Georgia State University
ScholarWorks @ Georgia State University

Art and Design Theses | Ernest G. Welch School of Art and Design

7-16-2008

Autism and Education: A Comparison of Practices and Suggestions for Adaptation

Lisa Irene Steinfeld

Follow this and additional works at: http://scholarworks.gsu.edu/art_design_theses

Recommended Citation
Steinfeld, Lisa Irene, "Autism and Education: A Comparison of Practices and Suggestions for Adaptation." Thesis, Georgia State University, 2008.
http://scholarworks.gsu.edu/art_design_theses/30

This Thesis is brought to you for free and open access by the Ernest G. Welch School of Art and Design at ScholarWorks @ Georgia State University. It has been accepted for inclusion in Art and Design Theses by an authorized administrator of ScholarWorks @ Georgia State University. For more information, please contact scholarworks@gsu.edu.

AUTISM AND ART EDUCATION: A COMPARISON OF PRACTICES AND SUGGESTIONS FOR ADAPTATION

by

LISA STEINFELD

Under the direction of Dr. Melody Milbrandt

ABSTRACT

Based on my experience and research, I believe more educational resources are needed for teaching students with Autism Spectrum Disorder (ASD). I have combined interviews of participants —two certified and currently practicing art teachers working in the public school setting, two adaptive art specialists, and two art therapists— with relevant information from my Review of Literature to compile an initial set of practices and adaptive techniques specifically for art teachers to use in constructing a successful learning environment in the art classroom for students with ASD.

According to my review of literature, three factors necessary for creating a successful learning environment for students with ASD are preparation, collaboration, and instruction. To examine these factors, I focused my interviews on these topics.

Results were aligned with the initial research as those interviewed described a need for more complete and applicable training, more opportunities for collaboration, and information about possible strategies to use with students with ASD in the art classroom.

INDEX WORDS: Art Education, Autism Spectrum Disorder, Art Therapy, Adaptive Art

AUTISM AND ART EDUCATION: A COMPARISON OF PRACTICES AND SUGGESTIONS FOR ADAPTATION

by

LISA STEINFELD

A Thesis Submitted in Partial Fulfillment Requirements for the Degree of

Master of Art Education

in the College of Arts and Sciences

Georgia State University

2008

Copyright by
Lisa Irene Steinfeld
2008

AUTISM AND ART EDUCATION: A COMPARISON OF PRACTICES AND SUGGESTIONS FOR ADAPTATION

by

LISA STEINFELD

Committee Chair: Melody Milbrandt

Committee: Melanie Davenport
Juane Heflin

Electronic Version Approved:

Office of Graduate Studies
College of Arts and Sciences
Georgia State University
August 2008

DEDICATION

This accomplishment would not be possible without the guidance and support of my parents, Bonnie and Arthur Steinfeld, who have always pushed me to do my best. I dedicate this as well to my partner in life, Adam Davis. Without his encouragement, I may never have begun.

Thank you to those in my life who care about me enough to require high achievement.

ACKNOWLEDGEMENTS

I have had some amazing professors and teachers along the way. Thank you to those who helped me complete, really to begin, this research; To the professionals who participated, my many thanks for being open to sharing your experiences with me so that we can try to make a difference in the lives of students with Autism Spectrum Disorder. To my Chair, Dr. Melody Milbrandt, and Committee, Dr. Melanie Davenport, and Dr. Juane Heflin, I truly appreciate your forward thinking, suggestions, and excitement about this project. I think we have a long way to go and I thank you for helping me begin the journey.

TABLE OF CONTENTS

DEDICATION		iv
ACKNOWLEDGEMENTS		v
CHAPTER		
1	INTRODUCTION	1
2	REVIEW OF LITERATURE	5
3	FINDINGS	26
4	DISCUSSION & IMPLICATIONS	44
5	CONCLUSION	53
6	RECOMMENDATIONS	56
REFERENCES		59
APPENDICES		
A	RESOURCES	64
B	PROJECT LIST	65
C	INTERVIEWS	68

CHAPTER ONE: INTRODUCTION

During my pre-service internship, I encountered three students in my art classroom diagnosed with autism, also known as Autism Spectrum Disorders (ASD). Through past experience interacting with students with ASD in an after-school program, I had some awareness about the disorder and its effect on learning and interpersonal relationships. I knew that special accommodations were needed in the educational environment for students with autism to successfully learn, but I did not know any specific adaptive strategies for teaching in the art classroom.

A 1994 article by Doris Guay summarizes the context of this discussion, questioning "Students with Disabilities in the Art Classroom: How Prepared Are We?" Guay writes that, due to educational initiatives which call for more integration of students with disabilities into regular general and art classrooms, it has increasingly become necessary for teachers to be prepared to aptly respond to the needs of these students. Although the education coursework at Georgia State required a general topics class called Exceptional Learners, nothing had prepared me for how best to work with this type of disability specifically.

My internship experience provoked questions of what conditions and environmental factors must be in place to create a successful learning environment for students with ASD. While in the observation stages of the internship, the two teachers with whom I worked did not seem to address students with autism with any specialized content or differentiated instructional strategies. This experience led me to several related questions: Is there a current curriculum or set of guidelines available for public school art teachers when teaching students with autism? If so, what is that current curriculum and what interventions or teaching strategies are suggested?

Through my initial investigation, it became apparent that although there are many resources available on ASD and related lesson plans and activities, there are no curriculum standards or suggestions currently available. Considering the growing rate of students diagnosed with ASD and the push toward full inclusion in the classroom, I felt it was necessary to develop a reference of applicable practices for art educators.

Purpose of the Study

Based on my experience and research, I believe more educational resources are needed for teaching students with ASD. Through interviews with a variety of experts, I compiled an initial set of practices and adaptive techniques specifically for art teachers. I combined those interviews with relevant information from my Review of Literature to create a resource of information about how to construct a successful art learning environment for students with ASD.

Methodology

My research questions are:

1. What adaptive techniques are currently in use for students with ASD in the art classroom?
2. What factors contribute to creating the most successful learning environment for these students?
3. What are the distinctive differences in practice among art therapists, adaptive art specialists, and art teachers?

My approach involved several steps. First, I reviewed the relevant literature to gain an understanding of the disorder itself and related research on ASD and the field of art education. From my review of literature, I drew a conclusion that three overarching themes are necessary for creating a successful learning environment for students with ASD: preparation, collaboration, and instruction. To examine these factors and to address the resulting research questions, I

prepared a list of interview questions focusing on preparation and practice and interviewed two certified and currently practicing art teachers working in the public school setting, two adaptive art specialists, and two art therapists. Participants were asked to describe their perspectives about their most successful practices and the role of each in their individual environmental contexts.

To investigate current practices, I asked the art teachers to comment on their work with students with ASD in the art classroom and reflect on how each of these factors affected student success. If one factor was missing, what effect did that have on student learning? Teachers were asked to discuss interventions they are using in their classrooms, to describe their experiences and any adaptive techniques in their current practice, as well to reflect on their training and preparation for working with students with autism.

When I interviewed the art therapists and adaptive art specialists, they discussed their role in working with this population, as well as the practices and the strategies they felt would be most effective and successful in the art-classroom. I asked them the same set of questions given to the art teachers, with a few additional questions eliciting suggestions for future implementation. These were qualitative, conversational interviews, transcribed and coded for individual anonymity. I analyzed the comments to determine how the suggestions compare, noting contrasting responses and areas in which the participants seem to agree.

Participants

Two art teachers in the regular art classroom, two adaptive art specialists, and two art therapists were recruited via personal contacts and through word of mouth. For recruiting these participants, the primary criterion was their experience of working in an inclusive environment

with elementary (K-5) level children. There was no discrimination of any gender, socio-economic, or ethnic factors in the selection of participants.

Limitations

Due to time constraints and logistics of obtaining permission for extensive interviews, the number of participants in this study was limited. Findings may not be generalized beyond this small group, but since there is so little information available on this topic, I hope my research will contribute to the literature regarding teaching art to students with ASD.

Timeline

Recruitment, interviews, and transcriptions took place in early June 2008. The thesis was submitted by the July 18 deadline.

Definition of terms

Art Teacher –someone who teaches general art elements and principles, aesthetics, and history

Adaptive Art Specialist – someone who is familiar with tools, techniques, and materials that make the art experience accessible for students with a variety of abilities

Art Therapist – "trained in the psychology of mark making and symbolism, in non-verbal communication, psychotherapeutic understanding of child development…" (http://www.arttherapist.com/, 2008).

CHAPTER TWO: REVIEW OF LITERATURE

Defining Autism

Autism is a neurological disorder, one of five conditions under the umbrella of Pervasive Development Disorder (PDD) which are characterized by severe impairments in several areas of development, including social and communication (Centers for Disease Control and Prevention, 2008). Other conditions under this classification are Asperger's disorder, Rett's disorder, Childhood disintegrative disorder, and Pervasive developmental disorder-not otherwise specified, which includes atypical autism (Bowler, 2007; Myles, 2007). Bowler offers delineation between classic autism and high-functioning autism, which some consider to be equivalent to Asperger's Syndrome. High-functioning autism usually presents with stronger ability for flexible thinking and problem-solving, better cognitive skills, and more normal speech than those with autistic disorder (Bowler, 2007). Grandin (1995) categorizes classic autism by describing characteristics of "extremely rigid thinking…poor ability to generalize…and no common sense" (p. 46). She explains, "People with Asperger's syndrome…generally perform better on tests of flexible problem-solving…have more normal speech development and much better cognitive skills" (p. 47). Grandin finds that the timing of sensory development may determine the difference.

Descriptions of Autism Spectrum Disorder (ASD) share characteristics of solitary behavior, lack of empathy, detachment, mental rigidity, focus on specialized interest, and language difficulties (Bowler, 2007). Many conditions have similar or overlapping criteria of symptoms of the spectrum, but are not included in the definitive parameters of the disorder. On the periphery of autism, these conditions are described as a "broader phenotype" (Bowler, 2007, p. 7). Cohen (2006) makes it clear that it is difficult to assess this disorder due to speech and

communication impairments. Additionally, IQ does not determine a diagnosis and progress must be assessed as unique to the individual. The causes of ASD have never been definitely identified, though among the hypothesized reasons are environment, genetic, upbringing, immune system abnormalities, and viral or toxic exposure in the womb.

The term “autism” was first used in 1911 by Eugene Bleuler describing “the retreat into a world of their own” (Bowler, 2007, p.5), a feature of schizophrenia. This description of social impairment is one of three core dysfunctions caused by Autism Spectrum Disorder. The first historical conception and application of this term to this particular developmental disorder is found in literature by Leo Kanner in 1943, in which he describes “autistic disturbances of affective contact”(Bowler, 2007, p.2), though this reference is not the first account of children exhibiting these characteristics. Kanner reports “failure to develop... [typical] emotionally charged interpersonal relations” (as cited in Bowler, 2007, p.2); failure to recognize and/or acknowledge other human beings; a display of characteristic speech and language patterns; mute or delayed development; and practice of echolalia, repeating back words or phrases either immediate or delayed. In addition, Kanner observes these children using reversed pronouns, demonstrating “obsessive insistence on sameness” (as cited in Bowler, 2007, p. 3), and stereo-typified or repetitive actions.

In the 1970’s, working from Kanner’s established foundation, researchers Hermelin, O’Conner and colleagues conducted psychological investigations of people with autism. They discovered specific challenges of cognitive functioning, including difficulties in processing, encoding, and using meaningful aspects of information. When compared to typical populations, intelligence testing displayed discrepancies from verbal tests to performance, with enhanced performance on visual-spatial modes (as cited in Bowler, 2007). Tests also demonstrated

abilities superior in math and logical modalities of learning (Cohen, 2006). However, in opposition to their enhanced visual-spatial performance on IQ tests, the autism population's problem solving capabilities are often confined by the inability to imagine novel approaches to resolving tasks (Bowler, 2007).

For many people with Kannerian autism who typically lack verbal skills, visual communication is their only positive form of expression and comprehension, and often an area in which they excel (Bowler, 2007). These visual learners use images to comprehend ideas (Turkington & Anan, 2007). Relating this comprehension strategy to a unique definition of intelligence as described by Howard Gardener's theory of Multiple Intelligences, a reliance on visual learning demonstrates the further value of action in the art classroom. Specifically observing and thinking about students with ASD and similar populations, along with his research group, Gardner utterly subverted the traditional definition of intelligence. This team understood *types* of intelligences, "acknowledging that people have different cognitive strengths and contrasting cognitive styles" (Gardner, 1993, p.6). Examining his research, Gardner cites cases of children with autism who have low intrapersonal intelligence, but who score high in other modalities such as spatial, logical-mathematical, musical, or mechanical categories. Kellman (2001) points to the practice of art as a way for people with non-verbal, Kannerian autism to communicate, exercise imagination, maintain control or adhere to structure, make meaning or improve comprehension through familiarization of experiences, and as a way to relieve stress. Visual art becomes a method of overcoming obstacles of communication.

Through the 1980's, broader definitions raised public awareness of ASD and, with it, prevalence of diagnosis. Within the last few decades, the ability to detect and define ASD has "improved dramatically [though] there is no biological marker or medical test to diagnose"

(Heflin & Alaimo, 2007, p.16). To attempt diagnosis, we therefore rely on observations of behaviors, which must be identified before the age of three or assessed retroactively (Heflin & Alaimo, 2007). Cohen (2006) cites a 2005 Centers for Disease Control and Prevention (CDC) estimate of 62 in 10,000 reported cases between the ages of 1 and 21 years. This number is up from the estimation in the mid 1990's of 10 – 15 in 10,000 (Cohen, 2006). In 2007, the CDC released reported cases statistics at 1 in 150. This new estimation places ASD as the third most common developmental disability (Heflin & Alaimo, 2007). Heflin & Alaimo (2007) give statistics of between 35 and 40 percent of those diagnosed who do not develop spoken language, and only 25 and 33 percent have measured intelligence in the range of average to above. The reported cases reflect a rise in diagnosis and a broadening of the definition of ASD. Wing and Gould (1979) determined ASD not as an isolated condition but as a range of associated characteristics linked by three unifying factors (as cited in Bowler, 2007). In 2006, Cohen concludes that the underlying connections are 1) social impairment, 2) repetitive behavior, and 3) impairment in communication.

Arguably, the most prominent and prevalent feature is social impairment, present in all individuals identified with ASD. This impairment can range from total disconnect to subtle variations of a lack of understanding of interpersonal relations (Bowler, 2007). Turkington and Anan (2007) state that this "absence of reciprocal social interactive skills" (p. iv) presents itself in symptoms of less frequent eye contact, fewer facial expressions, the tendencies to be less likely to share their interests and to apply for parental attention.

Because social interaction does not resonate or have meaning as understood by *typical* populations, the same learning of actions and emotions does not occur normally. If this understanding cannot take place because of the described impairment, the child cannot learn

normal regulating behavior. This absence of comprehension results in the child's lacking the knowledge of social codes, thus impeding communication and connection (Cohen, 2006).

Cohen (2006) describes the inability to empathize, predict, and react to others, and therefore react to others appropriately, as being a deficit of executive functioning, or the higher order thinking skills necessary to make decisions and problem solve. Other descriptors of executive function challenges present in difficulty planning, starting a task, or the obsessive need to complete the task (Turkington & Anan, 2007). The affected individuals may then rely on non-verbal cues to act appropriately to a question or situation (Cohen, 2006). As a result, they can then repeat these behaviors as learned methods of communication, though they cannot attach meaning or generalize these actions. The action is integrated in repetitive form as a method of coping or compensation (Bowler, 2007).

The profound impact of language difficulties impairs the child's development of communication skills. Turkington and Anan (2007) discuss symptoms of delayed spoken language, or being completely non-verbal, failure to engage in meaningful dialogue, the practice of echolalia, speaking in a monotone voice, focus on single-topic monologues, and delayed use of facial expression, as supportive to this point. A third and also significant impact is found in the behavioral excesses of children with ASD. These excesses include repetitive mannerisms, fascination with unusual topics or objects in unusual ways, and ritualistic, sometimes self-injurious, obsessive behavior. Often these children will act out in frustration due to inability to communicate (Turkington & Anan, 2007). Because of these three significant and core areas of impairment, social, communicative, and behavioral, Turkington and Anan (2007) argue that evaluation and intervention focus should encompass medical, developmental, and behavioral treatments.

Since 1974, some researchers believe ASD to be a sensory dysfunction rather than a social impairment, declaring it, “a sensory integrative disorder in which the brain is not able to attached meaning to sensations and organize them into precepts and finally into concepts” (Bogdashina, 2003, p.25). Bogdashina (2003) cites comparison research in the field of visual impairments and sensory deprivation that show similar behavior patterns, including repetitive, obsessive, even self-injurious behaviors, as well as observed language features, such as echolalia and hyperlexia. Bogdashina seeks to consider what happens when the process through which infants “extract information from stimulation” (Bogdashina, 2003, p.37-38) is distorted. How this information is constructed within the brain, the ability to comprehend sensory information in meaningful way, determines perception (Bogdashina, 2003).

As a result of sensory dysfunction, development of concepts and symbols may be adversely affected. If sensory association is not properly formed through the appropriate modality, the related symbol may be misinformed or categorized incorrectly (Turkington & Anan, 2007). Because words give people a way to classify and properly store information, this misunderstanding of information could possibly relate to the impairment of communication, thus social, skills. As previously mentioned, people with ASD have a difficult time comprehending abstract concepts. Because words are not a concrete representation of a *thing*, these individuals develop a different kind of language (Turkington & Anan, 2007). They create an identification system that relates sense memory to certain concepts and classify respectively, affecting their ability to generalize information.

Though sensory challenges have been studied since 1964 as a “possible core feature of the disorder” (Heflin & Alaimo, 2007, p.8), they are not yet defined as one of the three conditions that are considered underlining factors of diagnosis. However, this identified

challenge raises the question of how to effectively interact with these students in the art classroom (Bogdashina, 2003). Sensory misperception can make the art classroom uniquely chaotic and uncomfortable, possibly triggering behavior problems. The question arises, how can art teachers learn how to best serve this audience?

Why Art?

In her book, *Art for All the Children*, Frances Anderson (1978) discusses the value of art as an outlet for creative expression for students with disabilities, as well as fulfilling the critical need of establishing a "positive self-concept" (p. x). Although Anderson's book addresses exceptional children broadly, many of the adaptive strategies suggested could be applicable to an art program for students with ASD. She also discusses art in relation to reinforcing skills necessary in content areas and beyond. For example, Anderson mentions the importance of sequencing in an art activity, as in task analysis. She suggests presenting the steps both verbally and visually (Anderson, 1972).

