), 14-19.

Jorgenson, O. (2012). What we lose in winning the test score race. *Principal, 91*(5), 12-15.

Kincaid, C. E. (1961). The determination and description of various creative attributes of children. *Studies in Art Education, 2*, 45.

Lewis, H. P. (1971). What research says to the teacher about developing creativity. *Art Education, 24*(5), 32.

Lowenfeld, V. (1952). *Creative and mental growth* New York, Macmillan 1952]; Rev. ed.

Marshall, J. (2005). Connecting art, learning, and creativity: A case for curriculum integration. *Studies in Art Education, 46*(3), 227-241.

Martlew, J., & Grogan, D. (2013). Reach for the stars! creative engagement with young children. *Early Child Development & Care, 183*(8), 1029-1041.

Milbrandt, M., & Milbrandt, L. (2011). Creativity: What are we talking about? *Art Education, 64*(1), 8-13.

National Coalition for Core Arts Standards. (2014). National Visual Arts Standards: First Glimpse.

Nordlund, C. (2013). Waldorf education: Breathing creativity. *Art Education, 66*(2), 13-19.

Parnes, S. J. (1961). Can creativity be increased? *Studies in Art Education, 3*, 39.

Pavlou, V. (2013). Investigating interrelations in visual arts education: Aesthetic enquiry, possibility thinking and creativity. *International Journal of Education through Art, 9*(1), 71-88.

Perkins, E. G., & Carter, M. C. (2011). In search of the wild things: The choice, voice, and challenge (CVC) model for creative instruction. *Art Education, 64*(1), 20-24.

Pitri, E. (2013). *Skills and dispositions for creative problem solving during the artmaking process*

Prager, P. (2013). Play and the avant-garde: Aren't we all a little Dada? *American Journal of Play, 5*(2), 239-256.

Root-Bernstein, R., & Root-Bernstein, M. (1999). *Sparks of genius: The 13 thinking tools of the world's most creative people*. Boston, Mass: Houghton Mifflin.

Rufo, D. (2011). Allowing artistic agency in the elementary classroom. *Art Education, 64*(3), 18-23.

Rufo, D. (2012). Building forts and drawing on walls: Fostering student-initiated creativity inside and outside the elementary classroom. *Art Education, 65*(3), 40-47.

Rush, J. C. (1997). The arts and education reform: Where is the model for teaching "the arts"? *Arts Education Policy Review, 98*, 2-9.

Russell, C. L. (1979). Modifying creative behaviors. *Art Education, 32*(6), 20.

Russell, C. L. (1981). Mediational modification of creative behaviors. *Studies in Art Education, 22*(3), 42.

Salter, C. (2013). Every child is an artist. *Fast Company, *(178), 78-82.

Sawyer, R. K. (2003). *Creativity and development [electronic resource] / R. keith sawyer ... [et al.]* New York : Oxford University Press, 2003.

Shuqin, S. (2012). Cultural and creative industries and art education. *Physics Procedia, 33*(2012), 1652-1656.

Starko, A. (2013). Creativity on the brink? *Educational Leadership, 70*(5), 54-56.

Szekely, G. (1981). Creative designs for classroom routines. *Art Education, 34*(6), 14.

Taylor, C. W. (1961). Research findings on creative characteristics. *Studies in Art Education, 3*, 9.

Tillander, M. (2011). Creativity, technology, art, and pedagogical practices. *Art Education, 64*(1), 40-46.

Wilson, B., ed, & Thompson, C. M., ed. (2007). Child art after modernism /. *Visual Arts Research, 33*, 1-123.

Wong, Y. L., & Siu, K. W. M. (2012). A model of creative design process for fostering creativity of students in design education. *International Journal of Technology and Design Education, 22*(4), 437-450.

Zimmerman, E. (2010). CREATIVITY AND ART EDUCATION: A personal journey in four acts. *Art Education, 63*(5), 84-92.

Zurmuehlen, M. (1990). *Studio art: Praxis, symbol, presence* National Art Education Association.