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## Examining the Shared Perceptions Surrounding the Most Important Elements to Include in the Design of a Classroom-Based Therapeutic Visual Arts Program Serving Students with Autism

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Running Head: CLASSROOM-BASED THERAPEUTIC VISUAL ART

Examining the Shared Perceptions Surrounding the Most Important Elements to Include in the  
Design of a Classroom-Based Therapeutic Visual Arts Program Serving Students with Autism

by

Laurie Hoppock

A Dissertation submitted to the Department of Leadership,

School Counseling & Sport Management

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**DEDICATION**

It is with genuine gratitude that I dedicate my dissertation to my family and friends. Without the support and encouragement from my husband, Dave, I would not have been able to complete this work. I am truly thankful to have you by my side for all of life's adventures and especially now that this work is done.

I dedicate this work to my parents and brother for pushing me to meet my full potential as well as my siblings-in-law, even though my sister-in-law will never let me forget she is the original Dr. B-Hopp. I also dedicate this work to my friends who would not let me quit this journey and who helped me celebrate victories, small and large, all along the way.

I also dedicate this dissertation to my network of art educators and art therapists who took sincere interest in this work, asked for updates about my research, and encouraged me to share my work. Without your support and curiosity, I may not have found the motivation to finalize this research, take the leap into data collection, and share my findings with our professional community.

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## CLASSROOM-BASED THERAPEUTIC VISUAL ART

### ABSTRACT

Visual art is an enriching part of educational curriculum and an individual's development (Malley & Silverstein, 2014), but public school curriculum is increasingly focusing on standardization, core subject curriculum, testing, and accountability measures leaving creative fields behind as merely an additive part of education or a resource (Hourigan, 2014). Arts education within a system focusing on these areas creates a one-size-fits-all curriculum (Wexler, 2014) for students rather than accounting for individual student learning needs. A differentiated system is needed to respond to varying learning styles and stages of development. With the rising number of students being diagnosed with autism (Zablotsky, Black, Maenner, Schieve, & Blumberg, 2015), this shift becomes especially important for a growing population of students who exhibit a wide array of academic, social, emotional, and behavioral learning needs. The integration of therapeutic visual arts into an education curriculum can account for these elements of a student's developmental and learning needs as well as the need for self and expressive exploration (Albert, 2010; Anderson, 1992; Bush, 1997; Henley, 2001).

This dissertation outlines a Q Methodological study that examined perceptions from professionals in the fields of art therapy, art education, and special education around what programmatic features should be included in a classroom-based therapeutic visual art designed for school-aged students with autism. These perceptions were collected through a Q sort of 42 item Q set. The results of the Q sort were analyzed and interpreted. From the patterns and themes that emerged from this interpretation, I developed program recommendations and implications surrounding classroom-based therapeutic visual arts programs designed for students with autism in a large public school district in the southeastern United States.



## CHAPTER 1: INTRODUCTION

“Art is a basic and natural activity that can facilitate an essential mode of expression for all” (Got & Cheng, 2008, p. 32). The creation of art is a process through which individuals can express inner thoughts or emotions with or without words, new learning about the self or environment can occur, and new strengths or abilities can be realized. As such, the process of creating art can be therapeutic in many ways. The American Art Therapy Association (2017) defines art therapy as “an integrative mental health and human services profession that enriches the lives of individuals, families, and communities through active art making, creative process, applied psychological theory, and human experience within a psychotherapeutic relationship” (para. 2). “Art therapy is based on the belief that the creative process involved in artistic self-expression helps people to increase self-esteem and self-awareness, achieve insight, develop interpersonal skills, resolve conflicts and problems, manage behavior, and reduce stress” (Martin & Betts, 2011, p. 57). Art therapy is utilized by a professional art therapist (AATA, 2017) distinguishing it from art education as the focus is on the process over the art making technique or aesthetics of the final product (Alter-Muri, 2017).

A form of art therapy, “art as therapy,” according to McGraw (1995), has power that “lies in its nonverbal, image-producing nature, with its inherent ability to symbolically and metaphorically help a person discover, uncover, recover, integrate, and gain insight” (p. 167). Art as therapy is process-focused in which the emotions are engaged, and the art maker is free to explore (Warren, 1993). Art as therapy focuses on exploration of materials, the creative process, and strengths (Alter-Muri, 2017) and does not require that the client and the therapist communicate about the art product. With students who have varying educational, social, or

physical needs, there is less of a focus on verbally discussing the creative process or the art product. Rather, the focus is placed on the art creation process itself and the art product is merely a reminder or a symbol of the creative experience.

“When schools provide art therapy, they take responsibility for helping children to learn by removing emotional and behavioral barriers to learning and offer access to services for families who cannot afford to purchase them privately” (Nissimov-Nahum, 2008, p. 341). Art therapy appears in school settings in a variety of ways, often in an individual setting over the classroom setting. While the field of art therapy serves individuals with a variety of presenting issues including trauma, anxiety, depression, palliative care, and many others, classroom-based art therapy programs typically serve student populations diagnosed with emotional or behavioral disturbances (Anderson, 1992; Henley, 1997; Isis, Bush, Siegel, & Ventura, 2010; Nissimov-Nahum, 2008) or students with autism (Emery, 2004). The programs examined through these studies focus on specialized programs working with open-studios (McGraw, 1995), individual or small art group settings in a school (Alter-Muri, 2017; Anderson, 1992; Emery, 2004; Isis, Bush, Siegel, & Ventura, 2010), or a small class of students in an alternative school (Henley, 1997; Nissimov-Nahum, 2008). Lacking from the body of research is a consistent model of classroom-based work utilizing art therapy techniques with students who have autism.

Van Lith et al. (2017) highlighted this lack of literature outlining specific models, program structure, or consistent facilitation of art therapy practices with individuals who have autism. The focus of this research study is to gather a range of perceptions about specific approaches, program features, and structure methods from art therapists, art educators, and special education teachers and administrators who have professional experience working with

this population. From this collection of knowledge developed from the shared perceptions grounded in evidence-based practices and techniques, as well as instructional experience, this study worked to derive program recommendations for the development of a classroom-based therapeutic visual arts model in service of students with autism.

### **Purpose Statement**

The purpose of this study was to collect and examine the shared perceptions of professionals in the fields of art therapy, art education, and special education, around the elements that should be a part of a classroom-based therapeutic visual arts program for students with autism; ultimately working to facilitate improved academic and social functioning of enrolled students. An additional purpose of this study was to develop recommendations for creating a classroom-based therapeutic visual arts program for students with autism in an urban, public school setting from the collection of and examination of the perceptions and experiences of industry experts. This study aimed to increase the awareness of art therapy in the classroom setting and the use of classroom-based therapeutic visual arts programs in service of special needs populations.

### **Research Question**

There is one overarching research question associated with this study. It is: *What are the shared perspectives regarding program features leaders in the field of art therapy, art education, and special education think need to be included in a classroom-based therapeutic visual arts program serving students with autism?*

**Definition of Terms*****Art Therapy***

Facilitated by a professional art therapist, art therapy combines “active art making, creative process, applied psychological theory, and human experience” (AATA, 2017, para 2) to improve cognitive and sensory-motor functioning, establish methods of appropriate self-expression, develop coping strategies, interpersonal skills, and/or communication skills, while also increasing self-awareness and working to resolve conflicts.

***Art as Therapy***

Art as therapy is a process-focused form of art therapy utilizing the exploration of art materials and the creative process while engaging the client’s emotions and building on client strengths (Alter-Muri, 2017; Warren, 1993). Art as therapy can include non-verbal interactions, instead relying on the symbolic and metaphorical nature of art creation and the creative process (McGraw, 1995).

***Program Features***

Within the context of this research, program features included the method of structuring the physical space and/or art therapy activities, art therapy approaches utilized, the progression of skills and learning, the number of real-world connections embedded in the art therapy activities, methods of addressing therapeutic goals and individual education plan goals of the students within a classroom-based therapeutic visual arts program.

***Autism***

Autism is a lifelong condition that negatively affects an individual’s communication skills, social interaction skills and connections with others, and their ability to regulate behavior

across multiple contexts (American Psychiatric Association, 2013). The Individuals with Disabilities Education Act (IDEA) defines autism as “a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before the age of three, that adversely affects a child’s educational performance” (Autism, 2019, para 1). Observable behaviors associated with autism may also include a rigid adherence to routine, sensory sensitivities, and engaging in repetitive activities or stereotyped movements (Autism, 2019; APA, 2013).

### ***Classroom-Based Therapeutic Visual Arts***

Classroom-based therapeutic visual arts refers to a school-based art program facilitated by a professional art therapist integrating art therapy approaches with art education approaches in a way that plans art activities specifically to address and meet students’ expressive, emotional, behavioral, and academic needs. The current research examines classroom-based therapeutic visual art programs serving individuals with varying exceptionalities, but the goal of this research is to propose a program model for a classroom-based therapeutic visual arts program specifically designed and structured to support the needs of school-aged individuals with autism.

### ***School-Aged***

School-aged individuals encompasses individuals between the ages of five and 22 years of age. This age range includes kindergarten students through the age when a student enrolled in public education ages out of the services provided within the public education setting.

### **Overview of Theoretical Framework**

Driving the work of this research study is a framework that pulls art therapy approaches including art as therapy and art education therapy (Anderson, 1992) as well as the Expressive

Therapies Continuum (Lusebrink, 2010) together in the service of individuals with autism in the classroom. The Expressive Therapies Continuum (ETC), explored more in Chapter 2, is an approach to art therapy based on the three main criteria differentiating art therapy from traditional talk therapy: the use of art materials in facilitating expression and communication; the multifaceted meanings in visual expression; and the integration of the creative process for its therapeutic effects (Lusebrink, 2010, 2015); all three integral to a classroom-based therapeutic visual arts program serving individuals with special needs.

Embedded within this therapeutic visual arts core are the strengths-based approach of presumed competence, the idea that humans have basic needs that must be met to function at their best, and the constructivist theory of learning that individuals need to construct new understanding and knowledge through experience rather than passively intaking information. Presumed competence is an approach for the teachers and team supporting individuals with special needs that the individual is capable of learning and acquiring new skills (Carmen Pingree, 2022). This is the assumption that an individual can rather than focusing on tasks the student cannot complete. The Humanistic Theory in education also drives this work as it is imperative that basic human needs must be addressed before students can truly take part in their own learning and development (WGU, 2020). Through the process of establishing the classroom as a safe place and the adaptations to environment, communication methods, tools, and lessons depending on student needs, those working in a classroom supporting individuals with autism make every attempt to meet the basic needs of students within the learning environment. At the heart of the work within a classroom-based therapeutic visual arts program for students with autism is intentional lesson design that engrosses students in new learning experiences. In line

with constructivism, this approach is vital as learning experiences need to align with the students pre-existing knowledge, but then challenge their prior knowledge with new learning (UB, 2022). The work within this program involves engaging hands-on work, reflection, learning about one's own strengths by doing and building upon those strengths, as well as learning about one's environment in and out of the classroom.

Through the survey of professionals in the fields of art therapy, art education, and special education, combinations of these theoretical elements popped up in the responses to prompts about best practices one should include in the design of a classroom-based therapeutic visual arts program for students with autism. These elements then emerged again in examining the Q sorts submitted by the research participants, most notably that of presumed competence, meeting students' basic needs like safety and access to varied forms of communication, and the use of therapeutic visual arts to meet individual student needs or goals in the classroom. All of these elements must work together and need to be integrated into the design of any program in service of individuals with special needs, especially in a public school classroom setting. This becomes even more important in a therapeutic visual arts classroom that aims to address student needs in the classroom and promote development in social, emotional, physical, and academic functioning.

### **Overview of Methodology**

Due to the lack of consistent classroom-based therapeutic visual arts programs, structure, or literature examining specific program models or facilitation of programs for individuals with autism (Van Lith, 2017), Q methodology was chosen as the research method for this study. Intended as an inversion of the traditional factor analysis, the study sample becomes the

measurable materials in Q methodology and the variables are the participants taking part in the study (Watts & Stenner, 2005). Q methodology utilizes the viewpoints of experts in developing a more in-depth understanding of subject matter, especially in cases when it is beneficial to study the subject matter, including relationships between themes rather than examining themes separately (Watts & Stenner, 2012).

The examination of approaches for supporting the needs of individuals with autism and methods art therapists, art educators, and special education teachers and administrators utilized in serving this population are not variables that should be separated and assessed in isolation. Instead, especially with the goal of developing program recommendations for a classroom-based therapeutic visual arts program for students with autism, these variables are best examined in relation to other treatment variables so that one can better understand the interconnected nature of this work and serving a population of individuals who present with varying emotional, behavioral, academic, and expressive needs. Chapter Three will include a detailed discussion about Q methodology and the procedures of this research design and study, but a brief overview of this methodology and the proposed research design will be addressed here.

McKeown and Thomas (2013) outlined the sequence associated with Q-methodological studies: the generation of a Q set, the selection of a P-set or participant group, the design of the Q sample and administration of the Q sort, analysis of the Q sort data, and factor interpretation. To build a collection of statements to develop the Q set, a brief questionnaire (see Appendix A) was created and used asking recipients to list up to eight best practices or programmatic features, what educational approaches, and/or what therapeutic approaches should be included in a classroom-based therapeutic visual arts program for students with autism. These questions were



posed via emailed surveys and in social media posts through groups dedicated to art therapy, art education, and special education. Once collected, these response statements, or concourse of statements, resulting from these questions and posts were narrowed to a set of 42 statements to be used in the Q sort. Driven by a statement prompt derived from the research question associated with this study, the P-set consisting of art therapists, art educators, and special education teachers and administrators with experience serving individuals with autism, were asked to conduct the Q sort. Once completed, the Q factor analysis and the interpretation of results was completed. The factor analysis and interpretation of the data will be explored in more detail in the methodology and results chapters.

### **Significance of the Research**

Visual art is an enriching part of educational curriculum and an individual's development (Malley & Silverstein, 2014), but public school curriculum is increasingly focusing on standardization, core subject areas like mathematics and English language arts (ELA) for curriculum, testing, and accountability measures leaving creative fields behind as merely an additive part of education or a resource (Hourigan, 2014). In addition, arts education under the Common Core State Standards (CCSS) and Race to the Top (RTTT) creates a one-size-fits-all curriculum (Wexler, 2014) for students rather than accounting for individual student academic, social, emotional, and behavioral learning needs. A differentiated system is needed to account for varying stages of development and for students with autism. The integration of art therapy and art as therapy into an education curriculum can account for these elements of a student's developmental and learning needs as well as the need for self and expressive exploration (Albert, 2010; Anderson, 1992; Bush, 1997; Henley, 2001).

As of yet, classroom-based therapeutic visual arts programs serving students with special needs, especially autism, in public schools are scarce and their services vary greatly. The viewpoints of leaders in the field of art therapy, art educators who have experience working directly with students who have autism and/or experience working in the special needs classroom as well as special education teachers and administrators can offer insight into approaches, structure, and program features that would best meet student needs. These professionals will also be able to offer insights of how these features best fit together into a cohesive whole. Gathering these perceptions and viewpoints based on professional experience in the field from such a group will help to bridge the gap between research and practice. Once the Q sort, Q factor analysis, and the factor interpretation phases were complete, I was able to identify and examine themes that emerged from the factors and participant responses. These themes and their connection to the study of existing research on the use of therapeutic visual arts approached in support of students with autism led to recommendations for the development of a classroom-based therapeutic visual arts program for creation in a large, urban public school district. The intent in proposing such a program is to create consistency in classroom-based therapeutic visual arts programs for students with autism; providing structure as well as flexibility to meet the needs of all students enrolled in the program. This program would go beyond traditional art education as it incorporates therapeutic approaches specific to student individual needs while using visual art creation as a catalyst for success-oriented, appropriate, and safe emotional expression, exploration of skills and talents, and the creative process for learning.

**Chapter Summary**

Chapter 1 introduced a research study focused on gathering and examining the perceptions of professionals in the fields of art therapy, art education, and special education surrounding the programmatic features or elements that should be included in a classroom-based therapeutic visual arts program for students with autism, utilized Q Methodology to do so. In this chapter, I gave an general idea of the theoretical framework driving as well as an overview of the lack of existing classroom-based therapeutic visual art programs developed to support students with autism, both driving the current research. The next chapter will delve into the existing research surrounding art therapy, therapeutic visual arts, art therapy and autism, and the existing therapeutic arts programs that support individuals with special needs.

## CHAPTER 2: REVIEW OF LITERATURE

In any setting, the process of creating art allows for exploration (Warren, 1993) and engages expression whether physically, emotionally, symbolically, or socially. Art creation requires active interaction with materials and the environment, while also offering an interaction with an audience through the art product, or as Kramer (2006) referred to it, formed expression. Through the utilization of art therapy techniques, clients or students can explore visual art materials as well as their own creative talents. A sense of control is implied in an individual's ability to manipulate the art material and the art product can become a vehicle through which the student gains new self-awareness or understanding. Within the art therapy-based setting, the creative process and the product that emerges communicates to an audience without the need for words.

Art therapy has traditionally been offered as an alternative therapy for individuals with autism in an individual or long-term group setting (Martin, 2009). The Centers for Disease Control and Prevention (2017) reported that the prevalence of autism spectrum disorder (ASD) has increased dramatically. Recently, approximately 1 in 68 children has been identified with ASD. "With the number of children diagnosed with ASD rising, it is imperative to develop intervention programs aimed at improving social skills" (Chou, Lee, & Feng, 2016).

Art therapy has also been introduced into schools through individual art therapy sessions with students who have emotional and/or behavioral disturbances (Anderson, 1992; Bush, 1997; Isis, Bush, Siegel, & Ventura, 2010; Nissimov-Nahum, 2008), through therapeutic curriculum in alternative schools (Henley, 2001; Henley, 1997), in serving students with learning disabilities (Nelson, 2010), in extended school year programs with students who have autism (Nelson,

2010), or suggested through art educators incorporating art therapy approaches in their classrooms when serving students with autism (Alter-Muri, 2017). Lacking from the research is what components should be incorporated into art therapy programs that serve students with autism in a classroom setting.

The current research study was created to examine the perceptions of what programmatic structure, elements, and features leaders in the fields of art therapy, art education, and special education think should be included in a classroom-based therapeutic visual arts program for students with autism. This study culminated in the creation of recommendations for the design of a classroom-based therapeutic visual arts program for students with autism. In the literature review below I first reviewed the research on the field of art therapy. Next, I examined the expressive therapies continuum (ETC) literature, followed by reviewing the utilization of art therapy approaches with school-aged clients who have autism. Lastly, existing classroom-based therapeutic visual arts programs were examined to inform this research.

### **Field of Art Therapy**

Art therapy has roots in psychoanalytic approaches, characterized by three main ideas: (1) the unconscious is tapped in the creative process, (2) art is a means of developing defenses and appropriately expressing inner drives and conflicts, and (3) the art therapist's role is to provide a neutral, safe environment for the creative process (Anderson, 1992). Art therapy also involves cognitive-behavioral approaches, stemming from social learning theory, which emphasizes higher mental processes (Malchiodi, 2012). According to Malchiodi, this form generally involves higher functioning clients, examining and connecting images, language, thinking, and behavior. As clients present with a wide array of issues, treatment combines art

making and examination with talk therapy. Art therapy can focus on the art-making process, on the art product, the thought processes involved in the art making, ideas that arise from the art making, or a combination of these elements (Case & Dalley, 2014).