Language difficulties and communication impairment are characteristic of most children with ASD, both with functional acquisition and use of speech, and in terms of comprehending nonverbal behaviors (NRC, 2001). Because the visual arts are an act of communication and expression, the art classroom is an avenue through which students with ASD may practice and strengthen communication skills.

Beyond traditional interventions, participation in art may also build social relationships through collaborative projects and peer interactions. In her discussion of art therapy as a method to improve social skills, Julian (2004) suggests art "may increase the willingness of children to participate because art is an activity they find acceptable" (as cited in Epp, 2008). Epp also discusses art as a constructive arena for self-expression, discharging frustration and aggression,

and for self-regulation. She includes problem-solving as an incidental of art therapy as well, referring to visual problem solving.

Emery (2004) specifically cites a case study in which training in art and using art materials strengthened a young boy's motor skills as well as having a direct and observable impact on other developmental skills, including improved social interactions, better behavior, and language skills. Based on her research, Emery (2004) claims,

> the very act of drawing with intention may encourage attachment to the object. Children create art because it is rooted in the need to relate to their world…[so] art therapy …may serve as a path toward increased awareness of the self. The sense of self remains a cornerstone of relating. (147)

Students with ASD typically have sensory challenges, which must be considered when they are working with art materials. Often, because of the social and communication impairments that are typical of children with ASD, their most effective method of communication and expression is visual. Gair (1980) clarifies that art is an important in the curriculum of children with disabilities because "they are unique ways of learning about the self…are structured disciplines that can make a child's mind and emotions reach far beyond a handicap; and finally, because for some children the arts are the best or *only* way they are able to learn" (p.8). For these important reasons, it is imperative to reach these students in the art classroom. Making a connection through art can help them to build skills in areas where they demonstrate need.

Factors Necessary for Creating a Successful Learning Experience

Preparation

In the 1994 article “Students with Disabilities in the Art Classroom: How Prepared Are We?” Guay writes about the effects of PL 94-142 and the subsequent development of updated curricula for preservice teachers to better prepare them for entering the integrated classroom. She discusses recommendations of both resources and theory to support this training, and even provides suggestions for methodology courses.

However, follow up research found limited incorporation of this new curricula, and “no studies of the preservice preparation of art teachers to teach students with disabilities have been reported” (Guay, 1994, p.45). This paper is a return to Guay’s 1994 report and a follow up on questions proposed in her article regarding preparation, implementation, and reflection on these factors.

Teachers are extremely busy and ASD is a complex disorder. The statistics found in Guay’s research confirms the need for a resource on how to effectively interact with and instruct students with ASD included in the art classroom. Her paper indicated that many practicing teachers are looking to each other for support and ideas. Although this collaborative environment is important, it is not the ideal way to develop these guidelines. How often are teachers tired, stressed, or overworked with limited time to form cooperative teams or prepare new lesson plans with differentiated instruction levels? What happens to those students when the effort falls short? Adaptive art specialists and art therapists can provide information regarding the resources that are available for the art teacher’s preparation, point out the questions that are important for art teachers to ask when collaborating with support staff, and in suggesting possible adaptive methods for the sensory issues that are typical of students with ASD.

Environment

The physical space of the art room itself is usually a completely different layout than the general classroom, designed with the necessity of serving many classes a day with varying student numbers and respectively varying lesson plans. This variation requires the art teacher to have materials prepared and often on the tables or in view. The art room is meant to engage students, with bright colors and patterns. The lessons are engineered by the instructor but usually intended for students to work either independently or in small groups, thus the noise level is louder than that of a general classroom. In addition, the lessons are multi-layered with complex or staged directions that require students to follow and remember. As a result, the art room could be an especially difficult situation for students with ASD due to the constantly changing environment and the type of instructions needed to complete the project.

Each and every aspect of this description can be challenging for students diagnosed with an ASD, from breaking with routine to sensory assault to instructional, memory difficulties. How can the art classroom become a positive learning environment for these students? How can their chances of success be increased? "Information overload may lead to sensory and emotional hyper-sensibility and therefore to a situation of chronic stress" (Bogdashina, 2003, p.17). It is this statement by Bogdashina (2003) that provokes the need to examine and re-configure current methods and provided environments when considering the needs of students with ASD.

Perception may impact interpretation of information. Imagine your senses are completely out of your control, your brain misinterpreting how the world communicates with you, causing you to feel overwhelmed and disoriented. Sometimes all the sounds around you are magnified, colors are excruciatingly bright, or everything that touches your skin makes it crawl. Sometimes you cannot feel anything at all. Sometimes your radio sounds like a rainbow and your soup

tastes like your mother's perfume. These reactions describe sensory distortions often felt by children with Autism Spectrum Disorder, and no two are alike (Bogdashina, 2003). "Brightly colored wall decorations made learning fun for me, but they may be too distracting for a child with sensory jumbling" (Grandin, 1995, p.53).

To convey structure and expectations, teachers must deliberately arrange the physical space in a way that is most considerate of these sensory challenges (Heflin & Alberto, 2001). Giving the students an appropriate amount of space to work individually and within established areas can minimize distractions. Boundaries can be constructed using visual indicators of any sort, including furniture or masking tape on the floor (Heflin & Alberto, 2001).

Instruction

Due to differences in study design, variability within populations, environmental stressors and variables, and timeline of treatment, there is contrary evidence available as to which intervention is most effective in treating the three core deficits of ASD: social, communicative, and behavioral (Heflin & Alaimo, 2007). Cohen (2006) and others have found the strongest support for "intensive, behaviorally based intervention" (p. v). Treatments should include interruption of stereotyped behavior, follow up with positive reinforcement, and must be individually focused in order to be effective (Cohen, 2006). It is important to consider that though documentation is not always complete nor thoroughly substantiated, for any individual method, researchers have noted it is undeniable that early intervention is a necessity for any method of treating autism (Cohen, 2006).

Interventions

Suggestions include relationship-based intervention, also called relationship-development intervention, which Greenspan explains as, "enticing young children into interaction" (as cited

Cohen, 2006, p.110-111). Supporters of relationship-based interventions such as Floor Time and Holding Therapy, view the inability to form relationships as the core deficit and thus seek to treat this deficit through "promoting the formation of secure attachments (Heflin & Alaimo, 2007, p.90).

Those who believe the core issue is difficulty with skill acquisition support skills-based interventions that build programs that first assess the deficit, second, systematically teach necessary skills, and third, collect and analyze the applicable data (Heflin & Alaimo, 2007). The treatment strategy that has the most research validity is Applied Behavior Analysis (ABA). ABA appears in variant forms of treatments such as Discrete Trial Therapy (DTT), Pivotal Response Treatment (PRT), and Picture Exchange Communication System (PECS) (Heflin & Alaimo, 2007). Some of these interventions, which have applicability in the art classroom, are discussed below.

In Discrete Trial Therapy (DTT), behaviors are taught in small, sequentially linked steps (Bernard-Opitz, 2005). This type of instruction is successful partly because "all autistic children have problems with long strings of verbal information. Even very high-functioning people have difficulty following verbal instruction and find it easier to follow written…" (Grandin, 1995, p.55).

The objective of Pivotal Response treatment is to teach children with ASD how to identify appropriate behaviors and encourage them to apply generalized behavior/reaction from one situation to another through expanding their recognition of multiple visual cues. Koegal focuses on behaviors that "affect many areas of functioning" (as cited in Cohen, 2006, p.123), sort of like keystones, rather than treating individual skills. Association is key to appropriate learning-- the child must connect and comprehend the proper label or description for the proper

meaning. This processing means they must be attending to the respective explanation (Turkington & Anan, 2007). Objectives must be direct and instruction given explicitly, such as "Look at what I am looking at…" Deficits in joint attention affects learning new concepts, so proper time should be allowed for joint attention to shift after giving instructions (Turkington & Anan, 2007).

The Picture Exchange Communication System (PECS) uses language training through visual images within the context of play and social activities (Cohen, 2006). PECS requires interaction and develops communication through picture exchange. It is child-motivated, so that the child must express a request through choosing and extending a picture of that object. A partner retrieves that object (Bernard-Opitz, 2005). This intervention is motivated by the child him/herself as s/he communicates a request for activities or items through picture exchange, and encourages independent formulation through linking sequential lessons (Cohen, 2006; Myles, et al., 2007). This method has a high return of success (Cohen, 2006). In addition, "when given an effective method of communication system…inappropriate behaviors decrease" (Myles, et al., 2007, p.257).

TEACCH (Treatment and education of autistic and communication-related handicapped children) is one intervention that presents a clearly structured task list also through visual communication. A daily agenda is displayed as a picture activity schedule and ends with each task being completed. This structured teaching program, developed in 1986 by Eric Shopler, focuses on setting clear expectations and schedules. The environment is defined through color-coding, labels, and lines (Bernard-Opitz, 2005). Through this program, students can build and strengthen generalization skills. As they come to understand every day sequences, the ability to predict events increases (Bernard-Opitz, 2005). TEACCH emphasizes modification techniques

for accommodation, not recovery. TEACCH uses visual organizers, color-codes, pictures, signs, and writing as methods of communication in order to encourage generalization, demonstrating multiple ways to accomplish one goal (Cohen, 2006).

Experienced-based therapies, such as Play Therapy, use the child's own experiences to develop meaning through comprehension. Experienced-based therapy applies the idea that the child will feel comfortable during new experiences if s/he can match them to previous ones s/he already understands (Bernard-Opitz, 2005). Introduced in the early 1990's, Play Therapy works as emotional learning. Because play skills require interaction and imagination, Play Therapy encourages peer interaction and problem solving. It has been shown to positively affect language development and communication skills, strengthen joint attention, and encourage development of understanding and empathy (Bernard-Opitz, 2005). This method is especially important to consider in art, where the classroom dynamic inherently creates collaborative and interactive situations.

A third category of intervention is physiologically-based, an individualized program that would include specialized assessment and implementation of interventions such as dietary, auditory training, vision or music therapy, and sensory integration (Heflin & Alaimo, 2007). Sensory information helps people learn from their surrounding environment. From faulty input, challenges arise in the form of hyper and hypo-sensitivity to textures, tastes, and smells (Turkington & Anan, 2007). The repetitive and self-stimulating behaviors discussed earlier serve a protective function against sensory overload (Bogdashina, 2003). Blocks and filters are often used for the treatment of sensory issues, including earplugs for auditory hyper-sensitivity, filters for contrast and color tines, and even rhythm to stabilize processing. Specifically, visual challenges due to improper processing in the brain include depth perception issues, intolerance of

movement, even eye movement in others, and sometimes excessive sensitivity to the flicker of the florescent in lighting (Kellman, 2001). Grandin (1995) states, “People with severe sensory problems have a horrible time trying to figure out what reality is” (p.76).

Grandin (1995) described a sensory continuum theory, observed first by Carl Delacato in the 1970’s, which may affect how people with ASD communicate and, consequently, how they learn. She speculates:

> It appears that at one end of the spectrum, autism is primarily a cognitive disorder, and at the other end it is primarily a sensory processing disorder…There can be mild and severe cases at all points along the continuum. Both the severity and ratio of each of these two components are variable, and each case of autism is different. (p.58)

How can we assess and therefore appropriately teach to this spectrum?

Grandin (1995) calls for observation of the child’s behavior to give insight as to what the sensory profile of the individual might be. Larkey (2007), who compiled *Practical Sensory Programmes for Students with ASD and Other Special Needs*, reinforces the previously mentioned assertions of Bogdashina and Grandin that to best serve the individualized student, the teacher must first use a list of actions and a frequency rating system to observe the student and create a sensory profile.

Regardless of the type of treatment utilized, strong classroom management is an important factor in a successful program. The teacher can reduce or minimize distractions depending on how s/he organizes the room, uses visual and physical structure to define spaces and communicate boundaries, and the placement of furniture to facilitate group work. It is helpful for students to have storage areas for their belongings, a cool down area to de-stress, and clearly articulated expectations of behavior, to proactively combat behavioral issues (Helfin &

Alaimo, 2007). Grandin (1995) clarifies, “For people with autism, rules are very important, because we concentrate intently on how things are done” (p.103).

Past Practices

Responding to mainstreaming in 1984, Copeland gives suggestions for curriculum development. For use with students with developmental disabilities, she proposes:

> (1) structured, repetitive art activities with minimal art concepts, (2) both tactile and sensory approaches, (3) task organization…as well as task follow-through, (4) emphasis on art fundamentals and art elements necessary for creative expression, (5) gross and fine motor muscle development and eye-hand coordination tasks, and (6) gradual addition of steps in sequential order. (p.23)

For students with neurological disorders, she suggests:

> (1) utilize all of the senses…, (2) divide the lessons into discrete parts, (3) meet specific needs of different disorders…, (4) include more demonstration…, (5) repeat and reinforce concepts continuously, (6) stress art elements and principles, and (7) provide opportunities for tactile and three-dimensional experiences. (p.23-24)

Copeland also writes up short descriptions regarding basic materials and adaptations. How can art teachers use the framework of successful intervention strategies to correspond with the adaptive strategies suggested?

Task analysis is an important instructional strategy for use with all students, though specifically helpful to this population. To promote mastery of skills and learner success, task analysis can be a useful tool in working towards proficiency. Each step of the sequence is recorded in terms of observable, measurable behavior, which can then be modified according to the individual’s needs (Morreau & Anderson, 1986). For students with disabilities, mastery of

tasks may be an extra preliminary step though basic skill acquisition is necessary for all students in art.

Direct teacher/student interaction is vital to the success of students with ASD. Whether there is the availability of an accompanying paraprofessional or the students are on their own, "almost half of all very young children with autism respond well to gently intrusive programs in which they are constantly encouraged to look at the teacher and interact" (Grandin, 1995, p.53). Carrigan (1994) discusses one technique coming out of Switzerland that encourages this interaction called *Paint Talk*, based on the Lowenfeld tradition of art as expression. Through analyzing students' "spontaneous painting as an alternative form of communication," teachers are able to "form a rapport with the students and gain insights into students' creativity, organizational and visual-motor skills, and even…sense of humor" (Carrigan, 1994, p.1). An adaptation of art therapy, *Paint Talk* is a structured painting experience intended to provide students with an avenue of communication and self-expression, allowing time for reflection and refocus.

To promote physical movement, students stand while painting and are responsible for creating their own work space by pinning a large piece of paper to the wall. They use only one medium, the choice of which depends on an evaluation of their behavior needs, in order to become familiar with the qualities. They are encouraged to choose between 8 to 20 color possibilities. With this technique, the teacher's role is as facilitator and observer, though student partnerships are encouraged as an "opportunity for relationships to develop" (Carrington, 1994, p.3). Although "there is no attempt to move the student artist from one level of artistic functioning to the next," (Carrington, 1994, p.2) this strategy may help build skills of cognitive functioning, social interaction, and personal self-esteem.

Incidental benefits of this technique include development ranging from ability to manipulate art materials and categorizing, or naming. The line dividing art educator from art therapist becomes evident in instances of interpretation of the artwork. Carrington (1994) discusses responses and intervention strategies for dealing with images that may seem disturbing. However, this strategy merges art educator and art therapist, a dangerous and precarious position. The suggestions Carrington gives may instead be an appropriate point of collaboration between the art teacher and the support staff. Although Paint Talk seems to be a strong tool for initial exploration, it does not provide a substitute for a standard curriculum.

Some inclusion programs use students trained in facilitative strategies to model interactions. This method demonstrates success because peer modeling encourages positive and appropriate behaviors (for some), though it is imperative that teachers are familiar with individual students in order to evaluate the effectiveness of this strategy (Cohen, 2006). The argument for peer modeling and cooperative, or group instruction, is strong for children with ASD.

Daily Life Therapy, developed by Dr. Kiyo Kitahara is another program that uses peer mediation or small-group work to holistically strengthen communication and social skills within the context of the classroom activity. Through redirection to control inappropriate behaviors and predictable group patterning, researchers observed “an increase in children’s attending to instructions, and a significant decrease in challenging behaviors among many children” (as cited in Quill, Gurry, & Larkin 1989, p.629), although the authors claim that further investigation is needed to substantiate the success of this program. Research in the decade after federal law mandated educational mainstreaming found that peer modeling was a successful technique in

altering behaviors such as sharing, social roles, self-regulation, problem-solving and emotional behavior

Collaboration

An article called "Mainstreaming Art as Well as Children" briefly examines the need for collaboration between the classroom teacher and the art specialist who "often neither…is fully aware of the objectives…and aims of the other's programs" (Anderson, 1975, p.26). This need is as true now as it was in 1975. Gair repeats this call to action writing in 1980, "If 'Arts Education' is not printed on the school's IEP forms under the heading 'Curriculum Content or Related Services,' it is up to the IEP team to write it in. Remember it is necessary to explain why the Arts Content Area (ACA) is a realistic mode of learning for that particular child since all of the Art Learning Goals and Objectives will be determined by this explanation"(p.8). Gair cites three case studies that demonstrate ways in which the student was able to build other skills while strengthening innate artistic ability because of establishing specific, art related IEP goals. She discusses a case in particular where the child used art learning "to teach reception, association, and expression skills to a developmentally delayed child whose perceptual disabilities caused him to be confused and fearful about himself and his world" (Gair, 1980, p.11).

In 1995, Schleien, Mustonen, and Rynders also write about the need for collaboration between art teachers and special educators, referring to the increasing frequency of children with autism in alternative environments. Guay (1995) outlines the components of a successful collaboration including the need for consultation with a range of support staff: classroom teachers, specialists and even parents. This model requires assistance from peer facilitation to paraprofessionals, and includes the possibility of co-teaching.

Dalke (1984) speaks of the powerful symbiotic relationship between the arts and special education curriculum as both a way to improve self-image in children with disabilities as well as perceptual, academic, and motor skills, and using art as a means of non-verbal expression. To accomplish this relationship successfully requires the communication and collaboration of art specialist and special education teachers.

Art Education or Art Therapy?

Blandy (1989) presents the argument that many of the IEP goals continue to ignore art education goals set as standard for students without disabilities and instead respond to how to compensate for the perceived disability. He writes about the de-emphasizing of art education goals in deference to art as therapy. Blandy (1991) suggests one point to be addressed must be the importance of advocating art education rather than "therapeutic or remedial approaches that use art to accomplish non-art objectives (as cited in Guay, 1993, p.95) Blandy (1989) supports ecology and normalization as approaches that "promote teaching of art content..."(p.9). Ecological approaches are based on observation of the students' own abilities and relationship within their environment, and through which the students determine their own artistic response to that environment. Normalization approaches seek to treat the student with disability as all other students are treated (Blandy, 1989). Guay (1993) discusses the need for strong and generalized organizational techniques, including "preparation and cleanup, creative productions, critiques, the display of art, and participation in group discussions, activities, and field trips" (p.59). The belief is that through normalization, the students will rise to the expectations as well as develop and exercise the core skills that they lack. The purpose of art education should not be as "simplified art or in any way separate or segregate students, but rather makes instructional provisions to accommodate the diversity" (Guay, 1993, p.62).

