

2017

Teaching Strategies for Students with Exceptionalities in the Secondary Art Classroom with a Focus on Students with Autism, Down Syndrome, and Visual Impairment

Cheyenne Maree Fannan
University of Central Florida

 Part of the [Art Education Commons](#), [Disability and Equity in Education Commons](#), and the [Secondary Education Commons](#)

Find similar works at: <https://stars.library.ucf.edu/honorsthesis>

University of Central Florida Libraries <http://library.ucf.edu>

This Open Access is brought to you for free and open access by the UCF Theses and Dissertations at STARS. It has been accepted for inclusion in Honors Undergraduate Theses by an authorized administrator of STARS. For more information, please contact STARS@ucf.edu.

Recommended Citation

Fannan, Cheyanne Maree, "Teaching Strategies for Students with Exceptionalities in the Secondary Art Classroom with a Focus on Students with Autism, Down Syndrome, and Visual Impairment" (2017). *Honors Undergraduate Theses*. 248.

<https://stars.library.ucf.edu/honorsthesis/248>

TEACHING STRATEGIES FOR STUDENTS WITH EXCEPTIONALITIES IN
THE SECONDARY ART CLASSROOM WITH A FOCUS ON STUDENTS
WITH AUTISM, DOWN SYNDROME, AND VISUAL IMPAIRMENT

by

CHEYANNE M. FANNAN

A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major Program in Art Education
in the College of Education and Human Performance
and in The Burnett Honors College
at the University of Central Florida
Orlando, FL

Fall Term, 2017

Thesis Chair: Dr. Debra McGann

© 2017 Cheyanne M Fannan

Abstract

The intent of this thesis is to discover teaching strategies for students who have exceptionalities with a focus on students who have Autism, Down syndrome, or Visual Impairment and how these teaching strategies can be used to teach students in a mainstreamed secondary art classroom. Since the mainstreaming of the public school system has increased, students with exceptionalities have caused uncertainty among teachers about which teaching strategies to use in the classroom to meet all of their students needs. New teaching strategies need to be brought into the classroom to change the way students are learning. This thesis will include: the general facts, characteristics, accommodations, and modifications of Autism, Down syndrome, and Visual Impairment. An understanding of how students with Autism, Down syndrome, or Visual Impairment learn and what teaching strategies can be used in a secondary art classroom to provide the least restrictive learning environment to the students will be addressed. Suggested teaching strategies for students with Autism include the use of visualizations, change in pace, adaptive tools, and choosing materials wisely. For students with Down syndrome include simplification, repetition, breaking the lesson down into parts, and pacing. Students with Visual Impairment will need tactile materials, clear wording, descriptive visuals, and labeling, light, and intense color.

Dedication

I want to dedicate this thesis to my family for their continued support of my education. Their guidance and undying love have motivated me to reach new heights and accomplish challenges that were hard to overcome. I would also like to dedicate my thesis to Killoona Myaamiaki, The Miami Tribe of Oklahoma, for their support in my education. Their help as lead me to grow and flourish in education and discover new paths for our tribe to grow. It would have been impossible to achieve my dreams without them and for this, I am grateful.

Acknowledgements

I want to express my overwhelming gratitude to my thesis committee for their dedication throughout the entire process and for their time, guidance, and advice. I want to thank Dr. Debra McGann for her devotion to always assisting me with finding research material and helping me discover new avenues to explore for my thesis. I want to express my gratitude to Dr. Sherron Roberts for always being positive and supportive along with my journey while assisting me at all hours of the day, no matter what. I would also like to thank Dr. Elizabeth Hoffman for humbly accepting to be a part of my thesis committee and providing outside input to push my thesis forward even with her busy schedule. Thank you to everyone for a wonderful experience and supporting me in my journey.

Table of Contents

CHAPTER ONE: INTRODUCTION	1
CHAPTER TWO: LITERATURE REVIEW	5
Introduction	5
Understanding educational laws for students with exceptionalities	7
Exceptionalities researched and analyzed	10
Autism.....	10
Down Syndrome	11
Visual Impairment	12
CHAPTER THREE: GOALS AND METHODOLOGY	15
CHAPTER FOUR: RESULTS	19
How students with Autism learn and what teaching strategies work best with their learning style	19
How students with Down Syndrome learn and what teaching strategies work best with their learning style	23
How students with Visual Impairment learn and what teaching strategies work best with their learning style	27
CHAPTER FIVE: CONCLUSION.....	33
Summary	34
Educational Implications	36
Recommendations	37
Concluding thoughts and future research.....	39
APPENDIX A: GEL MEDIUM TRANSFER LESSON	41

