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CREATIVITY BELIEFS OF ELEMENTARY STUDENTS:

SELF-EFFICACY, SELF-ESTEEM AND BELIEFS IN BETWEEN

by

MOLLIE SPARDELLO

Under the Direction of Melody K. Milbrandt

ABSTRACT

Creative development in students is an important aim for the art educator. The visual arts class can be a realm for exploring and nurturing creativity in students. While all students may not grow up to produce works of art outside the classroom, visual arts education can impact a student's understanding of their own creativity. This paper explores the creativity beliefs of elementary students. The research seeks to understand the implicit theories or beliefs of creativity that shape creative self-efficacy and what factors may influence these beliefs in students.

INDEX WORDS: Creativity, Creativity beliefs, Elementary students, Creative self-efficacy

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SELF-EFFICACY, SELF-ESTEEM AND BELIEFS IN BETWEEN

by

MOLLIE SPARDELLO

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Art Education

in the College of Arts and Sciences

Georgia State University

2012

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2012

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by

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DEDICATION

I dedicate this thesis to my husband. Thank you for supporting and encouraging me through this process. You inspire my everyday creativity.

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CHAPTER 1: INTRODUCTION

Early in life we as people begin to identify ourselves related to different intellectual, bodily and mindful characteristics. Educators and students have a unique relationship in the development of identity. Art educators are not merely shaping content in the minds of students as they work, we also co-construct with students, building their self-identities and perceptions of their abilities. In the field of art education creativity has been an important concept. However there is still a lack of consensus on issues of creativity such as how we define and recognize creativity. In addition to a lack of consensus among the educators and leaders of the field there is a lack of research on what students know and think about creativity. As I think about my students I wonder how their view of their own creativity will develop as they grow into adolescents and then adults. As an art educator, what is my role in the development of that view? I am most interested in examining what my students believe about creativity. Understanding the creativity beliefs of my students will enable me to determine how to support their creative development. My position as an art educator can empower me to help students recognize and develop their creativity.

Purpose of the Study

Creativity is an important topic for research in art education. In the past two years, two of issues of the academic journal Art Education have been devoted to issues of creativity (Art Education, Vol.63 & 64). Therefore, we know that creativity is at the forefront of the mind of many art educators and scholars in the field. In this study I focus on the personal aspects of creativity and investigate the phenomena of creative self-efficacy in upper elementary students at the school where I currently serve as the art teacher.

In the field of art education, creative self-efficacy is a critical topic of study. As much as one might like, not every art teacher is nurturing the next Picasso, Claudet, Ringgold or Bearden. Every student who walks into the art classroom is not destined for a life as a working artist, or even working in a field related to the arts. However, the visual arts provides a platform for students to develop their creative potential and set it to use in whatever form they find most valuable.

Developing creative potential, nurturing a creative self-concept, sustaining creative self-efficacy and promoting creative confidence are some of my personal aims as an art educator. My interest in promoting creative self-efficacy is not just to raise student self-esteem or pump students up with unfounded hot air, but to challenge them with the notion of accepting their creative potential and living fully with it.

Creative self-efficacy is a facet of the larger concept of self-efficacy. Self-efficacy is discussed further in the review of literature. However, it is important to note the distinction between self-esteem and self-efficacy. Self-esteem and self-efficacy are both self-perceptions held by an individual. Unjust praise and blind acceptance can raise self-esteem levels in students but may actually be harmful to their achievement in the end. Self-efficacy beliefs on the other hand are built more intrinsically within the individual and come from the struggle toward mastery experience. The visual arts can be an excellent vehicle for raising self-esteem. Students can feel accomplishment, self-esteem or pride in a successful work they created. A student can gain self-efficacy by understanding why their work is successful and not only feeling pride but also understanding the process that led them to that success. Self-efficacy is a more valuable belief for students to develop because it focuses not only on their feelings but on their beliefs about their abilities (Shelp, 2009).

We know that disciplines other than the visual arts find value in creative thought as well. Creativity is often included in curriculum. Sometimes creativity is overtly included in county, state or national standards and other times it is in the individualized curriculum of a single educator (Burton, 2010). Having positive creative self-efficacy beliefs may help students to understand the interdisciplinary nature of creative thinking. Creative self-efficacy beliefs may be useful to students in different learning domains and in an interdisciplinary way. Creativity is often understood as being domain specific (Amabile, 1996) and therefore people may be less likely to believe they are creative if they focus on how creative outcomes may look in specific domains. Understanding their own creativity may help students be more aware of ways they can be creative, even in different domains where the products will look vastly different.

Nurturing and developing creativity in students can lead to career interests, and often the rationale behind the inclusion of creativity in the curriculum is for the promotion of creative careers. Creative careers are on the rise and society tends to laud those leaders and entrepreneurs whose creative work brings about new products, technologies and methodologies. Gibson (2005) writes of the hidden issues of justifying creativity in education for economic ends. Promoting creativity purely for economic means lends cultural value to the creative act. Creativity for marketing cars may hold a different cultural (and perhaps moral) value than creativity to end greenhouse gas emissions (Gibson, 2005). While I agree with the importance of preparing students to be career ready by promoting creative development, I do not see the potential for creative careers as the only benefit to creative development.

I advocate for the idea that creativity is essential to all human existence, what Bohm refers to as a ‘creative quality of living’ (Bohm, 1986). Anthropologists and evolutionists suggest that our species would not have become what it is if not for our creativity. Whether you see this as

intelligently designed and endowed by a creator or evidenced in other ways, humanity has evolved because of creativity (Dissanayke, 1990). All humans possess a certain amount of creative potential. If one is not afraid to harness or explore it, creativity can become an important aspect of identity.

Creativity is valued differently in different cultures. Culture will play a role in how students develop efficacy beliefs of many types and specifically culture will influence how students develop creative self-efficacy beliefs. Many countries advocate for creativity as an educational aim. Great Britain, Japan, Chinese societies (Hong Kong, Taiwan, and mainland China), are examples of cultures where creativity is valued in order to impact economic growth. Like the United States in Great Britain and Chinese societies creativity is valued in education in order to prepare students for creative careers (Chien & Hui, 2010; Gibson, 2005). In Japan creativity is valued in education for the cultural ramifications. "The Japanese apparently view creative problem solving as a teachable skill important to the character and success of members of their society (Davenport, 1993, p. 79)."

Furthermore, I believe every student has the right to claim creativity for him or herself. Without an understanding of how everyday creativity can exist in the life of an individual many students may never know their actions as creative. Students need to learn to recognize their everyday creativity, not to give students an inflated self-view, but as Beghetto (2007) suggests help students be greater thinkers by helping them recognize their own creativity and how it may be used in different contexts.

Discussions surrounding creativity often distinguishes between creativity in eminent individuals and creativity in the less eminent. A common way to refer to these two types of creativity is big C and little c creativity (Kaufman & Beghetto, 2009). Research on the concept of creative

self-efficacy is needed because as would be expected so much emphasis is placed on Big C creativity, or creativity that is recognized by large swaths of society. It is just as important to value little c, mini c creativity, and even everyday creativity (Kaufman & Beghetto, 2009).

Most of humanity will not rise to the level of big C creativity, but all of humanity can experience everyday creativity in their life. However, many people struggle to identify themselves as creative. People often lament, "I am not creative." Sadly, even young students at times will make this definitive statement about themselves. Without a strong belief in their own creative self-efficacy, individuals will not experience creativity in their own lives because they will not believe that they have the ability to be creative. Because of this dichotomy, the need and importance of creativity in the life of each individual and the apparent lack of creative self-efficacy I believe a research study regarding creative self-efficacy in elementary students is necessary.

Purpose of the Study

The purpose of this research study was to investigate creative self-efficacy in elementary students, particularly the elementary students who are currently in my visual arts class. As their art teacher I was curious about their understanding of the concept of creativity and their creative self-efficacy beliefs. I wonder what I have been communicating to them about creativity. What notions of creativity have they gleaned from their classroom experience, from our school culture at large, and from their home lives? I wished to investigate how these different contexts are influencing students understanding of creativity and their individual creative self-efficacy beliefs. My research study proposed a written survey regarding what students think about the concept of creativity and what they think about their own creative self-efficacy or creative self-esteem. After implementing the survey I conducted interviews with a small number of the study participants whose responses on the survey represented a variety of diverse perspectives from the population.

Using the data of the survey and the personal narratives from the interviews I developed a deeper understanding of my students and their beliefs of creativity. A primary goal of this research was to understand the factors that influence students as they construct their beliefs of creativity. The findings from this research will direct my art teaching practice and provide much needed research about how elementary students understand creativity and how they build their creative self-efficacy beliefs.

Operational Definitions

Several key terms for this research study are briefly defined below. These terms and concepts are outlined in greater detail within the review of literature. These definitions merely serve to explain how the author is operating with these concepts throughout the research.

Creativity - An innate human characteristic to think, act and produce in novel and appropriate ways on either a public, professional or private stage (Amabile, 1996; Cropley, 2001; Kaufman & Beghetto, 2009). Creativity may not only describe a product or action but also a pattern of thinking processes employed by an individual (Lehrer, 2012; Root-Bernstein & Root-Bernstein,1999).

Self-efficacy – "belief in an individual's capabilities to organize and execute the courses of action required to manage prospective situations" (Bandura, 1995, p.2).

Creative Self-efficacy - A self-efficacy belief regarding one's ability to think, act and produce in creative ways (Beghetto, Kaufman & Baxter, 2011).

Implicit Theory - Theories of a topic that are constructed by people that reside in the minds of these individuals. Implicit theories or beliefs can provide an overview regarding what beliefs people hold about a certain topic. Implicit theories would be somewhat connect to the idea of a 'world-view' informing what a person believes about a certain topic. (Sternberg, 1985).

CHAPTER 2: REVIEW OF LITERATURE

Literature on the concept of creativity is ever expanding. Some examples of common research topics of creativity are measurements of creativity, accounts and profiles of creative performance, the development of creativity, and the role of creativity in everyday life. The review of literature for this research study discusses broad notions of creativity and then presents research related to creative self-efficacy. One goal for education is for each student to develop a strong, positive creative self-efficacy belief. A positive creative self-efficacy belief will empower students in their ability to solve practical problems in many areas of life in unique and appropriate ways. A positive creative self-efficacy belief will give students a voice for expression and personal reflection through out their life.

Creativity is a complex and multifaceted phenomenon. There are many directions from which to approach the issues of creativity. First there is the difficulty of defining creativity. Many feel they know creativity when they see it but perhaps have trouble distinguishing why one thing would be creative and why another thing would not be. For the purposes of this research I am defining creativity as the innate human characteristic to think, act and produce in novel and appropriate ways. I agree with creativity researchers such as Runco (2002,2007) who argue that all humans have some amount of creative potential. If creativity is available to all human beings it is troubling that more people do not describe creativity as an aspect of their identity. I believe this comes from the both definitions and myths of creativity that perpetuate common knowledge and the way creativity is handled in the classroom.

Some research has suggested the notion that creativity is domain specific (Amabile, 1996). What it means to be creative is influenced by the lens or domain with which one is looking at an action or product to determine if it is creative. This means that creative products will look dif-

ferently in different domains. A creative solution for dance will not be a viable creative solution for a physics problem. However, some creativity researchers conclude that while the products may vary between domains, the processes of creative thinking may not. The way of working towards a creative solution, the creative process, may be more similar among domains than the final products would suggest (Root-Bernstein & Root-Bernstein, 1999).

With a focus on domain specificity in creativity some may develop a belief that recognizes only consider certain domains or disciplines to even be creative. Some would look only at artistic endeavors as a stage for creativity. Such limiting views of creativity can be influenced by teaching practice. Even in the specific domain of the visual arts, creativity can be presented in an inclusive way that helps students understand creativity as a part of daily life.

Robert and Michelle Root-Bernstein (1999) support the idea of interdisciplinary creativity and provide thirteen tools: observing, imaging, abstracting, recognizing patterns, forming patterns, analogizing, body thinking, empathizing, dimensional thinking, modeling, playing, transforming and synthesizing utilized by great creative minds. No one tool applies to only one discipline in order to promote creative thought. Instead, the Root-Bersteins suggest that the overlapping and the interaction of these thinking tools are what bring out creative thought and action in the individual. Others have also noted certain personality traits or characteristics that are common among creative individuals across disciplines (Cropley, 2001). Dancers, scientists, visual artists, and writers are all highlighted as exemplars of how each thinking tool can lead to creative outcomes, or how each thinking tool served these individuals in their creative work. In describing and detailing the examples of the thirteen thinking tools the Root-Bernsteins discuss how the tool may be incorporated into the curriculum of educators in different disciplines. The idea of promoting creativity thinking tools across disciplines is one that I fully support and that I believe

will influence students in their feelings of creative self-efficacy. Therefore even working in the domain of the visual arts if I seek to educate students in their ways of thinking and provide opportunities for them to practice and experience the thinking tools described by Root-Bernstein then their creative self-efficacy may be enhanced even if they manifest their creativity in another domain.

Interestingly enough the Root-Bernsteins also provide examples of several eminent individuals who first displayed creativity in one field but found their life's work and major creative accomplishments in another field. Similarly elementary students may experience their creativity in the visual arts at one point in life and then find another realm to experience creativity later on in life.

An individual may understand the domain specific nature of creative products and also understand the interdisciplinary nature of thinking strategies. However this knowledge is still different from recognizing and understanding one's own creativity. For students to truly experience creativity throughout their lives they must have an understanding and experience of themselves as creative. Creative self-efficacy refers to the self-perception of an individual believing they are creative or not. Some researchers extend the definition of creative self-efficacy to not just include that initial thought of "I am creative" or "I am not creative," but to be a more nuanced perception regarding the individual's belief of the *ability* to think and act in creative ways. Creative self-efficacy can be defined as one's belief in their ability to think, solve and perform creatively (Beghetto, Kaufman, & Baxter, 2011). The idea of creative self-efficacy stems from the notion of self-efficacy in general. Albert Bandura defines self-efficacy as "the beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations. Efficacy beliefs influence how people "think, feel, motivate themselves, and act"

(Bandura, 1995, p.2). An individual can have different levels of efficacy beliefs in different realms of life. High self-efficacy in one arena does not necessarily mean high self-efficacy in every arena. I believe there is a connection between an individual's implicit theory of a concept and their self-efficacy belief in that concept.

Creative self-efficacy and implicit theory

Since efficacy beliefs can be connected to implicit theories of a concept, studying creative self-efficacy also involves exploring what students believe about creativity. Personal beliefs about a concept are also known as implicit theories. Sternberg (1985) defines an implicit theory as "a construction of person which resides in the mind of the person" (p.608). Sternberg has looked into the implicit theories of intelligence, creativity and wisdom. In his research he discovered that most people use their implicit theories accurately both in evaluating themselves and evaluating hypothetical others (1985). In order to understand creative self-efficacy in students one must first discover what students know and think about being creative, and therefore we must investigate what their implicit theory or beliefs of creativity might be.

The implicit theory that a student holds regarding creativity will influence their creative self-efficacy (Karwowski, 2011). The four C model of creativity presents that there are more distinct ways to break apart the complex notion of creativity than just Big C and little c (Kaufman & Beghetto, 2009). How a student's implicit theory aligns with the four C's could influence their creative self-efficacy beliefs.

Big C creativity is the idea that an individual, work, or product is creative if it brings about a paradigm shift within a discipline or society at large. The artists who champion new movements of art, the coaches who invent new defensive strategies on the field, the poets who present new structures of verse, or the scientists whose theories change our knowledge of the world -

these are the individuals who are creative. Little c creativity would be the creativity of those who, while perhaps not yet eminent, are recognized by a given setting as novel and appropriate. Mini c creativity refers to actions, work or products that are creative to the individual. If the work, product or action is novel and appropriate for the problem facing the individual even if the same solution has been found before by another individual at another time it is still creative under the notion of mini c creativity. Everyday creativity refers to the novel and appropriate solutions that individuals find to problems in their daily lives. While these actions and solutions may not affect any other individuals they are still creative for that individual (Richards, 2007).