“When involved in art activities, individuals can become more understanding of the self and can both feel emotions expressed by the self and learn emotions expressed by others” (Got & Cheng, 2008, p. 32). Art therapy in this case includes a cognitive element in which the client must self-reflect and examine how their art products, or the process of creation reflects various aspects of their lives, character, actions, or presenting issue. For clients with mild to moderate communication deficits or delays, the process of this examination and reflection could be completed using visual supports. For clients with more pronounced support needs, adaptive approaches are utilized (Malchiodi, 2012; Anderson, 1992).

Adaptive approaches in art therapy focus on the concept of “normalization,” a premise that all individuals with special needs should have the opportunity to lead as normal of a life as possible (Anderson, 1992). Adaptive approaches, through developmental art therapy, work towards creating adaptations or accommodations for individuals with special needs to increase their chances of participation and success (Malchiodi, 2012). These approaches focus more on the creative process as a means of exploration, developing emotional regulation, and reaching other therapeutic goals. According to McGraw (1995), the power in art therapy “lies in its nonverbal, image-producing nature, with its inherent ability to symbolically and metaphorically help a person discover, uncover, recover, integrate, and gain insight” (p.167). Art therapy is process-focused in which the emotions are engaged, and the art maker is free to explore (Warren, 1993). Art therapy focuses on exploration of materials and strengths and does not require that the

client and the therapist communicate about the art product or the art making process.

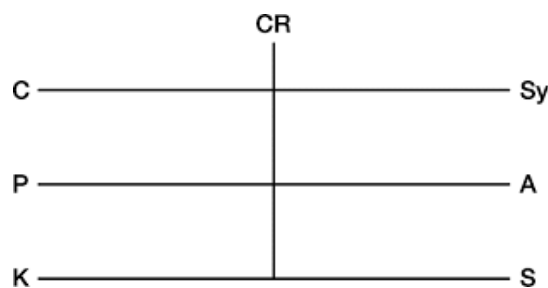
Additionally, the utilization of art therapy differs from art education in several key ways. Karkou (2010) outlined these as differences in intention, differences in content, presence or absence of art instruction, and attention to artistic change.

Within the field of art therapy, an art as therapy approach (Kramer, 2006) is primarily non-verbal and is used with young children or clients who have communication difficulties, whether these are developmental delays or a result of the presenting issue(s) that brought them to seek therapy. Approaches within this vein of art therapy consider the developmental level of the art maker and are adaptive to the art maker's needs. Lowenfeld, one of the prominent advocates for developmental approaches for "art education therapy" that uses art as a therapeutic modality in the special needs art classroom (Anderson, 1992), outlined stages of graphic development. Covering the period between infancy to the early teenage years, Lowenfeld's (1987) developmental stages, mirroring those outlined by Piaget's (1964) stages of cognitive development, include the scribble stage, the pre-schematic stage, the schematic stage, and dawning realism. Within normal development, an art maker will move through these stages as they gain experience in using art as a means of expression. Delays in this development can indicate an area of need to the art therapist. Van Lith et al. (2017) reported "art therapists were more cognizant of their client's current developmental stage, as opposed to their current biological age. They used the developmental theories to monitor progress, develop goals and evaluate outcomes on a regular basis with each client" (p. 81). These included both Lowenfeld's and Piaget's stages of development. Considering a client or student's developmental stage

enables the art therapist to address social and emotional needs, align client goals, and design interventions utilizing the Expressive Therapies Continuum (Lusebrink, 2010).

### **Expressive Therapies Continuum**

The Expressive Therapies Continuum (ETC), is a graphic framework illustrating an approach to art therapy based on the three main criteria that differentiate art therapy from traditional talk therapy: the use of art materials in facilitating expression and communication; the multifaceted meanings in visual expression; and the integration of the creative process for its therapeutic effects (Lusebrink, 2010, 2015). The ETC is structured into levels of increasing complexity that represent varying elements of visual processing and expression. The first three levels feature two poles at either end of a continuum, with the fourth level being able to occur at any level of the ETC or indicating an integration of creative functioning on all levels (Lusebrink, 2013, 2015). Figure 1 shows a graphic representation of the ETC, the levels of which, in order of simple to complex, are: Kinesthetic (K)/Sensory (S), Perceptual (P)/Affective (A), and Cognitive (C)/Symbolic (Sy), and Creative (CR).



*Figure 1.* The Expressive Therapies Continuum (ETC). This diagram illustrates the levels of the ETC at increasing levels of complexity, moving from bottom to top.

The Kinesthetic/Sensory level is focuses on “simple motor expression with art media and their corresponding visual manifestations of energy and sensory involvement” (Lusebrink, 2010,



p. 171). Kinesthetic activity focuses on movement, in turn decreasing the focus on the sensory experience, while a focus on the sensory experience slows one's movement, decreasing the focus on the kinesthetic activity (Lusebrink, 2010, 2013). Survey respondents in the Van Lith et al. (2017) study reported that their clients began on this level when they initially entered the art therapy setting. A client's transition to the next level, the Perceptual/Affective level, would be marked by an integration of the two poles on the Kinesthetic/Sensory level and an increase in self-awareness during the art creation process.

The perceptual end of the Perceptual/Affective level is marked by a child's devotion to more attention to the movements that create lines, shapes, and forms. Their work is more detailed and differentiated by color or boundaries. The affective end of this level is characterized by a heightened level of expression in artwork, whether through color use or disintegration of form (Lusebrink 2010). Although the work on this side of the continuum might be less recognizable to the audience, the artist will have an emotional connection to the creative process and product.

The Cognitive/Symbolic level is defined by "the cognitive integration of forms and lines leading to concept formation, categorization, problem solving, spatial differentiation and integration, word inclusion, differentiation of meaning of objective images, and abstractions" (Lusebrink, 2010, p. 171). The creative process and resulting artwork on this continuum level are intentional, meaningful, and reflects relationships between what is portrayed in the artwork and the artist.

The fourth and final level, the Creative level can occur at any level of the ETC, but it can also indicate that the creative functioning of the individual is integrated on all levels. Lusebrink (2010) posited that these levels and where an individual might fall within these levels, reflect

how an individual is able to process visual and affective information. This information is useful to the art therapist in planning their work with their clients and in ensuring the work they do in the art therapy setting is developmentally appropriate. For example, if a student with autism and delays in verbal communication skills exhibits functioning at the Kinesthetic/Sensory level, the art therapist would plan art directives that involve multiple senses and kinesthetic movement, while also encouraging some intentionality in the subject of the student's artwork, perhaps using a variety of materials to create a layered painting using items from the classroom, requiring painting, printing, torn paper collage, and gluing objects to the canvas. If the same student was given an art directive that assumed they were functioning at the Cognitive/Symbolic level and asked them to independently create a "problem-solution collage" based on an issue the student was currently facing with their academic work (a task that asks the student to think concretely about their academic experiences and communicate the issue and solution using words, images, and symbols), the directive would not align with the student's needs and would likely cause frustration for the student and the art therapist. The former directive, appropriately aligned to the student's creative and expressive functioning level: exploration, movement, using art making to better understand their environment. The latter art directive requires not only the understanding of what issues the student faces in their academic work, but how to incorporate and represent that issue in an art piece, devise a possible solution for that issue, and in doing so, communicate concretely to an audience about this issue.

Van Lith et al. (2017) research noted that survey respondents used the ETC framework to align their interventions to facilitate social and emotional development for their clients. One such example emerged from the work of Richard, More, and Joy (2015), who reported that their art

therapy intervention for individuals with autism, the Build-a-Face (BAF) model, engaged all levels of the ETC as clients worked towards increased facial emotional recognition. Within this model, clients were asked to build a face on a three-dimensional head form according to one of four emotional states. Although this was a small study that did not yield statistically significant differences between the treatment and control groups, the results did show that 7 of 10 participants in the treatment group improved as a result of the BAF intervention compared to 4 of 9 in the control group. Van Lith et al. (2017) proposed that use of the ETC in developing therapeutic interventions according to their clients' developmental levels was a best practice for working with children who have autism.

## **Art Therapy and Autism**

### ***Autism Definition***

Autism, or autism spectrum disorder, is a lifelong condition that negatively affects an individual's communication skills, social interaction skills and connections with others, and their ability to regulate behavior across multiple contexts (American Psychiatric Association, 2013). The American Psychiatric Association (APA) outlined three levels of severity associated with autism, ranging from Level 1, in which an individual requires support for social communication or social interaction, to Level 3 that indicates an individual needs substantial support with verbal and nonverbal communication, social interactions, organization, transitioning to a new focus or action, among other support needs (2013). The Individuals with Disabilities Education Act (IDEA) defines autism as "a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before the age of three, that adversely affects a child's educational performance" (Autism, 2019, para 1). Observable

behaviors associated with autism may also include a rigid adherence to routine, sensory sensitivities, and engaging in repetitive activities or stereotyped movements (Autism, 2019; APA, 2013). IDEA legislation outlines education challenges associated with autism that include difficulty following directions, communication difficulties, disinterest, and disruptive behaviors (Autism, 2019). The Centers for Disease Control and Prevention (2017) reported that the prevalence of autism has been approximately one in 68 children since 2010, although some reports suggest one in 45 children have been diagnosed in recent years (Zablotsky et al., 2015).

### ***Art Therapy Goals for Individuals with Autism***

The goals for individuals with autism participating in an art therapy setting vary, reflecting the diverse needs of individuals with autism. Early intervention is paramount in treating individuals with autism (Martin & Betts, 2011). The central treatment goals for individuals with autism include socialization, improving communication skills, and sensory regulation (Martin 2009). Betts, Harmer, and Schmulevich (2014) identified four goals for individuals with autism that art therapy has been found to address as cognitive growth, emotional regulation, adaptive behavior styles, and physical development. Cognitive growth encompasses developing focus and sensory integration and even the recognition of emotions in others (Van Lith et al., 2017). The goal of improving emotional regulation includes increasing self-control and frustration tolerance, developing ways to process emotions appropriately, and being able to differentiate between fantasy and reality (Betts et al., 2014). “Independence, maturation, socialization, positive peer interaction, group identity, motivation, initiative, and responsibility” (Betts et al., 2014, p. 629) are addressed within the goal of adaptive behavior styles. Physical

development as a goal comprises fine and gross motor skill development addressed within the creative process, a central component of art therapy.

In their survey of 14 art therapists working with individuals with autism, Van Lith et al. (2017) found the most prevalent goals for therapeutic work with this population included social skills development, behavioral regulation, communication/visual supports, and emotional regulation, respectively. In serving individuals with autism, art therapy offers opportunities to develop age-appropriate drawing and art making skills as well as methods for self-expression and self-soothing, improve collaboration and social interaction skills, decrease need for rigid adherence to schedules or consistency, and increase creative thinking skills (Martin & Betts, 2011). These findings suggest that goals of social skills development and communication skills should be directly connected to the day-to-day goals in the classroom through focused art directives in a classroom-based therapeutic visual arts program design. The goals of developing emotional and behavioral regulation can be tied in with the overarching goals of the program: 1) exploration of materials, skills, and processes; 2) the promotion of communication and socialization; and 3) developing the whole child.

### ***Treatment Settings***

Art therapy research addressing autism typically focuses on working with children in an individual setting whether within schools or private practice, rather than in the classroom. Gilroy (2006), in reviewing the current body of literature focused on art therapy and autism, supported individual art therapy sessions as well as long-term group art therapy for individuals with autism. Chou et al. (2016), Durrani (2014) and Martin and Betts (2011) focused on individual sessions in their discussions of treating autism with art therapy approaches adapted to meet varying needs.

Emery (2004) reported a case study of individual art therapy sessions with a 6-year-old boy with autism while Epp's (2008) work focused on a social skills group within private practice group therapy utilizing art therapy in the treatment of children with autism.

On the other hand, Van Lith et al. (2017) research reported that the main setting where art therapy took place according to their survey respondents was in schools, followed by centers or clinics and private practice. Their survey results did not specify if classroom-based art therapy occurred in the classroom, individual, or group setting, but the prevalence of classroom-based art therapy is an important start to integrating classroom-based art therapy work. Further, Alter-Muri (2017) discussed ways in which art educators could incorporate art therapy approaches into the art classroom to accommodate for the varying learning needs of students with autism. The latter example begins to form a bridge between the world of private practice art therapy and classroom-based art therapy available to any student at the school as opposed to those with financial means.

### *Art Therapy Approaches*

Van Lith et al. (2017) reported survey findings that included the use of humanistic/person-centered approaches, developmental approaches based on Lowenfeld's stages (Lowenfeld & Brittain, 1987) and Piaget's stages of cognitive development (1964), and cognitive behavioral approaches utilizing Vygotsky's Zone of Proximal Development (1978). The humanistic approaches, ranked the most used by survey respondents, reported within this survey encompassed openness, flexibility, active listening, getting to know clients as individuals, and being intentional about discovering client strengths. Van Lith et al. (2017) stated that survey respondents who utilized developmental approaches reported using their clients' level of graphic

development (Lowenfeld & Brittain, 1987) assessed through art making, to align art therapy interventions to the Expressive Therapies Continuum (Lusebrink, 2010, 2015). As such, art therapists were able to promote social and emotional growth through art therapy interventions designed to meet their clients' specific developmental needs. Aligning their art therapy session structure with Vygotsky's Zone of Proximal Development (1978), survey respondents reported using "a combination of visual supports, reward systems, as well as operant conditioning and communication strategies" (Van Lith et al., 2017, p. 81). In practice, this translates to therapists building safety within the art therapy sessions by adapting the environment to be responsive to sensory sensitivities as well as scaffolding sessions so that art therapy interventions required that, with support, clients learn skills just outside of their ability. This cognitive-behavioral approach also involves therapist-designed opportunities for cooperative play, relationship building through modeling and mirroring, and offering immediate rewards when clients meet established goals within the session.

Similarly, Martin (2009) outlined studies utilizing object relations, developmental approaches, developmental/behavioral approaches, and eclectic approaches in serving individuals with autism. Martin pointed to art therapists' ability to address features of autism including lack of imagination and abstract thinking skills as well as create a more comfortable environment to address sensory regulation issues through the focus on an art product as advantages of using art therapy approaches with clients who have autism. Further, Martin posited that compared to traditional art education environments, art therapy environments can offer a space specifically designed to integrate recreation and leisure activities with art making, facilitating development of socialization and communication skills.

Chou et al. (2016) explored the effect behavioral modification techniques within a behavioral art program had on the target social skills of two children with autism finding increases in social functioning in and out of the art setting as well as in their spontaneous verbal communications. Their work built off Roth's (2001) proposal of incorporating reinforcement, prompts, and behavior objectives from classical and operant conditioning work into the art therapy setting as well as Epp's (2008) combination of cognitive-behavioral and art therapy approaches in a social skills therapy program for students with autism. Each of the three program structures reported increases in social functioning and a decrease in target problem behaviors for the children in the treatment setting.

Martin (2009) called for art therapists serving individuals with autism to reach beyond the field of art therapy in their research and to place increased focus on developing ways to serve this population. Doing just this, Alter-Muri (2017) discussed an integrative method for all learners in combining art therapy techniques with art education curriculum and concepts of Universal Design for Learning (UDL) in an inclusive classroom setting that serves students with autism. In addressing treatment goals for individuals with autism, Alter-Muri outlined examples of how treatment goals were met with the combination of art making and the creative process itself, art history, and relationship building. Repetitive behaviors were redirected through the study of artists who used repetitive behaviors in art making, prompting the student to explore ways to expand on repetition. Alter-Muri accounted for student tactile hyper-sensitivity through mediated ways to introduce materials, allowing for exploration without needing to touch potentially triggering material, like clay. Additionally, Alter-Muri warned of auditory and



olfactory sensitivity for individuals with autism, calling for art therapists to plan for these sensitivities in the planning phase.

The expressive nature of art therapy and art therapists' ability to design interventions that facilitate the exploration of materials, techniques, and processes while developing skills without the need for extensive verbal communication, translates to a viable approach to meeting the needs of clients with autism. Art therapy interventions designed with client interests, needs, and abilities offer incentives to engage in creative endeavors that are designed to offer opportunities for positive social interactions, alternative means of communication, and to develop emotional regulation (Albert, 2010; Alter-Muri, 2017; Van Lith et al., 2017). This section documented varying approaches and settings in which art therapy has been used with clients who present with autism but lacking from this research are "specific models for consistent implementation of art therapy with individuals who have ASD" (Van Lith et al., 2017, p. 79). However it is important to note that art therapy programs that serve students with autism in a classroom setting are missing from this body of research. Alter-Muri's (2017) work reported working with students who have autism on a practical level, incorporating the varying therapeutic approaches and applying them in the classroom within an educational setting, thus forming the starting point for the creation of a model program for serving students with autism. Art therapy approaches have been used in a variety of classroom settings for school-age clients and students with varying exceptionalities including behavior disorders and learning disabilities. These programs will be examined next to examine a body of work that can offer insight into the development of a classroom-based therapeutic visual arts program to serve students with autism.

**Classroom-Based Therapeutic Visual Art Programs**

Classroom-based therapeutic visual arts programs vary widely across the United States and globally (Howie, Prasad, & Kristel, 2013). Some classroom-based therapeutic visual arts programs serve student populations diagnosed with emotional or behavioral disturbances (Henley, 1997; Isis et al., 2010; Nissimov-Nahum, 2008), while others serve students with autism (Alter-Muri, 2017), and others serve students without a special needs diagnosis, but still face stressors that can be addressed with an art therapy infused educational curriculum (Albert, 2010). Although Elkins and Deaver (2015) reported that 10% of art therapists within the National Art Therapy Association work with individuals with autism work within a school setting, research about this work, especially in the classroom setting, is lacking (Martin, 2009). As such, existing classroom-based therapeutic visual arts programs will be explored briefly for content, approach, and structure, before outlining what components of a therapeutic visual arts program serving students with autism are necessary.

In 1979 Janet Bush began a pilot art therapy program within the art education department in the Miami-Dade County Public School System (M-DCPS), in which she was the sole art therapist working with special needs students (Anderson, 1992; Bush, 1997). This program began by working with students who had varying exceptionalities and physical impairments (M-DCPS Clinical Art Therapy, 2019), but now works exclusively with students diagnosed with emotional and/or behavioral disturbances within the exceptional student education department (Isis et al., 2010). This program, now within the special education department, has grown to employ 16 art therapists who serve over 400 students in individual and small group settings. This program operates with the goal of utilizing the creative process as a means of offering support

and healing for student-clients, meeting their therapeutic goals and accessing educational opportunities within their academic experience and beyond (M-DCPS Clinical Art Therapy, 2019).

Within the M-DCPS Clinical Art Therapy Department, art therapists utilize art therapy assessments to better understand student-clients' emotional and cognitive functioning levels so that educators can use this knowledge in designing appropriate academic learning tasks. Art therapists also engage in working with the community outside the school to facilitate opportunities for students including public exhibitions of artwork and arranging for guest artists to come work with student-clients. During state testing season, art therapists shift their roles to that of support and coach as well as design art directives to specifically address test anxiety brought on by high-stakes testing. On a larger scale, this program designs and facilitates professional development sessions for others working in the school system, including instructional personnel, art educators, and mental health providers as benefits of this program and approach are realized (Isis et al., 2010).