APPENDIX B: SALTY CARTOON LESSON.....	48
APPENDIX C: ABSTRACT PORTRAITS LESSON	54
APPENDIX D: LUMEN PRINTS LESSON.....	61
REFERENCES	67

CHAPTER ONE: INTRODUCTION

Over the course of several decades, the understanding and accomplishment of special education has improved but still has not fully reached the potential to help students with exceptionalities succeed in their learning environments. Roughly forty years ago, little attention was given to exceptional students until the establishment of the Education for All Handicapped Children Act of 1975. The Education for All Handicapped Children Act of 1975 made it possible for exceptional students to be placed in regular classrooms and be given equal educational opportunities. This is made close to possible with placing the student in the least restrictive environment, that they had not gotten before because many “children with developmental challenges were institutionalized” instead of given the chance of an education (Shafton, 2012, p. 3).

The Education for All Handicapped Children Act of 1975 opened doors to students with exceptionalities being introduced to non-core subject areas such as art. This was to increase the mainstreaming of students with exceptionalities into the classroom and provide them with the therapeutic benefits that art can often provide. The challenge that lies with art education and students with exceptionalities is that the art room is often seen as a center for art therapy. The study of art may have therapeutic qualities and is seen as "avenues of success and self-expression" but art therapy and art education are a different (Shafton, 2012, p. 4). However, if an art educator is able to combine art education and qualities of art therapy in order to provide an

education that would allow the student to develop knowledge and cognition, the teacher should use the strategies gained to institute the least restrictive environment. The inclusion of students with exceptionalities in the classroom has also provided students with the benefit of learning from each other, as well as, adaptive tools that can be used to increase participation and creation of artwork by all students.

My increased interest in exceptional education and how students with exceptionalities can learn and perform in the classroom is derived from my own experience as a young student with a hearing disability. While in elementary school, I had extreme difficulty in auditory processing due to my lack of hearing and often struggled with processing material related to reading, writing, and speaking. In the first grade my parents worked closely with my teacher to ensure that my disability did not affect my chances of receiving an education; however, my inability to hear very well lead to me being held back because I was not making progress in the classroom on essential skills and material. Reflecting on this experience has lead me to note that not only did my disability hinder my learning during this grade, but that it, in fact, affected my whole elementary education experience. As a student, I participated in small group speech with a specialist, and had to increase my reading to improve my understanding of literature. The collection of attention once given to accommodate my disability is nothing like resources that can be used in today's classroom, but even then, I did use computer hearing programs and teacher guided reading to pronounce words correctly. Outside of school, a series of hearing tests were done periodically to assess my hearing ability based on frequencies of bells that I heard through a headset. During this time period of being consistently tested and pulled out of the school, I learned ways of communicating with visual means and was able to express myself

artistically. I found that art was a way that I could communicate with my peers and I was able to flourish. Over the course of time, I was able to establish techniques to increase my learning of common subjects in a visual manner by creating charts, drawing symbols for words, and even watching peoples' mouth formations for certain sounds and words. Once I found that happy medium, it still took me several years to finally be performing on my grade level for subjects by late middle school. From my experience, I understand the importance of 1) being aware of a student's learning and physical disabilities that teachers may face in the classroom, and 2) the importance of research on accommodation tools (a headset or word chart with symbols) and modifications to lessons (other ways of completing assignments to still learn the knowledge). What I hope to draw from my experience and research is that I will be able to apply knowledge learned to best help a student of any disability succeed in the classroom because they deserve to not be restricted from an equal opportunity to education.

From my personal experiences and the numerous observations and service learning hours conducted over the course of earning my degree, I noticed the lack of understanding of students with exceptionalities. Many students with exceptionalities were not given the same opportunities to be included in the learning environment or often the teachers did not know how to teach students with exceptionalities. I observed students with exceptionalities being taught in restrictive learning environments and without proper materials to assist them in completing the lesson. Teachers grew frustrated and many had given up with trying to teach students that had exceptionalities and let them do what they pleased as long as it did not disturb the classroom. From these observations, I thought about how unfair it was that students with exceptionalities were not given the chance to experiment with art materials in a way that was best for them and it

upset me to see students treated in this manner. I felt motivated to research what teaching strategies can be used to improve the learning experience for students with learning exceptionalities.