St. John (1986) presents a comparison of the roles of art educator and art therapist. She follows up on Kramer's (1958) claim that art therapy functions as preparation for regular instruction during which the art therapist, "must be ready to tolerate non-art, anti-art, and pre-art as these take the forms of playing with materials, chaotic discharge, stereotypic drawings, and pictographs"(p.14). She reiterates Kramer's (1971) goal for the art therapist as an avenue through which "sublimation can occur and formed expression is possible" (as cited in St. John, 1986, p.14). Through discussion and reflection with practicing professionals, and investigating programs that are targeted specifically to using art as a way to reach students with ASD, the distinctive differences will serve to strengthen the curriculum and standards already in place in public schools and can open new avenues of adaptation and methods of differentiated instruction.

CHAPTER THREE: FINDINGS

Each interview question was posed with the intention of gathering evidence of experience. The lists of questions and the transcripts of the answers are included in this document as Appendix C. Please note that some of the questions for the art therapists differ slightly from the questions asked of the other two groups because of their environment and background. In order to investigate the hypothesis formulated in the research phase of this project, the three necessary factors of constructing a successful learning environment for students with ASD in the art classroom, most of the questions addressed issues of preparation, collaboration, and instruction. Each participant began with an explanation of personal, recent experience with this population in order to provide a context for their discussion, which will be under the subheading called *Experience*. Often during the interview process further questions arose that were unforeseen and therefore did not categorize easily. Because this paper is written as a reference for art teachers, both the art therapists and adaptive specialists were asked to give suggestions for future implementation. The art teachers were asked, as a last question, to share any questions they still had other questions beyond those included in the interview. These will all be placed under the subheading of *Additional questions*.

Experience

Questions that address experience

- Tell me about your experience doing art therapy with students with Autism Spectrum Disorder (ASD)?
- Please estimate about how many students with Autism Spectrum Disorder (ASD) you have worked with in the art classroom in the past year.

- Have you ever worked in a classroom setting? If not, please describe the setting in which you typically work.
- How did you know a student had ASD?

Context

The professionals interviewed each approached art education with a perspective unique to the context of their situation. Art teachers, Katie and Twyla, are both in a public school setting, working with grade levels kindergarten through fifth. Both art therapists, Tara and Jessica, are fairly new to their individual practices. Having recently completed their Master's level programs in Art Therapy, they both work in private, clinics with small groups. Jessica primarily works with children with Pervasive Developmental Disorders doing talk psychotherapy as well as art therapy focusing on social skills and interpersonal interaction with children ages 4-17.

The title of adaptive art specialist is exclusive to Fulton County school district. Jenny and Allyson each serve three schools, seeing students with a variety of disabilities in both inclusion settings and self-contained classes. Their students range in age from pre-kindergarten through high school. All participants work with students either on the autism spectrum or with children who exhibit similar characteristics of social and communication impairment, sensory challenges, and behavior issues.

Identification

Listening to the interviewees, the commonalities that linked identification of students with ASD included students' lack of eye contact, lack of social interaction, lack of communication, meaning either non-verbal or limited verbal, and exhibition of very specific and repetitive behaviors, such as hand-flapping or noises. Jenny explained "the way they interact or *don't* interact with each other" can be a significant indicator. Jessica supported that assertion,

stating, “another suggestion for how to recognize it [is] if they are not communicating with their peers and they are very focused on a subject. In order to identify included students, the art teachers discussed their reliance on the behavior modification sheets provided by the special education teacher. Typically it is the responsibility of the special education teacher to share the students’ Individualized Education Plan (IEP) with the adaptive specialist and a behavior modifications sheet with the art teacher, but both groups claimed that the key information comes from speaking with the classroom teacher. Through these brief meetings the classroom teachers can provide details regarding the skills that students is working on, how certain students are feeling that particular day, and the types of behaviors to expect.

Preparation

Questions that address preparation

- What kind of training did you have to prepare you for teaching students with ASD?
- What kind of training or resources would you suggest for teachers who will be preparing to work with students with ASD?
- What kind of training did you have to prepare you for teaching students with ASD?
- What else did you do to prepare for working with this population?

Education

None of the six participants had ever received formal training on the specific subject of ASD. It was not required by any of their various institutions to take a teacher preparation course applicable to the art classroom. All had taken a general course on learners with disabilities and many recalled that ASD was not part of the curriculum. Katie has been teaching for more than twenty years with earned degrees in Fine Arts from the College of William and Mary in 1970 and a Master’s degree in Humanities from Central Michigan University in 2000. Twyla comes

from a background of commercial art and design and moved into the art classroom seven years ago.

The two art therapists had clinical experience through their respective art therapy programs. Jessica studied Art Education and Psychology at the University of Georgia for undergraduate work and attended University of Louisville for her master's degree in Counseling with a concentration in Expressive Therapy. Jenny earned her Associates degree in Art from Young Harris College and went on to receive a Bachelor of Fine Arts degree in Art Education at Georgia State University. After receiving Bachelor of Arts degrees in Ceramics and then Art Education at the University of Florida, Allyson continued with her training to earn a Master's level degree of Special Education from North Georgia College and State University.

Personal Preparation

The majority of preparation occurred through personal reading and through conversation with other teachers. In order to get a firsthand perspective, Jessica suggested reading *Look Me in the Eye: My Life with Asperger's* by John Elder Robison. *Thinking in Pictures* by Temple Grandin is another reading, which I used extensively for reference in the initial research of this topic and which may be beneficial for teacher preparation, offering a unique and insightful perspective written by someone living with ASD. It is strongly applicable in the art classroom as it explains how students with ASD may find access through the arts.

Collaboration

Questions that address collaboration

- In terms of collaboration, what questions are important for the art teacher to ask when developing art education goals?

- Discuss your collaboration with support staff including classroom teacher, occupational therapist, adaptive specialist, and special needs teacher. Please discuss this collaboration in terms of the effect on student learning. Did you help develop the individual education plan (IEP)? If so, what were your goals for those students?

Summary of answers that address collaboration

The theme of collaboration was a constant thread throughout all of the interviews. As mentioned earlier, the role of the adaptive specialist, is often viewed as a supplement to the classroom teachers' work, using art to work on skills outlined in the students' IEP. The adaptive specialist is often seen as non-essential personnel for strengthening motor skills, social skills, and communication in the objectives developed at the IEP meeting. Katie mentioned the benefit of having an art teacher as an added perspective in an IEP meeting stating, "I think that the art [as] a witness can help [document] progress-a visual progress map." In addition, the art teacher may be able to share observations of that student in the art room, providing a sometimes contrasting view from the student in the classroom. From an application standpoint, this collaboration can inform appropriate methods of instruction. Katie specifically talked about one IEP meeting in which she took part in order to help a student whose motor difficulties and general self-esteem issues were manifesting in behavior problems. Because she was informed about the greater context of these behavior issues, she was able to make time to work with him before school and to focus on the necessary adaptations for the project. This individual attention resulted in the student achieving great results, demonstrating a positive impact on his learning.

With the intention of providing structure and gaining an understanding of the students' abilities, Twyla met with the teachers directly. This understanding helped her have a context for the students' levels of abilities, level of independence, and individual tendencies. On the first

day of class Twyla would start the students on a manipulative project to hold their attention while she quickly met with the teacher to request the information about each student with ASD.

All six participants spoke about the importance of forming a network of others with whom they could share ideas, stories, fears, and successful techniques. The adaptive specialists currently attend monthly meetings, sometimes twice a month, to discuss lesson plans, challenges, and successes. The county administrator arranges for this planning time, but often the adaptive specialists themselves schedule additional sessions. The art teachers voiced the desire for more opportunities to share resources. Twyla mentioned a course she attended recently to earn a Professional Learning Unit (PLU). The collaboration class centered on compiling sculpture lesson plans, with each teacher bringing a lesson to contribute, “like sharing recipes.”

Instruction

Questions that address instruction

- What are your goals when working with students with ASD?
- How do you see sensory differences affecting the art making experience?
- What other issues arise in the art classroom when teaching students with ASD?
- Describe any adaptive techniques or differentiated instructional strategies you use when working with students with ASD in the art classroom.
- What do you believe are the most effective strategies for art making with students with ASD?
- Discuss any challenges you encountered with these techniques.
- What characteristics are most challenging when teaching students with ASD in the art classroom?

- Please discuss any classroom management and room organizational strategies you used that were differentiated because of the included students. Please discuss the success of each intervention.
- A) Are there any materials from the following list that might be difficult or challenging for students with autism to engage in using? B) Are there any materials that are particularly beneficial and any ways in which you have adapted these materials that encouraged a more favorable response?

- paper
- pencils/colored pencils
- markers
- crayons
- pastels
  - chalk
  - oil
- Paints
  - Watercolor
  - Fingerpaints
  - Acrylic/tempera
- Clay
- metals (aluminum, wire)
- fabric
- scissors
- glue (paper mache)
- other

Goals

When working with this population each individual's goals varied depending on her context. Adaptive specialists reported using the student's IEP goals, specifically intending to strengthen social skills, communication, motor skills, or regulating behavior. For instance Allyson explained, "[If] it is an activity where we are going to be mixing colors or painting…We try to make sure [the students] are requesting things and making choices." In addition to the skills outlined in the IEP, the adaptive specialists discussed their efforts to implement art

education objectives. For instance, one typical art education standard is the ability to handle materials correctly. Allyson spoke about students with ASD who "really do enjoy working with art materials but many of them want to do it their way and that makes it difficult." She detailed the need to work with these students on learning to follow directions.

Learning this skill yields results both in the mainstreamed classroom, where they need to adapt to the structure of the class, and the mainstreamed art room, where they need to follow the directions to complete the project. She gave the example of giving them a piece of paper and a crayon to color an assigned object. Instead of following the directions of the lesson, the students with ASD then started to doodle. The inability to follow the structure impacts student learning in the classroom and in the art room. Jenny asserted the need to "try to find a balance between what I want do and what I should teach them as an art teacher [with] what they are truly capable of and what they are truly going to benefit from." This statement was echoed in the role of the art therapist.

The art therapists stated their intentions to equip the students with survival skills, encourage cognitive development, and promote social abilities. The way in which the art teacher might choose materials, give directions, and evaluate the product can complement these goals. The art therapists described choices in these areas that may lead to greater success for students with ASD, in turn strengthening the students' social skills. Because strengthening social skills is such a strong focus for students with ASD, particularly Asperger's, choosing an appropriate medium and activity is paramount to their success. As Jessica elucidated, "Things like paint would not do well for them unless you wanted to push them but I wouldn't do it right away because of the chance of failure [while] in a smaller group you could try to push. You wouldn't want them to have a meltdown in a big class." Additionally, if directions are unclear or abstract

or are given in too many steps, it may cause frustration, which can also negatively impact student learning. Lastly, when evaluating the end product, the art teacher must be sensitive to the fact that the higher functioning students, at least, are aware that their product is not up to par with the other students in the class. Evaluation should be modified in a discreet manner and encouragement given individually and, if possible, privately.

Both art teachers seemed to want to individualize their goals more, either to match the students' abilities or to supplement the classroom teacher's efforts, but in all cases to further the students' confidence, artistic abilities, and creativity. Katie emphasized setting positive expectations, and "from the very beginning letting the kids know it is ok to produce differences in their artwork" in order to give the students the freedom to create and to express themselves.

It is important to use positive reinforcement when working on these goals. Both art therapists suggested a visual, tangible tool of reinforcement. An example of this strategy would be to use one class session to make a vase or tray out of clay or model magic that the student could then place on his/her desk. The vessel would be used to collect something material, like marbles or coins. The coins may be used to indicate when the student has achieved a goal. The teacher lets the students know that every time they correctly perform a skill they will earn a coin, and for every 10 coins they will earn a free draw (or a small reward of their choice). Jessica strongly recommends this technique to motivate students with ASD, as well encourage them though positive acknowledgement. Tara explained that the effect of this visual method of reinforcement on students motivated them to process their actions on a different level.

Challenges

As described, challenges of teaching students with ASD primarily fell into three categories: behavioral, communicative, and sensory. Sometimes they can be easily identified but

more often they cannot. A behavioral issue may be caused by a sensory issue or communication problem. The challenges cannot be generalized. Students with ASD will have completely different challenges, in varying ranges of intensities, frequencies, and with varying results. The next section will focus on identifying and addressing these challenges.

Behaviors that affected student learning were difficulty focusing, lack of impulse control, motor difficulties, and unpredictability. Commenting on unpredictable behavior, Allyson recalled,

> You think you are going along with a project and it's all going fine and now you start to paint and then 'Oh, no! What happened?' He didn't want to use the blue paint. We are doing something that is supposed to be blue but he wants the yellow. And you can't tell at all. He caught a glimpse of the yellow paint over on my table…

This behavior, also observed by Jessica, is the tendency for these students to become hyper-focused on a subject without the ability to transition. This problem with transitioning also manifests itself in the movement from one class or one activity to the next. Because of the tendency of the students "to get bogged down in the minutæ," Katie expressed the need for strategies to encourage the students progressing to the completion of a project in a timely manner so they felt successful.

Jessica provided several examples of media and activities that elicit certain behavior responses. For students who are very uptight or controlled, a fluid medium, such as paint, might be able to let them more freely express themselves and become less rigid while students who need to be calmed down might benefit from using a pencil or color pencil. She explained, "I think it helps to engage all their senses, re-direct as a safe way to challenge their rigidity. I think it can be a safe way to explore things…but it might open them up too much…very safe but very

powerful." In response to this possibility, Jessica suggested that a very focused and individualized project, such as mandalas, which might help refocus the student if they are getting out of control.

Another strategy to keep the student on task and making progress is described by Tara as a "transitional object." She explained as transitional objects as,

> little figures that they can put on their desk to remind them to pay attention...I think this would also help them to identify with their feelings and [understand] how our mental thought translates to our physical action…usually it's their physical action that is getting them into trouble. It can be very tricky, but we make it very clear that this is not a toy; it is an object to remind [them].

As a way to further control the situation, she added, "you can make a little character and maybe they need a little box and then you deliberately put the figure in the box and put it away." This could help the student to recognize moments of transition and learn self-regulation.

Later in the conversation, Katie voiced her concern about the challenging aspect of the lack of communication and interaction. She commented that teachers would greatly benefit from being given specific, tried and true strategies proven to break the communication barrier. To draw them out, Jessica suggested, "using the universality of art…like [saying] 'everyone draw their favorite animal' and then you make the connection [by saying] 'Oh, look, Danny, you drew a dog and so did so-and-so. Do you both have dogs?'" She noted that by verbalizing these similarities you are helping to see a concrete connection between the students with ASD and others. Another strategy to build students' social skills is to ask them to participate in a collaborative art project. Jessica emphasized that to make this collaboration a successful attempt you would have to prepare the students by clarifying what will be expected as well as letting

them know ahead of time that each person will need to decide which part they would like to do. You would need to be explicit with direction on how to make that decision and you would have to work with them ahead of time in modeling and practicing the appropriate words and actions. Throughout the conversation, Jessica emphasized the need for advanced preparation of students in for any new or unexpected activities.

Sometimes the problem is that the student just does not understand the question or the task required of him/her. As observed by Twyla when teaching her kindergarteners, the difference comes in being able to tell a basic class, "'Today we are going to take yellow and blue and mix it together to make green'…In an autistic class you have some children who don't know how to pick up a brush or even know what mixing means." In order to meet these challenges she utilized the para-professionals who attended those students, first instructing them on how to do the project, then directing them on how to work with the student individually.

Allyson recommended a computer program called *Board Maker* to assist with communication difficulties. This program produces pictures of objects and actions so that the teacher can visually walk the students with communication challenges through an activity step by step. She stated, "I would definitely say the majority of my ASD students have difficulty making eye contact when I give directions… I would have a poster-board that would show first we'll do this, then this, then this, with a little Velcro on each picture. And I'd tell them 'when we're done with the first step, we'll pull it off, and when we're done with the second step, we'll pull it off.' It's a little schedule of the lesson" to address the issue of eye contact. Jenny also reported success with the addition of a visual element in instruction, such as providing examples of completed art. With the younger kids, she added, "you can use objects they are really focused on…like if they are really focused on cars, you can paint cars, paint with cars, etc…"

For Jenny the students' lack of imagination, possibly a result of communication impairment, presented a challenge. Children with ASD think and understand things in a very concrete way. "For instance," she stated, "you can ask them to take their seat and they will go pick up their chair and look at you like 'what do you want me to do with it?'"

Allyson also mentioned lack of imagination and creativity as an issue, confirming that these students are extremely literal in their interpretation of direction. To compensate for this rigidity in thinking, she would have to remind herself that the focus of the lesson must be more structured than one might expect in a regular art classroom. Instruction for a lesson on Van Gogh in a regular art room may be outlined on a broad spectrum, the art teacher saying something like, "We are going to learn about Van Gogh or in the style of…" She compared this to the more prescriptive, cookie cutter, basic lesson that would be differentiated for students with ASD. As Allyson described, there are necessary modifications in the way the class is run depending on the severity of the student. With severe students, instruction must be more direct. She emphasized that being clear with the explanation of the activity, giving direct and step-by-step directions, and defining the expectation for the product are very important for the student with ASD.

Allyson went into further detail on this concept, explaining that the students need to understand why things happen — the fundamentals. Even in attempting a simple art project, like a mask, takes in-depth examination into the purpose of this project. She explained that for some of them masks might be frightening and they do not understand why someone would want to cover their face. That one thought could possibly derail the entire lesson. Without the definition of the activity's purpose, the student might not have an interest in participating. She added, "There's not that inner drive or inner desire…the imagination to create something."

Sensory challenges

Children with ASD can become over-stimulated by the environment, the activity, and the materials of the art room. This stimulation can be either a challenge or a benefit, depending on how the student is directed. Jessica discussed students with sensory issues that come to her group. When they arrive, she says, they run around and make noise. Using concrete, clear direction she modified their behavior. She explained, "I'll give them a sheet of paper and I'll say, 'Put that here' and it redirects them, focuses them only on the paper."

Sensory issues can become pronounced when exploring materials and media. Tara described being conscious of different sensations of the materials, making deliberate choices about which media to use with certain students or what textures of paper, such as slippery versus sandpaper. One way to safely determine how comfortable a student is with a type of material is to present the possibilities in a non-threatening way. For instance, she suggested, "You might want to make a book of different papers and ask the kids in a fun and open way to feel each and ask them, 'what does this one make you think of?'" She included "non-art materials," such as tin foil or plastic, among those that may be successful with these students.