Nelson (2010) discussed Nancy Healy's process of creating a classroom-based "Creative Arts Therapy Program," beginning in 1993, in Jersey City Public Schools. This program began out of Healy's realization that more was needed to serve students with special needs to meet their unique needs. This program, beginning with one art therapist, focused on the use of creative therapies to address students' social, emotional, and psychological needs. After 15 years, the program grew to include 10 art therapists and 5 music therapists who work towards program goals of improving students' self-esteem and confidence, helping students better understand and process emotions, and preparing students for the general education classroom or experiences

beyond the school setting. Therapists incorporated technology-based skill building through art making, real world connections through art and music community projects, and academic learning through music study and song creation. Through the 15 program years Nelson (2010) outlined, creating, maintaining, and expanding this program to multiple school sites and settings required continuous advocacy work, building staff cohesion, partnering with departments outside of the visual and performing arts department, and fundraising efforts through grant writing and beyond. In doing so thus far, the program has been able to expand its daily goal of supporting students in Jersey City Public Schools through creative arts therapy.

Henley (1997) reported working with students who exhibited aggressive behaviors, educational difficulties, or difficulty with appropriate social functioning, while Nissimov-Nahum (2008) proposed an implementation model after conducting a survey of art therapists working with this student population. In both cases, students exhibited increased amounts of emotional regulation and frustration tolerance as they could explore frustration, depression, anger, and anxiety through artistic expression. Henley (1997) described an expressive arts therapy program he created within the context of a newly formed alternative education program for students who were essentially on their “last chance” with the school system in terms of attending public school. This program combined subject matter with expressive arts including poetry, art, and photography into a therapeutic curriculum. Goals for this program went beyond grade school education to address “issues of conflict resolution, morality, social judgment, and appropriate behavior” (p.15). In contrast, Nissimov-Nahum (2008) proposed a model for serving this population of students focused on conveying acceptance, including self-acceptance, acceptance within the therapeutic relationship, and acceptance within the larger scope of the school and

familial setting, and directing change using art therapy interventions designed to meet students' social and emotional needs. This program model outlines a preparation of treatment stage in which a dialectic approach is utilized in establishing positive relationships while clear expectations are set between parent, teacher, and child. Following this stage, the model delineates interventions with the child: in relation to art, following occurrences of client aggression in and outside of the classroom, and interventions within the wider context of the familial relationship to create lasting change. Although the students involved in these programs have vastly different diagnoses and contexts than the students in the present study, these are classroom-based art therapy programs combining expressive arts, relationship building, and structured design, and therefore they can act as models for the formation of a classroom-based therapeutic visual arts program.

McGraw (1995) reported the use of an open studio approach on patients in a medical center setting. Within this approach, the emphasis on art making was placed on the non-verbal creative process. As this program was within a hospital setting, participants took part in the art making on a short-term basis. The art studio approach offered a variety of processed-focused art making experiences to choose from, so participants had choices within the setting although the art therapist had control over the choices that were provided. Although this approach was not tested in a school setting, the combination of the open studio approach and the program's work with individuals who have physical impairments are elements that have direct parallels to how a classroom-based therapeutic visual arts program could be set up in the classroom setting.

Alter-Muri (2017) attempted to bridge the gap between art therapy and art education with her suggestions on how art educators could incorporate art therapy techniques into art

classrooms accommodating for the learning needs of students with autism. “Art activities need to be structured and include a goal but also allow for flexibility in the interpretation of the goal” (p. 22). Alter-Muri outlined classroom-based approaches that began with student interests, were designed to promote learning through exploration and in a way that all students in the classroom could approach the activity at their own level of functioning. In introducing new processes or materials, classroom-based approaches allowed time for students to experiment and explore before the actual activity was presented to the student. Alter-Muri also stressed the importance of creating and using visual supports in presenting new information, directions, and art processes, and practice that also aligns with the principles of UDL. Classroom-based art therapy programs, structured to meet the educational needs of students can provide a safe space for students to learn, create, and explore together as well as develop frustration tolerance, persistence, and social skills through group experiences. The classroom-based art therapy programs examined within this research study focused on a culture of respect and presuming the student’s competence (Biklen & Burke, 2006) rather than following a deficit model as has been the practice in past forms of special education (Harry & Klingner, 2007). Presumed competence, in combination with an explorative, art as therapy approach, is important as it establishes the art room as a safe place for attempting new things and exploration without fear of teasing, or belittlement.

Albert (2010) cited McNiff’s (1997) call for art therapy to partner with other disciplines as a basis for her work in developing a classroom model that integrates art therapy approaches into the educational curriculum. Pointing to McNiff’s four key principles “1) Avoid identification with a single model; 2) Keep all options open for new and creative partnerships; 3) Retain art and depth psychology as the basis of the work; 4) Stay closely attuned to the images

that we create in art therapy” (p. 43), Albert (2010) stated that “when art therapists become certified art teachers, study good pedagogy, and adhere to these principles, legitimate classroom-based art therapy can take place” (p. 90). Although Albert’s program did not serve students with autism or diagnosed special needs, she focused on utilizing art therapy approaches to address students’ social and emotional needs as well as academic needs. She did this through the incorporation of reading strategies for students who had reading and English language difficulties, scaffolding lessons with the use of graphic organizers and structured planning sessions, and through frontloading information needed at the start of a learning unit or project so that students have the art-related information they need to be successful with an art directive. Art projects are designed to encourage student expression and critical thinking while incorporating historical events, social awareness, and personal storytelling directly related to students’ lives. The specific approaches Albert outlined in integrating classroom-based art therapy practices with art education pedagogy central to the development of a program modeled after the same ideals in the service of students with autism.

In all, art therapists have called for the creation of structured program recommendations for school art therapy (Albert, 2010; Alter-Muri, 2017; Bush, 1997; Henley, 2001; Isis et al., 2010; Karkou, 2010; Regev et al., 2015) or expanded research in the treatment of autism with art therapy (Betts et al., 2014; Chou et al., 2016; Emery, 2004; Epp, 2008; Martin, 2009; Martin & Betts, 2011; Richard et al., 2015; Schweizer et al., 2014; Van Lith, 2017). This research study works to address both these needs while filling the gap in research focused on school-based art therapy for students with autism.

Key programmatic features, structure, and therapeutic approaches gleaned from the programs examined in this literature review include the importance of allowing time to explore materials and processes when introducing new concepts in the classroom, the focused, but flexible nature of art making experiences, the importance of connecting with the student's interests in promoting risk taking in the classroom, and the use of art as a focus in encouraging social interaction and exploration. The use of visual supports or varied means of communication between teacher/therapist and student/client also emerge as important features within this work. These features and a more in-depth look at their uses and implications will be examined in the next sections.

### *Exploration of materials, skills, and processes*

“Through an understanding of the behaviors, psychological attributes, and challenges, a treatment and educational plan can be created to build on the strengths of the student” (Alter-Muri, 2017, p. 20). McGraw (1995), Albert (2010), and Alter-Muri (2017) discussed the process-focused nature of art therapy and how this focus on exploration and the creative process can build on individual strengths. This focus, shifted from that of a traditional classroom or art setting (Alter-Muri, 2017), allows the individual to engage their emotions and explore freely (Warren, 1993).

In their review of art therapy approaches to serving children with autism, Schweizer, Spreen, and Knorth (2014) reported findings that children with autism often lack exploration and flexibility in the beginning of their art therapy experience. This is reflective of one of the prevalent features of autism: a rigid adherence to routine (APA, 2013). As art therapy treatment continued, Schweizer et al. (2014) found evidence that the same children exhibited increases in



exploration and expressiveness when participating in art therapy. By planning art activities that all students can be successful with, no matter their current level of functioning, their strengths and abilities are highlighted and their academic difficulties are masked (Alter-Muri, 2017).

Through the utilization of art therapy techniques, students can build on successful experiences of exploration as well as learn first-hand about their own creative talents.

A sense of control is implied in an individual's ability to manipulate the art material and the art product can become a vehicle through which the student gains new self-awareness or understanding. Martin (2009) posited that the completed art product leaves the student with a feeling of accomplishment and success, further building self-concept through the exploration process. With the focus placed on the art creation process itself and student abilities, the art product serves as a reminder or symbol of the successful, creative experience.

### ***Promoting communication and socialization***

“Children make contact during art making with the therapist and with other children, and develop their communication skills” (Schweizer et al., 2014, p. 589). Illustrating an example of this point, Alter-Muri (2017) described her work with a student who had autism that responded to photographic images, but had limited verbal communication skills. Initially, he used limited, but repetitive words to communicate what he saw in his chosen images. Alter-Muri gave the student a camera to use in capturing his world which in turn led to his developing a larger vocabulary with which to describe the images he collected. Creating an album with his images, this medium led to increasing his verbal communication skills with others as well as increased, positive interactions with others. This is one example of how artwork can be the catalyst, offering students a creative outlet to build their communication and socialization skills.

Alter-Muri (2017), Martin (2009) and Chou et al. (2016) discussed the importance of planning developmentally appropriate art activities in aiding the development of communication and socialization skills. Although the art creation process does not require verbal communication, it offers an outlet for communication to develop (Schweizer et al., 2014).

For example, Martin (2009) discussed the use of visual tools within the art therapy setting while Alter-Muri (2017) provided an example of a visual diagram illustrating the steps in a creation process. These visual tools and supports offer alternate means of communication, but they also provide another method for language development as students can see an image of the object, the word associated with the object, hear the word spoken, and then they are able to use the object portrayed in the image. Similarly, Chou et al. (2016) reported improved social skills in two clients enrolled in their behavioral art program as measured by instances of verbal communication, presentation of artwork, and eye contact. These findings suggest that with targeted, structured approaches, students with autism can improve their communication and social interaction skills while also learning to express themselves in socially appropriate, creative ways through visual art.

### ***Developing the whole child***

Regev and Guttman (2005) outlined five premises about the psychological benefits of creating art. According to their theoretical compilation, creating art can: aid self-understanding; work as a defense mechanism; ease personal difficulties; assist in emotional relief; and help the artist achieve a positive self-concept. These factors tie into Henley's (1997) work in an alternative school setting in which he utilized a what he called a depth education approach in his therapeutic art program. Subject-area learning was integrated into his art classroom while art

creation was used as a means for student self-exploration. Art in this setting was used as an academic tool as well as a tool to benefit the social and emotional development of the student. Henley's approach was multisensory, integrating art with other academic areas on a thematic basis rather than a subject-oriented one. His educational approach also included behavior, moral judgement, and conflict resolution components. Albert (2010) discussed her therapeutic visual artwork within the art education setting as one that integrated equal parts art therapy and art education with an ultimate focus on the creative process and expression. In both settings the art was used as a vehicle for learning about academic material, social functioning, the self, and developing appropriate means of expression.

Gleaned from the body of research on autism, art therapy approaches with school-aged clients, and the combination of the two, is that there is considerable overlap in therapeutic work with individuals with autism and what art therapy can offer. Targeted, structured art therapy interventions that consider a client's developmental age and individual needs can be designed to address therapeutic goals for the four goals outlined by Betts et al. (2014): cognitive growth, emotional regulation, adaptive behavior styles, and physical development. As a best practice for designing such art therapy interventions, Van Lith et al. (2017) recommended utilizing the ETC in a top down approach to the introduction of art materials in sessions: beginning with controlled materials like markers and colored pencils, then moving systematically towards clay, paint, and other more fluid materials as clients can progress through the expressive areas of the continuum.

### **Chapter Summary**

Albert (2010) and Alter-Muri (2017) promoted the benefits of art therapists partnering with school administration and expanding educational curriculum to incorporate art making that

was designed to address students' social and emotional needs. Further, Regev, Green-Orlovich, and Snir (2015) concluded that art therapy could be successfully incorporated into the educational curriculum if a better understanding of art therapy practices were established within the educational system. They found that the school setting was an ideal place to offer art therapeutic services as the school setting provides the intersection of communication between the school administration, the student's educators, the student, and the student's family.

This body of research offers a framework from which a classroom-based art therapy program might be designed for students with autism, but lacking is a model of consistent implementation (Van Lith et al., 2017). When reviewing the body of literature addressing the use of art therapy as a treatment for autism, Van Lith et al. stated, "for the benefits of art therapy to be realized we still need to understand how art therapists typically structure and facilitate their practice, as well as to identify which practices and theories were common among new and seasoned art therapists" (p. 79). To be able to communicate the benefits of the integration of art therapy approaches into art education curriculum, art therapists need to be able to describe specifically how their work can enhance the curriculum and the educational experience or development of the whole child.

If art classes or art activities for students with special needs are craft-oriented, simple in nature, or fail to incorporate art education or academic elements, the students are left at a disadvantage. This denies students access to a subject that could help them explore new ways to learn about their world and themselves, learn new ways to communicate, explore their own skills, and interact socially through art creation. The development and utilization of a classroom-based therapeutic visual arts model ensures that students with special needs are enrolled in a

program facilitated by an art therapist who can adapt learning tasks for their specific needs, using art creation as a catalyst for social and academic exploration, practice, learning, and development. The implementation of a classroom-based therapeutic visual arts model enriches the academic experience of enrolled students beyond that of book learning into an experience that develops the whole child, addressing social, academic, and emotional learning needs as well as adapting experiences to meet physical, sensory, and behavioral accommodations.

A body of knowledge exists within the experiences of art therapists, art educators, and special education teachers and administrators serving students with autism that can be tapped into in looking to design a classroom-based therapeutic visual arts program model. In the case of the current research study, this program model would be incorporated into an urban public school setting, serving students with autism. The next chapter will address the methodology and research design to address this need in the field of art therapy and in creating recommendations for a classroom-based therapeutic visual arts program that is responsive to student needs.

### **CHAPTER 3: METHODOLOGY**

“The primary purpose of undertaking a Q study is to discern people’s perceptions of their world from the vantage point of self-reference” (McKeown & Thomas, 2013, p. 1). The purpose of this study was to examine and develop a more in-depth understanding of how a classroom-based therapeutic visual arts program could be structured to best serve school-age individuals with autism. The first stage in meeting this purpose is to collect the perceptions of experts in the fields of art therapy, art education, and student education around the programmatic features that should be included in a classroom-based therapeutic visual arts program for students with autism. As such, the purpose of conducting a Q study and the purpose of the current research align. This chapter will address an overview of Q methodology, research materials, the participant group or P-set, the Q sort administration and procedures, a timeline, and an overview of the process of factor analysis and interpretation.

#### **Q-Methodology**

First introduced in 1935 by William Stephenson, Q methodology was initially developed as an inversion of factor analysis (Watts & Stenner, 2005). A research method that employs both qualitative and quantitative features, “Q Methodology is grounded in several important assumptions that influence the study design and interpretation of results” (Morrison & Wagner, 2016, p. 9). These assumptions address the subjectivity of the viewpoints collected within the research model, the internal frame of reference that serves as a basis for the subjective viewpoints of the participants, and my goal of exploring a topic within the context of dissecting its individual parts.

Stenner, Cooper, and Skevington (2003) pointed to accessing subjective viewpoints from participants as a function of Q methodology. The ability to utilize Q Methodology to collect participants' subjective perceptions results in the collection of perceptions that are free of the researcher's operationalized definition of the study subject (Morrison & Wagner, 2016).

Morrison and Wagner (2016) cited Brown (1986) in pointing to the basis of participants' perspectives being rooted in their own internal frames of reference as a second assumption of Q Methodology. This means that it is the participants' voice and experiences that determine meaning within the study over the researcher's point of view; a strength in this type of research model (Morrison & Wagner, 2016; Yoshizawa, Iwase, Okumoto, Tahara, & Takahashi, 2016).

The third assumption of Q methodology is "that the researcher's goal is to examine a holistic viewpoint" (Morrison & Wagner, 2016, p. 9). Instead of examining each factor separately, Q methodology allows me to view the participant's perceptions about the research subject and compare those perceptions to other participants. Themes and patterns that emerge within participant's perceptions can be examined among the group, but with an understanding of the whole rather than individual parts.

Watts and Stenner (2012) stated "Q studies are probably better suited to the exploration of specifics; the viewpoints of specific people, specific groups, specific demographics, or the viewpoints at play within a specific institution" (p. 54). As such, the utilization of a research method that allows participants to relay their personal, subjective ideas based in experience, rather than reactions to objective research constructs, is of utmost importance to the purpose of the study. Additionally, patterns that emerge through the interpretation of factors may offer

insights into the interconnected nature of students' needs and to developing a program that meets the varying needs of students with autism.

### *Q-Sample Design and Content*

“Q samples are composed of statements that are ‘natural’ in the language of the parties to the concourse and ‘comprehensive’ in their representation of the subjective phenomena and viewpoints possibly implicated” (McKeown & Thomas, 2013, p. 18). Although they posited that direct interviews were ideal for developing a Q sample, McKeown and Thomas reported “naturalistic Q samples also can be assembled from indirect sources that can approach the functional equivalence of in personal (and written) interviews” (p. 19). Although part of the initial statement collection plan was to complete face-to-face interviews with experienced art therapists, art educators, and special educators, the presence of the coronavirus pandemic made this unsafe. As such, the collection of statements for the concourse associated with this research were collected through emailed surveys using Microsoft Forms and social media posts. These methods were utilized with the goal of collecting the widest set of concourse statements from which to narrow down a set of items that encompass the varying viewpoints and perceptions that could be held by Q sort participants.

First, art therapists, art educators, and special education teachers and administrators who have professional experience serving school-aged individuals with autism were emailed a brief questionnaire. Participants were asked to list up to “list and describe up to 8 best practices and/or programmatic features that you think should be included in a classroom-based therapeutic visual arts program for students with autism,” as well as two additional, optional questions asking specifically about educational elements and therapeutic elements they would include in this kind



of program. Eight participants responded to this survey, from which 97 statements were collected.

Second, social media posts asking respondents to “list up to eight best practices or programmatic features to include when developing a classroom-based therapeutic visual arts program serving students with autism” were created on Facebook pages dedicated to art education, art therapy, and special education. The initial posts yielded zero responses, so additional posts were made with the simplified prompt of “what are the most important elements to include in a classroom-based therapeutic visual arts program for students with autism.” These simplified prompts, made to Facebook groups focused on art therapy, expressive arts therapists, and art education, yielded 53 statements.

McKeown and Thomas (2013) defined structured samples as “systematically composed and, given a sufficiently comprehensive and theoretically elaborate experimental design” (p. 23). Theories associated with art therapy approaches and educational approaches for supporting individuals with autism are well-established, but theories focused on the development of classroom-based therapeutic visual arts programs for students with autism are underdeveloped at best. Due to the established nature of the underlying theories necessary to developing a classroom-based approach, the sample associated with this study take on structured sampling. Following an approach to create a structured sampling recommended by Watts and Stenner (2012), an anticipated five to eight themes will be pulled from the concourse of statements to be addressed within the final Q sample, ensuring all areas essential to this study are represented. With this intent in mind, the concourse of statements collected were narrowed down from the initial 150 statements to 42 statements that made a “different (but nonetheless recognizable)

assertion about the appropriate subject matter” (Watts & Stenner, 2005, p. 74) that comprised the Q sample.

### *Participants*

The selection of participants, or the P-set, for the Q sort consisted of art therapists and art educators who have professional experience serving school-age students with autism, in a therapeutic setting and/or in the classroom. The P-set also included special education classroom teachers who have experience serving and supporting students with autism as well as special education administrators who have experience overseeing school or classroom-based art programs for students with autism. Included in this category were university professors, program directors, art therapists working in school-based therapeutic visual art programs, art specialists as well as art and special education teachers with a minimum of three years of experience working in a classroom serving students with autism. Initially, members of the P-set were identified via recommendations gathered from art therapists, art educators, and special education administrators known to me.