Applying my drive from personal experience and research, I hope to explore these ideas of students with exceptionalities in the art classroom by being able to make a concrete analysis of principles that will help aid students with exceptionalities both in the art classroom and regular classroom. My focus will question strategies used to teach students with exceptionalities in relation to accommodation tools and how they are used to assist a student and which tools aid the student. Modifications, as well as, Individual Education Plans (IEP) will be evaluated and used to determine what strategies could more than likely be used to teach students with exceptionalities. Individual Education Plans are designed for each student with an exceptionality to see their progress in learning and achievement. With this in mind, it is also best to remember throughout my research that exceptionalities can be on any ranges and differ from student to student and can be a changing variable. My ultimate goal would be to research several exceptionalities through critical analysis of behavioral qualities, artistic characteristics, and adaptive tools; however, this thesis will focus on studying and research related to teaching students with Autism, Down syndrome, and Vision Impairment.

CHAPTER TWO: LITERATURE REVIEW

Introduction

An initial review of related research to find strategies for teaching students with exceptionalities in the secondary art classroom brought to surface the lack of resources and knowledge available to secondary art teachers in our classrooms. Noticing a trend that the majority of my resources for students with exceptionalities and art education were dated after 1980, it was difficult to find extensive research with only two resources being before 1980 and the rest is coming from the early 2000's. When considering the published date of the materials, I was curious to inspect the differences. The resources had two areas that were similar to topics, articles, and journals. Before 1980, resources focused on the legal rights of students with exceptionalities stemming from a change to education for students with exceptionalities during the 1970's. Before 1970, the information on students with exceptionalities was limited to gifted students and general knowledge of students with exceptionalities. The second area of resources includes published materials after 1980. This was the beginning of a shift in the study of students with exceptionalities and the direction of observation that led to more results of students with exceptionalities, meaning more ways to understand and assist students with exceptionalities was discovered. The resources after 1980 shifted to cover topics of specific exceptionalities and certain subject areas. How is this helpful? By extracting information about a specific exceptionality, it is helpful to formulate a base of characteristics and expectations that would be useful towards my research. This is why it is critical to use these sources to create a detailed understanding of behaviors and characteristics of students with exceptionalities, exceptionalities

that are increasingly more common in today's classrooms, and to formulate lessons that are made with exceptional students in mind.

While students with exceptionalities were continuing to be mainstreamed into the classroom since the 1970's, the art classroom has gained in popularity with educators, in particular, due to art educator's effective accommodations with exceptional students. The inclusion of students with exceptionalities has proven effective and beneficial because of the "improvement of academic and social performance" within the classroom for students with exceptionalities regardless of their disability. This is a trend that is noticeable over several articles and often reflects back to the students participation in art. The students are being exposed to all parts of education, including visual arts, which allows the students the opportunity to express themselves and is a therapeutic benefit to students with exceptionalities by giving them an avenue of "creativity and expression" creating a new language of communication for them that connects them with the rest of their peers (Hurwitz, A., Day, M., 2007). A connection can be made between the students with exceptionalities involvement in art translating to an improvement academically and socially. This is pressing information to drive forward my research and define the effects of teaching students with exceptionalities in the art classroom.

Although it seems that awareness of students with exceptionalities and education is improving, there is still a lack of knowledge for teachers who are "challenged by the broad range of learning and physical disabilities" with their exceptional students and must continue accommodating and learning about their students exceptionalities as their teaching career continues (Hurwitz, A., Day, M., 2007). There is a curiosity in the education world to improve

the education of students with exceptionalities now that more knowledge on exceptionalities exists than in the past. The need to provide and improve education for students with exceptionalities has led to the formation of educational art programs, art therapy, and plenty of adaptive tools.

Understanding Educational Laws For Students With Exceptionalities

The beginning of understanding special education needs in American education was first identified in the *Education for all Handicapped Children Act of 1975* by addressing the need to improve education for students that were identified as handicapped (Legal Information Institute, 2004). At this time in our history, no more than eight million students were handicapped and more than half of these students were not receiving an appropriate education and some were even completely excluded from education which was hindering their right to equal opportunities (Legal Information Institute, 2004). The federal government left the states and local governments responsible for properly training their teachers and providing students with disabilities an equal education but understood that the federal government would have to assist in these future programs. Through the *Education for all Handicapped Children Act of 1975*, the need to establish a practical method for identifying and evaluating students that would require special education or related services was seen as a current problem that needed to be solved to provide all students with an equal education. How schools or districts determined which students needed special education was not specified; however, it was suggested that an individual education

program is established by having the student, parent(s), teacher(s), and staff collaborate together to discuss achievable goals. After the *Education for all Handicapped Children Act of 1975* was enacted, students with exceptionalities were mainstreamed into regular public school classrooms.