In many of the interviews, the term "tactile defensiveness" was prevalent. Students with ASD often have a sensitivity to touch, and this problem becomes apparent when using materials like earth clay or modeling clay. This medium is difficult for many students. According to Jessica, the answer is to have a sink, baby wipes, or even hand sanitizer readily available. One successful adaptation suggested by Tara for use with any student who is tactilely defensive is to create a barrier between the materials and their skin. In the instance of finger-painting, for example, she placed a piece of cellophane over the paint and had the student press on it. Another

way to work around this issue is to offer choices. Katie found success in offering students in her class the opportunity to do the same project but instead use materials of their choice.

Environment

Sensory issues may influence where the students should be placed in the classroom in order to avoid triggers. Jessica spoke specifically about their sensitivity to sound, even a constant sound like the air conditioning running, and suggested seating them away from any noise. To help the students maintain focus, Allyson suggested removing any potential distractions including pictures that are unrelated to the lesson for the day and materials that they may not be using. Jessica reflected on the possibility of an environment with too many colors causing a sensory overload, which might instigate a behavior reaction. Making this adjustment is as easy as draping some fabric over an area and keeping only the materials for that particular project within reach or, as recommended by Jessica, even within sight.

Referring to the room organization of another adaptive art specialist, Allyson talked about creating areas or stations so that when the students have completed one activity, there is a dedicated place for them to go. Although she actually traveled to others' classrooms, Jenny emphasized the importance of maintaining structure by keeping the room the same throughout the year, including seating.

Katie expressed that for her, the most important aspect of the environment is the attitude that you create, adding, "to get out of the cycle is so difficult…That's why I put a lot of oomph and energy into the first greeting. And hopefully leaving their other problems behind…" With her students, Katie always highlights that the art classroom is a whole different environment where, "you can be successful because of who you are."

Materials and Projects

In listing materials, Twyla exclaimed, “Finger-paint is very successful…Painting with pudding, model magic, shaving cream, anything they can smear or rub or smush, they love.” From a previous collaborative class, she had heard about “color mixing using a bubble wrap mitt and you stamp yellow and red when you mix it to make orange—they love that.” A project she had retrieved from an online resource was “painting with matchbox cars where you run them through paint and then run it on the paper and it makes great abstract paintings because each tire creates a different texture.” Jenny steered away from finger-paints for tactile reasons, but she introduced another possible medium she called *goop*. This mixture of borax glue and water is similar to silly putty and can be colored using markers.

In the discussion of materials, Katie asserted, “One of the best paints is tempera cakes. They are not quite as bold as the other, but they are easier…and most successful.” She also listed printmaking as one of the top options as an active project that comes together quickly. This activity allows them to see their effort turn into something beyond the process. Tara also included printmaking as a good medium to try because of its fluidity and action.

Jessica also examined paint as a choice of medium and determined that painting something specific like a landscape or a portrait could be potentially frustrating, as opposed to a directive of just getting paint on the canvas. One strategy to help these students achieve success is to be prepared to offer them an alternative or to be ready with a second sheet of paper. She said, “You would have to say something like, ‘you’re obviously frustrated…you’re really upset. I have an idea. You are fantastic with colored pencils. Let’s try this same subject with pencils instead.”

Adaptations

Peer pairing seemed to be successful strategy, which both art teachers employed. Twyla disclosed that because of the number of students in the class and the activity, without this system of peer assistance, the students with ASD may get lost in the confusion. She stated, "If you don't pair them up with someone to stay with them and make sure they are working then they do just kind of get quietly ignored just because I don't have enough eyes or enough hands." She would find students with natural tendencies towards compassion or nurturing to pair with the child with ASD. She commented that before she started the peer pairing, "It's not that they weren't learning…but sometimes they would get off task and next thing, they would be wandering." This strategy is substantiated by the relevant literature as well, as cited by Epp (2008) in her discussion of methods for strengthening social skills.

Jessica noted that because of their characteristic need for sameness and structure, the more advance notice and explanation you can give students with ASD, the greater their chances of success with a project. One technique that can provide this advanced preparation is video modeling. Allyson discussed the possibilities of art teachers video-taping their project demonstrations and providing them to the student several days prior to the activity. She cites success using this technique because "once they saw it on the screen, they were able to mimic it better than actual people demonstrating…either a) they have already gotten it or b) it's drawing their attention because they've already seen it before."

Twyla presented a list of projects for this research. She explained that the activities were generalized and outlined basic art areas with simple tasks. In addition, to keep the students engaged and progressing, she divided the class into two to three sections with a tactile activity at the end of class as a sort of reward. Her comment on adaptation was, "They are all so different

and …we just adapt whatever we are doing to their ability…You just have to know your children and what to expect." For some children with exceptionally challenged motor skills, she posited hand over hand, literally a touch technique, as the most effective strategy. She cites adult supervision as "the main thing that helps me."

As another adaptation to help students maintain tracking, if you notice they are fixated and cannot move beyond one section or detail, is to offer redirection through an instruction such as "let's start with the tail." Giving them a limiting directive narrows their point of focus and gives them a specific goal or task to complete, returning again to the idea of breaking instruction down into a step by step procedure. Consistently, the interviewed participants emphasized the importance of concrete, direct, and specific instructions given in a step-by-step format.

The research demonstrated that adaptive techniques currently practiced for students with ASD in the art classroom, such as peer pairing, are successful. Included in this paper are additional strategy suggestions from which art teachers could benefit. Modifications should be based on the teacher's observation of the student, an understanding of the broader context of the student's goals as established in the IEP, and matching activity expectations to student capabilities. Katie has implemented a rubric for evaluation with all art activities. This paper has outlined current strategies and adaptations proven successful with students with ASD in the art classroom and alternative environments. Included as well are proposed suggestions for future implementation in the areas listed in the next section, the need for which was confirmed by the conversations with participants.

CHAPTER FOUR: DISCUSSION AND IMPLICATIONS

Through investigating and analyzing the research and interviews, I had identified major themes to address when considering the construction of a successful learning environment for students with ASD. These themes were Experience, Preparation, Collaboration, and Instruction, which created the structure for this section. Each of these themes had smaller factions more directly related to individual experiences and objectives, which are captured in the sub-headings.

Experience

Questions that address experience

- Tell me about your experience doing art therapy with students with Autism Spectrum Disorder (ASD)?
- Please estimate about how many students with Autism Spectrum Disorder (ASD) you have worked with in the art classroom in the past year.
- Have you ever worked in a classroom setting? If not, please describe the setting in which you typically work.
- How did you know a student had ASD?

Summary of findings that address experience

The art teachers and adaptive specialists described having encountered students with ASD in their art classrooms and the frustrations that came from not knowing how to reach those students. Although their current practices were appropriate, their sense was that they were unprepared, and they were not confident in their work with those students. Tara described, “The main goals for using art and to increase art use for kids on the spectrum is to facilitate creativity, self expression, awareness of others, communication, sensory integration, imagination, and abstract thinking.” The art teachers shared this same goal, but they were uncertain of how to

accomplish it. They also seemed unsure of their role. Though she provided a list of applicable projects for the art classroom, Tara cautioned teachers to be aware of using these projects with the intent of practicing art therapy. She emphasized the need to have the proper time and training for delving into deeper situations than the art teacher may be prepared for in a regular art class setting. This concern returns us to investigating the issue of preparation.

Preparation

Questions that address preparation

- What kind of training did you have to prepare you for teaching students with ASD?
- What kind of training or resources would you suggest for teachers who will be preparing to work with students with ASD?
- What kind of training did you have to prepare you for teaching students with ASD?
- What else did you do to prepare for working with this population?

Summary of findings on preparation

Research historically supports the need for preservice and continuing education, as Guay reported in 1994. However, as found in these interviews, proper training is apparently still *not* occurring. This research clearly indicates a necessity for art education programs in institutions of higher learning to include courses on curriculum adaptation for students with disabilities in the art classroom as a requirement for certification. Preparation classes including information about intervention techniques, such as those discussed in the review of literature, would equip general art teachers with the tools to effectively counter challenges and redirect students appropriately. Instruction about language used in association with ASD would provide an avenue toward more effective collaboration with specialists.

Collaboration

Questions that address collaboration

- In terms of collaboration, what questions are important for the art teacher to ask when developing art education goals?
- Discuss your collaboration with support staff including classroom teacher, occupational therapist, adaptive specialist, and special needs teacher. Please discuss this collaboration in terms of the effect on student learning. Did you help develop the individual education plan (IEP)? If so, what were your goals for those students?

Summary of findings that address collaboration

The interviews established that collaboration was a vital factor in supporting student success in the art classroom. Resource personnel such as art therapists and adaptive art specialists should be included in professional development situations and continuing education classes. Why is the available expertise not being utilized? When she spoke about inclusion, Allyson cited situations in which students with ASD were unsuccessful and did not benefit from being included in the regular classes because "the kids with autism…need someone right there next to them, with them, breaking down the project even further than a regular art teacher realizes." Because those in the role of adaptive specialist or special education teacher have foundational knowledge and experience, this assertion supports either the need for in-depth collaboration with, or equal training for, the general art teacher. This collaboration could occur through a separate conference or by including the art teacher in the IEP meeting. Though many articles in the literature review discussed the need for collaboration, I underestimated the importance of this aspect in creating a successful learning environment for students with ASD. However, this study offers confirmation that these collaborative efforts are essential to this

objective. Through participation in IEP meetings or conferences with specialists, art teachers can become an integral part of the conversation, establishing art education standards as IEP listed goals, as well as becoming aware of the context of the students' other listed goals.

Art teachers often see themselves as isolated and disconnected. They are responsible for teaching 30 plus students in the classroom at one time. There are curriculum standards and guidelines that must be met and documented and as discussed, preservice art teachers do not often receive information on how to adapt their art lesson plans for students with disabilities. These factors make it challenging for art teachers to focus attention and modify lesson plans for individual challenges, especially for a condition as difficult to define as ASD. An IEP meeting, or any other forum for open communication, is an ideal opportunity for creating a network of art teachers interested in continuing their professional development on the topic of educating students with ASD. For example, Katie agreed that an opportunity to hear from an art therapist or adaptive specialist at an art teachers pre-planning meeting would be a beneficial experience. The specialist could speak on topics such as interventions, language used in conjunction with ASD, or could provide lesson plan modeling of adaptations for these students.

As outlined in this paper, there are multiple avenues available for becoming acquainted with individuals' needs and proposed modifications. Although time is limited, it falls under the art teacher's jurisdiction to reach out to the available support staff and make those connections. For example, if a student is exhibiting disruptive behaviors, art teachers may need to attend the IEP meeting to work with others to find the root of the behavior, make environmental changes, or use techniques such as transitional objects, peer pairing, or positive reinforcement to attempt to modify these behaviors. Art teachers not only have the means available, but the responsibility to do so, as it impacts their students' success. Visual arts have been proven as an important

method of communication and expression, as referenced earlier in the relevant literature by Kellman (2001), Epp (2008), and the NRC (2001) report. Students with ASD need to participate, create, and accomplish in the art environment. However, despite the documented evidence that art is crucial to developing social and communication skills, which are defined deficits in students with ASD, this area remains ignored, un-researched, and under-utilized. As Gair commented in 1980, it is our responsibility as art educators to demand the integration of art education standards into all students' IEP, yet we continue to stand removed from that process. Art teachers must take that initiative and become involved.

Instruction

Questions that address instruction

- What are your goals when working with students with ASD?
- How do you see sensory differences affecting the art making experience?
- What other issues arise in the art classroom when teaching students with ASD?
- Describe any adaptive techniques or differentiated instructional strategies you use when working with students with ASD in the art classroom.
- What do you believe are the most effective strategies for art making with students with ASD?
- Discuss any challenges you encountered with these techniques.
- What characteristics are most challenging when teaching students with ASD in the art classroom?
- Please discuss any classroom management and room organizational strategies you used that were differentiated because of the included students. Please discuss the success of each intervention.

- A) Are there any materials from the following list that might be difficult or challenging for students with autism to engage in using? B) Are there any materials that are particularly beneficial and any ways in which you have adapted these materials that encouraged a more favorable response?

  - paper
  - pencils/colored pencils
  - markers
  - crayons
  - pastels
    - chalk
    - oil
  - Paints
    - Watercolor
    - Fingerpaints
    - Acrylic/tempera
  - Clay
  - metals (aluminum, wire)
  - fabric
  - scissors
  - glue (paper mache)
  - other

Summary of findings on the topic of instruction

In the context of the art classroom, it is important for teachers to realize that students with Autism Spectrum Disorder are as unique as any other student in their classroom. Instruction must include modifications that will make the lesson feasible for any level of student to complete with confidence. The teacher should observe student behaviors and make adaptive decisions based on those observations. The modifications suggested by participants strongly reflected Copeland's framework for working with students with developmental and neurological disabilities, established in 1984. Copeland suggested structured activities, presented through organized tasks, divided lessons, and sequential steps. She indicated a need to engage all the

senses, emphasize tasks that encourage muscle development and eye-hand coordination, as well as develop artistic creativity.

The participants' suggestions for adaptation, which seem to address this framework almost exactly, can easily be integrated. Through task analysis, as explained by Anderson (1972) in the review of literature, the art activity is presented through organized, fundamental, sequential steps. It was surprising to learn from the interview participants how basic the explanation needed to be for students with ASD. Due to the students' absolute literal translation of words, each step, each word, must be thoroughly demonstrated and discussed before moving to the next. If the art teacher can reserve a few extra minutes to work with individual students these steps may be thoroughly addressed. Another approach is for students to collaborate with another adult, such as a para-professional, classroom teacher, or adaptive specialist, or to use a peer assistant with a student who understands the lesson, the requirement, and whose own work will not be hindered because of this pairing.

The teacher can also use the technique of task analysis to evaluate the students' progress on skills mastery rather than on product completion. This technique is a way to modify the curriculum based on the individual learners' needs without excluding him/her from the activity. For example, a rubric can be modified discreetly and as needed to evaluate the work of students with special needs. A rubric may work as a guide for grading as well as tracking progress in alignment with the student's capabilities as well as standards in his/her IEP.

Second, using a computer program such as *Board Maker*, the steps for a lesson, including the initial task analysis details, can be presented visually which increases the chance of success. This may be a beneficial method to employ in the included or self-contained classroom. Although teachers can present the lesson to the whole class in this format, the student with ASD

may be more involved if the teacher asks him/her in particular to remove the Velcro image to reveal the next step.

Finally, based on the conversations with the interview participants, choice was revealed as an important aspect of student success. The art teacher can make a conscious decision to use more fluid processes which encourage students with ASD to be more creative and have freedom of expression while modeling clay engages many of their senses, including pushing the boundaries for students who are tactilely defensive. It is also significant to allow the student to choose for him/herself when it comes to materials or projects as a way to strengthen communication and social skills as well as to enhance self-awareness and positive self-image, suggested by Anderson (1978) in *Art for All the Children*, to be a necessity. Both art therapists strongly emphasized the importance of developing these decision-making skills.

Through these interviews and additional research, the findings suggest that instruction in the art classroom can be adapted to correspond to current curriculum standards through an understanding of how art education goals may meet students' individual needs. Thanks to the World Wide Web, there are a multitude of available resources online. Twyla suggested even pulling some lessons from pre-school sites that may match skill levels. Appendix A is a list of available and reputable resources about ASD and sites that provide differentiated lesson plans. Overall, teachers need to be prepared with a planned lesson along with patience and flexibility.

Sometimes none of these techniques or adaptations is effective. All six participants gave examples of experiencing a student's frustration or weathering a meltdown. Recounting one of these situations Allyson added,

If we are supposed to be cutting squares into a mosaic and instead they are just cutting

> random things, I have to just evaluate how important is that fact versus the fact that he is cutting at all…in the course of your whole 30 minute time, sometimes we have to backtrack.

Jenny talked about always having to remind herself that it is not necessary to complete one project in the short time span of a single class. She advised allowing two to three weeks for a project to account for the unpredictable.

CHAPTER FIVE: CONCLUSION

In summary, my research questions are:

1. What adaptive techniques are currently in use for students with ASD in the art classroom?
2. What factors contribute to creating the most successful learning environment for these students?
3. What are the distinctive differences in practice among art therapists, adaptive art specialists, and art teachers?

The interviews revealed that adaptive techniques currently in use for students with ASD in the art classroom include visual demonstrations of project steps, peer pairing, and redirection. Art teachers are using lesson plans more suited to the developmental stage of the student rather than his or her age as well as using modified rubrics to track student progress with consideration for the student's capabilities.

My review of literature raised three overarching themes as factors that would contribute to creating a successful learning environment for students with ASD: preparation, collaboration, and instruction. The interview research supported the literature on these elements but did not demonstrate the depth of the issues. These three factors are imperative to the success of the student. Without foundational courses, art teachers are not prepared with the appropriate tools to effectively identify and then address students with ASD. Such a complex disorder needs explanation. Art teachers need to understand the context of the disorder and the needs of the child before they can begin to adapt the lessons accordingly.

In most cases the teacher preparation programs for art teachers and adaptive art specialists do not include specific courses for teaching students with ASD. Finding experienced teachers or experts with a background knowledge of ASD becomes essential and collaboration is

key to providing beneficial art experiences. Art therapists or adaptive art specialists who either have coursework in psychology, special education programs, or experiential knowledge, may serve as excellent resources and assist with designing appropriate lessons, or to help develop IEP goals for that student. Parents, school counselor, and classroom teachers are other resources to whom art teachers can turn for support. Although time and workload may limit teachers' abilities to collaborate often, administrators can organize collaborative classes or reserve time at in-services or faculty meetings for opportunities for cooperation. Teachers must take the initiative to approach the administrators, share this knowledge with them, and to request these opportunities.

Finally, the method of lesson delivery can help determine student success. Instruction must be given in a step-by-step format with visual elements to attend to multiple learning styles and senses. Tasks should be explained at the most basic level. If possible, teachers should be giving students with ASD individualized attention and, if necessary, redirect them to ensure they are progressing. Teachers can employ peer pairing to accomplish this strategy if there are students willing and able to assist. If teachers notice the student having an adverse reaction to the project, materials, or environment, they should provide an alternative option.

As determined through these interviews, different contexts will define educators' goals and accounts for the distinctive differences in practices between art educator, adaptive art specialist, and art therapist and how they apply instructional adaptations. Although readings indicate the differences of these roles as examined by St. John (1986) and Blandy (1989 & 1991), defining these differences and arriving at an understanding of current practices were unexpected outcomes of this research.