Although they were included in the collection of concourse statements that preceded the administration of the Q sort, the initial intent was to exclude art therapists and art educators with less than three years of experience working with school-age special needs student populations, art therapists and art educators with no experience in classroom-based art therapy programs, and art therapists who have experience working only in the therapeutic setting from the P-set. These plans were amended when participation response was low and continued over time. To bring in more participants, the minimum of years of experience was removed and the experience limitations were opened to include any educator with experience supporting school-age

individuals with autism. In the P-set, the latter group was marked “other,” creating a fifth category of experience to include art therapists, art educators, special education teachers, special education administrators, and education other.

“Large numbers of participants are not required for a Q methodological study” (Watts & Stenner, 2005, p. 79). They reported that between 40 and 60 participants is ideal. As such the goal for the size of the P-set was 40 with 10 art therapists, 10 art educators, 10 special education administrators, and 10 special education teachers. After recruiting participants via direct reach-outs, emails, emails through mutual contacts, and social media posts, this goal was reduced to 30 participants. When recruitment and response rates lagged, I settled on a final P-set of 27 participants. This group included 23 females and 4 males consisting of 6 art teachers, 4 art therapists, 8 special education teachers, 3 special education administrators, and 6 education others. Two of these participants reported 3 or less years of experience supporting school-age students with autism, one with 3-5 years of experience, six with 6-10 years of experience, and eighteen with 11 or more years of experience.

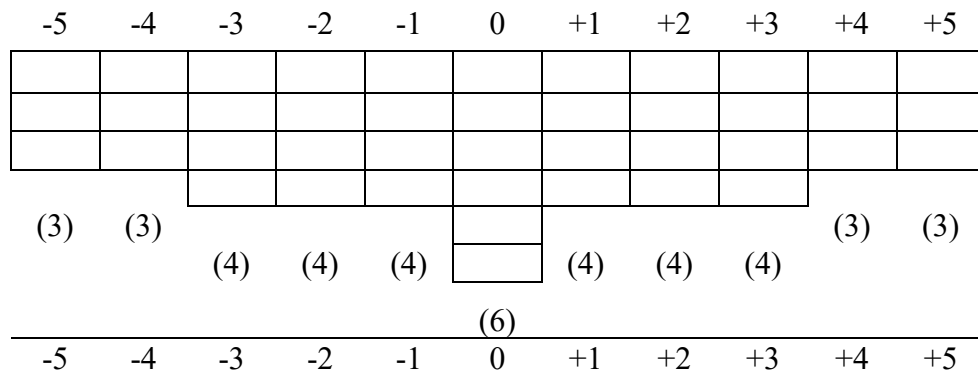
### *Administering the Q-Sort*

Conducting a Q sort with the P-set of individuals and leaders in the fields of art therapy, art education, and special education resulted in a collection of perceptions about the programmatic features necessary to building a successful classroom-based therapeutic visual arts program serving students with autism. The following section will address the Q sort design, data collection procedures, and the research timeline in greater detail.

***Q Sort Design***

Watts and Stenner (2012) cited Block (2008) in their comparison of forced choice versus free distributions. Block stated that the use of a forced-choice distribution resulted in a “convenient and readily processed form” (Block, 2008 as cited by Watts & Stenner, 2012, p. 78). Watts and Stenner went on to point out that free distributions require the participant to make a number of decisions they would not have to make under a forced-choice distribution, under the guise of more freedom. To streamline the participant’s experience as well as the analysis of data, a forced-choice distribution was used for this research study.

The number of items in the final Q set influenced the size and layout of the forced-choice frequency distribution. As the final Q set included 42 items, the distribution seen in *Figure 2* illustrates the Q sort used in this study to assign item rankings.



*Figure 2.* Forced-Choice Frequency Distribution. This Q-sort grid illustrates a forced-choice frequency distribution that can accommodate 42 items. Numbers seen in parentheses indicate how many items can be assigned to that ranking value.

***Data Collection Procedures***

Although Watts and Stenner (2005) posited that the best method of collecting data for Q methodological research is in person, the current research study included participants whose

geographical locations made online data collection essential. In addition, for the entirety of the data collection phase of this study, the global pandemic Covid-19 changed the way the participants and I could safely interact. As such, the data collection of this study was conducted electronically.

Members of the P-set were emailed a description of the research study with instructions to complete the Q sort as well as a survey link. The survey link first took participants to a consent statement where they gave their consent to be a part of the current research study. Once consent was given, the Q sort was conducted electronically via VQ Method (VQ Method, 2018).

The Q sort requires that the P-set rank the Q set items, first into three groups: disagree, neutral, and agree, and then in a configuration that reflects the statements that range from those they find most important in working with individuals with autism in a classroom-based setting to those they find least important. Members of the P-set completed the Q sort by rating the 42 statements according to how much importance they place on each element for its inclusion in a classroom-based therapeutic visual arts program, from -5 for least important, to 0 for neutral, to +5 for most important.

At the conclusion of the sorting process, participants were asked to make statements justifying their sorting choices for the items they rated as most and least important. Once these statements were complete, the participant was prompted to submit their Q-sort. Within the VQ Method platform, I could check participant response progress as needed throughout the data collection process.

*Timeline*

Watts and Stenner (2005) warned that the process of creating the final Q set can take a considerable amount of time, especially in comparison to the time it takes to complete the other portions of a Q study. Knowing this, I was prepared for a potentially prolonged period during this phase of the research. Even with this warning, the development of the final Q set took considerably longer than anticipated.

This research study received notification of Exempt Status (see Appendix A) on February 10, 2020. After this notification, the initial surveys (see Appendix B) intending to collect statements surrounding best practices and/or programmatic features that should be included in a classroom-based therapeutic visual arts program for students with autism were sent. When only four surveys were completed, additional emails were sent out to a wider group of professionals in the fields of art therapy, art education, and special education. As the collection of these survey responses were coming in, Covid-19 broke out as a global pandemic, shutting down the normal functioning of the world.

When responses continued to lag, I posted the question prompts from the emailed survey in social media posts on Facebook groups focused on art therapy, art education, expressive arts therapies, and special education. Once 150 statements were collected that spanned the range of recommendations, best practices, and perceptions someone could have surrounding the research topic without repetition, the process of culling statements and building the concourse began. This process started in January 2021 and then after 4 rounds of statement examination and narrowing, a collection of 42 statements (see Appendix C) were approved for the next phase in March of 2021.

As Covid-19 was still a major risk to public health and any kind of face-to-face sorting process for this research, the researched changed course to build a Q sort (see Appendix D) that could be administered virtually and distributed via email. FlashQ was explored, but ultimately was not ideal as there were pieces missing from the downloaded package. VQMethod (2018) was explored and found to be somewhat user-friendly, functional on PC computers. It was determined later that VQMethod did not work with Apple computers or when using a smart phone. The initial Q sorts created in VQMethod were sent out in April 2021.

The Q sorts were sent out via email messages to professionals in the fields of art therapy, art education, and special education over the next six months. Potential participants included professionals known personally to the research as well as professionals in these fields known to her network. Although the initial goal was to gather Q sorts from 40 participants, completed sorts were slow to come in. In October 2021, I posted the Q sort link on her Facebook profile as well as in the same group pages where she elicited best practices. In November 2021, with 27 participants, the research was cleared to moved forward with the statistical analysis process.

### **Chapter Summary**

Chapter 3 offered a definition of Q Methodology and an examination of why this research methodology was chosen for the current research study. This chapter also described the design of this research study, the timeline, as well as challenges that emerged between the intended design and the actual data collection process. The next chapter will take an in-depth look at the statistical procedures, the data collected, and the factor interpretations gleaned from the Q sorts collected within this study.

## CHAPTER 4: RESULTS

A total of 27 participants submitted Q sorts electronically, including me, for this study. Of this participant group, or P-set, four were art therapists, six were art educators, eight were special education teachers, three were special education administrators, and six identified as education “other.” Four participants were male and twenty-three were female (see Appendix D). This chapter will detail the results of these Q sorts and the factors that emerged from the analysis and extraction process.

### Statistical Procedure

Once the Q sorts were returned by the participants or P set, PQMethod (Schmolck, 2002) was used for analysis of the results. PQMethod, part of the Public Domain, is a computer-based program designed specifically for Q studies. This program calculates intercorrelations among individual Q sorts and indicates factors, or shared viewpoints, gleaned from this analysis. The PQMethod factor analyzes Q sorts with the Centroid method which can then “offers a potentially infinite number of rotated solutions” (Watts & Stenner, 2005, p. 81).

Aside from the PQMethod analysis, items from the Q set that were consistently rated as important to participants of the P set emerge as factor exemplars. The factors demonstrated as significant by participants are then merged with other factor exemplars to form “a single ideal-typical Q sort for each factor called a factor array” (Stenner et al., 2003, p. 2164). The identification of these factor arrays act as the foundation for the next phase of analysis: factor interpretation (Watts & Stenner, 2012).

Of the process of factor interpretation, Stenner et al. (2003) stated that it “takes the form of a careful and holistic inspection of the patterning of items in the factor array” (p. 2165). As



such, careful consideration of the varying perspectives that emerge from the factor arrays, the loadings for each factor, and how the configurations fit together as a whole were examined. Of this examination and interpretation, themes emerge that can then be interpreted for varying, and likely interconnected, viewpoints about what should be included in a classroom-based therapeutic visual arts program serving students with autism.

The ways to interpret the subtleties captured within varying factors of a Q sort can be endless (Watts & Stenner, 2005). Alternately, Watts and Stenner warned against concentrating on too few items in a factor array but stated that the researcher can safeguard against this “by checking the qualitative comments gathered from participants who have loaded significantly on the factor being interpreted” (p. 84). To ensure the accuracy of the interpretations, immediately following the sorting process, the VQMethod platform prompts participants to include statements justifying the importance they placed any ratings of +5 or -5. As Q set items are intentionally pared down to a concise viewpoint around a central topic, and because they are sorted on level of agreement or importance in relation to the other items in the Q set, there is room for participant interpretation. The comments gathered from participants about their sorting choices offer insight into their thinking process and their interpretation of the item in relation to the topic. From this stage and at the heart of this study, a better understanding of what perceptions professionals in the fields of at therapy, art education, and special education have around what is important to include in a classroom-based therapeutic visual arts program.

Once the Q sorts were collected via VQMethod (VQMethod, 2018), the results could be download in a spreadsheet format. From here the demographic data a code for each participant was created. Gender, race/ethnicity, background experience, years of experience, and setting(s)

where the participant has supported individuals with autism were all accounted for in the participant codes. With these participant codes in place, the participant data and Q sorts were entered into the PQMethod (Schmolck & Atkinson, 2002) software for analysis.

### **Factor Analysis and Extraction**

PQ Method uses principal component analysis (PCS) as a data reduction method, creating factors from clusters of analogous Q sorts, and measuring common variance (Watts & Stenner, 2012). The initial output from the analysis via PQMethod consisted of an unrotated factor matrix (see Appendix E) including eight factors. In examining the unrotated factor matrix, Q sort, or Participant 15, had the greatest factor loading of .6870 within Factor 1. The second highest loading was in Factor 3 of .6398 from Participant 27. The third and fourth highest loadings were in Factor 1 of .6235 for participant 13 and .6116 for Participant 6, respectively. Notations were made for the strongest connections within each factor to complete this stage of the factor analysis.

When determining the strength of a factor has to offer insight into the participants' perceptions around the condition of instruction, eigenvalues and variance can be used, "A standard requirement is to select only those factors with an eigenvalue in excess of 1.00" (Watts & Stenner, 2012, p 81). Although they argued this could also be seen as an arbitrary bar to set in Q methodology, it does provide a minimum baseline to eliminate any factors that do not provide significant data for the study. As seen in Appendix E, the eigenvalues of Factors 1-8 were 5.6807, 2.6540, 2.3520, 1.8996, 1.6928, 1.5131, 1.4003, 1.2077, respectively. As all factors had eigenvalues over 1.00, this standard minimum did not assist in eliminating and factors.

“A second standard requirement is that an interpretable Q methodological factor must ordinarily have at least two Q sorts that load significantly upon it alone” (Watts & Stenner, 2012, p 81). A reexamination with this requirement in mind eliminated Factor 8 and the highest load on this factor was .3926 and left Factor 7 in question as the two most significant loads on this factor were .5387 and -.4517. Factors 7 and 8 also had the lowest eigenvalues at 1.4003 and 1.2077, respectively. As such, both were eliminated and the analysis procedure via PQ Method was conducted again with 6 factors.

During the analysis of the 6 extracted factors, the research conducted a hand-flagging procedure to mark the most significant loads to be considered in the factor interpretation phase of this process. The most significant factor loads were calculated by dividing 1 by the square root of the number of items in the Q set ( $1/6.48=0.15$ ) multiplied by 2.58 for a value of 0.398. Any load of  $\geq 0.398$  was flagged as significant in the extracted 6 factors (see Appendix F). After this was complete, a Factor Array (see Appendix G) was created to illustrate the sorts of each factor in preparation for factor interpretation.

### **Factor Interpretation**

#### ***Factor 1: Responsive Classroom Structure to Promote Independence and Exploration***

Factor 1 had an eigenvalue of 5.68 and accounted for 14% of the explained variance in the data. Out of the 27 participants, seven loaded on Factor 1. Sort 4 (0.55), Sort 5 (0.73), Sort 10 (0.42), Sort 12 (0.67), Sort 15 (0.63), Sort 22 (0.62), and Sort 24 (0.68) loaded on Factor 1.

The participants loading on this factor were all female, five of whom were Caucasian, one Asian, and one African American. Five participants reported having over 11 years of experience working with school-age individuals with autism, one reported having 6-10 years of

experience, and one reported 3-5 years of experience. These respondents reported a range of professions or backgrounds including two art therapists, one art educator, one special educator, and three who marked “other.” All seven participants loading on this factor reported some experience serving individuals with autism in the classroom, but there were a range of other reported settings in addition to the classroom. These settings included private practice, in-home sessions, outpatient rehabilitation, hospitals, and in a museum.

The respondents loading on this factor (see Appendix H) shared a collective idea that a program of this design should focus on developing an engaging, supportive environment inclusive of a student’s needs while also promoting independence, communication, exploration through the senses, and skill development through art making and hands-on activities. Elements deemed important to the Factor 1 perspective that offer a look at the overarching motivation for designing this kind of program included ensuring both a presumed competence environment (s28: +5) and that staff in the classroom were well trained to work with neurodiverse students and support the goals of the classroom (s27: +3) were key features in the successful functioning of a classroom-based therapeutic visual art program serving students with autism.

“Presumed competence is a strengths-based approach that assumes people with autism have abilities to learn, think and understand” (Carmen B. Pingree, para 1, 2022). Ensuring the teacher and team supporting students with autism are coming from a place of presumed competence, honors the student and ensures the team looks for student ability to build upon rather than tasks the student cannot complete. Participant 15, a white female art therapist with 6-10 years of experience, addressed the importance of a presumed competence environment by stating “It is imperative that the teacher and support staff believe in the abilities of their students

and hold their expectations at a high, challenging, but reachable level for their students in order for them to have the best chance at success.” This element connects to the importance of a well-trained staff, as expressed by another participant who loaded on this factor who commented that “A well-trained staff is a must when working with a neurodiverse population to ensure that expectations and activities are graded to the needs of the child in a positive and nurturing manner with set goals in mind.” These comments provided in response to post-sort prompts illustrated the fundamental importance participants loading on Factor 1 placed on presumed competence and a well-trained staff. These elements are at the heart of their view of this program and drive the motivation to remove barriers of student success by finding way to adapt materials, setting options, communication, and classroom structure to meet individual student needs.

Participants loading on Factor 1 also placed importance on program elements that offer responsiveness in the classroom that can be structured according to individual student needs. These program elements include the incorporation of adaptive materials (s1: +5), setting options responsive to the needs of each student (s20: +3), and varied adaptive forms of communication (s22: +3). Of adaptive setting options, Participant 12 stated, “varied options are not always available but striving to achieve this is ideal for kids that are easily affected by environmental inputs like noise, lights, and visual distractions. These variations make a big difference in overall participation and work production.” Where offering adaptive materials may be more ubiquitous, adaptive setting options are more difficult to establish in the classroom. For this reason, participants loading on other sorts placed less importance on this element (s1: +5), but the participants who comprised Factor 1 collectively expressed the inclusion of this program element as integral to establishing an engaging, supportive environment. Participant 5 placed particular

importance on offering varied adaptive forms of communication in the classroom, pointing out that students with autism can be verbal or non-verbal and that the inclusion of “varied modes of communication are important.”

The teacher’s use of visual supports (s21: +4), the use of developmentally appropriate art lessons and directives (s5: +2), and the development of a signal system allowing for students to be able to communicate the need for a break (s40: +2) were all key program elements within the shared perceptions of Factor 1 emphasizing the importance these participants place in developing an environment inclusive of a student’s needs. Participant 10 reported emphasized the importance of establishing a way for students to indicate they needed a break: “to avoid a meltdown, students must be able to communicate a need to escape an overwhelming sensory environment.” To the Factor 1 perspective, building these elements into a program in service of students with autism helps ensure the teacher is meeting the student at the level of need, supports a student’s ability to engage in the classroom, while also working to develop skills for expanded independence.

The high rankings of program elements signaling the incorporation of multi-sensory centers into the classroom (s2: +5), art lessons that encourage exploration through all five senses (s3: +4), and the incorporation of a variety of materials that encourage hands-on engagement (s24: +3) all illustrate these participants’ shared perception that this kind of program should activate exploration through hands-on activities and engage all five senses. Exemplifying this perception with Factor 1, Participant 22, wrote that “Offering centers with a variety of art tools and materials that engage the senses in different ways gives students choice and autonomy in the classroom and gives opportunities for students to focus on strengths and preferences.”

An element of structure was present within this factor perspective. Collectively, Factor 1 participants emphasized the development of and consistent use of routines (s36: +4), pre-teaching new skills when introducing new materials or techniques (s7: +2), the development of small, incremental goals for student mastery (s6: +1), and the creation of an organized, safe environment (s25: +1). These elements promoting structure embedded into lessons and classroom operations, offer the student a feeling of independence in the classroom as the teacher uses these elements to demonstrate how to be successful in the classroom. A student knows what is expected of them in the classroom and they in turn know what to expect when they are in this classroom.

Within the Factor 1 perspective, some of the least important features were the use of close supervision (s34: -4) and the use of explicit instruction (s31: -4). It may be that because this perspective placed high importance on creating an organized, safe environment in the classroom where time is dedicated to teaching new skills and exploring through all 5 senses, that there is less need for explicit instruction. Explicit instruction aligns with high levels of support, whereas the overall focus of the classroom expressed in this factor focuses on students learning independent skills in the classroom. Given this factor emphasis on student development of independence, these two elements reflecting explicit instruction are not only unnecessary but could hinder the progress toward program goals. Additionally, given the emphasis on structure in this perspective, the program element of setting up an open studio with a range of art supplies and freedom to create (s10: -5) would seem in conflict and that seemed to be acknowledged by how little importance was placed on it within this perspective's factor array. Not only was this element rated as one of the three least important features for a program of this kind, but multiple

participants also reported that this kind of set up could be overwhelming for students with autism. Viewed holistically, the location of these various elements representing degrees of classroom or program structure suggest that for those holding a Factor 1 perspective, there is a sweet spot between a low-structure open studio and a closely supervised environment in which instruction offers little room for exploration.