If a student's implicit theory or beliefs of creativity align with Big C creativity then they are likely to have low creative self-efficacy, because they would view only eminent creators who reach high levels of recognition as creative. However, if a student understands the notion of mini c creativity or everyday creativity then they will most likely hold a higher degree of creative self-efficacy. Understanding the notion of everyday creativity can help students see that their personal creativity can take many forms and be related to the challenges and solutions they find within everyday life. This research will focus on what implicit theories or beliefs students hold regarding creativity and the connection between these implicit theories and the level of creative self-efficacy reported by students. The implicit theory of creativity that a student holds is related their creative self-efficacy beliefs. Whatever they believe to be true about the nature of creativity will color their understanding of themselves as holding creative abilities.

Creative self-efficacy and creative development

If creativity ability is available to all then there will be something to say about creativity in the course of human development. For the purposes of this research we are not interested in how creativity develops through the course of a human life but how it is recognized and under-

stood by the individual during their course of development. Many will argue that all children are creative. Their actions tend to be less inhibited than adults and they may not understand or appreciate some social norms and therefore feel more freedom to experiment in certain situations. Amabile offers that a child is creative when their actions, thoughts or words meet two criteria, "First it must be substantially different from anything the child has done before and anything the child has seen or heard. Second, it cannot be merely different; it should be correct, useful toward achieving a goal, appealing or meaningful to the child in some way" (1989, p.25). Educators and parents may look at the words, actions and products of students and decide that they are creative using such criteria. However, there is a difference in adults classifying a child as creative and a child acting with intention, recognizing and appreciating their own creativity.

Piagetian theory describes four stages of development: sensorimotor, pre-operational, concrete operational and formal operational. Taylor (1975) offers five classifications of creativity that somewhat follow those developmental stages: expressive spontaneity, technical creativity, inventive creativity, innovative creativity and emergent creativity. Taylor's first stage of expressive spontaneity would fall towards the end of the sensorimotor stage. A child's expressive mark making with many types of objects would be an example of this creativity. During the pre-operational stage children may also exhibit technical creativity, which involves mastery of knowledge, techniques and skills. Following this stage when children are in the concrete operations stage they may also rise to the inventive level of creativity, which demonstrate use of the known in new ways. During the formal operations stage children may develop into the innovative and emergent levels of creativity as described by Taylor. The stages of Piagetian development and Taylor's levels of creativity may be flexible in some sense. Not every individual will

pass through all of Piaget's stages at the same pace, some individuals may rise through Taylor's levels of creativity faster than expected.

The students of this research study are in third, fourth and fifth grade ages ranging from 8 - 11 placing them most likely in the concrete operations stage where according to Taylor their technical and inventive creativity will be developing. At this age most students would have the mental capacity to develop a creative-self efficacy belief. They are at an age to understand intention as related to their actions, whereas the expressive spontaneity demonstrated in the sensorimotor stage would be less intentional in most children. When studying creativity in this age group some researchers have noted diminishing creativity often referred to as the 'fourth-grade slump.' However 'the fourth-grade slump' may have more to do with the instruments used to measure creativity (Cropley, 2001). From an art teacher's perspective we know that students in the concrete operations stage become interested in mastering realism in their drawings.
At this stage in life students have developed schemas for the world around them and realize that their images may not match the schemas in their mind. Therefore their drawings may show inhibition and be less prolific but that does not necessarily mean their creativity is diminishing. Students are growing in knowledge and maturity so there is more opportunity for novelty in their life being that more of the 'conventions' are known. Perhaps their drawings will not show as much creativity when measured with criteria of a creativity test such as the Test for Creative Thinking and Drawing Production (TCT-DP) but their creativity can be expressed in different ways (Cropley, 2001).

The discussion of creative development leads us once again back to the idea of creative self-efficacy. What good is it for adults to judge and label student actions as creative or not, especially when using criteria which maybe somewhat artificial, when we are not sure of a stu-

dents' own understanding or feelings about creativity? If authority figures, such as teachers, ask students for creative performance with 'test-like' situations and then determine their creativity based on those isolated incidents, what is being communicated about creative work in real life? Students must be taught to recognize creativity in their own life and in the everyday world around them rather than focusing on how creativity is measured in isolated occurrences.

Creative self-efficacy and creativity myths

There are several prevalent myths regarding creativity that could feed the implicit theories or beliefs held by students. Myths of creativity feed into stereotypes and typologies of creativity (Bleakley, 2004; Plucker, Beghetto & Dow 2004). A cloud of confusion can form with myths, stereotypes and typologies swirling together and raining down many misconceptions in the minds of students as to what creativity actually is and what forms it may take.

Primarily these myths, stereotypes and typologies develop because the product or moment of insight continues to be focused on as the most important aspect of creativity. Focusing on the product or moment of insight lessens the value of all the other work involved in the creative process. When the average person considers the art of Jackson Pollock a token response is "my child could paint that" - what people fail to realize and take into consideration is the work that led Pollock to produce his action paintings. Pollock devoted of his life to the study of art and he became frustrated at his ability to express himself through representative means. He hit a wall and had a creative problem to solve, so he needed to develop a way of creating that would allow his ideas and expression to flow forth. Action painting developed from the need for making art in his own way. The focus is on the splatters of paint on the canvas and then people imagine that this occurred randomly and spontaneously in a matter of seconds, and fail to understand and appreciate the creative journey that led Pollock to produce this revolutionary way of painting.

When the focus of creativity is on moments of insight and unconventional products then some can develop a notion of creative work as easy (Cropley, 2001; Lehrer, 2012). As a result when one actually tries to *be* creative they are suddenly frustrated, downtrodden, and disillusioned with how difficult it can truly be. Then creative self-efficacy slips out of grasp. In almost any endeavor when an individual experiences failure or extreme frustration then they are less likely to engage in such endeavors in the future. Without engagement and eventual success an individual will never feel more efficacious (Bandura, 1995). Students need to be educated regarding the struggles of creativity, the difficulty of the journey that leads to the joy of the moment of insight. Efficacy beliefs are actually made stronger when success comes from perseverance with an endeavor. Endeavors that normally come with smooth sailing can be damaging to self-efficacy beliefs because the failures or struggle may be taken harder when encountered by the individual (Bandura, 1995). In order to build creative self-efficacy, educators need to demonstrate the difficulty of creative work and then celebrate the success of a creative outcome. Then the work of being creative can be approached with a more determined and dedicated mindset instead of just wishing that the muses would strike. Half of the story of creativity is left untold if the 'novel and original product' and the 'aha' moment are the only moments of the creative process viewed as important.

Aside from the myth of perpetual moments of insight, another myth of creativity is that only certain disciplines offer the chance for creative work. Often when the term creativity is said aloud the first images that come to mind would be of work in the arts. Pieces of art, symphonies, and dramas - these are the creative works. When creativity in all disciplines is acknowledged and encouraged then students have the chance to find just how creative they can be, they are not limited to only understanding creative work as being involved in certain domains or disciplines.

If everyday creativity is celebrated then students can understand creativity as an aspect of their whole life. They can understand their personal solutions to everyday problems as expressions of their creativity.

A third myth of creativity surrounds the possibility of change in one's creativity. Many would say that creativity is a fixed attribute. Research has refuted this myth. One study found that giving more chances for creative work can raise levels of creativity when measured on creativity tests (Amabile, 1996) and sometimes just the admonition to *be creative* can raise levels of creativity when measured with creativity tests. Such findings also coincide with findings regarding mastery experiences and self-efficacy. Provided with more mastery experiences one's self-efficacy can rise.

The myth of creativity only being evident in certain disciplines contributes to a separation of creativity from intelligence. Other myths of creativity support this separation. If creativity is an all or nothing phenomenon, either one is possessed with creativity or not, then creativity and intelligence are likely to be disassociated. If intelligence can be built through skill, practice and effort but creativity is a blessing from the gods, then the notion of intelligent effort in creative work will not be understood. Again this circles back to the myth of moments of insight. To achieve the 'aha' moment in a creative endeavor there is often much thinking going on behind the scenes, either previous efforts with unsuccessful results or incubation periods where the mind loses focus on the creative struggle in order to achieve the solution subconsciously (Lehrer, 2012).

The myths discussed above correspond with the statements on the survey that is a part of this research project. Students' implicit beliefs surrounding creativity will determine whether or not they agree or disagree with statements connected to those myths. Since students are rarely

explicitly taught definitions or ideas about creativity they develop their own set of implicit theories of beliefs. Whatever the implicit theories or beliefs that students are developing these beliefs will impact their creative self-efficacy.

Creative self-efficacy and creativity

Creative self-efficacy is an important aspect of creativity to study in students because past research has indicated a relationship between creative self-efficacy and creativity. Much of this research has looked at creativity in the workplace and how influences such as work duties, employee/supervisor relationships and workplace environment affect creative self-efficacy. Some studies have looked into the malleability of creative self-efficacy and how changes in job duties and other workplace issues can affect creative self-efficacy (Tierny & Farmer, 2011). Tierny and Farmer's research on creativity in the work environment discovered that individuals who reported high levels of creative self-efficacy demonstrated more creativity in the workplace (2011). The research of Jaussi, Randel and Dionne (2007) also found creativity in the workplace and creative self-efficacy to be related in a positive way.

However, one's feelings of creative self-efficacy do not always line up with actual creative performance or other creative evidence (Lemons, 2010). Lemons's study on self-reported creativity and creative self-efficacy in college students found that the highest reporters of creative self-efficacy also had a deep understanding of how and why their performances, actions and thought processes were creative. They offered reflective and articulate descriptions when asked to explain their rating of creativity and creative self-efficacy. However, in the group reporting the second highest levels of creative self-efficacy there was almost no connection between the students' self- reported rating and any reasoning they could offer for their rating. In the group of students rating themselves with the third lowest rating researchers found a mismatch in ratings of

creativity and the descriptions of the work, activities and thought process they engage in. From the standpoint of the researchers much that was offered by these students would be considered creative but the students did not rate themselves with high creative self-efficacy (Lemons, 2010).

One study found gender and socio-economic differences in over and under-estimating creative ability. In the student population of this study a significant number of male students of high socio economic status rated themselves with high creative self-efficacy, while results from an objective creativity test revealed lower levels of creativity. In the same study a significant number of males from low socioeconomic status rated themselves with lower creative self-efficacy compared to their results on the creativity test. Females reported low creative self-efficacy regardless of socio economic status (Karwowski, 2011). The results of this study are not stated here to be generalized to all populations but perhaps to indicate that environmental factors could influence the perceptions that students develop of their creative self-efficacy. Karwowski hypothesizes that the culture of lower socio-economic households may not value creativity as a trait in their children (2011).

Research has indicated a variety of factors can influence understandings of creative self-efficacy. Particularly since students are in a developmental stage of life and are still forming their notions of personhood and identity, knowing what their attitudes are of their own creative abilities can help educators in preparing them to tackle creative problems and grow as creative thinkers.

Creative Self-efficacy and Teacher Beliefs of Creativity

Another important factor in creative self-efficacy of students will be the teacher's beliefs about creativity. What can art educators do to communicate what creativity is to students? When teaching students to read do we not break down the process and explain that the reason we are

putting letters together is to form words, the reason we want to recognize words is to improve our understanding of text, the reason that we want to read is to learn the information contained in the words on the page before us. Even if we lead students through a myriad of creativity building skills, brainstorming, divergent thinking exercises, etc., are we communicating that these activities have an educational purpose in daily life? That these exercises challenge our minds to think in creative ways and creative thinking can help us solve the problems of our lives, communicate our feelings and bring about new ideas. Will students better understand the notion of everyday creativity if they can point to their learning and say *that* was preparing me for *this*, to do this, to think in this way? Should creativity remain a mystery, something we seek to nurture in students, hoping they will recognize and realize that they have it when they need it?

Classroom environments have an impact on student creativity and therefore could also have an impact on student feelings of creative self-efficacy. Teacher beliefs about creativity will influence how they communicate creativity to their students, how they model thinking strategies, how they reward and recognize creative work - what work they, in fact, recognize or reward as creative. Sometimes teachers may recognize and reward work that is eccentric and unique as creative but perhaps is not an acceptable solution to a problem. A British study of student teacher's beliefs on creativity indicated that teachers would acknowledge work that was 'out of the box' as creative even if it led to an incorrect solution, such as a unique way to solve a math problem even if it did not produce the correct answer (Diakidoy & Kanari, 1999). This would lead to a skewed concept of creativity in students because while novelty and uniqueness are indeed qualities of creative thought and work, there also must be an aspect of appropriateness or usefulness if the work is considered to be creative. Most creativity researchers offer this two-pronged definition to creativity, novelty and uniqueness being one prong and usefulness, appropriateness or

constructiveness being the other (Amabile, 1996). Creativity must not only be equated with the strange, and often this may be the message that art teachers communicate to students.

McClure (2011) writes of a perpetual myth of inherent creativity in children. McClure's views on the myth of inherent creativity are not incompatible with the notion of everyday creativity or the universality of creative potential. By denying the myth of inherent creativity McClure is not saying that creative potential doesn't exist in every student. McClure is taking issue with the way creativity and childlike behaviors are equivocated, and specifically what childlike actions are recognized and rewarded as being creative. According to McClure the myth of all childlike acts as being creative dulls and dims the meaning of creativity and does not recognize or acknowledge the true voice of children in their artistic work. McClure suggests that education institutions accept child work that deals with innocent themes and presents a certain aesthetic as creative but do not acknowledge work that deals with subversive themes or presentations as creative. This view of creativity perpetuated by the myth she describes is a very sterile and predictable type. Students whose work does not fit into these categories may not hold high levels of creative self-efficacy if the learning environment is teaching them to recognize a certain type of work as creative (McClure, 2011).

Why should the message art educators are sending the students about creativity be of concern? Many voices are constantly encouraging students to reach for creativity. While the average educator may not have the most precise definition for creativity or the deepest understanding of this complex construct she knows that creativity is important for her students. She knows that jobs of the future demand creativity and schools should prepare students to be competent and contributing workers. Organizations such as Project Zero and The Partnership for 21st Century Skills include creativity as an essential skill for students. In essence what may be expressed

to students is that it is important for them to be creative and yet they may be fed the wrong messages related to what creativity actually means and how they can understand it and experience it personally.

Conclusion

Due to the fact that creativity is talked about widely in our educational system today and due to the fact that most find creativity to be a desired trait in ourselves and others, an understanding of creativity is an important part of student's development. In my opinion even more important than understanding the concept of creativity as a human concept is the understanding of creativity as a personal concept, an aspect of each individual's life. I believe it is important for the educational environment to promote strong and a validated sense of creative self-efficacy in all students. Available research demonstrates the importance of creative self-efficacy and particularly demonstrates the need for more research on creative self-efficacy in young students. This research study is necessary and appropriate because it provided personal narratives regarding creative self-efficacy in a particular group of upper elementary students. For me, as the art educator, the narratives inform my teaching practice in the visual arts so I may communicate the ideals of creativity and provide mastery experiences to develop strong and valid creative self-efficacy beliefs.

CHAPTER 3: METHOD

The research methodology involved mixed methods but primarily used a qualitative methodology. The research study was a small descriptive study. The research data includes surveys, interviews and narrative reflection. The research study was designed to show general beliefs about creativity within the population of students from the responses on a written survey. Then the research study involved an interview with some of the participants whose responses on the survey represented a variety of diverse perspectives within the population. The survey portion of the study provided some quantifiable data and the interviews and narrative reflection provided a qualitative, descriptive component.