Art therapists are trained in various ways to use art as therapy to open a student up to emotional exploration through media and activities. Through her specific field, Tara has developed techniques of how to interpret visual images, symbols, and mark-making and to encourage therapy through art.

Adaptive art specialists fill newly developed intermediate roles in public schools. It is a position that is open to anyone who has earned a teaching certificate in the field of art education with no additional requirements beyond the ability to learn quickly and to have vast amounts of patience and flexibility. There are 12 adaptive art specialists in Fulton County. They provide art services to both self-contained and included students with a variety of abilities. The two women I spoke with had learned methods of modifying the lessons and adapting art tools and materials through hands-on experience.

General art teachers provide students with the basic tools and knowledge to create art. Art educators provide instruction and art experiences that build knowledge of art elements and principles, provide a background of art history, incorporate an understanding of aesthetics, and build creative artistic skills.

CHAPTER SIX: RECOMMENDATIONS

There are numerous possibilities for future research and professional growth opportunities. The following list of suggestions could be facilitated by art teachers, adaptive art specialists, art therapists or supportive administrators.

Collaboration

- Organize a forum of interested art teachers, art therapists, and/or adaptive art specialists for discussion, possibly online but ideally in-person, to share ideas, lessons, and experiences. Time must be allotted specifically within the work day/week for this collaborative experience.
- Administrators can assign an adult supervisor, or employ an adaptive specialist, to work more in-depth with students with ASD, be available to explain the foundational aspects of the activity and when needed, provide physical assistance
- Art teachers can exercise peer pairing when appropriate. However, as Katie included in her report, it is important that the peer is aware that s/he is not responsible for any other students' art. It may be helpful to discuss their role ahead of time, but this is not necessary.

Training

- Administrators can introduce instructors, such as adaptive art specialists or art therapists, at in-service meetings and invite them to demonstrate adaptive techniques and lessons.
- Professors and institutions of higher learning can implement classes for preservice art teachers that specifically address lessons, techniques, and strategies applicable in art for students with ASD.

Techniques

Art teachers can:

- Provide instructions for students with ASD in a step-by-step format with in-depth explanation of the basics and an expectation set for a completed product.
- Use the *Board Maker* program to create picture schedules and step-by-step visual instructions to support students' understanding and performance.
- Redirect students in a constructive, positive way using clear and concrete directives if the student expresses frustration or lack of focus.
- Prepare students using the technique of video modeling, As Twyla mentioned, "They love anything 3D." This technique may prepare students in advance for the project.
- Provide choices in materials and in projects and be ready with an alternative plan.
- For students with tactile defensiveness, provide alternate ways of handling materials such as placing a barrier between the skin and the art materials.
- For students with other sensory challenges, organize the room in a way that minimizes distractions.

Future research is needed to focus on the implementation of these suggestions regarding preparation, collaboration, or adaptive strategies, and investigate how each process impacts student learning.

The art teacher should still consider the following questions: How does this instructional adaptation affect the learning environment of the other students in the class? How effective is adaptation and is this truly the best way to serve students with ASD? Should the field of art education create curriculum standards specifically for this population? Although at this time

only one county in the state provides the service of adaptive art specialists for students with disabilities, this role may be an important intermediary between practicing goals established in the students' IEP and accomplishing the objectives of the art education curriculum. Is this a resource that should be more closely examined as a beneficial resource for addressing the needs of students with disabilities?

With proper preparation and opportunities for collaboration, art teachers can create a positive and successful learning environment for students with ASD. This environment, in turn, has the potential to promote expression, encourage communication, and allow students with ASD an avenue of connection with others. A final recommendation is that the field of art education look more closely at how students with ASD may be better served in the mainstreamed art classroom and in adaptive art settings through encouraging more conversations and collaborations with art therapists, working with other experts with successful experience teaching students with ASD, and generating more research and resources in the field.

REFERENCES

Anderson, F.E. (1975). Mainstreaming art as well as children [Electronic version]. *Art Education,* 28 (8), 26-27. Retrieved in March 2008, from JSTOR database.

ArtTherapist.com. (2008). *Who are art therapists?* Retrieved July 9, 2008, from http://www.arttherapist.com/

Bernard-Opitz, V. (2007). *Children with autism spectrum disorder: A structured teaching and experienced based program for therapists, teachers, and parents*. Austin, TX: Pro-Ed.

Blandy, D. (1989). Ecological and normalizing approaches to disabled students and art education [e-version]. *Art Education,* 42 (3), 7-11. Retrieved in March 2008, from JSTOR database.

Bowler, D. (2007). *Autism spectrum disorders: Psychological theory and research*. London: John Wiley and Sons.

Bogdashina, O. (2003). *Sensory perceptual issues in autism and asperger syndrome: Different sensory experiences, different perceptual worlds*. New York, NY: Jessica Kingsley Publishers.

Carrigan, J. (1994). Paint talk: An adaptive art experience promoting communication and understanding among students in an integrated classroom [e-version]. *Preventing School Failure,* 38 (2), 34-37. Retrieved in March 2008, from EBSCO database.

Centers for Disease Control and Prevention. (2008). *Autism Information Center*. Retrieved June 27, 2008 from http://www.cdc.gov/ncbddd/autism/

Cohen, S. (2006). *Targeting autism: what we know, don't know, and can do to help young children with autism spectrum disorders*. Los Angeles, CA: University of California Press.

Copeland, B. (1984). Mainstreaming art for the handicapped child: Resources for teacher preparation [e-version]. *Art Education,* 37 (6), 22 -29. Retrieved in March 2008, from JSTOR database.

Dalke, C. (1984). There are no cows here: Art and special education together at last [e-version]. *Art Education,* 37 (6), 6-9. Retrieved in March 2008, from JSTOR database.

Emery, M.J. (2004). Art therapy as an intervention for autism [e-version]. *Art Therapy: Journal of the American Art Therapy Association,* 21 (3), 143-147. Retrieved in March 2008, from JSTOR database.

Epp, K.M. (2008). Outcome-based evaluation of a social skills program using art therapy and group therapy on the autism spectrum [e-version]. *Children & Schools,* 30 (1), 27.

Gair, S. (1980). Writing the arts into individualized educational programs [e-version]. *Art Education,* 33 (8), 8-11. Retrieved in March 2008, from JSTOR database.

Gardner, H. (1993). *Multiple intelligences: The theory in practice.* New York, NY: Basic Books.

Grandin, T. (1995). *Thinking in pictures*. New York, NY: Doubleday.

Guay, D.M. (1995). The sunny side of the street. A supportive community for the inclusive art classroom [e-version]. *Art Education,* 48 (3), 51-56. Retrieved in March 2008, from JSTOR database.

Guay, D.M. (1994). Students with disabilities in the art classroom: How prepared are we? [e-version]. *Art Education,* 36 (1), 44-56. Retrieved in March 2008, from JSTOR database.

Guay, D.M. (1993). Normalization in art with extra challenged students: A problem solving framework [e-version]. *Art Education,* 46 (1), 58-63. Retrieved in March 2008, from JSTOR database.

Heflin, J.L., & Alaimo, D. (2007). *Students with autism spectrum disorder: Effective instructional practices*. Upper Saddle River, NJ: Pearson.

Heflin, J.L., & Aberto, P.A. (2001). Establishing a behavioral context for learning for students with autism [e-version]. *Focus on Autism and Other Developmental Disabilities,* 10 (2), 93-101.

Hess, K.L., Morrier, M.J., Heflin, J.L., & Ivey, M.L. (2007). Autism treatment survey: Services received by children with autism spectrum disorders in public school classrooms. *Journal of Autism and Development Disorder*. doi: 10.1007/s10803-007-0470-5

Kaplan, M. (2006). *Seeing through new eyes: Changing the lives of children with autism, asperger syndrome, and other developmental disabilities through vision therapy*. New York, NY: Jessica Kingsley Publishers.

Kellman, J. (2001). *Autism, art, and children: The stories we draw*. CT: Bergin and Garvey.

Kroeger, K.A., Schultz, J.R., & Newson, C. (2006) A comparison of two group-delivered social skills programs for young children with autism. *Journal of Autism and Development Disorder*, 37, 808-817. doi: 10.1007/s10803-006-0207-x

Larkey, S. (2007). *Practical sensory programmes for students with autism spectrum disorder and other special needs*. New York, NY: Jessica Kingsley Publishers.

Massachusetts State Department of Education. (1998). Exploring the options for young children with autism. Quincy, MA: State Dept of Education. (ERIC Document Reproduction Service No. ED 455 646)

McDevitt, K. (2004). Small wonders [e-version]. *Arts & Activities,* 136 (3), 16. Retrieved in Feb 2008, from ERIC database.

Morreau, L., & Anderson, F.E. (1986). Task analysis in art: Building skills and success for handicapped learners [e-version]. *Art Education,* 39 (1), 52-54. Retrieved in March 2008, from JSTOR database.

Morreau, L., & Anderson, F.E. (1984). Individualized education programs in art: Benefit or burden? [e-version]. *Art Education,* 37 (6), 10-14. Retrieved in March 2008, from JSTOR database.

Myles, B., Swanson, T., Holverstott, J., & Duncan, M. (Eds.). (2007) A*utism spectrum disorder: A handbook for parents and professionals*. CT: Praeger Publishers.

National Research Council. (2001). *Educating children with autism.* Committee on Educational Interventions for Children with Autism. Division of Behavioral and Social Sciences and Education. Washington, DC: National Academy Press.

Quill, K., Gurry, S., & Larkin, A. (1989). Daily life therapy: A Japanese model for educating children with autism [e-version]. *Journal of Autism and Development Disorder,* 19 (4), 625. Retrieved in Feb 2008, from ERIC database.

Schleien, S., Mustonen, T., & Rynders, J.E. (1995). Participation of children with autism and nondisabled peers in a cooperatively structured community art program [e-version]. *Journal of Autism and Developmental Disorders,* 25 (4), 397-411. Retrieved in Feb 2008, from ERIC database.

St. John, P. (1986). Art education, therapeutic art, and art therapy: Some relationships [e-version]. *Art Education,* 39 (1), 14-16. Retrieved in March 2008, from JSTOR database.

Turkington, C., & Anan, R. (2007). *The encyclopedia of autism spectrum disorders*. New York, NY: Library of Congress.

APPENDICES

APPENDIX A: RESOURCES

Recommended online sources

These are just a few of the websites available that provide either extensive, but easy to understand information about ASD, or that have already begun to design curriculum or projects in connection to the art standards.

Project Ideas

- *http://www.artpartnersprogram.com/

This website, created by Art Partners, a collaborative fieldwork program involving faculty and students from Buffalo State College (BSC), Buffalo, NY, focuses on urban students attending inner city schools who have special learning needs. They have designed curriculum and lessons written specifically for students of all ages included in the art classroom.

- *http://www.lessontutor.com/kd2.html

Very creative site that lists some wonderful projects and adaptations

- *http://www.Jennygreen.net/mh.html

Fantastic website written in fun and easy to read language with creative ideas adapted specifically for students of all abilities.

- http://www.kinderart.com/special/

Kinderart features more than 20 possible projects for use with children with disabilities. It offers solutions to paint restrictions, such as sponge painting, and whipped cream finger paint as well as adaptations for printmaking projects.

- http://www.edbydesign.com/specneedsres/specialart/index.html

Colin Smith provides projects for special artists, as he calls them, in the areas of clay, paint and drawing. The site is still being developed.

Background

- *http://people.unt.edu/~say0005/index.htm

Created by Mandy Yeager, a doctoral candidate in Art Education at the University of North Texas, this website provides links to art education and disability organizations, offers suggestions for supporting students with disabilities in the art classroom, and provides links to the work of artists with disabilities.

- http://www.kinderart.com/teachers/autism.shtml

This section of Kinderart gives a concise description of students with ASD and what challenges might arise in the art classroom.

- http://www.autismteachingtools.com/

Site created by a group of parents, "as a resource to help parents and professionals find specific tools and teaching tips for working with learners with autistic spectrum disorders." Elaborate but easy to read and navigate.

- http://www.cdc.gov/ncbddd/autism/overview.htm

Thorough but easy to read explanation and definition, detection, and history of the disorder

- http://www.southernct.edu/~gerber/SEDarts/SEDArts%20References.htm

This site is sponsored by NAEA (National Art Education Association) and lists resources for reading and projects designed for children with diverse needs.

Recommended books available in hardcopy

The titles below are all available through Amazon.com. They have been recommended on the basis of clear projects descriptions, often illustrated with visual elements, simple supply lists, and applicability to working with this population.

- *Special Artists Handbook: Art Activities and Adaptive Aids for Handicapped Students*

by Susan Rodriguez

- *Usborne Book of Art Ideas (Usborne Art Ideas)*

by Fiona Watt (Author), Amanda Barlow (Illustrator), Howard Allman (Illustrator)

- *The Usborne Book of Art Skills (Art Ideas)*

by Fiona Watt (Author), Antonia Miller (Illustrator), Katrina Fearn (Illustrator), Natacha Goransky (Illustrator), Vici Leyhane (Illustrator), Felicity House (Illustrator), Jan McCafferty (Illustrator), Howard Allman (Photographer)

- *The Usborne Book of Art Projects (Art Ideas) (Hardcover)*

by Fiona Watt (Author), Antonia Miller (Illustrator), Non Figg (Illustrator)

- *Reaching the Child With Autism Through Art: Practical, "Fun" Activities to Enhance Motor Skills and Improve Tactile and Concept Awareness*

by Toni Flowers (Author)

- *Making Sense of Art: Sensory-Based Art Activities for Children with Autism, Asperger Syndrome, and Pervasive Developmental Disorders*

by Sandra R. Davalos (Editor)

- *Climbing Obstacles in Art*

by Karen Loden Talmage and Vickie Dobrofsky

APPENDIX B: PROJECT SUGGESTIONS

- “Inside Outside Mask”- buy or create a blank mask then ask kids to create what are the faces and feeling you show on the outside and what are the feeling and faces you show on the inside.
- “Animal Mask”- Any materials (paper, paint, tape etc)- if you were an animal or if there is any animal you really like create a mask that represents this animal Bonus: write a story or draw a picture about an adventure this animal had.
- “Feeling faces” Give the child a piece of paper with ovals (i.e. faces) then ask the child to draw the faces with various expressions/or feelings : Happy, Sad, Mad etc
- “Things I like and Things I don’t like”: Use pre-cut collage image and create collages of things you like and things you don’t like. Also addition: create a collage and then write a story based on the images
- “All about Me”- ask the child to bring in a picture of themselves and the draw of collage image of places, things, and people that they like. Also could do this with “all about my family” or “all about my classmates”. (things that get them thinking about themselves and others”
- Paper/Cloth Collage: integrating various tactile forms: create a picture by cutting out cloth and other interesting texture materials and create a picture
- Anything that increase imagination and creativity: Image you are a (pirate, dancer, doctor, etc) and draw a picture of that.
- Draw a picture of the best day you ever had!
- Create your own super hero!

APPENDIX C: INTERVIEWS

Questions

Art teachers & adaptive art specialists

1. Please estimate about how many students with Autism Spectrum Disorder (ASD) you have worked with in the art classroom in the past three semesters.

2. How did you know a student had ASD?

3. What are your goals when working with students with ASD?

4. What characteristics are most challenging when teaching students with ASD in the art classroom?

5. What kind of training did you have to prepare you for teaching students with ASD?

6. What else did you do to prepare for working with this population?

7. Discuss your collaboration with support staff including classroom teacher, occupational therapist, adaptive specialist, and special needs teacher. Please discuss this collaboration in terms of the effect on student learning. Did you help develop the individual education plan? If so, what were your goals for those students?

8. Describe any adaptive techniques or differentiated instructional strategies you use when working with students with autism in the art classroom.

9. What do you believe are the most effective strategies?

10. Please discuss any classroom management and room organizational strategies you used that were differentiated because of the included students. Please discuss the success of each intervention.

11. Are there any materials from the following list that might be difficult or challenging for students with autism to engage in using?

- paper
- pencils/colored pencils
- markers
- crayons
- pastels
    - chalk
    - oil

- Paints
- Watercolor
- Fingerpaints
- Acrylic/tempera
- Clay
- metals (aluminum, wire)
- fabric
- scissors
- glue (paper mache)
- other

12. Are any that are particularly beneficial and any ways in which you have adapted these materials that encouraged a more favorable response?

Art therapists

1. Tell me about your experience doing art therapy with students with Autism Spectrum Disorder (ASD)?

2. What are your goals when working with students with autism?

3. Have you ever worked in a classroom setting? If not, please describe the setting in which you typically work.

4. How do you see sensory differences affecting the art making experience?

5. What other issues arise in the art classroom when teaching students with ASD?

6. What kind of training did you have to prepare you for teaching students with ASD?

7. What kind of training or resources would you suggest for teachers who will be preparing to work with students with ASD?

8. In terms of collaboration, what questions are important for the art teacher to ask when developing art education goals?

9. Describe any adaptive techniques or differentiated instructional strategies you use when working with students with ASD in the art classroom.

10. What do you believe are the most effective strategies for art making with students with ASD?

11. Discuss any challenges you encountered with these techniques.

12. Please discuss any classroom management and room organizational strategies you would suggest that are differentiated because of the included students.

13. Are there any materials from the following list that might be difficult or challenging for students with autism to engage in using?

- paper
- pencils/colored pencils
- markers
- crayons
- pastels
    - chalk
    - oil

- Paints
- Watercolor
- Fingerpaints
- Acrylic/tempera
- Clay
- metals (aluminum, wire)
- fabric
- scissors
- glue (paper mache)
- other

14. Are any that are particularly beneficial and any ways in which you have adapted these materials that encouraged a more favorable response?

15. What other suggestions would you give to art teachers for working with students with ASD in the art classroom?

Transcriptions

Art Teacher 1 (AT1) on 6.4.08

Q1: Population
I have worked with probably about 20 kids with autism in the past school year. They could have other situations that are just more of a challenge to work with and I'm including ASD in a broader scheme of challenges to their learning. There are probably 10-12 that are sure and the others are maybe, maybe not. I think there are more incidents recently—I don't have the data to prove it, it's just gut feeling—what I feel I have to deal with in the classroom.

Q2: Identification
So as I am starting to learn more about, I'll look at certain students and I'll talk to teachers as they come in and they're the ones that say, "oh, that's autistic."

What they give me, which sometimes it works and sometimes it doesn't, the special needs teacher gives me one sheet with behavior modifications, modifications needed in the classroom, it might be preferential seating, it might be if they are taking a test you have to read it to them, so it's just the standard modifications in the IEP. So, I don't have their full portfolio and I don't have how they are labeled but I do have modifications but they don't really apply to art. They are supposed to give me that stack of their students at the beginning of the year and I have it in a notebook. It is my understanding that it is required of the special needs teacher to get that to the teacher.