Almost thirty years later, the *Individuals with Disabilities Education Act (IDEA)* was enacted to make providing and implementing special education and related services to students with disabilities more effective and accurate. According to the Department of Education's *Individuals with Disabilities Education Act*, children with disabilities have access to the freest appropriate public education the child deserves (Legal Information Institute, 2004). However, implementing resources and appropriate teaching methods and strategies has been difficult to collect in past decades of research. IDEA's purpose is to make education for students with exceptionalities more effective by 1) encouraging high expectations and access to general curriculum, 2) meeting development goals to maximum extent, 3) increasing the role and responsibility of the parent, 4) providing appropriate special education and related services, aids and supports, 5) requiring high-quality pre-service and professional development and, 6) including assistive technology (Legal Information Institute., 2004). The student with exceptionalities would have their rights to an equal education and equal opportunity protected under the act. This is important because the students affected by this act would have further opportunities in life by being able to achieve an education. There are two major points in the *Individuals with Disabilities Education Act* that help clarify which students are eligible and how students with exceptionalities are evaluated for special education or related services. Identifying these two main points is essential to understand, so that students are correctly and appropriately evaluated by law in order to receive an equal opportunity instead of being mistakenly placed in

special education. The process of evaluating a student, who could have exceptionalities or disabilities, as the act states, is significant in the way that it requires a detailed collaboration of qualified professionals, including the students, teacher(s), and parents working together. All parties must combine and review their findings together from evaluations, observations, and assessments that student has taken to determine the eligibility of the student (Legal Information Institute, 2004). This is substantial because it opens the family up to the opportunities for which the student could be eligible. If the student is eligible, this allows the professionals, teachers, parents, and student to create a workable IEP that has achievable academic goals, as well as, establishing the students' current functional performance for their education (Legal Information Institute, 2004). Although there are some cases in which the student can be evaluated and deemed ineligible, the student can be evaluated again if the parents of the child insisted. As stated in IDEA, the student can also be evaluated again if the parents and/or education agency suggests that the student undergoes another evaluation. This could be done every year or every couple of years to see if the student's exceptionality is still prominent or is no longer an exceptionality, meaning if the student's exceptionality no longer hindered their natural ability to learn or the exceptionality dissolved, the student would not be eligible for special education or related services after being evaluated. This could lead to the assumption that the special education or aids helped the student achieve past their academic goals and functional performance to the point that the student is able to perform naturally on their own.

Exceptionalities Researched and Analyzed

Autism

While learning more in-depth about Autism, one in every 68 children is estimated to be diagnosed with Autism making it apparent that Autism is increasing in the number of mainstreamed students into the classroom and has become “recognized as the most common childhood neurological disorder” making it more likely that a teacher could have a student with Autism in their classroom (Lindsay, Proulx, Scott, and Thomson, 2014, p.101; Volkenburg, 2015). Autism, as defined by the Autism Society of America, is “a complex developmental disability that typically appears during the first three years of life and affects's a person's ability to communicate and interact with others”(Volkenburg, 2015, p. 13). Since Autism is difficult to outline due to linked conditions and every student with Autism has unique individual symptoms, Autism consists of a large spectrum on which students with Autism can fall on because of the large variation of Autism. With the understanding that Autism can vary from student to student, Autism does have certain common characteristics. One major characteristic that students with Autism have is that it affects the student's social language which can range from mild to severe (Volkenburg, 2015). Further characteristics of Autism can include generalization, figurative language, communication impairment, and behavior challenges that can make social interaction difficult between others, but can often lead to the student being a visual learner (Lindsay et al., 2014; Volkenburg, 2015). A student with Autism having difficulty understanding how to communicate can also misunderstand or not know certain vocal or facial cues that can make a lesson or instruction challenging for the student to follow along or listen (Lindsay et al., 2014).

Having a teacher understand their student's needs can help shape the strategies to teach not only a student with Autism, but to enrich the whole class by using multiple ways to teach an idea or structure their classroom.