Research questions

What are the beliefs or implicit theories of creativity held by elementary age students in the school where I teach?

What factors may be influencing these beliefs or implicit theories?

How do students' beliefs about creativity affect their creative self-efficacy or creative self-esteem?

Methodology

Students first completed a written survey consisting of agree or disagree responses for statements about creativity and creative self-efficacy. I then analyzed the results and determined trends within the responses of the participants. I compared themes within the responses of the survey. Based upon the results of the surveys a small number of students were selected for follow up interviews. The students selected for the interview gave responses that correspond to the overall trends and anomalies in the responses. From the interviews I gleaned more anecdotal evi-

dence and narrative responses to explain the students' answers on the survey. Since I am specifically interested in exploring such an internal notion as creative self-efficacy the format of an interview was a valuable way to collect this data from the students. The audio of the interviews was recorded but no identifying information about the students was reported. The recorded audio was used for transcription and reflection. Anything reported from the interviews was represented in group form or with a pseudonym.

The survey investigated students' thoughts about their own creative self-efficacy or creative self-esteem and their implicit theories or beliefs of creativity. The survey consisted of ten statements and students were asked to 'agree' or 'disagree' with each statement. The survey statements were crafted to correspond with different views and myths of creativity and different levels of creative self-efficacy. While some research studies have used more open ended prompts when investigating participants' views of creativity and creative self-efficacy (Lemons, 2010) having the statements provided in this research study was more appropriate for this younger population of students. Students at this level may not have the written communication skills required to articulate their feelings and therefore the format of an interview was able to provide more insight into the students' creativity beliefs. The qualitative nature of the interview provided more personal and anecdotal data aside from the raw numbers of the survey responses. Interviewing my students gave voice to their stories and provided a deeper understanding of some of their creativity beliefs. The Rockdale County Board of Education and the Institutional Review Board of Georgia State University approved the research study.

Participant Characteristics

The participants for this research study were third, fourth and fifth grade students. The students attend Shoal Creek Elementary School in Conyers, Georgia. Shoal Creek Elementary is

a part of the Rockdale County Public School System. Demographic information is maintained with a program called SchoolNet. The demographic data was obtained through the Instructional Technology Specialist of the school.

Shoal Creek Elementary has an enrollment of 740 students. Within the three upper elementary grades 348 students are enrolled. Fifty-five percent of the upper grade students are male, and 45% are female. Seventy-three percent of the upper grade students are Black, 20% are White, 7% are Hispanic, 1.4% are Asian, and 0.2% are Hawaiian/Pacific Islander.

Of the 127 third graders enrolled 58% are female and 42% are male. The third grade students are 70% Black, 20% White, 9% Hispanic and 1% Asian. In the third grade most students are 8 or 9 years of age. Twenty-five students in the third grade qualify for free and reduced lunch. Eight third grade students are in the gifted program and 14 students are in the early intervention program. Three third grade students are classified as homeless and four third grade students are classified as English Learners.

Fifty percent of the 102 fourth graders are female and 50% percent are male. The fourth grade students are 73% Black, 20% White, 4% Hispanic and 2% Asian. In the fourth most students are 9 years of age. Fourteen students in fourth grade qualify for free and reduced lunch. Sixteen fourth graders are in the gifted program and 12 fourth graders are in the early intervention program. Two fourth graders are English Learners.

Females account for 56% of the 119 fifth graders and males account for 44%. The fifth graders are 77% percent Black, 18% percent White, 3% Hispanic and 2% Asian. In the fifth grade most students are 10 years of age. Fifteen fifth graders are in the gifted program and 20 fifth graders are in the early intervention program. One fifth grader is classified as homeless and one fifth grader is an English Learner.

Students were recruited from Shoal Creek Elementary using a promotional flier. Consent forms were distributed to all third, fourth and fifth grade homeroom classes following the flier. One hundred and five students returned consent forms signed by a parent or guardian. Of the 105 consenting students, 52 were third graders, 34 were fourth graders and 19 were fifth graders. Sixty-one percent of the participants are Black, 24% are white, 11% are Hispanic, 3% are bi-racial and 0.1% is Indian.

Within the group of 52 third grade participants 50% were female and 50% were male. Black students made up 58% of the third grade participants. Bi-racial students were 2% of the participants and Hispanic students were 15% of the participants. White students accounted for twenty-five percent of the third grade participants. Black students made up 65% of the 34 fourth grade participants. Bi-racial students were 6%, Hispanic students were 6%, Indian students were 3% and white students were 20%. Sixty-eight percent of the fourth grade participants were female and 32% were male. In the fifth grade participants 58% were Black, 10% were Hispanic and 32% were white. In the fifth grade there were 63% female and 37% male participants.

The participant group for this research study does not represent each demographic of the school equally. Third grade had the highest level of participation. The participation level decreased with the two higher grade levels. Still, the participants seem to represent the basic demographic trends of the school according to race and gender. Therefore the sample size is appropriate because it will represent a snap shot of the larger school population. The school librarian collected assent from students and administered the survey during one of their regularly scheduled art classes. The students who did not return consent forms completed another activity in the classroom under the supervision of the teacher while the survey was administered.

After the survey administration I followed up with eleven students to conduct interviews. The students I chose to interview responded in ways that represented trends in the overall survey responses as well as students whose responses represented anomalies. I selected four third grade students, five fourth grade students and two fifth grade students to interview. I selected six male students and five female for the interview. I set up a time to meet with each student individually during a regular school day and conducted a twenty to thirty minute interview with each student. I constructed the interview to follow the same statements on the written survey. I asked each student to explain his or her response for each statement on the survey. I allowed the conversation to flow and asked follow up questions as the students spoke about their survey responses. The interviews were audio recorded for the purposes of transcription and reflection. Students were asked if they had a preferred pseudonym and if they did not provide one then I selected a pseudonym for them. The narratives compiled from the interviews are reported in a later chapter of this paper.

Limitations

This research study is a small descriptive study. The number of participants in the study was not large enough to draw any major conclusions that could apply to the population as a whole. However the study is meaningful to me as an educator and will inform my teach practice. Also, it is important to note that sometimes a glimpse into a small descriptive study can provide impetus or inspiration for larger studies.

The self-reporting nature of the survey in this research study is an appropriate way to gather data on creative self-efficacy as other research on creative self-efficacy has used similar models (Beghetto et al., 2011; Karwowski, 2011; Lemons, 2010). However self-reports on a concept such as creativity are by nature subjective and there is potential for participants to re-

spond in insincere ways. Other limitations to consider would be any bias that may enter into the study with respect to the wording or framing of the survey questions.

As I hold a student-educator relationship with the subjects of this research study I realize that my relationship may influence their responses on the survey and interview. It is possible that some students will respond in the way they think that I would desire. To minimize bias the school librarian administered the survey portion of the project.

CHAPTER 4: FINDINGS AND ANALYSIS OF SURVEY

Survey Responses

The survey responses given by third, fourth and fifth grade students display some interesting evidence in relation to the research questions. One aim of this research was to investigate the implicit theories or beliefs of creativity held by the students at the school where I serve as the art teacher. A second research question was to what factors might be influencing creativity beliefs. The third research question is to investigate if the implicit theories or beliefs held by the students would affect their creative self-efficacy or creative self-esteem. The research study was designed as a descriptive study beginning with a survey consisting of ten statements that present ideas of creative-self efficacy and creativity beliefs. The statements correspond with the common creativity myths discussed in the Review of Literature. The survey asked students to agree or disagree with the ten statements (See Appendix A). There was also an open ended item at the end of the survey asking students to respond with any other thoughts on creativity with blank lines provided for a response. Following the survey a small group of students whose responses represent trends and anomalies were interviewed in order to gain more anecdotal evidence in regards to the three research questions.

The raw data of the responses to the survey are shown in Table 1. One hundred and five third, fourth and fifth grade students participated in the survey. Sixty-six students were black, three were bi-racial, 12 were Hispanic, one was Indian and 26 were white. There were 63 girls and 45 boys.

Overall, the student survey responses reveal positive creative self-efficacy beliefs. A majority of the students, 96% (101/105) agreed with the statement “I am a creative person”. Results of this survey suggest that students believe that they are creative; they hold a creative self-

efficacy belief. Students also reported that they believe that they are smart people. At first glance these results could indicate that students are simply agreeing with these statements because they may be traits that they recognize as valuable and therefore want to believe about themselves. Such a large number of students responding both that they are creative and that they are smart may reveal more of a feeling of creative self-esteem rather than a belief of creative self-efficacy.

Earlier in this paper we made note of the distinction between self-efficacy and self-esteem. Because "creative" and "smart" may simply be desirable labels for students, they may be reporting agreement with those statements not because they hold actual self-efficacy beliefs in their abilities but because they are responding to positive feelings related to those concepts and wish to believe that about themselves. Further investigation of the survey responses and evidence from the interviews with students revealed that their implicit theories of creativity would actually support strong creative self-efficacy beliefs.

The students of this sample do not seem to hold implicit theories or beliefs that correspond with common creativity myths. Students responded in disagreement to most of the statements representing creativity myths. The statement "Only artists are creative" corresponds with the myth of creativity as entirely dependent on domains, 79% (83/105) of subjects disagreed with this statement. Two other statements connected to this myth ("I feel creative at home" and "I feel creative at school") also suggest students' understanding of the interdisciplinary nature of creativity in that 86% (91/105) and 85% (89/105) of students agreed with these statements respectively. Students' responses suggest that since they understand creativity to apply in different environments or contests they may also be able to understand creativity in different domains. Ninety-one percent (95/105) of students agreed with the statement "People can learn to be creative,"

demonstrating that the subjects in this research study have some understanding of the universal potential of creativity and the ability for an individual to become more creative. If believing the myths of creativity would have a negative affect on creative self-efficacy then students' positive creative self-efficacy beliefs can be understood because their beliefs do not seem to correspond with the creativity myths described in the Review of Literature.

A surprising result of the survey indicates that a majority of students in this sample do not agree that creativity is important. When asked if they agree or disagree with the statement "It is important to be creative," 56% (61/105) responded in disagreement. Even when comparing the response to Question 1 and Question 9, only 40% (39/101) of those who responded that they are creative also responded in agreement to the statement "It is important to be creative." This suggests that though students believe themselves to be creative they do not believe it is an important characteristic. While responses express creative self-efficacy beliefs and a belief in the universality of creative potential, there seems to be some dissonance when it comes to the importance of such notions in the minds of these students. The remaining sections of this chapter will detail and discuss survey results by students' grade level, race, and gender.

Table 1. Survey Responses

Question	"I Agree"	"I Disagree"
1. I am a creative person.	96% (101/105)	4% (4/105)
2. I am a smart person.	95% (100/105)	5% (5/105)
3. Creative people are smart people.	67% (71/105)	32% (34/105)
4. Only artists are creative.	21% (22/105)	79% (83/105)
5. Anyone can be creative.	92% (96/105)	8% (8/105)
6. People can learn to be creative.	91% (95/105)	9% (9/105)
7. I feel creative at school.	86% (91/105)	14% (14/105)
8. I feel creative at home.	85% (89/105)	15% (15/105)
9. It is important to be creative.*	38% (40/105)	63% (66/105)
10. I can be more creative if I try.	92% (96/105)	8% (9/105)

N=105
*Indicates that a blank response or that a student provided both responses

Third Grade Responses

The third grade sample size was fifty-two students. Thirty of the third grade survey participants were black, one was bi-racial, eight were Hispanic, and thirteen were white. The Majority of third grade students agree that they are creative. They have a creative self-efficacy belief. The survey of this research study did not delve into the level of creative self-efficacy. Ma-

jority of third grade students believe that they are also smart. Sixty-five percent (34/52) of third grade students believe that creative people are smart people. Only 30% (16/52) of third grade responders agree that only artists are creative. All of the students who responded that only artists are creative also responded that they feel they are creative, therefore these students may not only have a creative self- efficacy belief but they also have a belief in 'artist' as an aspect of their identity.

Responses indicate that third grade students believe in the universal potential of creativity, 92% (48/52) of the third grade responders agree that anyone can be creative. Eighty-seven percent (14/16) of the students who responded in agreement that only artists can be creative also agreed with the statement that anyone can be creative, so there may have been some misunderstanding or insincere answering. Most responders say that feel creative at school and at home. A majority, 71% (37/52) of third grade responders disagree that it is important to be creative. A majority of responders agree that they can be more creative if they try.

Results of this survey seem to that third grade student's implicit theories about creativity do not fall into the common myths of creativity discussed in the review of literature. It appears that students have some understanding of the universality of creative potential and that creativity can adapt to different contexts (i.e agreeing that they feel creative at home and at school). The most surprising result is the lack of agreement on the importance of creativity. Students responded that they agree they are creative and they agree they can become more creative but they responded in disagreement to the idea that it is important to be creative.

Twenty-one third grade students responded to the prompt to write more about creativity at the end of the survey. The prompt provided several blank lines and said: "Use this space to share any other thoughts about creativity." Most responses mention the making of something as

justification for their creative self-efficacy belief. “I am creative. I make Barbie clothes, dog houses and dog clothes” or “I am creative because if I find loose paper I build something with it.” Some students responses on the open ended prompt suggest a social value of creativity, like, “If you do an art project, you can win!” or “I like to be creative because you get to share your artwork with others, also to get compliments.” Six third grade students gave an open-ended response that suggests a social value of creativity, four of those students disagreed with the statement “It is important to be creative.”

Overall, the third grade students in this research project have a positive creative self-efficacy belief; they believe themselves to be creative people. Most responses suggest that students have not bought into some of the most common myths of creativity, such as, creativity is either present or not in people. The students in this study believe that intelligence and creativity are not mutually exclusive (i.e creative people are smart people). The third grade students in this study seem to understand that creativity can happen in different places (i.e I feel creative at home, I feel creative at school). Students also seem to believe that creativity can be learned. (i.e Anyone can be creative, People can learn to be creative, I can be more creative if I try). However, the 3rd graders’ responses on the open-ended prompt still focus on products, particularly products of an arts related nature. Students wrote about being creative based on what they make and several of the open-ended responses mention art and artistic products by name as evidence of students’ creativity. The findings of this research suggest that students may not necessarily hold strong beliefs in the myths of creativity; but, their understanding of creativity at this stage and the way in which they report their understanding still gravitates towards the discussion of artistic products.

Table 2. Third Grade Responses by Race

	White		Black		Hispanic	
	Agree	Disagree	Agree	Disagree	Agree	Disagree
1. I am a creative person.*	9	2	29	1	8	0
2. I am a smart person.	12	1	28	2	7	1
3. Creative people are smart people.*	9	5	17	13	8	0
4. Only artists are creative.	1	12	12	18	3	5
5. Anyone can be creative.	12	0	28	2	8	0
6. People can learn to be creative.*	9	3	30	0	8	0
7. I feel creative at school.	11	2	25	5	7	1
8. I feel creative at home.	9	3	27	3	7	1
9. It is important to be creative. *	4	9	8	22	3	5
10. I can be more creative if I try.*	12	1	30	0	7	1

N=52
*Indicates that no response was given or a student provided both responses

Table 3. Third Grade Responses by Gender

Question	Male		Female	
	Agree	Disagree	Agree	Disagree
1. I am a creative person.	26	0	23	3
2. I am a smart person.	22	4	26	0
3. Creative people are smart people.	18	8	16	11
4. Only artists are creative.	11	15	5	21
5. Anyone can be creative.*	25	0	24	2
6. People can learn to be creative.	25	1	24	2
7. I feel creative at school.	21	5	23	3
8. I feel creative at home.	19	6	24	2
9. It is important to be creative. *	5	20	10	17
10. I can be more creative if I try.*	25	1	25	1

N=52
*Indicates that no response was given or a student provided both responses

Table 2 and Table 3 present the raw data of third grade student responses by race and gender. Student responses reveal some differences between the demographic groups of students in this grade level. When looking at the responses by demographic groups there are some common and contrasting beliefs. All racial groups express a belief that creativity is a universal trait. All racial groups express a belief in creative self efficacy or creative self esteem. All of Hispanic students responded with high creative self esteem or creative self efficacy. Ninety-seven percent of the Black students responded with high creative self-esteem or creative self-efficacy and 77% of the white students responded with high creative self-esteem or creative self-efficacy. White students and black students express a belief in the differentiation of creativity and smartness. A larger percentage, 44% (13/30) of Black students disagree that "Creative people are smart people." No Hispanic students responded in disagreement to that statement. A larger percentage of White students express a belief of creativity in many domains, 92% (12/13) disagree that "Only artists are creative." About 60% of Black and Hispanic students share that belief. A smaller percentage of white students express a belief that creativity can be learned. Sixty-nine percent (9/13) of White students agree "People can learn to be creative" compared to 100% of responses by the Black and Hispanic students. A lesser percentage of White students express a belief that they are creative at home, 69% (9/13) compared to 87% (7/8) of Hispanic students and 90% (27/30) of Black students who agreed that they feel creative at home.