If they have any connection with special ed and modifications, then I should have that. So, that system of getting that paperwork is fairly recent and some teachers are better than others about keeping up with it. If it doesn't get to me, I would approach them only if there is a problem. Usually the communication is with the classroom teacher because s/he is the one who brings them and picks them up. And I would initiate that conversation and let them know this is what I saw today that blocked the learning and where do I need to go from here?

Q3: Challenges
The difficulty with learning, with communication, focusing and I don't mean that hyperactivity it's a different focusing issue maybe being more compulsive on certain things and harder to draw into the loop of learning of the large classroom. And definitely need one on one direction. There are probably 2-3 assistants in a in a K and one in 5th grade but most do not have papa-pros. Unfortunately when they don't have a para-pro it was frustrating because I found that I could not give that child enough time for them to be successful for them, which was sad for me because I don't know how to get around that. I also think that maybe they get something out of it because of other students, sometimes they model what they see at their table and so it doesn't all have to be teacher directed for it to be a positive experience. Many students pair up naturally, or I try to assign seats next to a willing students, but I do not talk to students about having the responsibility for the art for that other student bc they are in there to create their own art. But I do think that the student with autistic difficulties can absorb just by observing.

Q4: Goals
Just to have them be as successful as they can with the learning and the art production. Some of them have motor issues but to still feel... I like to start from the very beginning letting the kids know that is ok for them to produce different in their artwork. There is not another artist like you—for everyone. So if they can internalize that then hopefully it gives them the freedom to create what they can to the best of their ability. And they all need to learn what we are covering but as far as the way they express themselves… as long as they demonstrate that they are learning there is a whole, huge gamut. I'm not real hard about giving grades in elementary school and so much of what I do is did they learn the basics and did they do their best. I do not want to get into the subjective-type realm. And some of them can't reproduce the skill, but if they try, at this level…encourage them and if they are pushed down then they're never going to try. And of course the expectations scale up as they get older.

Q5: Challenges
The communication wall is the most difficult challenge. Where either they shut out, they just pull down the curtain, if they won't try or open up at all. To get around it I just do the best I can.

That is where if there were tips on, or try ABC or D because it takes a lot of time to try all the different strategies and time is what I don't have when I see them once a week for 45 minutes…so condensing those strategies to the top ten of the most workable would be a huge help. So if I was given the top ten strategies to try to break the communication barrier or break the social skills barrier…that would be huge. And the social skills part because it is so limited in my class. I am not about a lot of social stuff because it takes too much time…I think there are other places for social skills. Of course they need to cooperate, it's not about conversation. It's hard to redirect when so much time is given if they are just focused on one minutae and then they will not be able to complete the project they just get bogged down. So probably the focusing…so, a strategy on how to keep tracking, how to keep them progressing, keep them going because otherwise they find class is over, it's time to leave and I would think it would be very unsatisfying for them—some can express that and sometimes they can't. And so many of these students who are not successful in academics can just excel so wonderfully with this outside the box subject and its great that they are included!

Q6: Training/preparation
Not much! We do have inservices, a few, yes and that is helpful, but we just kind of touch on it and that is for general staff. As far as just the art teacher having a meeting, no, because we only get together once during pre-planning and one other day. That would be very interesting to bring in an adaptive specialist…but then again all the schools are set up differently. Other training? Just talking to teachers, talking to the psychologist that cameos to the school—she was asking me about one of the students a few weeks before school's out and she was asking me if I thought a particular student was autistic and I though, "Well, that is interesting!" I thought, "Boy, she has all the credentials and she is asking me what I thought." It just tells me how difficult it is to nail down.

Q7: Collaboration
We do have an OT that comes to the school, but I never see her. And some of the kids with fine motor skills will work with her but there is no collaboration at all. With the Special Needs teacher, there are brief, quick touch base. There is certainly a willingness for the good of the child to bring everyone together, as needed. I do not help develop the IEP. I have been invited to several…I can think of one this year, this student had a terrifically difficult time and it worked out great and it was inspirational how much it helped to team together with the parents on what they saw from their child at home and to get all the communication straight. It was absolutely helpful to me. The student had a lot of general self-esteem issues and he had these technically, motor difficulties that really surfaced…well, his behavior became difficult because of these underlying issues and so finally to discover the need to those contributing to help with that, it was great…

But a lot of it is the time factor and a lot of times, I'll have meetings with the teachers. I can learn about the specific impacts issue what the child either feels about art or does in the art room…

Q8: Adaptations
This past year with that student, he would come in before school—he was getting very frustrated with clay because he could see he was not getting where the other kids were getting and so his behavior tanked. So, what we did was just some before school and he brought a couple friends and that worked great! But then we got to drawing and he shut down again and he didn't continue. Once he got the clay accomplished and he did a really fine job, but he did not…he didn't continue. So, that was…I wish I had been able to show him…but it was just sort of a stop gap, I think…the issues were bigger than just that one thing. Some of these kids the one on one really…you just have to keep trying. And sometimes, yea, light bulbs, but sometimes…

You also have to modify expectations as they work on their projects, especially the older ones. They can see the student next to them and that is one of the biggest hurdles is to let them feel ok about what they're doing.

Q10: Environment
The first few moments in the art room are so important to set the tone for a positive attitude because if they come in down…to get out of the cycle is so difficult. That's why I put a lot of oomph and energy in the first greeting. And hopefully leaving their other problems behind. This is a whole different environment where whatever scene they have going on in their own classroom, I don't need to know because it's a whole different scenario where you can be successful because of who you are.

Q 11: Materials:
Sometimes with manipulating…how to adapt? Just quickly help them out.
Crayons are so ineffective if they don't put pressure on them and they are just so blah, it can be frustrating so we don't really use them.

I use oil pastels more because then you don't have the dust issue, with respiratory problems, etc.

One of the best paints is tempera cakes. They are not quite as bold as the other but they are easier. Water color is the toughest because they get muddy so fast. The tempera cakes are more forgiving than the other bc you can't paint over them. They are the easiest and most successful.

I use modeling clay when there isn't time for earth clay.

I haven't done paper mache in ten years—it's a time thing. You've go to maximize your time and get the most learning accomplished in that time and to me paper mache doesn't do it. Plus it's a storing nightmare, drying nightmare…I'd just rather use clay any day. The glue is an issue. I like the dot glue better. It's a different lid on the Elmer's glue. It has a little plunger and the only way it works is if you push it down, and squeeze and it only comes out a dot at a time. It isn't perfect, sometimes it clogs up, but it's really easy. You don't ever turn anything, they just push down and squeeze.

A few of the autistic kids don't like to touch the tactile things—that is one problem with modeling clay. And some kids like earth clay enough that they'll do it, even though it's dirty, they'll just run to the sink and wash their hands. They've either had enough exposure to it that

they've worked through it. A few years ago we had one student we had to warn ahead of time if we were going to have a fire drill because he would really freak out with that alarm. So we had to take him out of the building first…but there hasn't been one recently with the tactile stuff. A few years ago, we had one that just tried to do the same projects but with materials of their choice—I do let that be an option. And printmaking, with ink. I would suggest that because it is a more active project and it comes together more quickly once you start making the prints. It's frustrating when you have a lot of little steps like with fabric collage or something. For their age, like for the younger ones, you've got to get to something more immediate than the older ones, but they do like to see their effort turn into something because their expectations that it will not just be the process. I have a rubric to tell them what is expected. With the autistic ones, I'll modify it without talking about the modification. I haven't had to explain that yet, the modifications. I'm not heavy into grading, but that is coming. The most successful materials are the ones they don't already have a preconceived opinion of like clay, pastels, printmaking, opportunities which aren't, "oh, just another crayon drawing." I love oil pastels on colored paper—I love the richness. Just things that have punch with it. I find it difficult to get that with the color pencils.

Q12: Any other question you'd like answered?
I'd like to know what the child is thinking as far as what the most important key to their learning—what do they need—more depth in art history, to appreciate life as a lifelong gift, do they need more hands on –what is going to touch their core? Because there is no point in working on stuff that doesn't mean much!

Art Teacher 2 (AT2) on 6.7.08

Q1: Population
I had a k-2 class which had 8 children and a 3-5 class which there are 4. I know there are 2 children in that class that were not necessarily autistic but they were in that class bc it matched with their individual situations.
I am in an art classroom, a K-5 environment. Special ed comes independently, I only have two 5th grade students that are "pushed in", they came not only with their own class with other autistic kids and but also individually with a 5th grade class. The younger ones came twice a week, the olders came one a week and but half the class came with the other class so they came twice a week.

Q2: Identification
At our school they are already diagnosed and placed in a class so I don't have to do any evaluation. They already come and I already know. Basically they come as a general group and within their own classes there are varying degrees. When they come in, there is one para-pro for two children. In those classes I have a lot of extra hands, esp the younger class. The older class not so much but they are a little more manageable. They usually have 1 teacher per 4 kids. The regular teacher doesn't come to art with them.

For the two that are included, I try to pair up students to work with that one child. And I'll be honest with you, the behaviors were so severe, and not from the autistic children but from the regular ed children that they would literally get lost in the confusion. Not that my classes were

out of control, but when you've 30 kids in a class and one autistic child…if you don't pair them up with someone to stay with them and make sure they are working then they do just kind of get quietly ignored just bc I don't have enough eyes or enough hands. I try to find students that have natural tendencies towards being compassionate. Sometimes it will be a boy and sometimes a girl but they have that natural nurturing quality don't have any problem working with that student, its like a natural, " I'll take care of Nick…"

Before I started pairing, it's not that they weren't learning bc they usually had an activity in from of them, but sometimes they would get off task and next thing they'd be wandering. And you'd have to pull them back and re-direct. The peer pairing works best bc they help me to keep up with where they are. The classes that are smaller are one on one, more individualized.

Q3: Goals

The goals are more individualized and I try to talk with the teacher. It is easier for me, bc I have 700 kids, for me to sit with the teacher and ask what each student can do, what are they're severity levels, levels of ability, level of independence. And they will let me know which student can do what. Some children, they're stemming is so that they'll work for just a moment and next thing you'll know, they are destroying what they are working on. And it's just easier for me to talk with the teacher. And some kids, this will be their second year, so next year I will know exactly what they are capable of. The teachers are so overwhelmed with what they have to do that it not that they wouldn't meet with me, but basically I will wait til they come to class the first day and I will have a manipulative project for the students to do while I talk with the teacher. There is just open collaboration with the teachers. They will tell me what they're working on and what to be aware of. We have really great teachers and they are really open to communicate.

Q4: Challenges

Most challenging…bc of the varying degrees, sometimes you'll have a student who…the individuality of it. Every single child has ind needs. Like, with a basic K class, you can say, "ok, today we are going to take yellow and blue and mix it together to make green." But in an autistic class, you have some children…they don't know to pick up the brush, they don't know what mixing means, and then you have some that will jump right in.---the varying degrees of capabilities. In my smaller groups, I adapt by asking each parapro to take 2 children, and I will tell them up front, this is what we're going to do…and sometimes it is hand over hand and sometimes it's just supervising the task. I'll take one and they'll take on and we'll just work together. It just depends on having the manpower to work together. We're just really comfortable working with each other.

Q5 & 6: Training/prep

And, having no training in that area…It was very difficult for me in my first year at this school, I had to rebuild my program. You just had to see what worked, trial and error, I contacted other teachers and asked them what they do. I have a friend who is a homebound teacher and I asked her, what do you do?" and every single one of them, I ask, "did you get training in this area?" and they said, "no, there's nothing." So to my knowledge, to other teacher's' knowledge, there really is no formal training for working with, teaching ASD. And, just taking a broad survey of friends and co-workers, there really isn't anything. I've gone on line and looked and it really is

minimal. Maybe you'll get 1 or 2 projects but that won't take you through 36 weeks of classes, esp when you see them twice and now you've got 72 classes you've got to teach with these kids.

[gives me the project list for younger kinds and explains] This is the project list for my younger group. It's very generalized, I come up with basic art areas and then simple tasks that they can do, they are with me for 40 min and as you well know I can prob only keep them engaged in one area for about 10 min so I am aware of that and so sometimes we'll do multiples, we always have a tactile activity at the end of class that is what they really enjoy. I try to break up the class into 2-3 sections.

I find that in art, for regular and special education classes, there are some that are off the chart and you've got to adapt your teaching strategies for each one of them. You really do have to work your class to your benefit or it really will make you crazy. I walk in every day and say, "I learned something new today!"

I love the little itty bitties because it's magic…

I got the best compliment at the end of the year from a third grade teacher who said, "I don't know how you do what you do. I just finished tie-dying t-shirts with my class for field day and I've just about pulled my hair out." And I just said, "You just have to love what you do..."

Linking back to preparation, to my knowledge there is not adequate training for teaching students with ASD at all. Basically collaborating with other teacher and I did go online. Plus observing the children… after being with the students for a few classes you know how far you can take them day by day.

I got some ideas from a collaboration class where you bring sculpture ideas that were successful, you shared your ideas, like sharing recipes. You have to apply for it, you get SDU credit for it, and I don't know how they choose who attends, but it was a great class.

Q7: Collaboration
There is an OT that serves a cluster of schools, and sometimes they'll come in to the room and see if a student needs any adaptations, but really they have not been involved in my room at all. They are available if I need them, but I haven't asked. There is no adaptive specialist at my school.

Q8: Adaptations
They are all so different and being that whatever we are working on the child has an immediate teacher with them, we just adapt whatever we are doing to their ability. Because there are so many hands, we just adapt to the student we are working with that day. It comes from background knowledge with that student. If you know that child is one who would put the paintbrush in their mouth, you may use hand over hand or keep it out of their reach. You just have to know your children and what to expect. If you don't see it, or they don't feel good, or something is up…

Q9: Most effective

Probably the most effective strategies for the kids who can't work independently is the hand over hand. And that just takes a body of adults that are there and the days I don't have hands, I would do a project with more manipulative than a liquid medium, like clay or blocks, or yarn but it won't be something wet. On one day, we'll just explore line and we may use a markers and paintbrush and we may try stamping all on the same page but we're still exploring lines. And after we've accomplished that, I might change mediums. Like, one day if we've explored lines on a white paper, with different mediums and different tools, I might take that one away and we'll try transparent paper and we'll try it again and then the end result is to take the two pieces and marry them together and then you have visual depth bw the transparent paper and the white paper. But that's just something most of them can do that. And even if they go off the paper and the mark is still the paper and if they still hit the paper, they've achieved my goal for them that day. Explains hand over hand for kids that don't have fine motor skills as s touch technique. Sometimes they are free to explore, that's a little loosely structured, and you are there to supervise that things don't get out of control. Adult supervision is the main thing that helps me.

Q10: Environment
I really don't change anything for my included students bc they can do anything the regular grade level kids do with continued guidance. They might become distracted, I call it shiny objects, if they saw something that took their attention, they would instantly leave this and go look at the object. I had one little boy that fixated on the globe so when I knew he was coming I put the globe away. If he couldn't see it he could stay focused longer. But for 45 minutes, even on my included students, wouldn't stay long. Basically if they finish what they are working on, I give them a project to focus on. She is one that can sit and fixate on a project. The little boy, he is up and into stuff if you don't have his helper telling him to sit and work. And sometimes I would have to give him something different as well. For the classes that are all special ed, bc there is such a variety, for the lower functioning, I would make it more simple for them. For the other ones, I will make it more complex for them, push it further along.

Q11: Materials
The only thing I did not use with them, acrylic paint I try to stay away, but we use everything else here except for metals, wires, or paper mache. I could have, but I chose not to because of safety concerns and I could have used paper mache if we had the time. They loved anything they can use with their fingers. Fingerpaint is very successful, painting with pudding, model magic, shaving cream, anything they can smear or rub or smush, they love. I have not found any issues with the paper mache. If there is not a medical reason for them not to use the materials, I push them to try.

Q12: Remaining questions?
What I would love to see is available training. I was flying blind when I first started here. I was used to milder and these were more moderate children and you just walked in and say, "What am I going to do with this?" The art teachers that were there before me--One was younger and did not work with those students and the other literally moved away and I had no contact with her. SO, I really had no idea what to do.
The one thing I would ask is please, give us formal training in working with children with autism. Even if it was collaborative and you come to the class and you bring the lessons that work for you and we could just build a catalogue of what works. Like, some ideas I have heard

before: Color mixing using a bubble wrap mit and you stamp yellow and red when you mix it to make orange—they loved that. The one I got online was painting with matchbox cars where you run them through the paint and then run it on the paper and it makes great abstract paintings bc each tire makes a great texture. So, that is what we need—"what worked for you?" I would like a forum where we could share ideas and we could just build a catalogue of what works for you.

Adaptive Specialist 1 (AS1) on 6.4.08

Q1: Population
10 girls and 35 boys for a total of 45—this year and I included a middle school I taught last year. This includes pre K- HS

Q2: Identification
Usually we have access to the IEP so I read those, but usually I can tell. So the way they act the way they interact or don't interact with each other. Body language…nonverbal or very limited verbal. Or, if I don't know enough I check their IEP. When they are younger, there is a higher percentage of nonverbal. So I guess they gain verbal skills as they get older. BY the time they get to high school they can use their language to express to you what they want.

When I go into the classroom, cause I go into their classroom, they are right there the whole time, they don't leave usually, but not all the time are they working directly with me while I'm working with the students but they are right there in case something happens. I don't work in the art room at all…I'm art on the cart so I independently go into their classroom and their environment.

As far as it being a very strong influence, I wouldn't say that it would be. There are individual cases, think about regular students, not everybody is artistic, not everybody…but some people really benefit from it more than others.
I think I teach through art and in that aspect you use art…you use art to teach verbal skills or to teach them about their environment or survival skills so in that aspect.

Q3: Goals
My overall goal is to promote creativity. Any kind of creativity I can get out of them is great and each goal for each student depends on their IEP…if they are really young, then the goal might be for them to physically sit at the table and even if they're not actually participating with the hands on, they are involved in a group setting and they're not jumping up out of the room or…

We don't use the curriculum in the same way as they do in regular art classes but we do incorporate into the special ed classroom. We do use it, just not as structured. But then the students have so many individual goals they are trying to working on so, try to find a to balance between what I want to do and what I should teach them as an art teacher versus what they are truly capable of and what they are truly going to benefit from.

Q4: Challenges
Their lack of imagination is extremely challenging to get around—be very concrete and stick with what they know. You can't say, "imagine da dada…." Everything…they see the world as

very black and white. For instance, you can ask them to take their seat and they will go and pick up their chair and look at you like, what do you want me to do with it?