***Factor 2: Consistency, Communication, and Concrete Concepts***

Factor 2 had an eigenvalue of 2.65 and accounted for 11% of the explained variance in the data. Out of the 27 participants, five loaded on Factor 2: Sort 3 (0.60), Sort 7 (0.61), Sort 14 (0.47), Sort 18 (0.65), and Sort 23 (0.74).

Four of the participants loading on this factor were female and one was male. Three of the female participants were Caucasian and one was African American with Hispanic, Latino, or of Spanish origin, and the one male participant was Caucasian. Three participants reported having over 11 years of experience working with school-age individuals with autism, one reported having 6-10 years of experience, and one reported less than 3 years of experience. These respondents reported a range of professions or backgrounds including one art therapist (less than three years of experience), three special education teachers (one reporting 6-10 years of experience and two reporting over 11 years of experience), and one who marked “other” (reported over 11 years of experience). All five participants loading on this factor reported some classroom experience serving individuals with autism, but also reported two additional kinds of experience, for one participant this additional experience included supporting a personal relative and another participant reported working in private childcare centers.



Collectively, the participants loading onto Factor 2 (see Appendix I) emphasized an attention to consistency, communication, and intentional lesson design for a classroom-based therapeutic visual arts program supporting students with autism. This factor perspective valued carefully designed and maintained environments that incorporate individual student needs and considerations, while also utilizing structure to provide safety in consistency.

To those holding a Factor 2 perspective, the development and consistent use of routines (s36: +4); the use of explicit instruction (s31: +3); providing adaptive setting options for the needs of each student (s20: +3); and the creation of an organized, safe environment (s25: +3) all help to ensure that a classroom and schedule have a reliable structure so student know what to expect when they enter a classroom. To this point, the participant who performed Participant 7 posited that “Having consistent rules and routines helps reduce behaviors and increases instructional time” when justifying the importance he placed on the development and consistent use of routines in a classroom-based therapeutic visual arts program for students with autism. Unlike the participants loading on Factor 1, the collective perception with Factor 2 participants was that explicit instruction is an important approach in supporting students with autism in the classroom. For example, the participant who performed Participant 18 shared her experience using explicit instruction, stating, “I have had success using explicit instruction, as it avoids mixed messages and incorrect interpretation.” The participants loading on Factor 2 also placed importance on providing adaptive setting options for this kind of program. For this perspective, defined and consistent routines, combined with the use of explicit instruction techniques and a setting adaptive to students’ needs all seem to work together to support students in the program by enhancing a safe, organized feeling of the classroom environment. The participant who

performed Participant 23 demonstrated the importance of these elements coming together to create safety in the classroom when she wrote that, “For all students, safety is the most important element of every type of classroom environment.”

The Factor 2 perspective also placed importance on utilizing communication methods that meet students at their current levels of development. This emphasis on the integral nature of communication in a well-functioning classroom was exemplified by this perspective’s emphases on the importance of the incorporation of varied forms of communication to meet individual student needs (s22: +5), promoting the development of communication skills through art making (s15: +4), the teacher’s use of visual supports to promote student understanding and independence (s21: +2), and the development of a signal system that will allow for students to communicate that they need a break (s40: +2). To this perspective, access to varied forms of communication was paramount for this kind of program. Participant 23 expressed this level of importance when she posited, “The ability for a person to communicate is a basic human right. Every student should have the opportunity to express their wants, needs, desires, and any other thoughts they have in all environments all of the time.” In this view, to deny adaptive forms of communication for students who have communication impairments is to deny them a basic right, offering a new depth to the importance of promoting a student’s voice and their ability to use it to make choices within their own educational journey.

Participant 14 further emphasized the importance of utilizing visual supports in the classroom, stating “I know they are processing the visuals to give them cues throughout their day. I know they are memorizing the poster boards with academics and know where to look when they are confused or don't understand the rules.” The viewpoint she expressed also

connects with the importance this factor placed on presumed competence: presuming or believing that students are capable, then teaching them in ways that align with their needs, then they will do their best to rise to the challenge. For this perspective, when visual supports are created and used consistently, the student's ability to understand their environment and learn to communicate in in varying forms is strengthened, creating the conditions and dynamics needed for student growth and development cognitively and in terms of agency. The participants loading onto Factor 2 express an understanding of the integral nature of communication, not only in the classroom, but utilizing all parts of the school experience to promote the development of effective communication for students with autism.

A third theme within this factor was the intentional design of lessons that are responsive to student needs while also providing structure. This intentional design of curricula that are responsive to students, paired with pedagogical structure, was illustrated by the Factor 2 emphases on the importance of the use of developmentally appropriate art lessons and directives (s5: +4), ensuring staff in the classroom is well trained to support neurodiverse students and the classroom goals (s27: +3), and the incorporation of process-focused art lessons/directives with built in success (s4: +2) combined with the use of close supervision (s34: +1). Viewed collectively, these program elements illustrate a program dynamic in which the teacher has accounted for student needs, development level, strengths; as well as ways in which students can explore art making in a contained and safe way. Participant 7 seemed to best embody this factor theme through a post-sort comment elaborating on the importance of two of these elements in his sort: incorporating developmentally appropriate lessons and the importance of close supervision. Regarding the use of developmentally appropriate lessons, he wrote that "Some students would

be able to complete typical lessons for their grade levels. Others may require more help and broken-down lessons to participate.” He combined this idea of developmental appropriate curricula with the importance of close supervision, stating “Close supervision/ small groups are very important. Many students with Autism require additional prompting that may be missed in larger groups.” For Factor 2 view-holders, the integration of close supervision in small groups with ensuring learning activities are developmentally appropriate, have built-in success, and are facilitated by a well-trained staff translates to a setting that is responsive to student needs and one in which students are free to explore and build a store of in-class victories through their work.

In combination, program elements important to the Factor 2 perspective focusing on consistency, communication, and lesson design seem purposed to promote student autonomy (s19: +5) and could be viewed as the intended result of a program design emphasizing the development of a presumed competence environment (s28: +5). A post-sort comment by the Factor 2 participant who performed Participant 3, illustrated how she connected student development of communication skills development and autonomy. She described the importance of developing communication skills through art making, and then added that “The development of communication skills parallels the promotion of autonomy.” However, when discussing the importance of explicitly promoting autonomy as an element of this kind of program, this participant stated “I focus on making independent choices and communication with my students.” While independent choices and developing communication skills can lead to autonomy, they do not embody full autonomy.

On the surface, there seem to be some contradictory views on autonomy present in the Factor 2 perspective. Although promoting autonomy is one of the highest ranked statements in

this factor array (s19: +5), some the statements that appear to represent specific program elements that incorporate student independence and autonomy were ranked as less important in this factor array. Some of these items include incorporating art lessons that encourage exploration through all five senses (s3: -2), providing a variety of materials that encourage hands-on engagement (s24: -2), encouraging creative thinking and expression through art making (s16: -3), attending to student interest and choice in planning lessons (s41: -4), generating opportunities for movement when creating art (s23: -4), establishing multi-sensory centers in the classroom (s2: -4), and organizing an open studio set-up with freedom to create (s10:-5).

When considering the amount of experience and the background of the participants who loaded onto this factor, these apparent contradictions become more understandable. This is a small group of experienced special education teachers who, based on some of their post-sort questionnaire responses, may work in a highly structured setting, serving students with autism who have at least moderate levels of need for support. For students with autism who have moderate or more needs for support, there is safety in structure and in maintaining tighter control of the classroom. To this point, participants who performed Participants 7 and 14 discussed utilizing consistent routines to reduce behaviors in the classroom. Still another participant on this factor (Participant 23), expressed the view that safety in any classroom was the top priority. In addition, the art therapist who loaded on this factor reported being relatively new to her role as an art therapist, which may have contributed to her lean toward higher levels structure over student choice or exploration. Professional induction approaches might contribute to this emphasis toward more structured learning environments. When a new teacher (or art therapist serving in a teaching role) begins working in the classroom, the initial focus their paired mentor

often shares with them is how to create a tight structure for their program. It may be that in the settings where these participants work (as was suggested by the previously mentioned Participant 3), they favor supporting student autonomy in incremental ways, building initially from limited choices, where seemingly small successes necessitate big celebrations, and those successes are scaffolded over time to develop student confidence and feelings of mastery.

***Factor 3: Development Through Engagement in the Creative Process***

Factor 3 had an eigenvalue of 2.35 and accounted for 10% of the explained variance in the study. Out of the 27 participants, four loaded on Factor 3, these included Sort 1 (0.53), Sort 20 (0.77), Sort 21 (0.49), and Sort 27 (0.77).

All four participants loading on this factor were Caucasian females. Three participants reported having over 11 years of experience working with school-age individuals with autism, while one reported having 6-10 years of experience. This group of respondents consisted of one art therapist, two art educators, and one special education teacher. The three educators reported over 11 years specifically of classroom experience serving individuals with autism, while the art therapist, with 6-10 years of experience, reported her experience included face-to-face and virtual art therapy groups.

The Factor 3 (see Appendix J) perspective is exemplified by emphases on the importance of understanding the needs and goals for students with autism as well as how an art curriculum responsive to student needs can aid in promoting social and emotional development in the classroom. In examining configuration and positioning of statements in this factor array, participants loading on this factor utilize art making and the creative process for engagement to promote social and emotional development and self-regulation, as well as to meet student goals

in the classroom. Program design elements are also highlighted in this factor, but the main focus appears to be activating development through the therapeutic use of visual art creation.

Some of the program elements sorted as most important to the Factor 3 perspective addressed using art making and creative processes including the incorporation of process-focused art lessons with built in success (s4: +5), promoting development of social skills through art lessons and classroom structure (s37: +5), using developmentally appropriate art lessons (s5: +4), fostering creative thinking and expression through art making (s16: +4), and incorporating a variety of materials that encourage hands-on engagement in the classroom (s24: +3). The participant who performed sort 20 added her insights regarding the importance of including process-focused art lessons with build-in success, when she stated that “Letting students focus more on process than end result can lead to better creative development.” Another Factor 3 participant (Participant 21) stated simply, “these students need to feel success.” Although less direct, her statement can also be viewed as being process oriented as such an approach provides more numerous opportunities for students to experience success beyond one summative assessment. Both these sorts, one from an art educator and one from a special education teacher, were performed by professionals with over 11 years of experience who also seem to have shared the perspective that this lesson focus was of the utmost importance in supporting students with autism in the art classroom.

The art therapist who loaded on this factor (Participant 1) brought the element of processed focused, success oriented lessons importance into even sharper focus. As part of her responses to the post-sort questionnaire, she wrote that “This feels especially important in an art therapy setting, as it promotes feeling of mastery, increased self-esteem, and strengthens student

relationship with art materials.” Her comment highlighted the importance of the inclusion of success-oriented, process-focused lessons to the Factor 3 perspective, because it aids in a student’s ability to build an arsenal of positive experiences in the art classroom, thereby increasing sustained engagement.

Collectively, participants loading on Factor 3 also demonstrated the importance of designing developmentally appropriate lessons into their classrooms. For example, the participant who performed Sort 20 addressed this viewpoint with her assessment that “If your lesson and instruction is not developmentally appropriate your students will [not] be challenged and therefore [will be] disengaged with the lesson.” In this light, this lesson design element focused on meeting students at their current levels of functioning and support is crucial to this factor’s view of an effective classroom-based therapeutic arts program for students with autism.

Building from the emphases on process and meeting students at their places of individual development, the Factor 3 perspective also emphasized the promotion of social skills development. The emphasis on social development was exemplified by the comments from another Factor 3 participant, an art educator with over 11 years of experience (Participant 27). She connected the programmatic focus on developing social skills through art lessons and classroom structure to the ability of art creation to connect to peers or to an audience. Among her post-sort comments, she stated, “art is a language and students can communicate through art and the art making process.” For her and others comprising the Factor 3 perspective, art making can become a means for successful communication, and thus social skill development, without the pressure to use words or verbal language. In the light of this Factor 3 insight, art and the creative process can become an additional form of adaptive communication for students who may



struggle in this area, especially when designed in consideration of a student's developmental needs. The Factor 3 perspective on the most important elements of a classroom-based therapeutic arts program serving students with autism emphasizes on meeting unique student developmental needs and in doing so engages them in the creative process to support their social development.

The Factor 3 shift in focus from previous perspectives toward using the creative process as an opportunity for student development beyond their understanding of core concepts and consistent routines seemed to extend further still. This perspective also emphasized the importance of utilizing art lessons and art making to promote student development in several other areas including the ability to self-regulate, cognitive skills (s14: +2), and physical development (small and large motor skills) (s17: +3), fostering sensory regulation (improve frustration tolerance, promote the ability for student to self-soothe) (s13: +1), and regulating their emotions (s38: +2). Each of these program design elements occupied places of higher importance in Factor 3 than they did in previous factors.

Collectively, program design elements perceived as important within this factor center around a therapeutic visual art curriculum that holds the creative process as the crux of student development and the path toward addressing and meeting individual student goals. The process-focused, success-oriented lessons emphasized by Factor 3 considers student needs and goals while eliminating barriers for participation and builds on student success to lead to new challenges and thus development in the classroom. This complex combination of program elements focus art lessons and art making as mediums for student development and self-management and that complexity seemed acknowledged by this view through an additional emphasis on purposeful program design and support. Notably, this complexity and

accompanying emphasis on the importance of purposeful program design and support seemed to have also been associated with this perspective's conception of the role of the art teacher acting as a guide through the creative process (s30: +2). This conception of art teacher as guide and facilitator of the creative process represents a different picture from the role of teacher expressed in the other factors. This view of teacher as creative process guide is idiosyncratic to this study and adds further clarity to this perspective focus on using art making and the creative process to support student development in numerous areas including self-awareness, emotional regulation, and the ability to function in the classroom with as little intervention as necessary.

***Factor 4: Program Design for Any Classroom Supporting Individuals with Autism***

Factor 4 had an eigenvalue of 1.90 and accounted for 8% of the explained variance in the data. Three of the 27 participants loaded on Factor 4. These participants produced Sorts 8 (0.69), 11 (0.55), and 13 (0.57).

All three participants loading on this factor were Caucasian, two of whom were female and one was male. All three participants reported having over 11 years of experience working with school-age individuals with autism, two as special education administrators and one as a special education teacher. Their collective experience included classrooms supporting students aged 3-22 in both public and private school settings.

The participants loading on Factor 4 (see Appendix K) placed importance on design elements for classroom-based, therapeutic arts programs supporting students with autism that promote independence or independent functioning within a structure that allows students to feel freedom and control, while being carefully crafted and designed by the educator. Key program design elements illustrating the focus of Factor 4 included the incorporation of multi-sensory

centers in the classroom (s2: +5), varied adaptive forms of communication to meet individual student needs (s22: +5), the use of close supervision (s34: +5), coordination with support teams (s29: +4), teacher use of visual supports to promote student understanding and independence (s21: +4), creation of an organized, safe environment (s25: +4), an emphasis on creating a presumed competence environment (s28: +3), and the development and consistent use of routines (s36: +3).

The program elements outlined in the collective vision of this factor offer a big-picture look at a classroom design and structure that would create a solid foundation for any classroom-based program, but art making was secondary to this design. Further, the program design focus of the participants loading on this factor would be adaptive to any student needs. Participant 8, a special education administrator with more than 11 years of experience stated “Multisensory learning creates neural pathways and improve sensory processing. When student[s] engage with something using more than one sense it forms more neural connections” in her justification of the level of importance she placed on statement 2 (incorporate multi-sensory centers into the classroom). This focus on facilitating neural pathway development is strengthened when combined with the inclusion of varied forms of communication to meet individual student needs and the use of visual supports. Of the use of visual supports in the classroom to promote student understanding and independence (s21), Participant 13 stated “Visual supports are the #1 most important strategy for working with students on the autism spectrum.” The use of varied forms of communication and visual supports to remove barriers for student success further strengthens the connections between art processes, creation, and concepts with exploration, new learning, and a sense of achievement in the classroom. By making these goals a focus and meeting these goals,

the chance of engagement in future lessons improves, starting the process again. It is important to note that visual supports do not necessarily mean visual art creation visual supports. Here they take on the focus of communication methods.

On a program structure level, the shared perspectives of Factor 4 was that the use of close supervision (s34: +5), ensuring a presumed competence environment (s28: +3), and the coordination between support teams (s29: +4) was critical. Participant 8 stated that safety was “paramount” in her justification of the importance of close supervision while Participant 11, a male special education teacher with 11+ years of experience, looked at this element on a broader scale “All environments need to be safe. It is of the utmost importance.” At the core of this program structure, the participants loading on Factor 4 collectively held the coordination of multiple support teams as a highly important element. Of his perception on this matter, sort 11 stated that activating the multiple support teams in service of students “is so important from all stakeholders.” Participant 13, a special education administrator with 11+ years of experience, stated simply “Believe a student can, and they will” when justify her ranking of the importance of ensuring a presumed competence environment. The establishment of appropriate, but challenging expectations is important in any classroom, but to develop these in a way that moves students forward with their goals and learning requires the educator to truly believe in the student’s ability to perform. Factor 4, like the three Factors examined previously, shares a collective perception that presumed competence is vital to this kind of program.

Interestingly, many of these program design elements promote a certain level of independent functioning or autonomy on the student’s part, but “promote autonomy” (s19: -3) was ranked low in importance. Surrounding the importance of promoting autonomy in this kind

of setting, Participant 8 stated “Autonomy is important but peer collaboration and promoting social interactions is essential.” It is likely that this group of participants sees that the greater need for their students is the development of social skills and communication over independent functioning, where autonomy is a long-term goal and less important in the day-to-day activity in the classroom. The lower importance placed on the specific statement of “promote autonomy” (s19) could also be reflective of so many other elements, including those that promote autonomy in practice, being marked as more important.

Only two statements of the top half of rated statements mentioned art and in these the use of art was secondary to the development of communication skills through art making (s15: +2) and social skills through art lessons and classroom structure (s37: 0). Interestingly, these two elements address developmental goals for students with autism through the creative process that likely align with those important to the participants loading on Factor 4. As such, these elements may have been marked as more important due to the goals they address rather than for their inclusion of art making. Focus on basic learning concepts like the elements and principles of art (s9: -5), incorporate community-based art experiences (s11: -5), promote environmental awareness (s12: -5), and setting up an open studio with a range of art supplies and freedom to create (s10: -3) were not surprising as low ranked features as these were ranked low in importance with other factors that included participants with art backgrounds.

Elements collectively deemed less important by the participants loading on this factor including the incorporation of process-focused art lessons with built-in success (s4: -2) and art lessons that encourage exploration through all five senses (s3:-1), the use of developmentally appropriate art lessons (s5: -1), fostering physical development through art making (s17: -4), and

providing adaptive setting options for the needs of each student in the classroom (s20: -2), run in stark contrast with the factor loads of participant groups that included art educators and art therapists where the shared perception was that these features are of utmost importance. Some of these elements may have been ranked lower due to the importance placed on other elements like those devoted to program design elements, but some may have been a result of not having knowledge of how utilizing therapeutic visual arts lessons in the classroom can aid in a student's development on multiple levels.

Factor 4 offers a bigger picture look at the design and day-to-day functioning of a classroom-based program for students with autism. As all three participants loading on this factor reported over 11 years of experience supporting individuals with autism in the classroom or school setting, their focus is on the overall program design and development for any program to support individuals with autism, regardless of subject area or curricular focus. The program elements outlined in the collective vision of this Factor would create a solid foundation for any classroom-based program and it would be adaptive to any combination of presenting issues or needs from students, but it does not consider how the creative process or art making can benefit the student's academic, emotional, physical, or social development.