Investigating the survey responses by gender reveals a few differences in the responses of students. All girls believe they are creative, however more boys express a belief that it is important to be creative. Thirty-nine percent (10/26) of boys compared to 20% (5/26) of girls agree "It is important to be creative." All boys believe they are smart, yet more girls believe that creative people are smart people (69% compared to 62%). More girls express a belief that art is the

prominent domain of creativity. Forty-three percent (11/26) of girls agree “Only artists are creative.” More boys believe they are creative at home, 92% (24/26) compared to 73% (19/26) of girls.

A few beliefs of the sub groups stand out as different from the larger group of third grade students. More white students express a belief that creativity can be found in many domains. More black students believe that creativity and smartness are separate characteristics. While the majority of the third grade students do not believe creativity is important, a higher percentage of boys responded that they agree it is important to be creative compared to the girls and the whole group.

Fourth Grade Responses

The fourth grade sample size was 34 students. Twenty-two students were black, seven were white, two were Hispanic, two were bi-racial and one was Indian. Eleven boys and 23 girls participated in the study. Fourth grade students responded positively with beliefs of creative self-efficacy or creative self-esteem. Almost all the fourth grade students also consider themselves to be smart. Fourth grade students responded with similar beliefs to third grade students. They expressed disagreement with an emphasis on the arts as the only creative domain, recognized universal creative potential, and acknowledged the interdisciplinary nature of creativity.

On the issue of importance of creativity fourth grade students are more evenly divided, about 50% (18/34) percent agreed with the statement “It is important to be creative.” and about 50% (17/84) disagreed. One student responded both ‘agree’ and ‘disagree’ with that statement. Still, 48% (16/33) of the students who responded in agreement to the statement “I am a creative person” responded in disagreement to the statement “It is important to be creative.”

Fifteen students responded to the open ended prompt concluding the survey. The fourth grade responses to the open ended prompt reflect less of a focus on products. Only two students mentioned artistic products by name, one student commented “You can be more creative if you keep practicing” and “You can be creative if you keep on working on art.” Another student added her own statement “I am creative when I dance” then wrote “agree” and “disagree” and circled the word “agree”. Other comments reflect more of an emphasis on expression and emotion. “I think being creative shows who you really are”/“Creativity can be thoughts, it can also be emotion”/“Creativity expresses feelings”/“Creativity is about who you are, it is about expressing yourself.” While the responses from the fourth grade group follow the same general trends as the third grade subjects there is a notable difference in the percentage of responders who acknowledge the importance of creativity. Also the open-ended responses reflect more of an emphasis on expression and emotion as connected to creativity rather than products.

Table 4 and Table 5 present the raw data of fourth grade student responses by race and gender. More White students believe in the connection between creativity and smartness, 86% (6/7) agree, “Creative people are smart people.” More Black students express feeling creative at school. Eighty-six percent (19/22) of the black students compared to 71% (5/7) of the White students believe they feel creative at school. All of the White students believe they feel creative at home. The two Hispanic students were split in their belief on creativity at home. Most of the groups of bi-racial and Indian students also feel creative at home. A large percentage of White students express a belief in the importance of creativity. Seventy-one percent (5/7) compared to 41% (9/22) of the Black students agree, “It is important to be creative.”

The fourth grade students also show some differences in responses by gender. More boys agree that creative people are smart people, 91% (10/11) compared to 78% (18/23) of girls.

While all boys believe people can learn to be creative only 78% (18/23) girls expressed this belief. A larger percentage of boys feel creative at home and at school. Ninety-one percent (10/11) of boys agree "I feel creative at home" and "I feel creative at school," while 83% (19/23) and 87% (20/23) of girls agreed with those statements. More girls expressed a belief in the importance of creativity. Sixty-one percent (14/23) of girls compared to 36% of boys agree, "it is important to be creative."

Table 4. Fourth Grade Responses by Race

Question	White		Black		Hispanic		Other	
	Agree	Dis-agree	Agree	Dis-agree	Agree	Disa-gree	Agree	Dis-agree
1.I am a creative person.	7	0	21	1	2	0	3	0
2. I am a smart person.	7	0	22	0	2	0	2	1
3. Creative people are smart people.	6	1	17	5	2	0	3	0
4. Only artists are creative.	0	7	2	20	2	0	3	0
5. Anyone can be creative.	7	0	18	4	2	0	3	1
6. People can learn to be creative.	6	1	18	4	2	0	3	0
7. I feel creative at school.	5	2	19	3	2	0	3	0
8. I feel creative at home.	7	0	20	2	1	1	2	1
9. It is important to be creative. *	5	2	9	14	1	1	3	0
10. I can be more creative if I try.*	4	3	19	2	2	0	3	0

*Indicates no response or a student provided both responses N=3

Table 5. Fourth Grade Responses by Gender

Question	Male		Female	
	Agree	Disagree	Agree	Disagree
1. I am a creative person.	11	0	22	1
2. I am a smart person.	10	1	23	0
3. Creative people are smart people.	10	1	18	5
4. Only artists are creative.	1	10	2	21
5. Anyone can be creative.	9	2	20	2
6. People can learn to be creative.	11	0	18	5
7. I feel creative at school.	10	1	19	4
8. I feel creative at home.	10	1	20	3
9. It is important to be creative. *	4	7	14	10
10. I can be more creative if I try.*	8	3	21	2

N=34
*Indicates no response or a student provided both responses

The examination of beliefs by sub-groups of race and gender reveals differences of creativity beliefs in the fourth grade students. White students, more than any other racial group, responded with beliefs that creativity is important and that they feel creative at home. While Black students did respond that they feel creative at school a lesser percentage responded that they feel creative at home. Missing out on the experience of feeling creative in the home may explain a lower number of students believing in the importance of creativity. Boys in fourth grade believe that creativity and smartness are connected, that they are creative at home and at school and that creativity can be learned. Larger percentages of boys agree with the statements representing those beliefs.

Fifth Grade Responses

The fifth grade sample size was 19 students. Eleven students were Black, six were White, and two were Hispanic. Seven boys and 12 girls participated in the study. Fifth graders responded as the other two lower grade levels, with positive creative self-efficacy or creative self-

esteem. All the fifth grade students agree “I am a creative person” and “I am a smart person.” Fifth graders are nearly split when it comes to the connection between creativity and intelligence. Forty-seven percent (9/19) of fifth grade responders said they disagreed with the statement “Creative people are smart people.” Fifth graders responses suggest an understanding of the universal potential of creativity in all people, the interdisciplinary nature of creativity, and the ability of creativity to be evident in different domains. Fifth graders respond more in line with the third grade subjects on the issue of importance of creativity. Sixty three percent (12/19) of the fifth grade subjects responded in disagreement with the statement “It is important to be creative.” Since all the fifth grade participants responded that they are creative it is surprising (as was with the third grade participants) that over half of the subjects do not think creativity is important even though it is a trait or characteristics they recognize or desire to recognize in themselves.

Six fifth graders responded to the open ended prompt concluding the survey. The responses from the fifth grade subjects where general in nature. One comment reflected a positive statement about creativity “Being creative is awesome!” but provided no additional information. Two comments mention expression: “Creativity is a way that I can express myself” and “I think you can be yourself when you create things.” Another statement expressed a relationship between creativity and intelligence, “Creativity can also come from the brain and heart”. One statement reflected a general cliché to “think bigger, to think outside the box.” Another comment reflected a belief in the universality of creativity, “You can be creative no matter what big or small, smart or dumb, red or blue.” Only one fifth grade response mentioned an artistic domain: “I love to draw and be creative with my artwork.”

Table 6 and Table 7 present the raw data of student responses by race and gender. More white students believe in a connection between being creative and being smart. Sixty percent

(3/5) of White students compared with 45% (5/11) of Black students and 50% (1/2) of Hispanic students agree that "Creative people are smart people". All White and all Hispanic students believe that creativity can be found in domains other than the arts, only 73% (8/11) of Black students acknowledged this. Beliefs of Black students also differed from White and Hispanic students in the belief that creativity is a universal trait. All of the White and Hispanic students agree that anyone can be creative, 91% (10/11) of Black students responded with that belief. Students of all the racial groups believe they are creative at school. While all of the white students believe they are creative at home 82% (9/11) of Black students and 50% (1/1) of Hispanic students express this belief. Black students do not express a belief that creativity is important, only 18% (2/11) of Black students agreed with the statement "It is important to be creative" while 80% (4/5) of White students and 50% of Hispanic students agreed.

Fifth grade boys and girls expressed some different beliefs of creativity based on their survey responses. Boys and girls both express a belief that they are smart and creative. More girls than boys express a belief in the connection between smartness and creativity. Sixty-six percent (8/12) of girls compared to 15% (1/6) of boys agree, "Creative people are smart people." More girls believe that creativity is a universal trait. One hundred percent of girls compared to 85% (6/7) of boys agree, "Anyone can be creative." More girls believe that they are creative at home and at school. While 85% (6/7) of boys agree "I feel creative at school" and 72% (5/7) of boys agree, "I feel creative at home," 100% of girls agreed with those two statements. More girls believe in the importance of creativity. Forty-two percent of girls (5/12) and 28% of boys agree, "It is important to be creative." While all of the girls responded that they believe creativity is something that can be improved only 72% (5/7) of boys agree "I can be more creative if I try."

Investigating the responses of the fifth grade students also reveals some differences in beliefs of the sub-groups. White students express a belief that creativity and smartness are connected, that they are creative at home and that creativity is important. A lower percentage of Black students responded with those beliefs, and a lower percentage of Black students agreed that creativity is a universal trait when compared with White and Hispanic students. Boys and girls in fifth grade hold differing creativity beliefs. Girls believe in a connection between smartness and creativity, that creativity is a universal trait, that they feel creative at home and at school that creativity is important and that they can become more creative.

Table 6. Fifth Grade Responses by Race

Question	White		Black		Hispanic	
	Agree	Disagree	Agree	Disagree	Agree	Disagree
1. I am a creative person.	5	0	11	0	2	0
2. I am a smart person.	5	0	11	0	2	0
3. Creative people are smart people.	3	2	5	6	1	1
4. Only artists are creative.	0	5	3	8	0	2
5. Anyone can be creative.	5	0	10	1	2	0
6. People can learn to be creative.	5	0	11	0	2	0
7. I feel creative at school.	5	0	11	0	2	0
8. I feel creative at home.	5	0	9	2	1	1
9. It is important to be creative.	4	1	2	9	1	1
10. I can be more creative if I try.	5	0	10	1	2	0

N= 19

Table 7. Fifth Grade Responses by Gender

Question	Male		Female	
	Agree	Disagree	Agree	Disagree
1. I am a creative person.	7	0	12	0
2. I am a smart person.	7	0	12	0
3. Creative people are smart people.	1	6	8	4
4. Only artists are creative.	1	6	2	10
5. Anyone can be creative.	6	1	12	0
6. People can learn to be creative.	6	1	12	0
7. I feel creative at school.	6	1	12	0
8. I feel creative at home.	5	2	11	1
9. It is important to be creative. *	2	5	5	7
10. I can be more creative if I try.*	5	2	12	0

N=19

Final Thoughts on Survey Responses

Creativity beliefs differ between grade levels and among sub-groups of race and gender. Fourth grade revealed the strongest creativity beliefs for boys and the lowest for girls. Boys went from disagreeing that smartness and creativity are connected in third grade to agreeing with that idea in fourth grade. Girls believe in the importance of creativity across the grade levels however in fifth grade some of their other creativity beliefs coincide. In fifth grade girls believe that creativity and smartness are connect, that creativity is a universal trait and that creativity is important. A higher percentage of fifth grade girls also believe they are creative at school and at home compared to the girls' beliefs in the lower grades. All the girls expressed those beliefs in fifth grade compared to 80% and 73% in third grade and 83% and 87% in fourth grade. Across grade levels Black students did not believe that creativity is important. In third grade 36% of Black students agreed "It is important to be creative," in fourth grade 41% agreed and in fifth grade 18% agreed.

Recognizing the differences in beliefs among these groups of students means I can look for evidence of these beliefs as I teach. While I cannot use these findings to predict what a student might believe, these findings can influence the way I develop curriculum and instruction in the future. Particularly I may want to focus on building creative self-efficacy and creative self-esteem in fourth grade girls and in Black students across grade levels.

CHAPTER 5: FINDINGS AND ANALYSIS OF INTERVIEWS

The survey responses only provided one aspect of understanding students' creativity beliefs. There was potential for students to interpret the questions in a different way than intended, to be confused by the wording of the question or simply guilty of making a quick response rather than a thought-out selection. In addition to the responses on the written survey the other important aspect of this research was the more qualitative data of an aural interview with the subjects. It was simply not feasible to interview all 108 subjects of the research study so a small number of the subjects were selected. I selected 11 students to interview for this portion of the research. The students selected for the interviews represent a variety of the responses on the survey. The students were interviewed only once and the audio of the interview was recorded for reflection and transcription. Students were given the opportunity to select their own pseudonym and if they did not provide one then I selected a pseudonym for them.

I began with the statements on the written survey when interviewing each student. I asked for the reason behind their response on each statement and then allowed the conversation to flow from there. The narrative aspect of this research was particularly important to me as a practicing teacher. My interaction with students is limited to one 40-minute class a week. As much as I desire a deep relationship with my students, one on one interaction with all of my students is somewhat limited. During the average art class I am constantly circulating the classroom giving feedback as students work, answering questions, repeating directions, and pointing out supplies. I am constantly communicating with my students but a conversation with a particular student on a topic other than the assignment is a rare treat. I enjoyed the time to sit with students and listen to them explain their personal beliefs about creativity.

I learned things about my students: experiences they have had, moments that stand out in their memories, comments and realizations that have shaped their creativity beliefs. These things I might not have known any other way as the time to hear the true stories from my students is rare in the face paced environment of an elementary school art room. The interview portion of this research was important to me as an educator. The response to the written survey provided only a glimpse into the depth of beliefs and ideas that these students hold about creativity and the personal interviews revealed so much more than I ever could have imagined.

Creativity Stories

I am presenting the data from the interviews in a narrative form, reflecting on the process of interviewing the student and providing direct quotations from their interview. Each student interview is presented separately as a creativity story and I end this section with a comparison of the creativity stories. The creativity stories presented here are not meant to apply to the subject populations as a whole but merely to provide a glimpse into some personal examples of creativity beliefs from a small group of students in the subject population.