R: Anything you try to encourage them or just something you roll with?

AS1: You have to just roll with it because they copy things, like cartoons or maps or whatever, if you show them…then they can, the older ones, can copy it really well. As far as coming up with ideas on their own, they can't do that.

Q5 & 6: Training/prep
Training? No, I have no training at all. They only training I have is that class that everyone has to go through in the education program. I read books, I read articles, I asked a lot of questions, and just observing and from experience. I have been doing this for 6 yrs. I work with all kinds of people, but I didn't realize until I wrote the numbers down how high the number is of students with ASD. I probably teach about 130 kids and 50 of them apparently have... I don't know that it's on the rise, but the cases are more severe. I've noticed and when talking with teachers who have been teaching for a long time, they've noticed it.

Recommended reading: Reaching and Teaching Students with Special Needs Through Art. It's aimed towards teachers in a regular art classroom and gives a lot of insight into different disabilities.

Q7: Collaboration
We are not involved in the IEP. We are welcome to come to the meeting, but we don't even know when they take place, we don't have a say in writing the goals and we really don't say who comes to us and who goes to regular art and at this time, I'm ok with that. At the end of the year, when they start doing the IEP you would basically miss all the other classes if you had to go to all the meetings. There is so much stuff that is covered that I think it is a huge benefit to have another professional who is willing to give them those details. A lot of the times the skills that are in the IEP…they do have art type skills, they're just not labeled as art skills, so we just take them and adapt them.. They'll just be listed under skills or skills to master, like fine motor skills…

There is an OT comes in to work with particular students while we are in art class and that is great for me bc that child has one more…when you have 8 kids and they all need help with something, one might fall through the loop and its good to know that one person is taken care of and in that aspect, we do work together. You might have students with a variety of disabilities and ideally I can adapt the project for each. Sometimes you have to just make it work. With the severe kids, we only have 30 minutes, so there is only so much I can do in that time one thing I have to remember is that I don't have to complete something in that time. When I first started, that was hard, I felt like I had to get in there and get something done. But now I realize that one project might take us 2-3 weeks because there are so many un-predicatables, cause you might have one throw up in their paint or eat the glue, or spill water everywhere.

Q8: Adaptations

This probably varies from the older students to the younger students. With the older students you have to give very clear and concise directions. You have to ask a lot of questions to keep the attention on the lesson bc before you know it, they might drift away into their own world. , and we already talked about imagination, and you have to think about your lesson and make sure it is something they can relate to and visuals are usually always good, like examples of artwork. One of my HS classes are all autistic and they are really fun because they remember Van Gogh and you can talk to them about artist. With the younger ones, you can use objects that they are really focused on…like if they are really focused on cars, you can paint cars, paint with cars, etc…

Q9: Environment
I go into their classroom so I don't really change anything so I guess I think about the art classroom, if you were going to have somebody who was autistic going into that room, I would suggest keeping it the same throughout the year, don't change the seating, the structure and repetition. And that helps because they'll get agitated, they don't like change and if they have to transition from one activity to another they get very frustrated, they might have a breakdown.

Q10: Materials
No problems with any materials listed. There are some kids that are fine until they get something on their hands and then you lose them. It's important to know that every ASD child is different…something that is the same for one, is going to different for another and it's hard to generalize.
I have used both chalk and oil and they really like pastels. Prefer oils because a lot of the time they chalk goes down so fast and when they're done, there is just a mess, so with the oils they can use it longer and not get as messy as the chalk. And they each get their own set so they can do whatever they want and I think they take care of them better.

Water color painting is probably the best to use as a traveling art teacher. Because of the containers…easier to transport. Fingerpaint we don't use as much, some are very sensitive to touch. There are students who are tactilely defensive but a lot of times, I'll just leave it on their desk and they might eventually pick at it. They may not make anything, but…I make this stuff sort of like silly putty, I call it goop. It's made of borax glue and water and it comes out white but you can use any color markers to color it and they LOVE it. It doesn't get on their hands like clay does, but they can manipulate it and smush it. We make it the art project for the day. We make it individually and then they play with it for the rest of the class.

I don't use metal very often, but I have before, metal tooling with the older students and they enjoy it. I think they like fabric, I just use it to make collage.
They love scissors—even the younger ones…they like the action. Sometimes if they are good, that's their reward, they like to snip it.

For glue they can use a paintbrush. Paper mache is a no go. The whole process—I think they don't understand the concept. We are using a newspaper, which is usually something they read and it's confusing.

For kids that are really tactilely defensive, you can put a barrier against their skin. Like if you would want to do fingerpaint, you could put a piece of cellophane over the paint and have them

press into it. One with a project with the younger ones is to just use paintbrush an water and that is awesome, they can taste the water if they want to, they can smell it…they are familiar with water. It's more experimental but I feel like it's a stepping stone.

Q11: Suggestions
Remember to keep it simple, straightforward. Just be flexible, don't have too strict of expectations. Be structured but not so much with what you are getting out of it as an art project. Allow students to explore with the materials. Keep in mind one autistic child is different than another.

Adaptive Specialist 2 (AS2) on 6.8.08

Q1: Population
My population is the moderate to severe but I do have 2 specifically autistic classrooms that are ABA classrooms and there was probably 15 total, 7 in one and 8 in another--altogether 18 classes in different schools. I was 80 % working, a 4 day work week. In the past year I served 3 schools.

Researcher (R) asks: so, 2 of them were…

AS2: 2 of them where ABA classes.

R: Had you learned about ABA beforehand?

AS2: I had heard about, when I was at one of my other schools they had just started doing ABA with some of the classes and they weren't so called ABA classrooms, just a few kids they felt could benefit from it and there might be a class of 6 or 7 autistic kids and only 2 or 3 might have a few people doing ABA with them.

R: So, is ABA for more high-functioning kids?

AS2: It's supposed to be I think but I would not…one of the classes was high functioning. They are not on academic tracks or anything.

I also see special needs preschool and K. And a lot of times there are children that are autistic, so I did and they haven't filtered out into what direction they are going to go. SNP and SPK are a hodgepodge of all kinds of disabilities when they are little and they kind of get then in the direction after K. I had 3 ASD's in P and 2 in the K. This past year, they were all younger. I have worked in MS and HS, but this year all elementary.

Q2: Identification
Well, now, I can just kind of tell, I feel like I can see kids now in different situations and can really question if I think they are on the spectrum somewhere. When I started I looked through IEP or verbal communications with the teacher. We don't teach the first week of school we don't teach, we just observe all our classrooms and sometimes there are repeat kids and we

already know what their diagnosis is from previous years. But, usually from the teachers, will let us know, you know, "this year I had 4 on ASD, 1 with Cerebral Palsy, 1 with Down's Syndrome…"

IEP are available and we can go and look through them.

R: what differentiates? What tells you?

AS2: Just an awkwardness and a quietness in the classroom usually…they are usually the ones kind of playing by themselves, kind of a lack of communication…I hate to say this…there's a quirkiness. I might not be right, butt sometimes you just kind of know…eye contact, definitely eye contact. I would definitely say the majority of my ASD students have difficulty making eye contact when I give directions. They have a difficult time transitioning from activity to activity classroom to classroom. They definitely need structure. I have moderate to severe class in the morning and ASD in the afternoon and definitely have to run the class differently. I have to make sure they know exactly what we are doing and how we're going to get there. You definitely have to map out the activity. Yes, I differentiate instruction from moderate to severe.

R: Do you come up with your own curriculum or do you work with a given?

AS2: Yes, we do come up with our own curriculum. We go off our IEP goals. A lot of the fine motor skills that they are working on we make sure our projects can work with those and we even pull in a lot of speech with autistic kids and we really try to do that as much. Say it is an activity where we are going to be mixing colors or painting something, we try to make sure they are requesting things and making choices. The teacher a lot of times will be the one to say you know we are really working on waiting our turn, or so and so really has a difficult time… and so we really work on that so we make and effort to go, "ok, then I am just going to hand out-- here's your piece of paper, here's your piece of paper or where working on identifying names, so will have already written their names on the paper. I know that is a difficult thing when you have thirty kids in a regular classroom but we are able to accommodate the age. Yes, it is very important. I know a lot of times the special ed teacher is overwhelmed by stuff but there is that collaboration and it does make everyone's life easier cause then I am not going oh my gosh I'm going to get so and so to do this, dadada…I have been very lucky at all my schools they have all more than willing to say so and so needs to be approached in a certain way.

We do … there are 5 of us in north county and 4 in the south we meet as a North group and a south group and we meet more frequently than we meet all 9 together and I would say once a month we are all meeting and then another Fri a month just our cluster. And not everyone can make it so there might be 3 out of 5 and we'll come to each other with certain scenarios or things or just this class went so well or I can't figure this out or I really need a lesson about…our schedules are set up so that we are able to meet, Denise had a lot to do with it. I don't work on Fridays at all but the others all have Friday afternoons for planning for these kids yet we make time to plan with each other as well. So…and with traveling to different schools everyone values that extra 3 hours a week.

Q3: Goals
Many of them really do enjoy working with art materials but many of them want to do it in their way and that makes it difficult. It isn't really a goal but it is so important for them to learn how to follow directions and it's because of being mainstream in the classroom, they need to follow directions to follow the structure of the class so a lot of times I do have the goal to do what I want them to do and not what they want to do and to follow the directions of the project. I may give them a crayon to color a certain thing and they're given the paper but they'll start doing their doodles. They love to use the crayons, but they're not following along with what the lesson is. And sometimes I'm successful in redirecting and sometimes it can cause a meltdown and crayons get thrown across the room and I know that is the problem I hear from regular art teachers, say, "he was doing fine and then he's off track and I tried to get him to go back and tried to and he just lost it" and I think it's just something that is kind of unique to autism… That's why a lot, when I worked at---, for three years, there was a larger population and Board Maker is a picture program that you can print out any picture from a piece of cake to a chair and anything and they use it for communication and in many of the classrooms there, I would have a poster-board that would show first we'll do this then this, then this, with a little velcro. And I'd tell them we're done with the first step, we'll pull it off, and when we're done with the second step, we'll pull it off. Its a little schedule of the lesson and that for those kids… and then at the end if they wanted to free draw or whatever, they had to follow what I want before they could do what they wanted to do.

R: Method of re-directing?

There is definitely been meltdowns and there is times when I've been like, "ok, if they want to do then we'll work with that" as long as they're engaging in an activity…like if we're supposed to be cutting squares into a mosaic and instead they're just kind of cutting random things, I just have to kind of evaluate how important is that fact v. the fact that he's cutting at all… I definitely just kind of, "ok, if this isn't going to work with him we're gonna make this work". Yea, in course of your whole 30 min thing, sometimes we have to backtrack and I can't imagine in a class with 28 kids who are doing what you want and you have 1 kid in the back…

I have my own room and the para-pros are there and always very familiar with the behaviors and abilities and they help out. They are supposed to have one if they are assigned a para-pro, like in the ABA class, like in the one I have, we have 3 papa-pros with 7 kids. Now, with any of those… Now I don't believe any of them in that class...I think she tried mainstreaming in the beginning of the year but it did not work, but there definitely needs to be a para-pro. If nothing else there needs to be someone who is their liaison, someone who says this is who they are this is what they need to do.

Q4: Challenges
They're unpredictability… I would say. You think you are going along with a project and it's all going fine and now you start to paint and then oh, no! what happened, he didn't want to use the blue paint. We are doing something that is supposed to be blue but he wants the yellow. And you can't tell at all. He caught a glimpse of the yellow paint over on my table. So I think the biggest challenge is there unpredictable behaviors that can arise. I have had… sometimes if I

have been pushing certain students to keep on, keep working, I have been kicked and gotten the "stop bugging me kind of reaction, I don't want to do this"... But, I always have the assistant there and I always question, "should I keep doing this with so and so?" and they would say, "oh yea, they need to learn to finish what they started or need to follow directions" and then sometimes they'll say so and so ha been off all day, just give them a crayon… giving you heads up. The teachers are really good, if they've had a bad day they don't bring them, don't want to throw them off more. They are excellent teachers and also the rapport, I have been there 10 years and it is a real close knit set of teachers and some of the kids have been there several years so they are really looking out for the best interest of the kids.

And the focus on having structure bc sometime art is not very structured you have to remember with them, you don't think of an art lesson… in a regular class you might say of we're gonna learn about Van Gogh or in the style of this like this and you kind of give them an outline in a very broad spectrum whereas with these kids, it's almost cookie cutters they have to know we are gonna cut out a yellow circle to be a yellow sun. You want them to have the imagination and be creative but some of them don't have that…they can't imagine. They are very matter of fact. A chair is a chair. But for us, you say chair and many images of chairs pop into our heads but with them probably, who knows what.

Q5: Training
When I graduated from college, I had only taken one very general exceptional people and, honestly it has been over 10 years but I don't remember the word autism in that class. I remember hearing, visually impaired, cerebral palsy, downs syndrome. So when I came in and when I went for the interview, they said, "you'll be working with kids with special needs, they have learning disabilities or some of them have physical disabilities." And when I left that class the first year…I would go home and cry. I had no idea what to do with these kids and so kind of I learned by being thrown to the wolves and learning hands on. Then after 4 or 5 years I went back and I got my master's degree in special education, said, let me really get into this and see what is all about. So there was no training. There was nothing yet, it was all hands-on, figure it out for yourself. When the program started, 2 of us were hired, and one serviced for the south county and I served the north county. There a was no one to talk to, except the special ed teachers and ask what kids of activities do you do. and the other girl that was hired, we'd meet at the library desperately looking up ideas and stuff was so dated I remember finding this one book about, something like, Art Projects for the Mentally Retarded. So, we really did just tread water for our first couple years to really figure it out. And I was a big DBAE and I had to throw that out the window, there was no art appreciation or anything with these kids. Nowadays there are so many websites, ASD websites…I pull a lot of stuff from the preschool websites because the functioning of a 10 yr old with autism might be a functioning of a 3 yr old and so a sensory activity because there is a lot of tactile defensiveness. When we first started websites were not...we just weren't computer savvy.

Q6: Prep
But, I don't know you can ever be totally prepared and you can talk to any, that ABA teacher and yes, there is going to be something in common, they are all going to need their structure but,… being flexible and learning that they can be--- I don't think too much can prepare you for it except reading about children with ASD really trying to understand where this is a disorder

where…they are all different. I mean all children are different, in a classroom of 30 kids they are all different in their own way, but you know, my children with DS, they all have low muscle tone so we're always working on fine motor skills, getting them to squeeze things, or getting them to do the scissors and they have stubborn streak… not to say they are all the same, but they do have certain characteristic that every little DS kid that comes around, might remind me, like so and so reminds me of…but with autism it is very rare that I can say, "he reminds me of so and so" and aside from the behaviors, the flapping and the sounds...some stuff does carry over, but I couldn't… it is really hard to explain. Right now I am picturing this classroom and we are trying to do an activity and I've got one I need to stay on top of cause she's the one that is doodling and another who keeps saying, "no, no, I don't wanna, I don't wanna," and the one likes to cut and line his little things up is so eager because the activity is so structured and structure is really his thing. And the other one has scissors in his hand, he is just going crazy—it is a mixed bag at times.

Q7: Collaboration
OT writes goals and the teacher writes goal and PE and all the others. We're not part of the IEP, though music therapy has been trying for years to get on the IEP but I'd say the goals we work on the most are the ones the OT has used and also speech. If there are learning how to make verbal requests, I will make sure they are doing a project where I can let them choose which color paper they want or I'll even say which color scissors do you want to use, or any little thing that gets them to speak and gets them to make a decision.

A lot of times the parents… like, we're just extra, they look at it like my child needs time in regular art and its great they're getting music therapy and adaptive art but I really want my child in the regular art room with their peers. They don't see us as this is where my child needs to be and this is where a specialist who is working on art skills…there are so many blocks of time on their IEP that are dedicated for different things that we're really not included, we're just kind of mentioned, like for 30 min each week the child will attend adaptive art, like that and its like a fringe benefit. I feel like for these kids it is more important that they are in an art class that is geared specifically to their needs than to be mainstreamed with other kids.

In the SNK class, out of 12 kids I only saw 8 of them because the other 4 were sent to regular art. Well, one of the four was successful, really got something out of it and the others were just kind of participants and warm bodies. The assistant will usually do the work for them because child is 6 or 7 years old but they are really not up to a 2nd grade art lesson. There are certain expectations that by the time they get to 2nd grade they'll be able to cut out simple shapes and this is sometimes where the word imagination… If they are in a regular art room and doing self portraits…these kids are not even aware of their self as a themselves as self, I don't know how able they would… you usually have to say you have two eyes, draw two circles, we don't even go to almond shape and the balance of the head like you can do a regular classroom we're just getting the shape of a circle for the head…and so in a regular classroom a teacher might talk about different artists and self portraits and let the kids go with a mirror, I think the kids with autism are going to need someone right there next to them with them breaking down the project even further than a regular art teacher realizes.

Some of them are very high functioning autistic kids, back when I was at--- , going through it…there is a handful that are able to follow the directions or the project and still have the outcome of what it would be. But, are they actually learning or are they just kind of copying what they see? It's not their own idea…
Or, if the teacher had enough or a little extra time in her schedule and knew next week we're going to be doing pinch pots so I need to make sure that this child is ok with how clay feels and I need to know they know how to pinch, to get down to the very basics. You might stand up there for 15 minutes explaining a session's worth of lessons and one of two things can happen: one who tries to do it all in 10 min and get it all done and you end up with a blob with a hole punched through it and one can not want to do anything with it, who does not want to touch it.

Collaboration is very important that I know what the therapist is trying to get out of it, what they are trying to get the students to do, and that we understand how this child learns…

Q8 & 9: Adaptations & effective strategies
[discussion of video modeling]…A lot of or kids are very interested in tv and that kind of 3D stuff and once they saw it on the screen, they were able to mimic it better than actual people demonstrating… it makes me wonder if the art teacher would video tape her demonstration and had it available prior to when the student comes in the classroom and they've already seen it once or either a) they've already gotten it or b) it's drawing their attention because they've already seen it before.

One effective strategy is a picture schedule of the steps of the activity. We go over them and then they know, "these are the 6 things we have to do before we're done and we're not done until we do these things." And, I always have to have an example of what it's going to look like at the end, they have to have something tangible of what is expected of them. My most successful projects are the ones that are most structured and have a specific outcome rather than the ones that might be open ended. Back to that picture schedule...I usually have it on a construction paper laminated on a board and use it as a group to follow the steps and it will say something like first, and we're gonna get the glue, and there might be a picture of the glue and now we're going to cut… and sometimes I'll write it out because some of them can read. With Boardmaker there are pictures of actions as well as objects. So there might be a picture of scissors but they'll also be a picture that says cutting so you can use it as a supply list… it has pictures of actions as well as nouns, so you can really lay it all out there.