***Factor 5: Focus on Lesson Delivery and Controlled Choice over Therapeutic Visual Arts***

Factor 5 had an eigenvalue of 1.69 and accounted for 9% of the explained variance in the data. Four participants out of 27 loaded on Factor 5: Sort 2 (0.63), Sort 6 (0.54), Sort 9 (0.58), and Sort 19 (0.66).

All four participants loading on this factor were females, three of which were Caucasian and one was Multi-Racial with no Hispanic, Latino, or of Spanish origin. This group of

respondents reflected a range of backgrounds, experiences, and amounts of experience including one art therapist with over 11 years of experience, one special education teacher with 6-10 years of experience, one special education administrator with 6-10 years of experience, and one marked “other” with less than 3 years of classroom experience.

The themes that emerged from this factor (see Appendix L) were the differentiation of lessons and lesson delivery as well as communication. The use of explicit instruction (s31: +5), the practice of aligning or differentiating classroom lessons, structure with individual needs of students (s8: +4), the teacher’s use of visual supports (s21: +5), incorporating a variety of materials to encourage hands-on engagement (s24: +4), incorporating student interest and choice in planning lessons/materials for lessons (s41: +3), and scaffolding lessons (s6: +3), present a clear picture of this participant group’s feelings about the importance of lesson design. Of explicit instruction, Participant 19, a multi-racial female who marked “other” as her background reported under 3 years of experience in supporting students with autism in the classroom, stated “To prevent frustration for both the teacher and student, this is vital to lesson delivery.” When justifying the importance she placed on differentiation in the classroom, Participant 9, a special education administrator with 6-10 years of experience, stated “differentiation is key in all areas of teaching.” Further, Participant 2, a special education teacher with 6-10 years of experience, stated “Making goals that students can realistically meet and excel at” about her perception of high importance surrounding scaffolding lessons. Taking a step back to examine these elements in combination, what emerges is a practice of carefully crafting lessons that provide clear expectations, directions, and structure with incremental goals for mastery built in. Through this

lesson design, communication development can be promoted as the teacher gives their students a voice through successful art creation and classroom experiences.

These successes increase engagement and combine with the promotion of communication through the teacher's use of visual supports (s21: +5), incorporation of varied forms of adaptive communication to meet individual student needs (s22: +3) and fostering creative thinking and expression through art making (s16: +3). Participant 9, a special education administrator with 6-10 years of experience, discussed the high level of importance she placed on the use of visual supports, stating "I have worked with students with autism and related disabilities for years. Visual supports are a must." Her perceptions with visual supports tied directly into the high importance she placed on incorporating varied forms of communication in the classroom, suggesting "One of the most important components of autism specific instruction is the need to increase communication." Her justifications exemplify the high importance Factor 5 placed on meeting individual student needs through offering differentiated ways for students to communicate with their peers, the teacher, and the support staff in the classroom. In this way, through careful lesson design and classroom systems, the creative process and art making promote communication and begin to develop a sense of autonomy for students.

While promoting autonomy (s19: +5) was considered one of the most important elements within this factor while elements surrounding fostering emotional regulation through mindfulness-based art making (s38: -4), offering students the freedom to explore on their own terms (s39: -3, 10: -2), and connecting the classroom with real-world experiences (s12: -5, 11:-1) were not. This created a split between this sort as many of the features that would develop autonomy were ranked low, but the explicit statement of "promote autonomy" was ranked as



high as any statement could be. Of promoting autonomy, Participant 6, an art therapist with 11+ years of experience, justified giving this element the designation of one of the most important features to include in a program of this kind by stating “My biggest belief! I believe if you are truly promoting autonomy in your classroom, you will see the full potential of your student. The student will feel supported and encouraged to be their best. I believe most growth happens (in all areas, physical, emotional, social, cognitive etc.) when autonomy is promoted.” Her priority to promote autonomy for her students is at the heart of her work, a focus that she believes leads to the growth in a student’s social, physical, emotional, and cognitive development. This concept appears to be a driving force in this participant’s work, but the elements addressing how autonomy is promoted in the classroom are not offered as much importance as the overarching idea.

Participant 19 posited “Art is a way for all students to learn more about who they are and what they like. Promoting autonomy will allow students to learn more about themselves” when referring to her rating of autonomy promotion as one of the most important elements when supporting students with autism in the therapeutic arts classroom. These participants rated the elements requiring the most autonomy as least important but justified their reasons in differing ways. Participant 6 stated “Although important I believe being aware of your environment will follow when you have the other elements in place” about her -5 rating of promoting environmental awareness while Participant 9 indicated “I think this comes naturally from just being in and working in the environment.” While one participant thought a focus on environmental awareness should only happen after other elements are established, Participant 9 perceives that this could happen naturally within the program’s operations. Participant 9 had a

similar assumption about incorporating an open-studio in the art classroom, stating “I would think if you were doing art therapy, this would be a given,” in her justification of her -5 rating of this element (s10). It is important to note that this assumption is in stark contrast to other statements made surrounding the open-studio element where other participants believed that such a structure in the classroom would be too overwhelming for students with autism. These justifications lend themselves to two lines of thought about promoting autonomy: one suggested a measured approach to building a student’s sense of autonomy over time and one that proposes that promoting autonomy is built into the operations of the program itself.

When asked if there was anything they would like to add about their sort, the participant loading on this factor who marked “other” as their experience stated, “I have a lens of multi-tiered system of supports, so my sorting may lean more towards differentiation and clear systems versus the actual therapy.” The inclusion of “clear systems” in this statement suggests the explicit instruction and incorporation of a high structure environment over freedom to explore. This statement summarizes the sort within this factor as there is a clear focus on differentiation according to student need and focused lesson development over the incorporation of therapeutic visual arts to aid in the student’s ability to develop more independent functioning or expressive skills. Further, there can be a delineation made with the theme of communication that emerged in this factor: the vein of communication in this factor is focused on lesson-based activities rather than the art itself as an expression of the student’s voice as would be promoted through therapeutic visual art approaches.

***Factor 6: The Bipolar Factor***

Factor 6 had an eigenvalue of 1.51 and accounted for 7% of the explained variance in the data. Three of the 27 participants loaded on Factor 6, two of which were negative loads. This factor consisted of Sort 17 (-0.49), Sort 25 (-0.48), and Sort 26 (0.72). Consisting of both positive and negative loads, this factor represents opposing viewpoints, creating a bipolar factor (Watts & Stenner, 2012). With the existence of a bipolar factor, two perspectives will be explored in this section, that of the positive pole as well as the viewpoint of the negative pole. To more effectively interpret the negative pole, a reverse factor array was created, essentially developing a mirror image array of the positive pole. To illustrate this reverse factor array, any element ranked -5 in the positive pole array would be marked a +5 in the new array, any element ranked a -4 in the positive pole factor array would be designated as a +4 in the new array, and so on. This change is reflected in the following factor analysis.

All three participants loading on this factor were Caucasian, two of whom were males and one female. Two of the three participants reported having over 11 years of experience working with school-age individuals with autism, while one reported having 6-10 years of experience. This group of respondents consisted of one art educator, special education teacher, and one marked as “other.” All three reported classroom experience supporting students with autism, but the art educator also reported having experience serving this student population in an art summer camp setting.

**Factor 6A The Positive Pole: Less Structure, More Choice.** Participant 26, the only exemplar of this perspective (see Appendix M), was a special education teacher with 6-10 years of experience serving students with autism in the classroom. Although there was some

consistency between this factor and other sorts, the kind of program structure that emerges through this factor array is one seemingly designed for students who likely have less need for support, intervention, and structure than other settings. Notably, this participant who exemplified Factor 6A reported working within a program that supports students with dual exceptionalities. Specifically, his classroom included students who had hearing and visual impairments as well as students with autism. A classroom set up to support a range of needs including students with hearing and visual impairments may lead to a program structure that varies from those who only support students with autism.

Incorporating lessons that encourage exploration through all five senses (s3: +5), aligning or differentiation lessons, structure with individual needs of students (s8: +5), providing adaptive setting options (s20: +5), promoting development of communication skills through art making (s15: +3), and coordinating with support teams (s29: +4) were highly ranked program elements that remained consistent with other factors arrangements. Unfortunately, Participant 26 did not offer justifications for the elements he ranked as most important but integrating this combination of elements with the insight into his classroom setting that supports students with autism as well as hearing and visual impairments, the program structure that comes into view aligns with the population he is serving.

Within this factor, there were also elements that emerged highly ranked where in other factors they were consistently ranked of low importance. Elements focused on incorporating community-based art experiences (s11: +4), student interest and choice in planning lessons or materials for lessons (s41: +4), developing cognitive skills through art lessons and directives (s14: +3), fostering physical development (s17: +3), and offering the ability for students to earn

preferred activities, incentives, or rewards (s26: +2) were featured in this factor as highly important parts of the program structure. Features that elicited responses like “I like the idea it is just the least important out [of] the ones listed” from other participants who ranked these features multiple points lower, were seen as more important in this factor.

The heightened focus on developing physical and cognitive skills as well as the incorporation of community-based art experiences, student interest or choice in planning, and incentives in the art classroom suggest that the participant loading on the positive pole of this factor has experience working with students who have less needs for highly structured support. This viewpoint also reveals an important consideration about developing a classroom-based therapeutic visual arts program for students with autism; one that supports students who have more ability to have success working independently and with less support.

**Factor 6B The Negative Pole: Carefully Structured Freedom.** While both participants indicated that they had 11 or more years of experience, Participant 17 marked “other” as her background experience and Participant 25 reported that his background was in art education. The themes that emerged through the negative load of this factor (see Appendix N) involved offering more freedom for activities and work in the classroom but giving clear instructions and keeping a close eye on that activity. Teacher acts as a guide through the creative process (s30: +3) and promoting social skill development through art lessons and classroom structure (s37: +5) within an open studio setting offering a range of art supplies and freedom to create (s10: +4) offer a look at the vision these participants have of a classroom-based therapeutic visual art program designed for students with autism. Further, these participants found that building in time for students to explore new materials (s39: +5) and fostering creative thinking through art making

(s16: +3) were important elements of a successful program expanding on the students' freedom to explore and create, developing their skills as creative thinkers and artists. Both participants loading on Factor 6B have over 11 years of experience supporting students with autism and their shared perspective of what this kind of program should look like reflects experience and a comfort level with providing some freedom in the classroom.

These participants also had an eye on carefully crafted structure within the classroom so that while students were free to explore and create, they were doing so in a controlled, safe environment. While the statement specifically asserting the need to create an organized, safe environment for the art classroom (s25: 0) was marked in neutral territory, the elements that would create that kind of environment in the classroom were not. Explicit instruction (s31: +5), development and consistent use of routines (s36: +4), the indication that classroom staff use kind, but firm tones with students (s35: +4), the use of timers to indicate transition times (s33: +3) and use of close supervision (s34: +3) made clear that an organized, structured space is an integral part of this kind of program.

*Factor 6A and 6B Synthesis.* Factor 6A and Factor 6B offer collective perceptions about the importance of structure in a therapeutic visual arts program supporting students with autism, but they go about this structural design in varying ways. Where Participant 26 in 6A imparted a structure focused on an adaptive setting, individual student needs, and exploration through all five senses with an emphasis on choice in the classroom, Participants 17 and 25 in 6B erred on the side of carefully a crafted structure, perhaps even imperceptible to students, that was developed to give a safe space for exploration all while the teacher remained in control.

**Chapter Summary**

Chapter 4 was comprised of a detailed description of the statistical procedure undergone within this research study, the factor analysis process, factor extraction, and then the factor interpretations developed through the examination of the culminating six factors. The interpretations of the six factors participants loaded on within this study offer an idea of the varying viewpoints held by the participants across all professional fields. There were no consensus statements in this study.

The next and final chapter will examine these data and factor interpretations within the larger picture, integrating existing research on the use of therapeutic visual art approaches with school age students who have special needs and with those specifically who have autism, and at the intersection of these variables, what program recommendations emerge from this study. The next chapter culminates with an examination of implications of the current research study and what next steps remain at the conclusion of this research.

## CHAPTER 5: DISCUSSION

The results of the Q sorts collected, analyzed, and interpreted through this study produced themes across the factors including presumed competence, coordination between team members in planning, autonomy, art as a means to meet needs and developmental goals, promoting communication, and ensuring a response program structure. Among the results of this study and the themes that emerged, implications for program design should also be considered and will be explored in this chapter. Further, this study aimed to develop recommendations to consider when designing a classroom-based therapeutic visual arts program for students with autism and those recommendations will be discussed in this chapter.

### Themes

#### *Presumed competence*

The idea of presumed competence was marked important consistently across almost all factors. Participants loading on Factors 1, 2, 3, 4, and 5 found this to be one of the most important elements of a program supporting students with autism (s28). Collectively the P-set saw presumed competence as an integral feature to supporting the work of students with autism. Believing in the students' ability to perform tasks, to understand, and learn new things is at the core of working to support them. This idea is the core of designing a program, a classroom structure, a curriculum, adaptive communication methods, accommodations for individual student needs, all while challenging the students (Shaw, 2022). All of these considerations in the classroom are designed with the belief that if the teacher and support team are able to remove barriers for the student and offer a support system that considers their needs, then they will have success.



An important part of this is also getting to know the students served in the program, assessing student needs, reflecting on instructional methods and the designs created to support students, and then reengaging in this cycle of assessment, design, and reflect often. To know the students and their needs in turn means that the teacher can appropriately challenge the students to try new tasks or processes within the classroom.

For the successful functioning of a classroom-based therapeutic visual arts program supporting students with autism, it is important that not only the teacher believe in the presumed competence of the students, but the entire team serving the students (Carmen Pingree, 2022; Jorgensen, 2018). The tendency of a member of the support team might be to see a student working slowly or taking time before completing a task, and they assume the student needs assistance with the task itself. In action, I demonstrate and model presumed competence by either offering a short period of wait time after instructions are given (giving the student time to process instructions or to indicate need for assistance), to offer an additional demonstration, or to offer an additional means of completing a task rather than assuming the student needs help with the task or completing a task for the student (Shaw 2022). If the student does not have the opportunity to engage in the process, they are not able to learn from their experience or build on the success they might have accomplished by completing some part of the task. This key to creating a presumed competence environment is the coordination of the team and the full buy-in of all parties supporting the students within the program. This in turn leads directly into the next theme: that of careful planning and coordination.

### ***Careful planning and coordination***

Across multiple factors, careful planning and coordination emerged as a theme integral to constructing a program that is responsive to student needs on social, emotional, physical, and academic levels. Factors 4 and 6A considered coordination with support teams (s29) as one of the most important elements of this program while ensuring the team is well trained to work with and support goals of neurodiverse students (s27) was an integral element to participants loading on Factors 1, 2, and 3.

Working as a team to learn about students, consider needs, plan, discuss implementation of plans, contingency plans, operation of classroom, as well as communicating expectations of students and adults in the classroom are vital to a classroom serving students with autism. Regev et al. (2015) found this to be a common factor among school-based art therapy programs that worked efficiently and allowed the art therapist to make the most impact with their clients, but also found that it was not present in all settings they surveyed. No one teacher or team member can cover all the considerations that come into play when supporting a classroom full of students who have varying needs, triggers, communication styles, tactile sensitivities, or needs for support when performing tasks. As such, each team member that has interactions with the program, the teacher, and the students in the classroom-based therapeutic visual arts program needs to communicate about the goals, lessons, and planning that culminates in the operations of the program itself. To work in isolation or without team coordination, works against the operation of the program and it fails to meet all needs and considerations for the students enrolled in the program.

### *Autonomy*

Emerging among the factors was a range of ideas around the theme of autonomy. Participants loading onto Factors 2 and 5 found promoting autonomy (s19) of utmost importance while participants loading on other factors focused more on the specific program elements that would develop autonomy for students in practice. Some participants expressed the idea that promoting autonomy was synonymous with offering the ability to make choices in a lesson (Factor 4 and 6A) while others considered promoting autonomy to mean the student was able to function independently. It seemed as if the idea of autonomy itself could fall somewhere on a spectrum between simple decision making at one end to independent functioning at the other. The core of the theme remained no matter where the participant perceived it fell on this spectrum; that the promotion of autonomy (s19) in the classroom was important to the design of the program and to the student experience.

Autonomy can be linked to many of the other considerations in a classroom-based therapeutic visual arts program examined within this study (Guess, Benson, & Siegel-Causey, 1985). The careful design of structure in the classroom ensures that students will have a safe space to work within, one where they know what is expected of them, how to appropriately gain the teacher's attention, and how they can be successful. Further, a well-designed lesson aids in a student's ability to work independently as they know what task(s) they should be performing, where to find something they need, and how to ask for assistance (Martin, 2009).

In classrooms where the level of student support need is low, autonomy can resemble students working independently with the art teacher acting as a guide or facilitator during the art creation process. In this setting, students are making creative decisions, incorporating new learning into their work and may even need to problem solve within their art making (Martin,

2009). In some classrooms, where student support needs are high, promoting autonomy may translate to students making decisions in their work rather than working independently, while the teacher or a member of the support staff assist them with their work (Guess, Benson, & Siegel-Causey, 1985). The latter should not be considered a lesser level autonomy, merely a level of autonomy that meets a student at their level of need.

### ***Promote communication***

Identified as one of the marked impairments in individuals with autism (American Psychiatric Association, 2013) promoting communication and developing communication skills was collectively seen as a vital element within a classroom-based therapeutic visual arts program. This aligns with the work of Alter-Muri (2017), Van Lith et al. (2017, Martin (2009), and Chou et al. (2016) who outlined the importance of art and lesson design in the development of communication and socialization skills. This work in addition to that of Martin and Betts (2011) suggest that goals of social skills development and communication skills should be directly connected to the daily goals in the classroom through focused art directives in a classroom-based therapeutic visual arts program design. Aligning with this focus, participants loading on Factors 1, 2, 4, 5, and 6A also noted that varied, adaptive forms of communication were needed (s22). These include visual supports for students to be able to use in communicating choices and needs as well as visual supports for understanding processes and directions in the classroom (s21; Factors 1, 4 and 5). Just as the methods for supporting students with autism must vary to meet the needs of the students, so too must the methods of communication.

Of note here is to ensure that the methods for communicating in the classroom promote successful communication from teacher to student, student to teacher, and student to student. The

factor array and justifications of importance placed on specific communication elements in Factor 5 suggested communication methods to ensure the teacher to student communication lines were clear, but student to teacher did not seem to be a consideration. In a classroom truly designed to support the needs of its students, varied forms of communication methods must be designed so that all students have a voice and can engage in their own learning.

*Art as a means to meet needs and developmental goals*

The expressive nature of therapeutic visual arts and the art therapists' ability to design interventions that facilitate the exploration of materials, techniques, and processes while developing skills without the need for extensive verbal communication, translates to a viable method for addressing the needs of students with autism (Albert, 2010; Alter-Muri, 2017; Schweizer, Spreen, & Knorth, 2017; Van Lith et al., 2017). Art and its uses in the therapeutic visual arts classroom were a central tenant of this study.

As this study included participant perceptions from individuals in the art therapy and art education fields as well as special education and educational "other" categories, there was a wide range of views on where visual art fit into a classroom-based therapeutic visual arts program serving students with autism. Alter-Muri's (2017) work offers an important example here as she attempted to bridge the gap between art therapy and art education in supporting students with autism. She stressed the importance of creating art activities that provide structure as well as a goal in mind and flexibility in meeting that goal.