Audrey, 4th Grade

Audrey is a student I would consider to be creative. In art class she demonstrates creativity by offering unique solutions or adaptations to art projects. In the past I have often see her working to add extra details or use a unique technique in her creations as compared to the work of her peers. I would have expected her to agree with the “I am a creative person” on the survey and I was not surprised to see that she also agreed with the statement “It is important to be creative.” She wrote, “Being creative is all about what inspires you and the way you think about things. You can never learn to be creative you are born with it. Some people think you can learn it but you cannot” on the open ended portion of the survey.

I began the interview by asking Audrey what she remembered from taking the survey and the first thing that she mentioned was "Well, I remember it was saying creative people do not always have to be smart people." Later on in the interview when we were discussing being creative and being smart Audrey said, "Well creativity doesn't come from here, (gesturing to her head) it comes from here (gesturing to her heart)."

When I asked her about what makes someone creative she discussed several examples of people in her family who she considers to be creative. She mentioned a cousin who makes very realistic artworks. "When I go in his bedroom he has this painting of him and his wife and it just looks so real, its very realistic, it is so realistic it is like he is in the painting." Audrey also mentioned that her stepfather is probably the "most creative person I know" she credited him with being able draw anything, make anything and sculpt anything. In speaking about her stepfather Audrey also mentioned that he was a carpenter and good at fixing things, and those were also reasons she considered him creative. Audrey talked about other's opinions influencing her ideas of her as creative saying, "My mom says I'm creative." Audrey spoke personally about using visual art as a creative outlet to "get your mind off of bad things in your life." Audrey spoke about drawing as a way to cope with her parent's divorce. "I just go up to my desk and draw something and then I feel better."

When I asked Audrey to talk more about the statement that she gave in the open ended prompt she revealed that she holds a belief that all people have creative potential. Audrey may be beginning to understand that creativity is a universal trait. However, she repeatedly linked creative potential and creative acts with the visual arts. She explained that, "some people can be more creative than others…" that "Being creative is not something that you learn although you can learn to do it better or perfect it".

When Audrey spoke about the importance of creativity she mentioned the visual arts and that it was important to have multiple interests. She did say, “Being an artist may not be a very good job.” Audrey mentioned that her cousin who she considered very creative and credited with artistic skill had trouble finding a job.

My discussion with Audrey showed me that while she has explanations for why she feels creative, why she recognizes others as creative and why she believes all people are creative, her explanations and evidence seem to point to artistic products specifically the visual arts. This reveals that her creativity beliefs are domain specific. It seems that artistic is a synonym for creativity in Audrey’s mind. When I asked her, “Is making art the only way to be creative?” At first she replied with some emphasis “No” but then she paused and couldn’t offer an explanation, so she said “Well sort of.”

During the interview Audrey did not reveal an understanding of creativity as a thinking process. When speaking of her carpenter stepfather she did reveal that she may be starting to understand creativity in other domains – such as the ability to fix things – but she didn’t communicate that she understood creativity to be related to general problem solving.

Audrey also expressed that creativity had to do with outside judges or assessments. I asked her how she would know if something she made was creative and she mentioned that she would show her Mom. I asked her if something could be creative even if no one else ever saw it or knew about it.

“How do you think you know for yourself if something is creative or not?”

“Actually, I never do that. I just bring it to me Mom.”

Audrey’s creativity story expresses an influence of family and situation on creativity beliefs. Audrey’s creativity beliefs seem to be influenced by her interactions with family members.

Because Audrey comes from a home where other family members are involved in making art in various ways and creativity is something discussed among her family members she probably has more personal experience with thinking about topics of creativity than other students. Also using her art making as an emotional outlet during a difficult time in her life means she has a different kind of understanding of the emotional connection to art than other students. Audrey's creativity story reveals that unique and sometimes troubling situations can provide impetus for creative action and for understanding creativity.

Marcus, 4th Grade

Marcus is a fourth grade student. He is a high-energy student and has difficulty focusing at times. He is one of those students constantly asking you what to do only seconds after you delivered a thorough explanation to the class. He is often up out of his seat to ask a question instead of calmly raising a hand. Marcus brought his breakfast with him to our interview. He is one of our many students who eat breakfast at school. Students eat breakfast at school because they qualify for 'free and reduced lunch' and breakfast is provided to them; or because it is just more convenient for them to eat at school.

When I asked Marcus what he remembered about taking the survey he explained, "I read the question, then I asked myself which one should it be, then I read it again and I saw a clue word and then I circled the one that I thought it was." I found his response interesting because it seemed to be a response that reflected some training in metacognition or test-taking strategies. He knows that he was thinking and looking for clues when he marked his response. However I was also concerned about this statement because it seemed to imply that he thought about the survey the same way as a test and was looking for a 'right' answer. As we began our interview I

reminded him that the survey was about his opinions and that a person's opinion is neither right nor wrong.

We discussed each question on the survey and it was clear that Marcus did not have a clear definition of creativity in his mind. He mentioned that creativity could be writing a paragraph or making a card but when I asked him to explain how a paragraph would be creative or what it would mean for a paragraph to be creative he mentioned writing in cursive.

I asked, "What do you think it means for people to be creative?" He said (with an inflection of questioning in his voice), "If they want to be an artist?" then he said, "Or if they want to draw or paint something." Marcus went on to say that he was creative because he drew his mom or dad a picture or "wrote them a paragraph or drew hearts on the front and put love and then put some colors on the back." When I asked again how writing a paragraph could be creative he mentioned that if it "had the word love in it then I would draw a heart at the bottom."

While Marcus may have yet to develop a clear definition for creativity and thus have shaky creative self-esteem or creative self-efficacy he may have strong self-efficacy and self-esteem beliefs regarding his work in other academic subjects. When I asked Marcus to explain why he agreed with the statement "I am a smart person." Marcus said he was a smart person because his teacher sometimes had him go up to solve problems on the board, "because I always get the math questions right."

When we talked about the idea of if it was important to be creative Marcus said, "If you are creative and other people are not then they might think that you are teasing them". This may involve the perception in Marcus's mind that showing off a talent or skill can make someone appear conceited.

When we talked about the last statement "I can be more creative if I try." Marcus talked about trying to be creative, trying to do more art, trying to get it right and he said, "If I can't get it right then I'll just forget about being an artist or something."

Marcus's creativity story reveals a generic understanding of creativity. He seems to express the idea that creativity is just doing something artistic with no reference to novelty, originality or appropriateness. His creativity beliefs would probably be best classified as creative self-esteem rather than creative self-efficacy as he did not express concrete meaningful definitions of experiences where he described creating something that was novel and appropriate. His creativity beliefs seem to mainly express his feelings of himself rather than his feelings about his perceived abilities. He also expressed an idea of "getting it right" with his creativity beliefs. Marcus showed little understanding that creative actions or experiences may involve more than just "getting it right" or sometimes may involve the complete opposite of "getting it right."

David, 4th Grade

I have been David's art teacher for two years and I have always considered him a quiet student. He is normally polite and cooperative in class but not one to raise his hand voluntarily to contribute to a class discussion. This year, which is his fourth grade year, he has shown more rambunctious behavior than in years past, I actually moved him from sitting with some other boys because I found they were constantly getting off task.

When asked what he remembered about the survey David said that he remembered that the survey asked a lot of questions about art. I asked him to look again at the survey and if he really thought all the statements were about art – he said "sort of." Already, this seems to reveal that a connection between art and creativity is cemented in David's mind.

I asked David what makes him a creative person and he said, “because I like to draw all the time and before I go to bed I draw and I read a lot of drawing books from the library.” I asked if there were other ways to be creative besides drawing he said “Reading?” but with a questioning inflection in his voice. When I asked how reading would be creative he said it could inspire you to do something.

I asked him to explain why he agreed that he was a smart person he said “I made it to the fourth grade, I know some of my multiplication and I know my math facts.” I asked David why he agreed with the statement that “Creative people are smart people,” he said, “You can be smart and creative cause you can be smart almost about anything, like you can be smart and creative-when you are creative you can do whatever you want like draw and read or something.”

I wanted more of an explanation to what David really believed the definition of creativity to be. When we talked about the statement “Anyone can be creative” which he had responded, “I agree” I asked, “If anyone can be creative –what does it mean to be creative?” He said, “Creative means like your imagination and like to draw from your imagination” He made several comments throughout the interview referencing the idea of practicing which I think referred to practicing drawing. At one point when we were discussing how people learn to be creative he said “Like when you are practicing you can try and do something new.” With the word ‘new’ I believe David meant if he made the choice to draw a cat instead of a dog – draw something new in regards to subject matter not necessarily draw in a totally new way as in technique or the same subject matter in a completely different manner.

When I asked David about feeling creative at home and at school he mentioned drawing in both settings as the reason that he felt creative. “During free time I draw, I draw anything like my thoughts my memories or my imagination,” he stated of drawing at school. When asked how

he felt creative at home David replied, “When it’s Friday I get my drawing book out and then I’ll start drawing a lot of things.”

We discussed the statement “It is important to be creative” David had chosen “I disagree” on the survey representing the response by the majority of subjects but when I asked him about it in the interview he said “I messed up on that one.” When I asked him to explain why it was important to be creative he said “If it is not important to be creative then your imagination is not going to be there any more – it is also important to be creative because you can express your feelings on a sheet of paper and you can hang it up and let people see.”

In the open-ended response David wrote, “Everywhere I go I feel creativity.” I asked him to explain this and he said that when he went out of town he brought his book so that when he got bored he could draw stuff in it. He said, with pride in his voice, “I filled up almost half my book.”

David’s creativity story demonstrates a desire for creativity, he may believe this is a positive trait and therefore desire it for himself. However his beliefs don’t seem to show an understanding of creativity as involving novelty and originality. His creativity beliefs seem to be fairly domain specific. He probably associates creativity with proper drawing technique since he mentioning several times the idea of practicing. Rather than recognizing a different and original drawing as creative David would probably focus on the technical expertise of a drawing.

Keisha, 5th Grade

Keisha is one of my fifth grade students and I have been her art teacher since the third grade. She has a pleasant disposition and is willing to help and participate in class. I started the interview by asking Keisha what she remembered about taking the survey a few weeks ago. Kei-

sha said, “I remember they were asking the questions about like what do you think about creativity and what’s your favorite thing to do in creativity and art.”

I asked Keisha what she would write down as a definition for creativity and she said, “I would put down many types of things to create like flowers, art, and different other things for creativity.” I prompted her to continue, “What kind of other things?”

“Like drawing, painting, and using your creative mind.”

“How does a person use their creative mind, what does that mean?”

“Well like thinking of something like outside the box that everybody else doesn’t do”

Keisha focused on artistic products when giving examples of creativity and evidence for her own creativity but she did bring in the notion of creativity involving novelty and originality. Towards the end of our interview she even made comments about making up new dance moves or writing new lyrics for a song or writing an interesting story as other examples of creativity. “Art is a subject that can be creative but there is another one, like you can be creative when you dance, or write or sing.”

When we discussed the statement “I am a smart person” which Keisha agreed with, I asked her how she was a smart person and what gave her the feeling that she was smart. She said “It gives me a feeling that like I can do it and I pay attention to it and like reading it over again if I don’t understand it.” We went on to discuss the statement “Creative people are smart people” and Keisha said, “Being creative and being smart are connected because you like don’t have to be smart to do like art but you can sometimes be smart to do art because it can give you ideas about what you have been learning and then you can put it on a piece of paper to learn it.”

Keisha revealed that when she looked at the statement “Only artists are creative” she immediately thought about professional artists and because she defines creativity primarily with art

making she disagreed with that statement, believing that people other than professional artists can do artistic things and therefore be creative. "Regular people besides artists can kind of do stuff like artists do," she said.

When asked about the statement "Anyone can be creative" which Keisha agreed with, she said "Anybody can be creative because they come up with their own thing and they can do different styles about it and they don't do everybody else's. Like when I'm in art class and we do the different things that we do in art class. Like when we did the trees."

"So what about that project, in what ways was your project creative?"

"Like by the trees and how it was like swirly and going up in to the sky and the background was reddish."

"OK, so you feel that you made a choice that wasn't like anybody else, sort of like you were saying before, that wasn't like anybody else in the way that you painted your trees in that project."

"Yes."

When we discussed whether creativity was important or not she seemed to again mainly be thinking about art and therefore not thinking of creativity as an aspect of problem solving in a variety of situations. "It is not like always important to be creative, well like some people think that it is but I disagree because like in your life it doesn't have to be important when you do art."

"If it is not important then what do you think it is for?

"Well some people will put art in a museum or some people put it in art shows so that people can buy it."

Keisha's creativity story reveals that she understands that creativity involves novel and appropriate solutions to problems. She is able to recognize her own creative actions such as

when she described her own solution to an art project that she felt was different from her classmates. However, Keisha's creativity belief does not seem to have really extended beyond visual art. Perhaps she has not had enough experiences with novel and appropriate solutions to other types of problems to understand a more general problem solving approach to creativity.

Hiram, 4th Grade

Hiram is one of our Indian students. Hiram is an extremely quite student and may have some language difficulties because I know that he receives services from the ESOL teacher. Hiram works diligently in class and pays attention during art lessons. Any language difficulties have never interfered with his ability to comprehend and execute assignments in art class.

He came to my classroom one morning for the interview. I am not sure if it was actual difficulty with language or just undeveloped communication skills in general but Hiram struggled to find the words to answer my questions. There were long pauses in our conversation when he seemed to be searching for his thoughts and how to express them. He did not elaborate very much in responding to my questions. For instance when I asked him "What does it mean to be creative?" he said, "That you know how to do it."

"That you know how to do what – what would the it be?" I said.

He said, "To be creative."

He couldn't really offer a definition or a statement about what his beliefs of creativity were – he mentioned drawing at school and at home and said that drawing at home he mainly kept it to himself. I asked if he showed his drawings to his parents or if his parents talked to him about it or talked to him about being creative and he said no.

Hiram was one of the few students who disagreed with the statement "I am a smart person" he offered that smart people 'know everything.' "Do you feel like you know everything?" I asked him.

"No"

"Not yet, do you feel like you are learning to know some things?"

"Mm hmm." He agreed.

"Do you feel like you are learning to know a lot or a little?"

"A little."

He also seemed to have on his mind some notions of Big C creativity because when I asked him why he agreed with the statement "Creative people are smart people." He said, "Because they are famous." However, when I asked him to give me an example of a famous, creative, person he couldn't share one.

Like some of the other students Hiram used drawing as his most specific example of creativity. I asked, "How do you think people learn to be creative?" He replied, "Learn to draw." When I asked him if there were things that he did at home that made him feel creative he also mentioned drawing. However, Hiram was not able to state clearly what his main beliefs about creativity were, so it may be that his answers on the survey don't represent his true feelings or beliefs on creativity. Perhaps his beliefs are still in the initial stages of forming, more experience and more knowledge may paint a clearer picture for him of what creativity is and then his beliefs may develop from that. Also, since he said that when he drew at home it was not something that he shared with his parents – discussions of creativity or creativity as a topic of conversation may be rare or completely non-existent.

Hiram's story represents creativity beliefs in flux. He has not yet conceptualized creativity as involving novel and appropriate solutions. Because he is focused on drawing as his main example of creativity his beliefs in his own creative abilities are not as vast as they could be.

Melanie, 3rd Grade

I have been Melanie's art teacher for four years, since kindergarten. She is now a third grader and a very pleasant child bringing a positive and helpful attitude into the classroom. She is not the type to run up to you first thing in class and just gush about how much they love art. She is more reserved and quiet. My interview with Melanie provided insight to a body of creative work that she engages in at home and revealed that she has sophisticated understanding of creativity and her own creative self-efficacy. When I asked Melanie to explain why she agreed with the first statement on the survey "I am a creative person" she responded, "Sometimes I come up with the idea to make Barbie clothes. So, like for Barbies, like a really skinny Barbie that I have she doesn't have any clothes so I just make her clothes. And I like to paint a lot and paint different things and cut stuff out of cardboard."