One of things that another colleague was talking about having some autistic kids in her room… and I always have trouble with them fidgeting and not paying attention while I am giving instruction and she uses those koosh balls. She says, "I just keep a little thing at the table and when they come in each one of them knows that they can hold it in their hand as long as they're paying attention and then when it's time to work they have to put it back and use their hands for doing their art work." Those are higher functioning students that were able to let go of that object when its time...I don't think in my class, once they had that in their hands they might not be able to pay attention.

And sometimes they need to know the purpose. They think, "Why am I drawing a picture of this? This is not enjoyment to me or I don't understand why this lady telling me to draw a

picture of something that is already up there." And I don't know what the word is to describe it, but there's not that inner drive or inner desire, you know, the imagination to create something…they don't see a purpose to someone standing up there and asking them to do a landscape or learn about foreground or background or portrait or a mask, or some of them might be scared…you know, if masks are scary like, why are you covering your face, I don't like the idea that your face is covered and that can just throw…it's not knowing ahead of time that these things might be disruptive. So, maybe that day they should not have come to that lesson. It's just one of these things… you don't know what's going on with them. And if they don't understand the purpose behind it, they don't have an interest.

Q10: Environment
AS2: Halfway through this last year, I had a lot of pictures up, a lot of lessons up on the wall, I found that it was very distracting. I found that if I had a sample of the lesson I was doing and not much of anything else in the room because, I guess the term over stimulating, to have too much… I used to have all my supplies visible even if we weren't using it, like they saw the paintbrushes on the can behind the table and thought every time they came to the class they thought they'd be painting so they'd fixate on it. So abut halfway through this year I realized I should cover up the materials, and I just draped some fabric over it and realized that just the stuff we were using that day needed to be within their reach or sight. Thinking about room setup, Marie, who works with us, her room is set up different, she has kind of stations set up, so that when they're done with one thing they can go over and read a book. I wish I had that luxury and some of the other Adaptive Specialists don't even have a room, but because of her population it just works really well. So, if they're done with an activity there's somewhere else they can go.

Q11: Materials
I always try to use watercolor paper when we use watercolor and with the drawing paper they sometimes have a hard hand and I can't explain to them why this paper is different than this paper. I have certain brushes that certain kids use because I know that its not going to mean anything to them or they won't use it in a certain way.

Colored pencils are not the tool of choice for my lower functioning kids and I think that may be because of coverage and using the colored pencils might end up with more scribbling.

Markers I usually stay away from. I think smelly markers might be more confusing that they might smell them instead of color with them.

I like crayons, I make the chunky crayons and those intrigue them. I wouldn't use those to do an activity if I needed specific coloring on things...

Art Therapist 1 (AS1) on 6.3.08

Q1: Experience
I don't have a lot of personal experience, but I was in supervision school with a girl who specialized in work with ASD, so I heard a lot about, particularly early intervention and it was a very specialized program so I vicariously learned a lot through her. But it was an all afternoon program where they did groups with the parents and all kinds of activities with the kids and it

was very structured and she was the art therapist. And she was an aid with specific kids intensively.

Right now I primarily work with 5th grade- women in their 40's. Right now I am working with women dealing with a lot of body image issues, eating disorders, cutting, self-esteem, and depression, getting ready to focus on post-partem. My background is working with kids and family at a clinic in L.A. dealing with ADHD and behavior issues.

Q2: Goals
Specifically with ADHD, a lot of is behavior modifications, using art to getting them to cognitively and behaviorally develop coping skills. I have a lot of kids that get distracted so I have them make transitional objects in art like little figures that they can put on their desk to remind them to pay attention. Not just behaviorally, but tapping into their emotions…like they'll have a ADHD but they'll also be depressed or also have anxiety because they have this disorder that makes them awkward around other kids because they are hyper or annoying so I'll have them do a lot of feeling work—like getting body awareness. Mind-body connection so have them artistically color in like where in your body you feel certain emotions. We had one little boy who, and we would write letters to "distraction monsters", like, "dear distraction monster, please don't bother me anymore"…like externalizing their issue and attaching that to feelings. I think this would also help them identify with their feelings. How does our mental thought translate to our physical action bc usually its their physical action that is getting them into trouble.

Explaining further "Transitional objects": I'll have them make a figure with sculpey, and having them make it and talk about it. Sometimes I try to get the parents involved and take it to school. It can be tricky, but we make it very clear that this is not a toy it is an object to remind you. It can also be a signal to the teacher that Johnny is having trouble today. Or you can make a little character and maybe they need a little box and then you deliberately put the figure in the box and put it away.

Q3: Setting
I was a preschool teacher for 2 years and right now I am in a private practice setting but I just finished a social skills group.

Q4: Modifications:
I think depending on different things. If the behavior is bugging other people all the time, then you can create something, maybe positive reinforcement modifications and with art I think that is an easy thing to do. Like they can create their own jar and whenever they'd be doing well, they get a certain amount of marbles. It's positive reinforcement in a visual way—it can create a lot visual pieces and a lot of times these kids may have verbal difficulties in processing or expressing and I think art allows expression that also allows processing on a different level.

Q5: Sensory
I think sensory is really important piece of art making…a lot of kids like glitter, but with kids with ASD they might get over-stimulated and perseverate on that. I have to think about the different sensations of the materials, so if the child has a lot of PSD or trauma, you wouldn't

want to use paint because that is a very fluid or muddy and that might cause them to go out of control whereas a pencil is a very controlled media. A lot of times I'll use different textures of paper, slippery or sandpaper…I like to think about are how the media I am using eliciting different responses. If I am trying to get someone loosened up, I might use paint, if I am trying to keep them reined in, I would might use pencils. If they don't know about the perseverative nature…teachers want to be hyper conscious of how they might respond to particular materials. You might want to make a book of different papers and ask the kids in a fun and open way to feel each and ask them, "What does this one make you think of?" I would suggest to teachers to just think about the different materials they can use, what I call "non-art materials" like tin foil or sandpaper or plastic.

Q6: Challenges
Not anything real strange but I notice with ADHD kids, maybe they can over-engage and not be aware of what they are doing. Then you slow them down and refocus. I think it helps to engage all their senses, re-direct as a safe way to challenge their rigidity. I think it can be a very safe way to explore things, which as an art therapist we look at what the image might suggest but if they aren't trained on it, it might open them up too much…very safe but also powerful. If I open them up too much, I might have them do a mandala, or something to rein them in. I use all different kids of things…it's important in doing art as therapy or art therapy it's important that you are very cognizant of what's the directive or what's my goal?

Projects that I use to draw them out, I can use the universality of art, like, "everyone draw their favorite animal" and then you make the connection, like, "oh look, Danny, you drew a dog and so did so and so—do you both have dogs?" You want to think about ways to connect them. I think my favorite art quote is "art is the externalized map of our interior self." –Peter London. It's not only a window into the child, it can offer the child a window into the world.

Q7: Training
In school I kind of get a broad overview, but then I happen to work with children that have ADHD—More hands on experience under supervisors. I recommend if someone wants to know more about it they might find another therapist or another teacher to bounce ideas off of.

Q8: Prep
An overview, or a one page of things to be aware of, particularly in terms of safety. Maybe a link to different websites. I just know that the perseverative thing seems to come up a lot, because they zone out and sometimes you'll suggest something but all of that is too much—too over-stimulating. One project that she did was potato stamps…almost more simplified…her main goal is to get them interacting with each other…she actually got a huge canvas and had them splatter paint together.

Q9: Collaboration
I would think it would be important to know what is their goal—is it a behavior goal, is it a learning goal? I think that the art being a witness can help progress—a visual progress map. The art teacher can also bring another perspective bc the child in the art classroom could be totally different than in the regular classroom.

Q10: Instruction
You have to be real careful and aware of being very specific in your instructions and break it down more than you would a regular child. I think thinking about your goal, your IEP goal and what are the materials that are they going to want to get for that day. What is that child going to need?

Q11: Strategies
Collaborative strategies are really good for helping with the social skills. You want to take their social goals and turn that into an art directive—like draw a person that you would want to be their friend or take a friend and draw their qualities. Another strategy…We did inside out feeling masks for learning to identify your feelings. One child who had Asperger's and on the outside he had, "I'm angry and grumpy" and on the inside, "I'm just a normal boy" and I feel like maybe that might be the side that some kids, on the outside they seem very different but on the inside they are just normal kids.

Art Therapist 2 (AS2) on 6.7.08

Q1: Experience
I work with groups…mainly groups, every now and then if one of my students is having a problem they'll come see me individually. The ages are anywhere from 4-17 and I'll see them in a group of kids that age. I have anywhere from 3-6 in a class. There is a second person in there-it'll be me and an intern. The majority of what I do is I'll run the group and I'll have the intern do behavioral management. We often have a child who needs individual help or needs some redirection, so it's really great to have an intern helping. I've been doing this about a year. I like it a lot, it can be kind of challenging. As they get older, the majority or the people I work with have Asperger's and they recognize that they don't have many friends and they want to have friends, so we mostly work on social skills.

Q2: Goals
A lot of them it's different but behavioral management, we're pretty heavy on that. Some of them do behavioral things…some of them make noises and so we try to reduce how often they do that. Like I said a lot of what I do is social skills and in my opinion if they are constantly saying their noise, that is going to turn their classmates off. We work on eye contact, they don't make a lot of eye contact. Reminding them to do it and having them gradually do it more and more.

Q3: Describe your setting
The majority of them are in public schools, some of them are private schools. I would imagine because our company is private and they have to pay for it out of their own pocket…some people get reimbursed by their insurance, but most people pay out of pocket, so $70 for a group and they meet for one hour out of the week, it is an open group and it lasts all year. So, usually if they come in Sept they stay until May but in January and Feb we have other kids joining but that

because of how we are. I have worked in classroom setting when I got out of undergrad, which was art ed. but not with kids with Asperger's in the classroom. We have a variety of rooms, 2 smaller rooms, and one large room and so we do a lot of activity and lot of moving around. There are 3 master's level therapists and 2 psychologists who own it and a few interns who always work with a master's level therapist.

Q4: Sensory challenges
I give them choices. Before this I was working in a hospital and they were big on choices. I'll pick out 2 or 3 things I want to do, but I will give them choice. A lot of them are fine. I mean they have sensory issues, but they wan tot do the art. I haven't found a lot of things that freak the kids out, except fingerpaint. But with even play-doh, I've found that all the kids like play-doh. I think fingerpaint is the only thing. And if they work with something that gets their hands dirty, they want to go wash their hands. Teachers might want to have wipes ready because a lot of kids do want to get it off their hands. In fact I have three kids that have stronger sensory issues and they love hand sanitizer. One of them will put globs of hand sanitizer on, to hold it, smell it, I have to tell them not to lick it… it just shows they'd be ok with the wipes.

They are really sensitive to sound. I could see in the classroom where that would be a problem. Even if they are sitting by the air conditioning, that would be a problem. Have them away from any noise, even steady nose, like an AC.

A lot of children with sensory issues, and when they come in to me, they'll want to run around. And I'll give them a sheet of paper and I'll say, "Put that here" and it redirects them, focuses them only on the paper.

Q5: Challenges
A lot of kids I work with that have PDD or Asperger's, they understand a lot of complex issues, but they don't get a lot of the basic one. They need a lot of explaining, they need to understand why things happen. Example: I have one boy who, at school, he commented on the way somebody looked and the kid got really defensive and really upset with him and the teacher explained you can't say that, you can't talk about the way other people look. But then when he was with me and somebody commented on my hair, he freaked out, he said, "Whoa, you can't talk about that!"…he didn't understand the difference. He didn't understand that talking about somebody something might already be self conscious about, people get upset, but if it's not something that someone is self conscious about, that shouldn't be a problem.

[gives an example of a lesson plan directions] You have a mask that is already made, you are going to paint the outside one way and the inside differently. On the outside, you'll paint things that you tell other people, things that you feel, things that you see… In the inside, you put private thoughts, things people don't know about you and in doing that, basic art therapy, you would first have to explain, you don't say all thoughts out loud and go into detail about what kinds of thoughts that would be. So before you can do even a simple art project like that you'd have to go through a whole brainstorming activity about thoughts that you keep in your head that you don't tell other people…

Suggestions to get kids participating in a collaborative activity: Before the activity to give the kid a step by step on what they are going to do. You'll tell them, "You need to decide what part of it you want to do." You need to give them direction on how to do that. I would imagine prepping ahead of time, modeling and practicing would be very helpful to them.

Q6: Training/prep
There is no specific class in the art therapy program about how to adapt to kids with autism. Usually you take one class on how to adapt for different environments and maybe briefly touch on autism…A lot of people don't know about Asperger's at all, not just in my program…a lot of teachers I've encountered…I went through art ed at UGA and there was nothing like that either. I encounter so many teachers, like I talk to my kids teachers and they call me for suggestions…a lot of teachers I talk to they say, nothing's wrong with them, they raise their hand, they talk to me…they talk about how smart they art they're not a behavioral problem…and I let them know that that's not what Asperger's is---they aren't talking to anybody else!

A lot of the older teachers don't know anything about Asperger's and a lot of the newer ones either, but a lot of the newer ones do know how to recognize kids with Asperger's. They may learn the same amount as anybody, but say you talk about bug…they are going to go home and google and learn all about bugs. They get stuck on things. And that is another main problem—they'll get stuck on something…they won't be able to let it go. That might be another suggestion for how to recognize it—if they are not communicating with their peers and they are very focused on a subject…

I did a little training at the place I work at, interning there a before hand.
And I got my Art Therapy degree in Louisville. Most of my training I did in a children's hospital…I worked with behavioral disorder kids. I did not encounter anyone with autism at all.

Q7: Suggested resources
You know the guy who wrote Running with Scissors? His brother wrote a book called Look me in the Eye and he wrote the book at age 50. It kind of breaks things down for you.

Q8: Collaboration
I might not be able to think of art specific questions, but in terms of social skills covering things like interacting with other kids, eye contact, asking questions of other kids, things like that…. IEP are often on behaviors but not catering to be so specific…so more social type behaviors. That would be about the main thing is interacting with other students in their classroom.

Q9 & 10: Adaptations
Very clear directions, one or two steps at a time. Also, any priming you can do beforehand is helpful, especially if you've seen a meltdown before, letting them know what to expect is helpful. To encourage social skills, you can tell them to ask three questions of people around them. You may have to be specific and tell them exactly which questions to ask. You can even let them pick who they will speak to, but you may wan to tell them what to say. A lot of kids with ASD have ADHD, so you have to be aware of that and so you have to find a way to reel them back in.

In terms of, if they are trying to draw something, they might get stuck. If you notice they can't move fast trying to draw the foot just right, offer them some help, like, "let's start with the tail"—offer them something to redirect them.

The kids that I have that are diagnosed with Asperger's who get stuck on the little facts, they are very intellectual versus the kids with high functioning autism which the two are very similar but the ones with high functioning autism have more serious misbehaviors, lack the social communication, they don't get stuck on the details and facts…the kids with Asperger's, I've found, can replicate things. Like, if you say, "draw me a dinosaur" because they have probably drawn it before, they can draw it fantastic. Whereas the kids with high functioning autism are not good artists at all, that could just be the kids I've had, or not, I don't know. The kids with Asperger's… pencil, pen, they really like bold, so things like paint would not do well for them unless you wanted to push them but I wouldn't do it right away because they're going to fail at it probably. I think if you were in an art classroom, you'd want to do more of the things you'd want them to succeed at but then in a smaller group then you could try to push. You wouldn't want them to have a meltdown in a big class. But pencil, pens, colored pencils, they would be their first choice probably because they are really controlled.

I don't know if I have had a whole lot of problems with materials or techniques at all other than the kid getting stuck on something and then trying to push them to do it, I don't think it was materials thing, I think they just might not have wanted to draw that day. Most of the times, they have moved past that, you just try to make them comfortable with it.

Q11: Strategies
[Talked about PECS and asked about other systems like that—therapist had not heard of those interventions] With kids that are verbal, you really discourage that, because you want them to use their words and you know they can do it.

Q12: Environment
A lot of them have issues with impulse control, so that being said, if you have something sitting out if they can see it, they might run up and get it. Anything you don't want them to get distracted by, move out of sight. Even if they can't reach it, you put it on a high shelf, they might try to climb up and get it. Just because they don't have inhibitions and it's something I work on a lot with kids that might be a problem. If you have a whole lot of colors and stuff everywhere, with anyone with sensory overload, they might have a behavior reaction.

Q13: Materials
Markers-We have smelly markers and regular and they are all mixed in together. One of my coworkers bought the smelly markers and loves them…all the kids love them and they will spend hours smelling them and she thinks it's fantastic. So just a difference of opinion. It bothers me…I want them to focus on something…she is a therapist, not an art therapist, so I want them to focus on whatever they are doing and she's perfectly fine letting them sit around smelling the markers. They won't let anyone else smell them. It's just a personal pet peeve. Crayons are fine. Chalk can be tricky. Similar to paint. Because there is less control and if you are trying to do something it's not always going to come out that way and that is very frustrating

to a lot of people. So in a general classroom where you have 25 kids, I would probably avoid it because it might cause behavior issues, could cause them to not do anything. Painting something specific, like paint a landscape, that could be potentially frustrating. If you have a wooden cup, it's not as frustrating because you're just trying to get painting on it. So if the directive is get the paint on this canvas, it's ok, but if the directive draw a portrait of a person, it might be a problem. Whereas if you try it in pencil, in paint, it's not going to be perfect, they're going to try to make it perfect…But give them a choice. Even if you don't give them a choice and we try paint, be ready with another sheet of paper and pencil. If they get frustrated, be ready. You would have to be there and have to help them. You would have to say something like, "you're obviously frustrated, you're really upset, I have an idea…you're fantastic with colored pencils. Let's try it again."

I have found that a lot of them really like clay and I guess it would depend on how realistic what you are trying to make.

Fabric is fine…we use scissors and glue a lot. With paper mache, there is the weird sensory thing, but it depends on how you do it. I have done where I put it down and they rub it down. I've never had anyone react horribly to it, but my classes are small and I feel like I am able to control them better than what a teacher in a larger classroom would be able to. [she also suggests model magic]

Q14: Suggestions
Encourage social interaction, encourage sharing. Give them positive reinforcement. If you see them share with somebody and acknowledge that. They are trying to make you happy. If you were going to, if you want to encourage social interaction, every time you talk or share something, I am going to give you a coin. If you get 10 coins, I'm going to let you free draw at the end and let them see you put the coins in, I feel like that would really motivate them.