The elements of marked importance in this research study mirror her approach to therapeutic visual arts in the classroom supporting students with autism. These elements, spanning multiple factors included the incorporation of multi-sensory centers (s2; Factors 1 & 4),

incorporation of art lessons and directives that encouraged exploration through all five senses (s3; Factors 1 & 6A), the use of developmentally appropriate art lessons and directives (s5; Factors 2 & 3), promoting development of communication skills through art making (s15; Factors 2 & 6A), fostering creative thinking and expression through art making (s16; Factors 3, 5, and 6B), and promoting the development of social skills through art lessons and classroom structure (s37; Factors 3 & 6B). This collection of elements in looking at the bigger picture offers the combination of elements that participants perceive as important to this kind of program. Rather than focus on the variation in levels of importance for this collection of elements, it seems more relevant to embrace the collection of elements in considering a program design. Individuals with autism can present with a range of support needs and goals that can be addressed in the classroom and this collection of elements with the varied levels of importance placed on them is reflective of the flexible structure a program serving this population should model.

These themes in combination of the full outlook of the Q sort results lend implications for next steps including needs for professional development at a support team member, teacher, and administrative level, next steps for practice, and how these themes and results impact policy moving forward. These implications will be explored in the next section.

## **Implications**

### ***Professional development***

An unanticipated result of the analysis of the factors within this research study and individual participant responses when asked to justify the importance, or lack of importance, given to specific elements was the need for professional development surrounding how

therapeutic visual art can be used to promote student communication and learning as well as development socially, emotionally, and academically. This need emerged at the teacher and administration level. If professional development is needed at these levels, it may also be needed at the support team level to ensure all parties serving students within this program design are working together with a common goal.

On a teacher level, whether an art educator or an art therapist serving in the role of art educator, professional development is needed to develop ways to assess student strengths and needs and then to design lessons and a classroom structure based on these assessments. Integral to this training would be Lowenfeld's Stages of Artistic Development (Lowenfeld & Brittain, 1987) and Lusebrink's Expressive Therapies Continuum (ETC) and Media Dimension Variables (MDV; Lowenfeld, 2010) as they relate to assessing a student's level of art creation and expression, and then planning lessons based on their development and expressive needs. Designing lessons with intention and with flexibility according to the varying needs of students is another area of need for development as well as how to integrate varied forms of communication, exploration through all five senses, and to promote social skills and independent student functioning where possible. This learning cannot happen in a single workshop, it must be embedded into the work with regular check-in sessions, reflection on success and changes needed, and then planning anew. When possible, the educator should be paired with a mentor art educator or art therapist with experience supporting students with autism in the therapeutic visual arts classroom for supervision, planning, reflection, and observation sessions over the course of an academic year.

Special education teachers working outside of the therapeutic visual arts classroom could support the work happening in the art program by learning how to plan process-focused art lessons and incorporating them into their centers or activities within their own classrooms. This reinforces techniques, appropriate material use, processes, and further develops skills.

Supporting this shift in their classroom approach would include an abbreviated, but hands-on workshop series in which special education teachers learn how to plan structured, process-focused art lessons through the utilization of Lusebrink's (2010) ETC and MDV. The MDV would be especially helpful as Lusebrink breaks down the level of structure and mediation associated with each art medium and how to use this knowledge in practice. Armed with this knowledge, a non-art teacher could match up an art medium with each individual student's need, thereby increasing the student's ability to have a successful expressive creation experience.

On an administration level, the professional learning would focus on supporting a unique program like this, learning what to look for in a successful lesson, how art can serve as a catalyst for development and skill building, and how to develop opportunities connecting the classroom to the wider community to incorporate real-world experiences. Key learning components would also include developing knowledge of how therapeutic visual art lessons can be designed in support of student needs and goals, much like the teacher level training involving Lowenfeld and Brittain's work (1987) and Lusebrink's ETC and MDV (2010). In the chance that one or more of the trained team leaves the program, the administration needs to be in a place to hire qualified individuals to step into the established program with as little disruption as possible. Ideally, the administration would also be able to offer input and suggestions on how to improve therapeutic



visual art lessons, structure, or program functioning with their knowledge and understanding of the larger picture surrounding the program and needs of their students.

### *Practice*

In practice, this classroom-based therapeutic visual arts program begins with high level of structure that includes adaptive communication forms including, but not limited to visual supports to aid in student choice making as well as offering a visual schedule of the class period and instructions for tasks and expectations in the classroom, but with the understanding that a high level of flexibility is built into the structure. To start with a high level of structure ensures a safe, organized, consistently operating classroom where students know what to expect when they enter the space (UNC TEACCH Autism Program, 2022). It is important that the level of structure in this program design remains fluid and responsive to student needs. As the program needs to adjust to student needs, the teacher and support team will make adjustments to the structure, communication forms, materials, lessons, and more. Just as a student develops over the course of an academic year, so too will this program.

The flexible nature of the structure of this program and the regular need to reflect on student needs and adjust accordingly requires consistent communication between the teacher and support team in place as well as between the parent, teacher, and support team. Schweizer et al. (2017) found that the involvement of parents, family members, and educators had a positive influence on the child's success, and regular communication is an integral part of this involvement. If professional development opportunities as discussed in the previous section have taken place, then this communication process is streamlined as all parties have the same focus:

student-first and consistent assessment of student needs with adjustments according to those needs.

Within the operation of this program, ample time and space are offered students to explore new art media and best practices in using new art media (Alter-Muri, 2017). Lessons are offered in whole group as appropriate, but most lesson delivery happens in small groups with one-on-one support as needed. Multiple senses are engaged in the exploration process and in the art lesson. The design of art lessons within this program offers both a step-by-step break down of art media use and technique as well as the opportunity for students to use visual supports to work independently to challenge themselves with the knowledge that the teacher is present to guide their work. Art lessons have a process-focus meaning the focus of the lesson is engagement, exploration, and the creative process itself over the product. A success-oriented process-focused lesson can ensure that if the student engages in the work, they will experience a pleasing art product. Ultimately, however, in this work the focus is on the creative art process as this is where learning and exploration can take place as well as strength and skill building.

### **Recommendations for Program Design**

#### ***Presumed competence***

There were no consensus statements with this study, but the importance of presumed competence came as close as any statement could to a collective perception of importance among all participants. The strengths-based approach of presuming competence in the students served within a program created to serve their individual needs, is vital to the success of the program and to the students enrolled (Carmen Pingree, 2022; Jorgensen, 2018). All parts of the program design, lessons, and structure should be developed with presumed competence at the forefront

and all staff supporting this program should fully buy into the idea that the students enrolled can be successful, can learn new skills, and can develop socially, emotionally, and academically if they receive the right support. Further, this approach ensures that the teacher and support team will allow the student to complete work rather than attempting to complete work for them. Instead, increased wait time, additional prompts, small group and individual demonstrations, time for exploration and practice, alternative means of completing a task, and adaptive tools, communication methods and setting options should all be considered in allowing differentiated ways of engaging in tasks.

### ***Process-focused nature of art lesson design***

The process-focused nature of therapeutic visual arts engages the emotions and encourages exploration (Warren, 1993), both elements that are vital to the creative work with a program supporting students with autism. Further, art therapists are mindful and considerate of their client's developmental stage instead of their age (Van Lith, 2017) meaning they can assess and plan for their students' specific needs in the therapeutic visual arts classroom. Beginning with student interest in mind, Alter-Muri (2017) outlined classroom-based art lessons designed with engagement through exploration as the focus and presented in a way that all students could take part in the creative work at their own level of functioning. Time to explore a new material or process was built into the structure of the classroom and lessons and as such, the classroom became a safe space for students to learn through immersing themselves in art making as well as develop social skills through group art creation. The recommendations for a classroom-based therapeutic visual arts program service student with autism follow the same model.

Multiple statements within the discourse addressed the inclusion of adaptive forms of elements in the classroom, from adaptive setting options to communication. Adaptive approaches, including through developmental art therapy, work towards creating a space designed for individuals with special needs and with the goal of increasing their chances of participation and success (Malchiodi, 2012). Student-centered, adaptive approaches change the way the teacher or art therapist approaches lesson planning, creating a process-focused means of exploration in visual art, developing emotional regulation, and reaching other therapeutic goals.

The participants loading on Factor 3 collectively stressed the importance of sustained engagement through the creative process and success-oriented, process-focused lessons. Sustained engagement ensures that students have continued opportunities to develop their creative, communication, social, and independent functioning skills as well as build on their successful experiences (National Research Council, 2001). By focusing on and celebrating exploration in art and the process of creating art, students will learn new techniques and methods without the focus on a right or wrong answer and they can fully engage themselves in learning by doing. This focus of work in the classroom builds a foundation for a love of art making, a love of creation, thereby building a student's sense of success in the classroom. From this foundation, the student feels comfortable approaching unfamiliar tasks or techniques in the classroom armed with prior successes and a trust in the teacher that their guidance will assist them in their work.

### ***Flexible, adaptive structure***

The presenting issues and needs a group of students with autism can bring to a classroom can vary widely and not all schools can group students according to developmental level or

structure needs, as such the classroom teacher needs to be able to provide a structure that works for all students but is flexible enough to adjust as needed. Providing a flexible, adaptive structure in a classroom-based therapeutic visual arts program, created to accommodate individual student needs, ensures that external barriers are mitigated for student success (Alter-Muri, 2017). The importance of providing adaptive options within the program at the center of this research study, were stressed across factors. This structure applies to the classroom structure as well as the lesson design and structure of each class period.

What was evident from the wide range of perceptions in the factors that emerged, was that the participants within this study have supported students with high levels and low levels of structure and support needs, all while serving students with autism. These findings inform the recommendation that the teacher and support team must assess and learn first-hand about the needs of their students in designing a program and lesson structure with their success in mind. As approaches are used, these should be reflected upon for revision or further implementation.

Therapeutic visual art lessons and classroom structure designed with student needs and abilities in mind remove barriers and offer a safe and engaging environment designed to offer opportunities for positive social interactions, alternative means of communication, and to develop emotional regulation (Albert, 2010; Alter-Muri, 2017; Van Lith et al., 2017). This approach for structure design, reflection, revision, flexibility and implementation are at the heart of a sustainable successful classroom-based therapeutic visual arts program for students with autism.

***Promote communication***

This recommendation harkens back to the words of Participant 23 when they stated “The ability for a person to communicate is a basic human right. Every student should have the opportunity to express their wants, needs, desires, and any other thoughts they have in all environments all of the time.” As with the other adaptive considerations that must be made in consideration of student needs within this classroom-based therapeutic visual arts program model, the teacher must consider adaptive forms of communication within their program structure and how this will operate in practice. Adaptive forms of communication need to consider how the teacher can best communicate with the student, how the student can communicate with the teacher and support team, and how the student can communicate with their peers.

Communication includes choice making, signaling that the student needs a break, offering reflections on their work or the creative process, and even ways that the student can communicate through their artwork. As with a flexible, adaptive program structure, this element of the program requires regular assessment of student strengths, needs and goals, and then adjusting the program structure where needed to meet student the student at their current level of functioning. Further, this communication should happen beyond the four walls of the classroom or school building. Truly offering to develop a student’s voice goes beyond the school to include their family and the community, whether local or beyond. Art offers a way to communicate to an audience visually and in a strength-focused way as the viewer interacts with a completed art piece. The artwork does not have reveal a student’s struggles or impairments unless they work it into their own piece. With this in mind, an important aspect of this program recommendation is

the active role the teacher and support team can play in finding opportunities in the school and in the community for students to display their artwork and exercise their voice.

### *Professional development*

A recommendation central to the sustained success of a specialized program includes a professional development plan and a consistent schedule of learning for teachers, the support team, and administrators involved in the operations of this program. All of the work to develop a specialized classroom-based therapeutic visual art programs for students with autism, led by a trained art therapist or art educator who assesses and adapts structure, lessons, communication methods, and lesson delivery for individual student needs can be severely threatened if that trained professional leaves the program. Similarly, if this program is designed in collaboration with a supportive, well trained administration who is well-versed in supporting a specialized program of this kind loses that supportive administrator, the program is at risk of collapse.

Nelson (2010) outlined the steps Nancy Healy underwent to keep her program within Jersey City Public Schools thriving for 15 years. This work included continuous advocacy work, building staff cohesion, and partnering with those in and outside of the program itself to build capacity. A program like this is not as simple as setting it up and letting it run. This program will take continuous work developing teacher and support team capacity, learning new approaches and ways of creating adaptations to meet student needs, and assessing student goals and adjusting work in class to address those goals. This process was addressed in the discussion of the longstanding Clinical Art Therapy program in Miami-Dade County Public School System (M-DCPS Clinical Art Therapy, 2019). All team members involved in the operation of a specialized program of this kind need to be trained in how best to serve the students through

therapeutic visual art and how best to assist students in their work. There must be buy in from all parties to ensure students encounter a cohesive support team focused on their success.

### **Limitations**

I worked to reduce the number of limitations within this study, but several were present. These included the virtual administration of the Q sort, the functionality of VQMethod (2018), the small number of art therapists and art educators in the participant group, and the makeup of the participant group being majority white females.

#### ***Virtual administration of Q sort***

Watts and Stenner (2005) stated that the best method of collecting data for a Q study was in person and this was the original intent for any participants that lived within 30 miles of me. Instead, a global pandemic altered the way in which the participants and I could safely meet and as such, a fully virtual model was used to collect Q sorts and follow up statements justifying the placement of the statements they saw as most important and least important to the creation of a classroom-based therapeutic visual art program for students with autism. My ability to observe participant sorts, answer questions about the process in real time, and the ability to interview participants face-to-face post sort may have changed the ways in which some participants completed their Q sort. It may also have changed the depth in which they engaged in the Q sort process. It is possible that participants justifications of why they felt some statements were of utmost importance and why they felt some were least important would have been reported on a deeper level as well. On the other hand, having me in the room, especially for those participants known to me, may have influenced the outcome in some unforeseen way. In either case, the virtual administration of the Q sort became a safe option to the preferred face-to-face



administration, data was able to be collected in this format and the study still produced a data set for analysis and for supporting school-aged individuals with autism in the therapeutic visual arts classroom.

### ***Functionality of VQMethod***

There were multiple reports from would-be participants who struggled with the VQMethod (2018) software. Three intended participants reported that they could not get the platform to load on their Apple computers while others attempted to complete the Q sort from their smartphones unsuccessfully. While the smartphone is not ideal to complete this kind of survey and it should not be a goal for such data collection to be completed in such a way, the functionality with Apple computers was unexpected and hindered data collection, essentially limiting the final number of participants involved in this study.

### ***Small number of art therapists and art educators in participant group***

The combined number of art therapists and art educators in the participant group totaled ten, just over one-third of the full participant group. Ideally, there would have been 10 art therapists and 10 art educators. With the limited number of art therapists and art educators represented in the Q sorts, the factors that emerged from the analysis and interpretation as well as the themes did not have the same consideration for art making and the creative process that might have been present otherwise. It is possible that the themes emerging from the current research study would have remained consistent, but the lack of arts-focused professionals participating in this study meant that two-thirds of the participants did not have an in-depth understanding of how utilizing the creative process and art making could also lead to social, emotional, physical, and academic development in the classroom.

*Lack of diversity in participant group*

Like the limitation involved with the lack of art therapists and art educators in the participant group, a limitation of this study was in the lack of diversity with the responding participants. Most of the participants were white females. It is possible that this lack of diversity in participants led to a lack in perceptions and viewpoints around the elements and best practices important to a classroom-based therapeutic visual arts program for students with autism. This issue is likely not unique to this study as a U. S. Department of Education (2020) survey found that 79.3% of public school teachers in 2017-2018 were white and 76.5% were female. Further, the percentage of art therapists in the United States who are white is estimated at 67% and 82.5% female (Zippia, 2022). When considering the demographic data for these professions, it becomes clear that the participant diversity issue is bigger than this study, but it does not solve the issue that valuable data about the perceptions of professionals in the fields of art therapy, art education and special education were missed due to the lack of diversity in the participant group.

In the presence of these limitations, I took extensive efforts to invite participants from varying backgrounds and ethnicities, extending the background criteria of potential respondents in order to widen the pool participants. Requests to complete the Q sort were sent out via email as well as in social media posts to ensure additional access to the research survey. When VQMethod (2018) functionality issues were reported, I attempted to find solutions with participants so that they could complete the Q sort. These mitigation efforts reduced the number of limitations of the study as much as possible and removed barriers to participation in the research survey where possible.

**Future Research**

Due to the limitations in this study, specifically the manner in which the Q sorts were collected, the size of the participant group, and the lack in diversity of the participants, additional research should be conducted to generate additional perceptions around the elements important to include in a classroom-based therapeutic visual art program for students with autism. On a positive side, a majority of the participants reported over 11 years of experience in their respective field of work supporting individuals with autism. This level of experience meant that the data that was collected from the participant pool was rich and provided a depth of knowledge that met or exceeded my expectation when looking to include individuals from the fields of art therapy, art education, and special education. Even with this level of experience in the participant group, the expansion of the Q sort collection from individuals in the fields of art therapy, art education, and special education should be conducted to determine if additional factors emerge or if the existing factors gleaned from the current study are strengthened.

### **Conclusion**

This research study collected a range of perceptions from a group of professionals spanning art therapy, art education, special education, and education “others” who have experience serving individuals with autism in the classroom. The results were a collection of factors representing a range of ideas on what elements were most important in the design of a classroom-based therapeutic visual arts programs for students with autism. Although the results seem daunting and too varied to fit into a cohesive model, what resulted from this work was a reflection of the wide range in which this kind of program can take shape. The ultimate takeaway from this research study and from work that is focused on meeting the individual needs of multiple students is a flexible program staffed by knowledge teachers, staff and administration

who are willing to work together with a student-first focus; a team that is willing to regularly self-evaluate, communicate, and adjust their path forward as needed. The role of art within this program design offers a non-threatening way to explore student strengths, build on student successes, to offer pathways for communication in and out of the classroom, and to develop appropriate ways to express emotions or interact socially. Art lessons offer opportunities to explore new learning, techniques, and the community outside of the school. On the whole, the development and continuation of a classroom-based therapeutic visual arts program supporting students with autism requires a collective commitment to teamwork, trust, reflection, and placing the student first in all areas of planning and operations.

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**Appendix A**

Notification of IRB Status

From: Nicole Sayers <no-reply@irbnet.org>  
Date: February 7, 2020 at 3:01:06 PM EST  
To: David Hoppey <david.hoppey@unf.edu>, Laurie Hoppock <lauriehoppock@gmail.com>  
Subject: IRBNet Board Action  
Reply-To: Nicole Sayers <n.sayers@unf.edu>

Please note that University of North Florida Institutional Review Board has taken the following action on IRBNet:

Project Title: [1395008-1] Examining the Classroom-Based Therapeutic Arts Approaches that Best Serve the Development of Students with Autism  
Principal Investigator: Laurie Hoppock

Submission Type: New Project  
Date Submitted: December 13, 2019

Action: EXEMPT  
Effective Date: February 7, 2020  
Review Type: Exempt Review

Should you have any questions you may contact Nicole Sayers at n.sayers@unf.edu.

Thank you,  
The IRBNet Support Team

[www.irbnet.org](http://www.irbnet.org)

**Appendix B**

## Classroom-Based Art Therapy Approaches for Students with Autism

This brief survey focuses on the program elements and structure of a classroom-based art therapy program serving students with autism in which the visual art classroom has an art therapy approach embedded within an educational focus. Please answer the question prompts as well as include the information about your work with school-aged individuals (age 5-22 years) who have autism. Thanks!