During our interview it became clear that the making of Barbie clothes is an important creative endeavor for Melanie. She used this example to demonstrate an understanding of problem finding, "Like at first I didn't know how to make the clothes stay on the Barbie and my answer was hot glue and ribbon."

"So, you had to figure out a solution to a problem that you discovered?"

"Yes."

Melanie judges her creativity based on the things that she makes, she believes because she makes many things she is creative. While she did not mention novelty as an aspect of her Barbie clothes creations she definitely saw this activity as problem solving and she described

having different solutions to the problem saying “I used to glue it so that the fabric came like straight out and it look weird and then I learned to glue it and fold the fabric over so that its like flat and she [her mom] said that she didn’t even notice that I did that. Sometimes I put the fabric under the other fabric and just glue it and I come up with different ways to hold their dresses up like maybe like that (gesturing halter top style) or the other way.” Melanie made a few other statements throughout our interview to suggest that she has an understanding of problem finding. When we discussed the importance of creativity Melanie said “to me it is kind of important because then I wouldn’t be able to fix my problems.”

Melanie gave other examples of problem solving experiences as more of her creativity credentials. She told a story of working in class and folding a paper the wrong way but since she was only given one unfolding it making it flat and folding it again. She also described cutting off a part of a shape unintentionally and then just gluing the cut off part back on to appear whole. Earlier this year I aided Melanie with such a problem solving predicament, she had a figure in her drawing that she did not think was acceptable but it wasn’t really feasible at that point in the process to erase or take the figure out of the composition so we decided on covering the figure by collaging the shape of a tree over it. Melanie also understands creativity as a trait common across domains and not limited to one area of work.

“What about someone other than you can you think of other ways to be creative besides making things?”

“They can make things but then they can like write stories or they can – they can be creative – like from their job.”

“Ok, how can someone be creative from their job.”

"Like say someone had a computer job like they worked on computers, and if they had a problem that they didn't really know how to figure out they- well like when people are creative they figure it out by just looking on the computer and they discuss it or they find viruses."

Melanie expressed that creativity was something talked about in her home, I asked if her mother ever said things about her creations and she said "Oh yes, all the time I pretty much show her everything that I make all the time!"

Through the interview I learned that not only did Melanie have a sophisticated understanding of creativity she was also able to express evidence of creative self-efficacy. She particularly focused on the mastery experience with creating clothes for her Barbies, having some of her first solutions to her Barbie clothes problems work themselves out to more elegant and successful solutions in later creations. Now Melanie expresses a desire to make clothes on a larger scale, "I think well maybe I could get a bigger model and make actual clothes when I grow up to be a designer and I could make actual clothes and make them stay together without hot glue!"

Figure 1. Melanie's Barbie Clothes

Melanie's creativity story is one of development and focus. Her story of making Barbie clothes reveals that she has struggled through the creative process to end up with a product that she believes to be successful. Therefore her creativity story reveals strong, positive creative self-efficacy because she provides clear, personal and meaningful examples of what creative things she has accomplished. Her creativity story also reveals a broad belief of creativity. She understands creativity to be evident in different ways in different situations but connected through the idea of novelty and appropriateness. Her major creativity belief seems to be one of creativity as problem solving.

Steve, 4th Grade

Steve has been my student since kindergarten. In addition to his time in my art classroom I have a short interaction with him each day during afternoon car rider duty. His mother has told me about times when he has worked on creations at home. I remember one story where she described Steve working on a drawing at home and she heard him comment "I just need to add some more texture…" in a very emphatic way.

Steve was very willing to talk with me and came to my classroom one morning for our interview time. He remembered that the survey consisted of statements about creativity. When I asked him what creativity meant to him, he replied, "It means how specific you are in your writing or art whatever you do is creativity – I think it's how normal or not normal it is." He discussed the art of Andy Warhol as an example of creativity, which shows his understanding of Big C creativity, recognizing the creativity of an eminent creator. I asked Steve which he thought was more creative 'normal or not normal' and he replied 'not normal' which suggests an understanding of originality and novelty in the definition of creativity.

Throughout our talk Steve indicated a desire to be creative. While he did talk explicitly about making artworks he mentioned that he could be creative in other subjects, mainly in relation to school projects and personal projects. Steve expressed the desire to be creative saying it "[To be creative] makes me want to do my best and kind of makes me want people to say "OK I don't know what the heck that is, it is very unusual" but um, I have had two projects like that.." He then went onto to describe the process of working on a drawing of a duck "it's a picture of a duck but I just started off just drawing a circle and then I wondered 'Oh what if I can make that a super hero duck or something like that?' I'm not finished yet; I still have to draw a mask and all that. But, so first I just did a normal duck and then I added the color onto it and now I'm onto the super hero stuff like the helmet and all that." Steve's description of his work on the super hero duck drawing shows an understanding of the creative process and the notion of problem finding.

Steve acknowledged the importance of novelty in creative work as evidenced by our discussion below:

"Do you think making up a math problem is being creative?"

"It can be I mean, it is not *that* creative because most people can make up a math problem."

"But what about if it is a totally new math problem that no one has ever made up before or you have never made up before? Does that make it creative?"

"I'd say it makes it pretty creative."

"OK, so what is it about 'making things up' why would that be creative?"

"Because it's a new way of solving it a new and good way of solving the questions."

Steve talked about being 'psyched' to work on his own creations at home not just 'school creations' but also his own creations. Outside of his creations Steve also brought up the idea of

creativity in how a person presents himself or herself. He mentioned, "If I was going to a meeting I wouldn't wear this [gesturing to his own shirt] I would wear a rainbow plaid shirt and a vest." I believe this is evidence that Steve understands people can display creativity in different ways and that he is willing for clothing to express creativity. Steve is comfortable with presenting himself as a person who thinks differently. This confidence in creativity also came out with another statement that he made regarding ambiguity or the possibility of rejection with creative work.

"Maybe people would say "I don't know what that thing is" but that's the thing about it that's what makes it special to me." He stated.

Steve's creativity story implies a desire for and an enjoyment of things he would consider creative. It seems important for Steve to stand out in some way; he seems to relish the idea of his actions or ideas being different from others and focuses on the idea of creativity making things special. Steve's creativity story reflects the belief of creativity as self-expression.

Amber, 3rd Grade

Amber is one of the extremely high level readers at our school. Since about first grade she has been reading at a sixth grade level and now is on a high school level while in the third grade. Her advanced reading skills have kind of given her a legendary status among the adults at our school. Her mother also works in the school as the English as a Second Language (ESOL) Teacher. Amber's mother has mentioned how difficult it is to find books that are appropriate for Amber in content but also appropriate enough in challenging her to read. Amber has been my student for two years and participates well in art class. She is not one of those students who is constantly asking for direction or whining that they don't know what to do. Amber and I met after school one day and sat outside in the warm sun to have our creativity chat.

Amber represented one of the few students who responded that they did not agree with the statement "I am a creative person." When I asked Amber to explain why she disagreed with this she said "Usually when I'm writing stories I can't like think of things that would make it more exciting. I try to be creative but it turns out…it's just hard." From other statements that Amber made during the interview it seems like her beliefs of creativity are influenced by a big C creativity view – she kept mentioning the idea of a big story, as if she wanted to write an epic story but did not feel she was up to the task. Most likely, Amber has been exposed to very interesting and creative stories because of her high reading level and therefore since she holds more knowledge than other readers of her age, she may feel some discouragement that her stories don't seem to be as interesting as ones she has read.

She did make other statements that expressed a more universal view of creativity. She also made statements that show she accepts little c creativity. At one point we were discussing different types of jobs and whether or not those jobs could be creative. "What about a teacher, could a teacher be creative?" I asked. "Yeah, like if they had lessons to do and they thought the lesson would be boring for the students then they could try to use their creative mind to build a new way of doing it, not just the same things." Amber replied.

Amber did make comments that focused on domain specific creativity in the visual arts. She made the statement that "Usually creativity is associated with art, usually but not always" and in her open response on the survey she wrote "Being creative means you might be an artist when you grow up."

Amber also represented an anomaly in the subject population because she was one of the students who responded agree to the statement "It is important to be creative." I asked her to explain her opinion on that and she expressed an understanding that creative work can sometimes

give one an edge or stand out in a competition setting. “Well, if there was a story contest and I had to be in it, I want to win, but I wouldn’t be good at one. So, I would need to be creative if I wanted to win.”

Amber seems to set a high standard for herself when it comes to judging her own creativity. It may be that her advanced knowledge and exposure in some areas make her own efforts seem less creative. She was able to express and explain more nuanced examples of creativity and even described a baby learning to say words as creative. Amber may have low creative self-efficacy or creative self-esteem simply because of her own high standard for her works and thoughts. Amber’s creativity story reveals that even our brightest young learners can have trouble identifying and understanding their own work and experience as creative especially when they try to measure up to high standards of creative work, such as the writer of a ‘big story.’

Matthew, 5th Grade

Matthew is a fifth grade student who would be considered high achieving. He scores well on tests and propels his way through classroom assignments. He is involved in the gifted education program and I have been his art teacher since second grade. Matthew speaks with conviction and authority about many things. At times I will confess I have thought of him as having a sense of entitlement and being a little conceited. It did not surprise me that he agreed with the statements “I am a creative person.” and “I am a smart person.” however, when we sat down to discuss his opinions at length in the interview I was surprised to hear some of his explanations of his beliefs of creativity.

Matthew expressed an emphatic understanding of the universal potential of all people to be creative. He stated this idea repeatedly throughout our interview in different ways:

"Anybody can be creative I mean I know some janitors that are creative, I know lots of different people that have lots of different places in this world that do things in their own way."

"It's just cause some people think "I can't be creative" its just it is something that we can all do we just have to find out how we do it and like our own specific style."

"Like the artist is creative with what he has, like color or paint. But the biologist is creative with what he has, he has information, and he has studies and he has examples so he can organize that or put it in a way that he likes in his own style. He can put his own spin on things."

Matthew was the only student to explicitly acknowledge the idea of everyday creativity. Some other students would acknowledge the idea but only if responding to one of my questions. Matthew was the only student to bring up this idea on his own, even in his initial definition of creativity he stated: "Well, when you think about creativity it is kind of just however you express yourself in your work, and I think I everything I do I am creative about how I do it. I don't do it the same way as everybody else. I do it a little differently. I add my own little spin on it."

"Ok, and what kind of things are you talking about?" I asked.

"School work, things I do at home, just things that you do everyday."

Matthew mentioned organization and changing up his routine at home as a way to be creative. However, when I questioned him if the change in routine was a solution to problem he said that is was not, it was just a change for no real reason. So, while he has a broad understanding of creativity and practical examples of everyday creativity he may be focusing on the novelty aspect of creativity as opposed to the notion of novelty *and* appropriateness.

Matthew discussed activities in his classroom as being creative. He credited his teacher with creativity for implementing a science experiment with the class.

"We have done science experiments, like we are doing an experiment with flowers, vascular and non vascular plants, so we are doing experiments so that makes it really cool and I think that would count as creativity."

"So developing an experiment would be creative?"

"Yeah, it's just your own way to put your spin on science"

"So, did you have to come up with the experiment or did Ms. Addams come up with it?"

"No, Ms. Addams came up with it and we observed it and we took notes on it and it is a really interesting project. So, I think that's a way Ms. Addams was creative with her own spin on science."

Matthew also seemed to have an understanding or belief about a communal nature of creativity, an aspect of creativity that I had not explored in the design of the survey questions. Several statements he made during the interview regarded inspiration from others or an exchange of ideas for creativity. "It's easy to be more creative like you see everybody's own little way of creativity and that could easily change your perspective on creativity."/"The way other people do things can change the way you look at it so that can also help your creativity."

Matthew represented an anomaly in the subjects in that he also agreed with the statement it is important to be creative. He expressed the importance of creativity stating: "Because when you are creative it can allow you to express yourself more in things like your work or whatever you are doing. It allows you to express what you do so when you are creative with your work then you are always going to be a little better. Because creativity will allow you to put more effort and work into it which allows it to be unique for you and that's just like one cut ahead of the other."

Matthew's creativity story reveals a confidence in creativity. He can see potential for creativity in many areas of life and for all people. His beliefs do seem to focus on creativity as anything novel and different; there was not much evidence in his statements during the interview to acknowledge appropriateness in creative solutions.

Christian, 3rd Grade

Christian is a quiet student who is new to my school this year. He receives services from the resource special education teachers so I know he has learning difficulties of some kind. Christian shows an interest in art during our class meetings. From his statements during our interview it seems Christian mainly conceptualizes creativity as artistic ability. When we discussed his creative self-efficacy or creative self-esteem with the statement "I am a creative person." he said he was creative because, "I like to draw and I like to paint, it's just so fun to draw and paint."

I was interested in his opinion on the statement "I am a smart person." Since he does receive services for special education I wondered if he would have a sound reasoning for his belief in his "smartness." He explained that he was a smart person because, "I am on lesson 4 in symphony math and I am good at my reading coach and I'm good at adding and attracting and my favorite thing is tens and ones." Even though he may perform at a lower level that his peers academically he is able to identify himself as smart because of certain goals that fit his academic abilities at this point. His statement provides evidence of self-efficacy in his academic endeavors because he has experiential evidence for his belief of his academic abilities. His academic self-efficacy beliefs seem to be stronger that his creative self-efficacy beliefs, because he was able to provide more specific reasoning for those beliefs.

We discussed Christian's opinion on the statement 'Only artists are creative.'

"…You said you disagree-"

"-I don't remember doing that"

"Oh, that doesn't seem like what you would say? So, you really think you would agree with that that only artists are creative so tell me what makes you say that, why are only artists creative?"

"Because they um are good at art because they draw good and paint good."

This again reveals Christian's creativity beliefs as being mainly domain specific to the visual arts. Further statements in the interview revealed some understanding of creativity across domains but not at a sophisticated level.

"Everyone can be creative, because everyone is smart to um be yourselves and do things."

"What kinds of things?"

"Like art, reading, painting, singing…"

"Ok, so you think art, reading, painting, singing those are ways to be creative too?"

"Mm hmm"

"So how would you be a creative reader?"

"To know every single word in the book, to know the word before you even get there."

"How would you be a creative singer?"

"To um sing good and just do what you like to sing."

Christian was not as articulate about specifics related to his definition of creativity, defining creativity loosely saying: "Everyone can be creative, because everyone is smart to be yourselves and do things." His belief of creativity does seem to hold some understanding of creativi-

ty as being unique although no expression of appropriateness was given during the interview. Christian mentioned his father being talented at drawing when we discussed creativity in his home. He seemed mainly focused on his father's technical ability at drawing mentioning that his father could draw super hero characters and had given Christian some of his drawings. However, Christian did not state any evidence that his father talked to him about being creative.

"Has your dad every talked to you about being creative, has he ever told you that you are creative or have you guys not really ever talked about it?"

"We have not ever talked about it"

Christian's creativity story demonstrates an interest in the visual arts particularly influenced by his father who draws in the home. His creativity beliefs seem centered on abilities in the visual arts although he did offer some statements that demonstrate a belief in creativity as being "uniqueness" or "being yourself." He commented a few times about "doing what you like to do" and "doing whatever they like." Therefore Christian may see creativity as mainly a personal choice and believe that creative endeavors are pursued only for the purpose of enjoyment.

Emily, 3rd Grade

Emily is a new student to my school this year. She has been kind of under my radar, one of those students who is well behaved in class and has an agreeable personality. Not the type of student who keeps me awake at night wondering how they will test my classroom management skills in our next class meeting. I did notice that Emily presented some interesting solutions in our first art project of the year, creating line and shape patterns in a Mehndi style design on a hand drawing.

Figure 2. Emily's hand design

Emily and I met immediately after her art class one day for our interview. Our school was celebrating career day and students had been encouraged to dress as the career they wished to have in the future. Emily was dressed as a rock star. Emily didn't remember anything specific from taking the survey about creativity. As we began the interview, I asked Emily to explain why she agreed with the statement 'I am a creative person.'

"What makes me answer that for 'agree' is that my mom says I'm creative."

"Oh, your mom says your creative does she tell you why or does she just kind of say it and doesn't really explain it?"

"She just says it."

"Ok, so what do you think that means when she says that you are creative?"

"That I think of good ideas, that other people haven't done."

"So, you think of ideas that other people have not thought of and that is being creative?"

"Yes."

Her creative self-efficacy or creative self-esteem seems to be influenced by her mother an outside authority figure. She does seem to have an understanding of her own novelty and origi-

nality as part of her creative-self efficacy or creative self-esteem. Emily's self-efficacy or self-esteem as a smart person also seemed to be related to the opinion of authority figures such as teachers, she did not mention specific evidence such as test scores for her agreement that she is a smart person.

"Another statement says I am a smart person so can you tell me what makes you say that why you think that you are a smart person?" I asked.

"Because all the teachers that I've had have said that I'm smart and because I go to challenge that is for smart kids, and that's all I know." She said.

Emily expressed a belief that creativity and smartness were completely different attributes and did not acknowledge the idea of creativity as a way to be smart. Emily also seemed to interpret the statement "Only artists are creative." To be referring to professional artists and so when I asked her to explain her agreement with statement she said, "Well, I am not an artists and I am creative so that is why I disagree."

"Why are you not an artist?"

"Because I have a lot of other things I want to do other than being an artist."

"So, when you saw this statement about artists you thought of like artists who do art for their job?"

Emily expressed the belief that people can learn to be creative. She believed that people could learn from other creators to improve their creativity. "They learn to be creative from like a different person because a different person can tell them how to be creative and all what they are supposed to just think about it and just do it." Emily may have been expressing her version of the creative process when saying, "to just think about it and just do it." We then went on to discuss the notion of 'making up ideas'

"Is making up ideas is a part of being creative?" I asked.

"It is a part of being creative because sometimes you put together a picture that can be in your mind but no one else has painted it before and that makes it creative and original."

"What if someone else has painting that kind of picture before but you have never painted it, does that make it creative?"

"Yes, that will be creative because you thought about something that you really want to paint and you just want to do it and you have the creativity to do it and if someone else has already done it, it really doesn't matter because it matters only what you think about your painting, even if someone already painted it."

We discussed her beliefs about being creative at school and at home. When we discussed being creative at school Emily mentioned writing. She stated that she felt creative when writing at school, mainly she seemed to believe that she was creative in writing because it involved coming up with ideas. When I asked her to explain what would make a piece of writing creative she discussed the idea of adding a picture or decorating the words as opposed to making the content of the writing new and original.

"Well you have to think about what you are going to do for your writing and make sure it stays on topic so we can get a good grade."

"So, if a piece of writing is just 'on topic' is that creative?"

"No."

"Ok, so what would the writer have to do with their writing in order to make it creative?"

"Like draw a little picture at the end of it to go with your own creativity."

"What about like the words that they write is there a way to make the words creative?"

"Yes, because you could put little dots on the end of the corners of the letters?"

When I asked Emily what made her say she agrees with the statement ‘I am creative at home.’ She offered, “Well when I finish my homework I go outside and gather acorns and nut shells and put rocks in with them and try to make a little picture.”

When I asked Emily to explain why she agreed with the statement ‘It is important to be creative.’ She seemed to express the belief that creativity could help people solve problems however she offered a statement that really implied creativity was only needed in certain types of problems not that creativity could help with solving problems in general.

“Number 9 says ‘It is important to be creative’ and you said you agree. So, can you tell me why you feel it is important to be creative?”

“It is important to be creative because sometimes you are really going to need to be creative because sometimes you are going to have to do an art project in class and you are really going to need to be creative and like writing and drawing and you also need to make sure that the person who reads it will understand it and who looks at the picture will understand it too.”

Emily provided the most novel response on the open-ended response area of the survey. She drew an animal and then provided a label with an arrow describing the animal. The description read: Backwards horse, octopus, chipmunk, alligator, (female).

“Can you tell me why this picture to you is an example of creativity?”

“Well, that is the only thing that popped up in my mind when she [the media-specialist administering the survey] said put down what you think about creativity.”

“And why is that creative?”

“Because I thought about it and probably no one else did it.”

“OK, have you ever done anything like that before, like had an assignment where you put different animals together or did that just come into your mind?”

"That just came into my mind."

A remote association assignment combining the different attributes of several animals would probably be an appropriate assignment for creativity training so I was curious if Emily's involvement in Program Challenge (the gifted education program in Rockdale county) has exposed her to such an assignment but she seemed to have come up with her creature drawing all on her own.

I asked Emily to describe a person that she thought was creative and she described Pablo Picasso because "…he draws face paintings with different shapes."

"Why is that creative?"

"Because he thought of it for himself it just popped up in his head like he was getting hit by a rock and he thought of it fast."

Emily did not offer any examples of people who were creative from her own life. Her descriptions of Picasso's process, as well as some comments describing her own work seem to emphasize the moment of insight. While a third grader cannot really be expected to have a great deal of knowledge about Picasso's artistic and creative process, she also referred to her own ideas just 'popping in' and did not elaborate on other thinking involved in creative work.

Emily could offer personal evidence and experiences to explain her belief in herself as creative therefore she seems to have a creative self-efficacy belief rather than merely creative self-esteem. Emily's creativity story expresses a focus on judgments from outsiders such as teachers and parents. Emily's creativity beliefs express an understanding of novelty as aspect of creativity but she didn't offer much to explain that appropriateness is also an important aspect of creativity. Emily's creativity story seems to express a focus on the moment of insight. She men-

tioned several times the idea of creativity involving ideas “popping in [to your head]” in relation to her own ideas and the ideas of an imminent creator, Pablo Picasso.

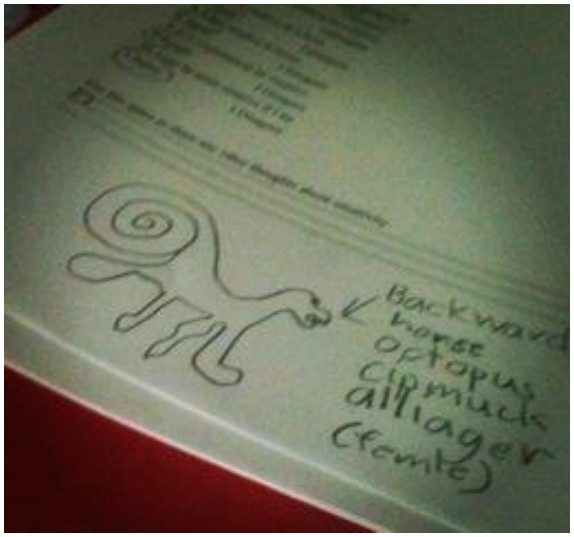

Figure 3. Emily's Open Ended Response

Final Thoughts

The creativity stories described from the student interviews reveal more qualitative evidence explaining the creativity beliefs of students. The students of this study express creativity beliefs of varying degrees. Some students express beliefs of creative self-esteem, they feel they are creative yet offer limited personal evidence to explain their belief. Other students express beliefs of creative self-efficacy having significant personal experiences that they can point to in order to describe their creativity. Most students express the importance of originality in their beliefs of creativity but not many students provided that appropriateness is an important aspect of creativity. Many students seemed to synonymize creativity with artistic. Overall most examples of creativity and personal stories of creative experience were of drawing, painting or other art-making projects. Even though students expressed disagreement with the statements “Only artists are creative” the interviews provided evidence that students interpreted this statement to refer to professional artists not anyone making art. Therefore because they equated creativity with their

own art-making, they expressed disagreement with the statement because as Emily said “Well, I am not an artists and I am creative so that is why I disagree.” Students expressed agreement and disagreement with the idea that ‘creative people are smart people.’ Many students expressed that creativity and smartness (intelligence) were different facets and that creativity was not a way to display intelligence. While some of the students interviewed did explain the importance of creativity not many revealed an importance for solving problems or being career ready. Everyday creativity was not a notion described by many students.

CHAPTER 6: CONCLUSIONS

This research study provided two bodies of evidence to investigate the creativity beliefs of a group of elementary students. The written survey revealed some general beliefs of this specific population and the student interviews provided a more in-depth, qualitative aspect to the research. Revisiting the three research questions will conclude the reflection and analysis of the two bodies of evidence.

Research Question 1: What are the beliefs or implicit theories of creativity held by elementary age students in the school where I teach?

Eight of the statements on the written survey related to student beliefs of creativity. Question three, “Creative people are smart people.” was meant to investigate if students understand or believe in a connection between intelligence and creativity. Question four, “Only artists are creative.” was meant to investigate if students believe that creativity can be found in many subjects or domains. Question five, “Anyone can be creative” was meant to investigate if students believe that creativity is a universal trait. Question six and ten, “People can learn to be creative.” and “I can be more creative if I try.” look into the idea of creativity as a pre-determined trait. Question nine, “It is important to be creative.” relates to how students might value creativity as a characteristic.

The beliefs of students in the school where I teach seem to focus on creativity as being associated with art-making and artistic products. While 79% percent of students disagreed that “Only artists are creative” and 14 out of the 44 who provided an open-ended response on the survey mentioned creativity specifically in the domain of visual art. For example some statements read: “Being creative means you might be an artist…”/ “It is art”/“drawing the ocean”/“I find loose paper and build something with it”/“I love to draw.” Most examples of creativity from

the personal stories provided by students during the aural interviews express artistic products. Most of the eleven students interviewed provided examples of artistic products as why they believed they were creative.

Some students also believe in a disassociation between creativity and 'smartness.' According to the responses on Question three, one-third of the students responded, "I disagree" to the statement "Creative people are smart people." In the interviews students expressed that creative people *can* be smart but being creative is not in and of itself a way to be smart. Evidenced in the response to question nine most students do not believe in the importance of creativity. Sixty-three percent of the students declared "I Disagree" to the statement "It is important to be creative." Based on this belief students appear lack an understanding of the impact of Big C creativity; they may not realize the importance of creativity in scientific breakthroughs, new product designs, or new art movements. Few students even mentioned an imminent creator in describing some of their beliefs and understandings of creativity; Emily was one example of such a student as she mentioned Pablo Picasso in her interview. Some students who did agree in the importance of creativity do not necessarily understand the notion of everyday creativity and the use of creativity for solving everyday problems, based on the evidence provided in their interviews.

There does not seem to be a widely held belief in the connection of creativity and the problems of everyday life. Two students (Melanie and Steve) seemed to articulate the notion of problem-finding as part of their creativity beliefs. Some researchers have noted problem-finding as an essential creative skill (Starko, 2009). The two students who gave personal stories of problem-finding also expressed strong creative self-efficacy beliefs with personal meaningful experiences. Responses on the survey to question five and stories in the interviews revealed that many students believe creativity to be a universal trait, something that all people can be. Ninety-two

percent of students responded “I Agree” to the statement “Anyone can be creative.” Students also expressed a belief that creativity is a fluid trait. To the statements “People can learn to be creative” and “I can be more creative if I try” 91% and 92% of students agreed.

Student responses to the survey suggest that students have positive creative self-efficacy or creative self-esteem beliefs. Students’ beliefs do not seem to align with the common creativity myths discussed in the Review of Literature. While students have a positive belief in their own creativity and do not seem to have fallen to the trap of some creativity myth student responses do not seem to acknowledge the importance of creativity. Overall students believe themselves to be creative, mainly because of their experience engaging in artistic activities. The data gleaned from the survey seemed to suggest that students hold believes in opposition to common creativity myths but when the more qualitative evidence was provided it seemed that most students do equate creativity with artistic products and therefore may not truly believe it to be interdisciplinary and evident in all domains of learning and life. Based on responses to question three and evidence gathered in the interviews suggest that students believe creativity to be separated from intelligence (or being smart).

Students have inklings that creativity is more than they know. They feel as if it can be many things but when they are asked to explain it or describe it they often revert back to describing artistic products or actions. Overall it is clear from the evidence gathered during student interviews that most students equate creativity with art making. Most of the evidence or the stories provided by students about what make them creative and examples of creativity all come back to creations of visual art. Drawing was the most common answer given for why students believed themselves to be creative people. Ability to draw or interest in drawing seems to be a primary factor in determining their creative self-esteem or creative self-efficacy at this level. The stu-

dents interviewed didn't even necessarily discuss particular skill at drawing – most students just said they were creative because they liked to draw or because they did draw not because they drew exceptionally well.

Research Question 2: What factors may be influencing these beliefs or implicit theories?

The survey did provide some evidence to explain that factors of age, race and gender influence student's creativity beliefs. Different ages, races and genders were found to hold different creativity beliefs. Other factors such as attitudes of creativity in the home also influence students' creativity beliefs although the nature of this study provided limited evidence regarding this. During the interview several students mentioned that parents or teachers had told them they were creative and that was one of the reasons they believed they were a creative person. Students from the interview group who acknowledged that their parents or teachers commented about their creativity did seem to hold stronger beliefs about their own creativity and offer more meaningful examples of their own creativity. These students have beliefs of creative self-efficacy rather than beliefs of self-esteem. Other students who did not express communication with their parents about creativity offered more generic examples of their creativity, mentioning perhaps that they painted yet not describing aspects of a particular painting experience. Peers did not seem to be influencing students in their creativity beliefs, as students did not mention peer influences during interviews.

While students across the grade levels responded in similar ways to the statements on the written survey (i.e majority agreeing or majority disagreeing to each statement) there are some differences amongst the beliefs of students in the three grades. The largest percentage of fifth graders believes that they are creative and smart. The largest percentage of fourth graders believes in the connection between smartness and creativity based on their responses to question

three. Third graders expressed the belief that art is the main domain for creativity in that the largest percentage of that age group responded, “I agree” to question four. In contrast the largest percentage of fourth graders disagreed with the same statement. The largest percentage of fifth graders believes that creativity is a universal trait based on their responses to question five. Fifth graders responded in the largest percentage that they believe they are creative at school. Third graders expressed the belief that they are creative at home based on their responses to question seven. Overall all the grade levels responded in lower percentages that they believe they are creative at home. The highest percentage of third graders believes that creativity is not important and the fourth graders are almost evenly divided on this belief. Fifth graders expressed the belief that they can be more creative if they try in a higher percentage than the other grade levels.

The fifth grade students do seem to have more developed beliefs of creativity (understanding that creativity is connected to intelligence, can be evidenced in different contexts and domains, is a universal trait and can be improved in individuals) that would lead to the conclusion that creativity beliefs coincide with a child’s development. However since the fifth grade students were the smallest participation group it is difficult to distinguish if these beliefs would be the same among a larger group of fifth graders.

Some differences in beliefs of different sub-groups arose when looking at responses by race and gender in each grade level. Racial groups expressed similar beliefs in responses to some of the statements, but a larger percentage of third grade white students believe that creativity has a connection to being smart and that creativity can be found in many domains; based on the groups responses to question three and four on the survey. More Black and Hispanic third grade students expressed a belief that creativity can be learned based on their responses to question six. Fewer White students believe they are creative at home based on their response to ques-

tion seven. A higher percentage of Black students disagree that creativity is important compared to the other racial subgroups based on the responses to question eight. Third grade girls expressed the belief that creativity and smartness are related but more boys expressed the belief that creativity is important. More girls believed that art is the only domain for creativity but more boys believe they are creative at home.