**\*Required**

1. Please list and describe up to 8 best practices and/or programmatic features that you think should be included in a classroom-based therapeutic visual arts program for students with autism. \*
2. What educational approaches should be included in a classroom-based therapeutic visual arts program serving students with autism?
3. What therapeutic approaches should be used within a classroom-based therapeutic visual arts program for students with autism?
4. In what setting(s) have you served school-aged students (age 5-22) who have autism? \*
5. What is your profession/background/training? \*
  - Art Therapist
  - Art Educator
  - Special Education Teacher
  - Special Education Administrator
  - Other (fill in the blank)

6. How many years of experience do you have in working with school-aged individuals with autism? \*

- Less than 3 years
- 3-5 years
- 6-10 years
- More than 11 years



## Appendix C

### Q Sample Statements

1. Use of adaptive materials & tools.
2. Incorporate multi-sensory centers into the classroom
3. Incorporate art lessons/directives that encourage exploration through all five senses
4. Incorporate process-focused art lessons/directives with built in success
5. Use of developmentally appropriate art lessons and directives
6. Develop small, incremental tasks/goals for student mastery (scaffold lessons)
7. Pre-teach new skills when introducing new materials or techniques
8. Align/differentiate classroom lessons, structure with individual needs of students.
9. Focus on basic learning concepts like the elements and principles of art
10. Set up an open studio with a range of art supplies and freedom to create.
11. Incorporate community-based art experiences
12. Promote environmental awareness
13. Foster sensory regulation (improve frustration tolerance, promote ability for student to self-soothe) through art making
14. Develop cognitive skills through art lessons and directives
15. Promote the development of communication skills through art making
16. Foster creative thinking and expression through art making.
17. Foster physical development (small and large motor skills) through art making
18. Encourage students to take on helping roles in class
19. Promote autonomy
20. Provide adaptive setting options for needs of each student in the classroom (volume, lighting, seating, space).
21. Teacher's use of visual supports (including directions, schedules, and/or expectations) to promote student understanding and independence.
22. Incorporation of varied adaptive forms of communication to meet individual student needs (PECs, technology, choice boards, sign language).
23. Incorporate opportunities for movement when creating art.
24. Incorporate a variety of materials/media that encourage hands-on engagement in the classroom.
25. Create an organized, safe environment for the art classroom.
26. Offer the ability for students to earn preferred activities, incentives, or rewards (token economy, choice boards, etc.).
27. Ensure staff in the classroom is well trained to work with neurodiverse students and to support goals (as determined by the teacher) of the classroom.
28. Strive to ensure a presumed competence environment (support staff working with students believe in the abilities of the student rather than assuming a student cannot complete a task)
29. Coordination with support teams including speech, physical, occupational, and behavioral therapists.

30. Teacher acts as a guide through the creative process
31. Use explicit instruction
32. Sensory down-time area
33. Use timers to indicate transition times.
34. Use close supervision.
35. Classroom staff use kind, but firm tone with students.
36. Development and consistent use of routines.
37. Promote development of social skills through art lessons & classroom structure.
38. Foster emotional regulation through mindfulness-based art making lessons.
39. Build in time for students to explore new materials when introduced
40. Develop a signal system that will allow for students to communicate that they need a break.
41. Incorporate student interest and choice in planning lessons/materials for lessons
42. Offer students specific positive feedback for meeting goals, participation

**Appendix D**

Participant Table

Participant Number	Gender	Race/Ethnicity	Background	Years of Experience	Setting
1	Female	White	Art Therapist	6-10	In-person and virtual therapy groups
2	Female	White	Special Ed Teacher	6-10	Classroom, home
3	Female	Black/African American w/ Hispanic or Latin Origin	Art Therapist	Less than 3	Classroom
4	Female	White	Ed Other	11+	Classroom, Private Practice
5	Female	Black/African American	Special Ed Teacher	11+	Classroom, Home
6	Female	White	Art Therapist	11+	Classroom
7	Male	White	Special Edu Teacher	11+	Classroom
8	Female	White	Special Ed Admin	11+	Classroom
9	Female	White	Special Ed Admin	6-10	Classroom
10	Female	White	Ed Other	11+	Classroom, Outpatient Therapy
11	Male	White	Special Ed Teacher	11+	Classroom
12	Female	Asian	Ed Other	11+	Classroom
13	Female	White	Special Ed Admin	11+	Classroom
14	Female	White	Special Edu Teacher	6-10	Classroom
15	Female	White	Art Therapist	6-10	Classroom
16	Female	White	Art Educator	11+	Classroom
17	Female	White	Ed Other	11+	Classroom
18	Female	White	Ed Other	11+	Classroom, Personal Relative
19	Female	Multi-Racial	Ed Other	Less than 3	Classroom
20	Female	White	Art Educator	11+	Classroom
21	Female	White	Special Edu Teacher	11+	Classroom

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22	Female	White	Art Therapist	11+	Classroom, Hospital, Museum, Private Practice, Outpatient Rehab
23	Female	White	Special Edu Teacher	11+	Classroom, Private Child Care Centers
24	Female	White	Art Educator	3-5	Classroom
25	Male	White	Art Educator	11+	Classroom, Summer Camp
26	Male	White	Special Edu Teacher	6-10	Classroom
27	Female	White	Art Educator	11+	Classroom

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**Appendix E**

## Unrotated Factor Matrix

Q SORTS	Factors							
	1	2	3	4	5	6	7	8
1	-0.0466	0.4251	0.5709	0.2233	0.0784	0.3753	-0.1971	0.0387
2	0.4168	-0.0861	0.2979	-0.2965	0.4383	0.0125	0.0272	0.3926
3	0.3553	0.2187	-0.0619	0.5627	-0.0032	-0.2168	-0.1658	0.0454
4	0.5039	-0.3627	0.0991	0.0159	-0.1137	-0.0711	-0.4517	-0.1109
5	0.4519	-0.4627	-0.2922	0.4466	0.0985	0.2384	0.0926	-0.0792
6	0.6116	0.3425	0.1998	0.2468	0.2980	-0.0879	-0.1172	0.1119
7	0.2269	0.4740	-0.4618	-0.0710	-0.3456	-0.0117	0.2381	0.3535
8	0.3895	-0.0259	-0.2556	-0.5086	-0.0991	0.1885	-0.2950	0.1059
9	0.5547	-0.1837	0.0185	-0.1918	0.3192	-0.2622	-0.2035	-0.1110
10	0.3974	-0.1893	0.0538	-0.0197	-0.0494	0.1346	0.5387	0.4185
11	0.5912	-0.1679	-0.2048	-0.1767	-0.2565	0.2912	-0.1001	-0.2706
12	0.4709	-0.5463	-0.0585	0.0799	-0.0486	0.0788	0.1780	0.1096
13	0.6235	-0.2578	-0.1617	-0.3381	0.0693	0.2701	0.1654	-0.2423
14	0.5486	0.1860	-0.3473	-0.1717	0.1003	-0.2698	-0.0358	0.0925
15	0.6870	-0.1259	0.2982	0.0745	0.2151	0.1619	-0.0388	-0.0719
16	0.4068	-0.1010	0.3000	-0.3730	-0.1025	-0.1904	0.2920	-0.0003
17	0.1931	0.2554	-0.3624	-0.0910	0.1092	0.4591	-0.3347	0.4284
18	0.3758	0.4036	-0.3706	0.2193	0.3644	-0.2512	0.0688	0.0751
19	0.3607	0.3143	-0.1354	-0.1993	0.4902	-0.0688	0.2217	-0.3240
20	0.3474	0.4736	0.2958	-0.3322	-0.4281	-0.0946	-0.0399	-0.0950
21	0.5259	0.2957	0.1323	0.0397	-0.2667	0.1869	-0.2275	-0.1455
22	0.5392	-0.1552	0.4559	0.3149	0.0937	0.0387	0.1172	0.0060
23	0.4929	0.2898	-0.3600	0.2848	-0.2469	-0.0989	0.3004	-0.3487
24	0.5757	-0.1718	0.0104	0.3929	-0.4340	0.0836	-0.0214	0.2051
25	0.2941	0.5661	-0.0524	-0.0041	0.1107	0.3146	0.0435	-0.1455
26	0.5043	-0.1165	0.0614	-0.0647	-0.2431	-0.6277	-0.2693	0.1685
27	0.2593	0.3099	0.6398	-0.1034	-0.2021	-0.0087	0.2763	0.0043
Eigenvalues	5.6807	2.6540	2.3520	1.8996	1.6928	1.5131	1.4003	1.2077
% expl.Var.	21	10	9	7	6	6	5	4

**Appendix F**

Hand Flagged Factor Matrix with an X Indicating a Defining Sort

Q SORTS	1	2	3	4	5	6
1	-0.0128	-0.0918	0.5340X	-0.3721	0.0335	-0.5219
2	0.2316	-0.2404	0.1760	0.0849	0.6321X	0.0303
3	0.2286	0.6020X	0.0402	-0.3433	0.0842	0.0167
4	0.5534X	0.0170	0.0734	0.1002	0.0968	0.2867
5	0.7324X	0.2089	-0.4180	-0.0018	0.0205	-0.1202
6	0.2700	0.4107	0.3107	-0.2078	0.5438X	-0.1079
7	-0.1767	0.6105X	0.1235	0.4184	-0.1302	-0.0534
8	0.1343	0.0176	0.0735	0.6786X	0.1572	0.0212
9	0.3048	0.0453	-0.0155	0.1365	0.5824X	0.3102
10	0.4193X	0.0048	0.0887	0.1576	0.0920	0.0231
11	0.5142	0.1540	0.0953	0.5514X	-0.0026	-0.0172
12	0.6719X	-0.0377	-0.1663	0.1503	0.0447	0.1830
13	0.5001	-0.0308	-0.0037	0.5697X	0.3123	-0.0142
14	0.0642	0.4718X	-0.0107	0.3453	0.4198	0.2150
15	0.6253X	0.0212	0.2520	-0.0070	0.4413	-0.0708
16	0.2027	-0.1310	0.3828	0.2163	0.2458	0.3736
17	0.0257	0.2137	-0.0727	0.3989	0.1114	-0.4917X
18	-0.0691	0.6453X	-0.1520	-0.0439	0.4850	-0.0626
19	-0.0929	0.2164	0.0101	0.1649	0.6603X	-0.1152
20	-0.0894	0.2045	0.7663X	0.2728	0.0142	0.1530
21	0.2983	0.3289	0.4918X	0.1757	0.0308	-0.1352
22	0.6220X	0.0290	0.2966	-0.3057	0.2503	0.0163
23	0.2038	0.7365X	0.0647	0.1389	-0.0229	0.0192
24	0.6839X	0.3817	0.1800	0.0124	-0.2373	0.0932
25	-0.0522	0.3411	0.2981	0.1666	0.2433	-0.4755X
26	0.2303	0.2982	0.2064	0.0451	0.1577	0.7194X
27	0.0733	-0.0523	0.7700X	-0.1167	0.0912	0.0359
% expl. Var.	14	11	10	8	9	7

**Appendix G**

## Factor Arrays

Number	Statement	Factor Arrays					
		1	2	3	4	5	6
1	Use of adaptive materials & tools.	5	1	0	0	2	2
2	Incorporate multi-sensory centers into the classroom.	5	-4	0	5	1	1
3	Incorporate art lessons/directives that encourage exploration through all five senses	4	-2	1	-1	0	5
4	Incorporate process-focused art lessons/directives with built in success	0	2	5	-2	0	-2
5	Use of developmentally appropriate art lessons and directives	2	4	4	-1	0	2
6	Develop small, incremental tasks/goals for student mastery (scaffold lessons)	1	-1	0	1	3	0
7	Pre-teach new skills when introducing new materials or techniques	2	-3	-4	0	-2	-1
8	Align/differentiate classroom lessons, structure with individual needs of students.	-1	0	0	0	4	5
9	Focus on basic learning concepts like the elements and principles of art	-5	1	-2	-5	-4	-2
10	Set up an open studio with a range of art supplies and freedom to create.	-5	-5	-3	-3	-2	-4
11	Incorporate community-based art experiences	-4	-5	-3	-5	-1	4
12	Promote environmental awareness	-3	-1	-1	-5	-5	-1
13	Foster sensory regulation (improve frustration tolerance, promote ability for student to self-soothe) through art making	2	0	1	-3	2	1
14	Develop cognitive skills through art lessons and directives	-5	-2	2	-3	-3	3
15	Promote the development of communication skills through art making	0	4	1	2	-1	3
16	Foster creative thinking and expression through art making.	-3	-3	4	-1	3	-3

<b>17</b>	Foster physical development (small and large motor skills) through art making	-1	0	3	-4	-4	3
<b>18</b>	Encourage students to take on helping roles in class	0	-1	0	-4	-2	-1
<b>19</b>	Promote autonomy	-2	5	-2	-3	5	0
<b>20</b>	Provide adaptive setting options for needs of each student in the classroom (volume, lighting, seating, space).	3	3	-5	-2	-3	5
<b>21</b>	Teacher's use of visual supports (including directions, schedules, and/or expectations) to promote student understanding and independence.	4	2	-3	4	5	0
<b>22</b>	Incorporation of varied adaptive forms of communication to meet individual student needs (PECs, technology, choice boards, sign language).	3	5	-2	5	3	3
<b>23</b>	Incorporate opportunities for movement when creating art.	-1	-4	-3	-2	0	-2
<b>24</b>	Incorporate a variety of materials/media that encourage hands-on engagement in the classroom.	3	-2	3	2	-2	0
<b>25</b>	Create an organized, safe environment for the art classroom.	1	3	5	4	1	0
<b>26</b>	Offer the ability for students to earn preferred activities, incentives, or rewards (token economy, choice boards, etc.).	-2	0	-4	3	-3	2
<b>27</b>	Ensure staff in the classroom is well trained to work with neurodiverse students and to support goals (as determined by the teacher) of the classroom.	3	3	3	0	1	2
<b>28</b>	Strive to ensure a presumed competence environment (support staff working with students believe in the abilities of the student rather than assuming a student cannot complete a task)	5	5	4	3	4	1
<b>29</b>	Coordination with support teams including speech, physical, occupational, and behavioral therapists.	0	-2	2	4	-2	4
<b>30</b>	Teacher acts as a guide through the creative process	-3	0	2	-4	-1	-3
<b>31</b>	Use explicit instruction	-4	3	-2	1	5	-5
<b>32</b>	Sensory down-time area	1	-3	-5	-1	-5	-1
<b>33</b>	Use timers to indicate transition times.	-2	0	-1	2	1	-3



<b>34</b>	Use close supervision.	-4	1	-1	5	-5	-3
<b>35</b>	Classroom staff use kind, but firm tone with students.	-3	2	1	3	0	-4
<b>36</b>	Development and consistent use of routines.	4	4	0	3	0	-4
<b>37</b>	Promote development of social skills through art lessons & classroom structure.	-1	-3	5	0	2	-5
<b>38</b>	Foster emotional regulation through mindfulness-based art making lessons.	0	-5	2	-2	-4	-2
<b>39</b>	Build in time for students to explore new materials when introduced	0	-1	-4	0	-3	-5
<b>40</b>	Develop a signal system that will allow for students to communicate that they need a break.	2	2	-5	1	-1	1
<b>41</b>	Incorporate student interest and choice in planning lessons/materials for lessons	1	-4	-1	2	3	4
<b>42</b>	Offer students specific positive feedback for meeting goals, participation	-2	1	3	1	2	0

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**Appendix H**

Factor 1 Array

Least Important						Most Important				
-5 (3 statements)	-4 (3 statements)	-3 (4 statements)	-2 (4 statements)	-1 (4 statements)	0 (6 statements)	+1 (4 statements)	+2 (4 statements)	+3 (4 statements)	+4 (3 statements)	+5 (3 statements)
9	11	12	19	8	4	6	5	20	3	1
10	31	16	26	17	15	25	7	22	21	2
14	34	30	33	23	18	32	13	24	36	28
		35	42	37	29	41	40	27		
					38					
					39					

**Appendix I**

Factor 2 Array

Least Important						Most Important				
-5 (3 statements)	-4 (3 statements)	-3 (4 statements)	-2 (4 statements)	-1 (4 statements)	0 (6 statements)	+1 (4 statements)	+2 (4 statements)	+3 (4 statements)	+4 (3 statements)	+5 (3 statements)
10	2	7	3	6	8	1	4	20	5	19
11	23	16	14	12	13	9	21	25	15	22
38	41	32	24	18	17	34	35	27	36	28
		37	29	39	26	42	40	31		
					30					
					33					

**Appendix J**

Factor 3 Array

Least Important						Most Important				
-5 (3 statements)	-4 (3 statements)	-3 (4 statements)	-2 (4 statements)	-1 (4 statements)	0 (6 statements)	+1 (4 statements)	+2 (4 statements)	+3 (4 statements)	+4 (3 statements)	+5 (3 statements)
20	7	10	9	12	1	3	14	17	5	4
32	26	11	19	33	2	13	29	24	16	25
40	39	21	22	34	6	15	30	27	28	37
		23	31	41	8	35	38	42		
					18					
					36					

**Appendix K**

Factor 4 Array

Least Important						Most Important				
-5 (3 statements)	-4 (3 statements)	-3 (4 statements)	-2 (4 statements)	-1 (4 statements)	0 (6 statements)	+1 (4 statements)	+2 (4 statements)	+3 (4 statements)	+4 (3 statements)	+5 (3 statements)
9	17	10	4	3	1	6	15	26	21	2
11	18	13	20	5	7	31	24	28	25	22
12	30	14	23	16	8	40	33	35	29	34
		19	38	32	27	42	41	36		
					37					
					39					

**Appendix L**

Factor 5 Array

Least Important					Most Important					
-5 (3 statements)	-4 (3 statements)	-3 (4 statements)	-2 (4 statements)	-1 (4 statements)	0 (6 statements)	+1 (4 statements)	+2 (4 statements)	+3 (4 statements)	+4 (3 statements)	+5 (3 statements)
12	9	14	7	11	3	2	1	6	8	19
32	17	20	10	15	4	25	13	16	24	21
34	38	26	18	30	5	27	37	22	28	31
		39	29	40	23	33	42	41		
					35					
					36					

**Appendix M**

Factor 6A Bipolar Array

Least Important						Most Important				
-5 (3 statements)	-4 (3 statements)	-3 (4 statements)	-2 (4 statements)	-1 (4 statements)	0 (6 statements)	+1 (4 statements)	+2 (4 statements)	+3 (4 statements)	+4 (3 statements)	+5 (3 statements)
31	10	16	4	7	6	2	1	14	11	3
37	35	30	9	12	19	13	5	15	29	8
39	36	33	23	18	21	28	26	17	41	20
		34	38	32	24	40	27	22		
					25					
					42					

**Appendix N**

Factor 6B Bipolar Array

Least Important						Most Important				
-5 (3 statements)	-4 (3 statements)	-3 (4 statements)	-2 (4 statements)	-1 (4 statements)	0 (6 statements)	+1 (4 statements)	+2 (4 statements)	+3 (4 statements)	+4 (3 statements)	+5 (3 statements)
3	11	14	1	2	6	7	4	16	10	31
8	29	15	5	13	19	12	9	30	35	37
20	41	17	26	28	21	18	23	33	36	39
		22	27	40	24	32	38	34		
					25					
					42					