In the fourth grade students some of those same beliefs appear but other beliefs are different from the third grade students when considering race and gender. Black students continue to express the belief that they feel creative at school more than they feel creative at home based on the responses to questions seven and eight. In fourth grade White students expressed the belief that creativity was important and that creativity is related to being smart in a higher percentage than any other group. In fourth grade a lesser percentage of students of all races agree that creativity can be learned based on the responses to question six. Overall in fourth grade boys express beliefs that creativity and smartness are connected, that they are creative at home and at school and that creativity can be learned in larger percentages than girls; as revealed in their responses to questions three, seven, eight and six. The creativity beliefs of fourth grade girls seem to indicate a ‘fourth grade slump’ of some kind as the level of agreement has decline in fourth grade.

Then, in fifth grade some of the creativity beliefs differ when considering the responses by race and gender. White students express beliefs that creativity is related to being smart in a larger percentage than any other racial group, while Black students express the belief that creativity is not important. The girls in fifth grade seem to reverse some of the beliefs of the fourth grade girls, expressing beliefs that they are creative at home and at school, that creativity is related to being smart, and that creativity is important. These beliefs are evidenced by the fact that

girls agreed with questions three, seven, eight, and nine in higher percentages than boys in the fifth grade group.

Factors of racial group, gender and age do reveal differences in the beliefs of the students but this study did not investigate specifically how those factors might influence the beliefs. Perhaps a change in development also brings a change in the understanding of creativity and students can conceptualize it as an internal process as apart from a product created by an individual. As this was a small descriptive study these conclusions cannot apply to the sub-group population as a whole. The beliefs of these sub-groups apply to these particular children only.

Research Question 3: How do students' beliefs about creativity affect their creative self-efficacy or creative self-esteem?

Most students of this research study hold positive creative self-esteem or creative self-efficacy. This largely stems from the belief of students that creativity is related to art making and since students of this age tend to still hold a strong belief in their artistic abilities they therefore also hold a stronger belief in their creativity. Students across the grade levels responded with high creative self-efficacy or creative self-esteem. In response to question one "I am a creative person," 94% of third graders agree, 97% of fourth graders agree and 100% of fifth graders agree. Student's beliefs about creativity do not seem to align with common creativity myths, and even beliefs that do align somewhat align with myths such as "Only artists are creative" do not seem to affect their creative self-esteem or creative self-efficacy in a negative way.

Implications

Students at the elementary level have a range of beliefs regarding creativity. It would not be expected for each individual student to have the same cookie cutter beliefs or experiences regarding creativity. However, it is clear from the interview evidence that students have a limited

understanding of a definition for creativity with many missing the important aspect of appropriateness in addition to novelty. Some students hold the belief that any artistic product is creative regardless of the degree of novelty produced this is evidence that more education on defining creativity is necessary.

Flushing out the implications of these findings will be an evolving process for me as an educator but the evidence provided through the student surveys and the student interviews has provided implications for my personal practice as a teacher and important considerations for other educators as well whose students may hold similar beliefs. In my own teaching practice more emphasis needs to be placed regarding the two-pronged definition of creativity as something novel and appropriate (Amabile, 1996). Students should understand the ways creative thinking benefits our lives in terms of inventions and new ways of looking at the world. Also a greater emphasis on the necessity for creativity in everyday life to solve problems and become career ready should be encouraged. Students need to understand that simply making something different or making something artistic is not enough without an understanding of the appropriateness or the degree of novelty (even to the particular individual) of the solution or action.

Some of the important differences in the sub-groups of students will impact my curriculum and instruction. Black students at my school expressed a belief across grade levels that creativity is not important so more work can be done to provide students with examples and experiences about the importance of creativity. Noticing the ‘fourth grade slump’ in my female students I should pay attention to the fourth grade year as perhaps an important turning point of creativity beliefs for those students.

Incorporating creativity warm up activities into my classroom instruction may be a way to build the creativity beliefs of my students. Creative thinking exercises can improve fluency,

elaboration and originality in student ideas. Creative thinking exercises have been recommended by researchers as a way to increase creativity in students (Starko, 2009), perhaps such exercises could also influence students' beliefs of their own creativity.

Examples of such exercises might be:

- Provide students with an object (such as a bottle cap or popsicle stick) and instruct them to come up with as many uses for the object as they can (Fluency)
- Give students a few pre-drawn lines on a paper or worksheet or have classmates draw the lines for each other and then prompt students to finish the drawings (Elaboration)
- Random input activities where students generate ideas on certain topics and then are randomly assigned two ideas to incorporate in a sentence, sketch or other product (Forced association to improve novelty)

The addition of such practices into my teaching will not be enough to influence student beliefs. I will have to make a concerted effort to help students understand the importance of such exercises and how they affect creative solutions. Students will need to understand the 'why' behind the 'what' in order for their beliefs about creativity to change.

Aside from creative thinking activities I could incorporate creativity profiles into my classroom teaching or perhaps partner with our school news show to highlight such profiles. I could present imminent and everyday creators in the profiles to demonstrate the importance of creativity on all levels. Enhancing students understanding of creativity in those around them and in imminent creators may help them to understand the importance of creativity.

Everyday creativity (Richards, 2007) is something to celebrate for each student. An interesting snack put together with leftover materials in a cupboard or a new game invented to pass

the time on a rainy day - such experiences can be moments of joy for a child and provide mastery experience towards developing creative self-efficacy. To understand and experience the ability to come up with novel and appropriate solutions to a problem: real, imagined, found or given is an invaluable skill. Since students across the grade levels responded with lesser percentages believing that they are creative at home, understanding creativity in everyday life is an important belief to instill in my students. To enhance the understanding of everyday creativity I might employ journaling activities to have students reflect on problems in their own life that they have solved in a creative way. I also believe modeling my own everyday creativity will be a way to increase my students' understanding of the concept. Telling my own stories of solving real life problems in a creative way will invite my students to reflect and communicate their moments of everyday creativity.

I wholeheartedly believe in the power of art education to provide creative experiences for children and give their minds practice with thinking through the creative process and working with affordances and constraints of materials. However, students are missing out on a multitude of creative experiences if they only think of their time drawing with a pencil in hand as a time when they are creative.

It is safe to say that students at this age have not fully formed their feelings of creative self-efficacy or creative self-esteem. Hopefully those beliefs will remain fluid enough throughout the rest of their adolescent and adult development for a robust belief of creative self-efficacy to settle in, evidenced by mastery experiences and successful outcomes in creative endeavors and also recognized in everyday events that provide for novel and appropriate solutions to problems.

Recommendations for Future Research

There is much work to be done in the area of creative self-efficacy, creative self-esteem and creativity beliefs of students. The review of literature demonstrates that a small number of studies have been conducted on creative self-efficacy in the workplace (Tierny & Farmer, 2011) but fewer studies have looked at creative self-efficacy in the classroom setting. Studies that have investigated creative self-efficacy have related it to specific subject areas instead of investigations on creativity as a broad concept (Karwowski, 2011).

A larger study following the same methodology of this research study may provide stronger evidence to link factors or age, race, gender, culture and socio economic status to creativity beliefs. Similar studies of surveys and interviews can be conducted with different student populations, middle school and high school students. Studies with older students might allow for more open-ended written responses such as in the Lemon study (Lemons, 2010). Future research could also compare creativity beliefs through more grade levels, including beliefs of the kindergarten age. Such as study could impact art educators as they seek the best methods to develop creativity in all students. Interesting research might compare the different creativity beliefs of different ages in a longitudinal study to investigate changes in creativity beliefs with age within the same population. Research can be conducted to analyze teacher beliefs of creativity compared with student beliefs. Research studies could investigate students' beliefs of creativity related to family education and investigate how beliefs about creativity in the homes affect a student's beliefs about creativity.

Another possibility of research might involve testing classroom practices after the discovery of creativity beliefs to investigate the influence of those practices on creativity beliefs. Such a

study could impact the field of art education by providing recommendations for a curriculum of creativity that specifically affects the creativity beliefs of students.

Understanding the creativity beliefs of students can empower educators to guide students in developing creative self-efficacy. An important aim in my educational practice will continue to be the creative self-efficacy of my students. The experience of this research study has provided me with valuable knowledge to influence my teaching practice.

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APPENDIX

Appendix A

Directions: Please look at each sentence below. Circle if you agree or disagree with each sentence. If you want to add some other ideas you can use the lines at the bottom or the back of the page.

1. I am a creative person.

I Agree I Disagree

2. I am a smart person.

I Agree I Disagree

3. Creative people are smart people.

I Agree I Disagree

4. Only artists are creative.

I Agree I Disagree

5. Anyone can be creative.

I Agree I Disagree

6. People can learn to be creative.

I Agree I Disagree

7.I feel creative at school.

I Agree I Disagree

8. I feel creative at home.

I Agree I Disagree

9. It is important to be creative.

I Agree I Disagree

10. I can be more creative if I try

I Agree I Disagree

Use this space to share any other thoughts about creativity.

Appendix B

Research Project Announcement!

Shoal Creek Elementary Students have the chance to be a part of an educational research study.

Our very own art teacher
(Mollie Spardello) is completing work towards a master's degree in art education and is doing a research study on creative self-efficacy.

We will be sending home information regarding consent for participation in the research study that consists of a short written survey and possibly a follow up interview.

Please return consent for participation by
Monday September 3, 2012

Appendix C

Georgia State University
Department of Art Education
Informed Consent

Elementary Students and Creative Self-Efficacy

Dr. Melody Milbrandt, Principal Investigator
Mollie Spardello, Student Principal Investigator

I. Purpose:

Your child is invited to be in a research study. This study is to find out what elementary students think about creativity. Your child is invited because your child is an elementary student. Participation will require about 10 minutes of time during one of your child's regularly scheduled art classes in September. A small number of the participants will be interviewed on another day after the survey. Not all of the participants will be interviewed. The interview will take about twenty or thirty minutes and will be scheduled during a time in the school day in September.

II. Procedures:

If your child participates, your child will answer a short survey. Your child will complete the survey during an art class. Your child will take the survey only once. The researcher will look at all the answers of the surveys and try to find trends in the answers. The researcher will then ask a few students to be interviewed about the responses that they gave on the survey. The researcher will set up a time to interview the student on another day during the school day. The researcher will not interview every student and the interview will happen only once. The interview will take twenty to thirty minutes and the researcher will record the audio of the interview.

III. Risks:

In this study, your child will no more risks than they would in a normal day of life.

IV. Benefits:

Participation in this study may or may not benefit your child personally. Overall, we hope to gain information about students' creative development.

V. Voluntary Participation and Withdrawal:

Being in this research is voluntary. Your child does not have to be in this study. If your child

decides to be in the study and changes their mind, your child has the right to drop out at any time. Your child may skip survey questions or stop at any time. Your child's participation will not affect your child's report card grade in any way. Whatever your child decides, your child will not lose any benefits to which your child is otherwise entitled.

VI. Confidentiality:

Your child's name, their survey responses and what they say to us for this study will be kept private as allowed by law. Only Mollie Spardello and Dr. Melody Milbrandt will have access to the research. Information may be shared with those who make sure the study is done in the right way (GSU Institutional Review Board, the Office for Human Research Protection (OHRP), and the RCPS Office of Support Services). The surveys will be stored in a locked cabinet. If your child is interviewed the audio recordings will also be stored in a locked cabinet and they will be destroyed after one year. Your child's name and other facts that might point to your child will not appear in the study. We will report the findings in group form or a pseudonym will be used. Your child will not be identified personally.

VII. Contact Persons:

Contact Dr. Melody Milbrandt or Mollie Spardello at 404-413-5235/milbrandt@gsu.edu or 770-929-1430 ext 126/mspardello@rockdale.k12.ga.us if you have questions, concerns, or complaints about this study. You can also call if think you have been harmed by the study. Call Susan Vogtner in the Georgia State University Office of Research Integrity at 404-413-3513 or svogtner1@gsu.edu if you want to talk to someone who is not part of the study team. You can talk about questions, concerns, or suggestions about the study. You can also call Susan Vogtner if you have questions or concerns about your rights in this study.

VIII. Copy of Consent Form to Subject:

We will give you a copy of this consent form to keep.

If you are willing to allow your child to be in this research study and maybe be audio recorded, please sign below. Please return form by Monday September 3, 2012.

_____

Parent or Guardian Date

_____

Principal Investigator Date

Appendix D

Georgia State University

Department of Art Education

Student Assent Form

Elementary Students and Creative Self-Efficacy

Principal Investigator: Mollie Spardello

I am asking you to volunteer for a research study. This study is part of my thesis project for a master's in art education degree at Georgia State University. This study will take place from September to October 2012. I am doing this study to look at elementary students and what they think about creativity. I would like you to be a part of this project. I would like for you to answer some questions on a survey. The things I learn in the study could be in a paper. I will put the things I learn in my paper but I will talk about what I learn from the whole group not a certain student. Your name will not be written in the study.

I am asking you to answer some questions on a survey. I will use what I find as part of my study. Your name will be kept a secret in the study. The things I find in the study will also be kept in a safe place by me.

There are not any known risks in the study. Some good things that I might find in the study are about elementary students and their thoughts on creativity.

You do not have to be in the study. You can say yes or no to be in the study. It is your choice to be in the study or not. You can any questions you want to. You can leave the study any time you want. If you want to leave the study you can tell me at any time. If you are in this study, it will not change your grade in art. It will also not affect the job of any Rockdale County School District teacher.

If you have any questions or concerns about this research study you can contact me, Mollie Spardello at mspardello1@student.gsu.edu or 706-614-5635. You may also contact my advisor, Dr. Melody Milbrandt, from Georgia State University at milbrandt.gsu.edu or 404-413-5235 . If you have any questions about your rights in research you can call Susan Vogtner from the research office at Georgia State University at 404-463-0674.

You will receive a copy of this form to keep.

If you are willing to volunteer for this research, please sign below.

_____

Student's Name (Print)

_____ _____

Student's Signature Date

_____ _____

Principle Investigator Date

_____ _____

Student Investigator Date

Appendix E

Georgia State University

Department of Art Education

Student Assent Form

Elementary Students and Creative Self-Efficacy

Principal Investigator: Mollie Spardello

I am asking you to be in a research study. This study is part of my project for a master's in art education degree at Georgia State University. This study will take place from September to October 2012. I am doing this to learn what elementary students think about creativity. I would like you to be a part of this project. I would like to have a talk with you about your responses on the survey you already took. We will have one talk where I will ask you questions. The talk will last no longer than forty-five minutes. I will record our talk. This will help me to write down correctly what we talked about. I will keep this recording secured in a locked cabinet. The things I learn in the study could be in a paper. Your name will not be written in the study. I will make up a pretend name for you which I will use for you in the study.

I am asking you to have a talk with me about the responses to the survey that you already answered. I will use what I find as part of my study. Your name will be kept a secret in the study. The things I find in the study will also be kept in a safe place by me.

There are not any known risks in the study. Some good things that I might find in the study are things about elementary students and creativity.

You do not have to be in the study. You can say yes or no to be in the study. It is your choice to be in the study or not. You can skip any questions you want to. You can leave the study any time you want. If you want to

leave the study you can tell me at any time. If you are in this study, it will not change your grade in art. It will also not affect the job of any Rockdale County School District teacher.

If you have any questions or concerns about this research study you can contact me, Mollie Spardello at mspardello1@student.gsu.edu or 706-614-5635. You may also contact my advisor, Dr. Melody Milbrandt, from Georgia State University at milbrandt.gsu.edu or 404-413-5235. If you have any questions about your rights in research you can call Susan Vogtner from the research office at Georgia State University at 404-463-0674.

You will receive a copy of this form to keep.

If you are willing to volunteer for this research, please sign below.

_____

Student's Name (Print)

_____ _____

Student's Signature Date

_____ _____

Principle Investigator Date

_____ _____

Student Investigator Date