Down Syndrome

Down syndrome, as defined by the National Down Syndrome Society (2012), is a chromosomal condition in which the individual has a full or partial extra chromosome 21 that can cause characteristics associated with Down syndrome and development. The cause of the extra or partial chromosome 21 is not known, but one explanation is linked to maternal age. Although Down syndrome varies from person to person, there are common characteristic traits that an individual with Down syndrome can have. They include low muscle tone, small stature, upward slanted eyes, a single crease across the center of their palm, flattened face, tongue that sticks out of their mouth, and white spots on their iris (Center for Disease Control and Prevention, 2016; National Down Syndrome Society, 2012). Down syndrome has been identified since the 1860's when John Langdon Down first accurately described the exceptionalities, but it was not until the 1950's that it was discovered that an extra chromosome was causing the characteristics of Down syndrome (National Down Syndrome Society, 2012). Today, one in every 700 children is diagnosed with Down syndrome making the exceptionalities the most common chromosomal condition (National Down Syndrome Congress, 2014). There are three different types of Down syndrome: trisomy, translocation, and mosaicism. Trisomy accounts for (95%) the large majority of diagnoses and is caused when there is a "non-disjunction in cell division" when the child is in the embryo stage resulting in "three copies of chromosome 21."

This leads to the replication of the chromosome during development across the body. Mosaicism or Mosaic Down syndrome is the least (1%) diagnosed and is caused by a “mixture of two types of cells, cells containing 46 and cells containing 47.” This type of Down syndrome usually has fewer characteristics but is also dependent on the individual. Translocation is only “4% of cases” and is caused when the number of chromosomes “equals 46 but a full or partial chromosome attaches to another chromosome.” Down syndrome can be diagnosed prenatally or at birth by the presence of a "karyotype," which is done to verify if the child has Down syndrome or not (National Down Syndrome Society, 2012).

Visual Impairment

The legal definition of vision impairment or Visual Impairment for eligibility for special education placement states that “visual impairment including blindness means impairment in vision, that even with correction, adversely affects a child's educational performance. The term includes partial sight and blindness" (Gerber & Guay, 2006, p.128). Visual Impairment falls onto a wide spectrum that branches into five distinguished groups: 1) congenitally blind (blind from birth), 2) adventitiously blind (lost their vision but contain important visual memories), 3) functional vision and blindness, 4) low vision (visual acuity of 20/70 to 20/200 corrected), and 5) legally blind (visual acuity of 20/200 or less corrected) (Gerber & Guay, 2006, p.128). Students with vision impairment may have restricted or limited vision to where they may only be able to see in certain light, at a certain time of day, certain shapes or objects, or only certain colors depending on the students Visual Impairment (Lisenco, 1972). Twenty years ago a study analyzed an estimated number of students that had a Visual Impairment under the age of 18.

Findings from a study mentioned in *Reaching and Teaching: Students with special needs through art* by Beverly Levett Gerber and Doris M. Guay (2006) indicated that students with a Visual Impairment may have been a small percentage at 0.2% ; however, a later study determined that 50 to 60% of students with a Visual Impairment have more than one exceptionality. Having multiple exceptionalities make it challenging for educators to develop strategies that can enrich the learning process because teachers are unfamiliar with the combination of Visual Impairment and an additional exceptionality (Gerber and Guay, 2006, p.129). However, developing strategies that are effective educationally for every student in the classroom should reinforce the understanding of the tactile aesthetic that is important for students with Visual Impairment (Gerber and Guay, 2006, p.130). Integrating this technique of tactile aesthetic allows for the exploration of materials, processing of information, and hands-on learning for all students. Students with a Visual Impairment may have more to their core education than realized. Students with Visual Impairment have an extended basic curriculum that can be quite extensive. These different factors include:

- | | |
|-------------------------|---|
| 1) Compensatory skills | 7) Recreation and leisure skills |
| 2) Communication skills | 8) Daily life skills |
| 3) Braille reading | 9) Orientation and mobility |
| 4) Listening modalities | 10) Career education |
| 5) Social interaction | 11) Self determination |
| 6) Assistive technology | 12) Visual efficiency skills (low vision) |
- (Gerber & Guay, 2006, p.130).

The majority of the factors listed make the students experience in art education important because art education can be an avenue in which the students extended curricular areas can be evaluated and reviewed (Gerber & Guay, 2006). Therefore, it is important that the art teacher understands the need to create numerous beneficial strategies to use in their classroom for all

their students. This thesis explored the possible teaching strategies for Autism, Down syndrome, and Visual Impairment based on the learned general characteristics of each exceptionality and how a student with Autism, Down syndrome, or Visual Impairment learns.

CHAPTER THREE: GOALS AND METHODOLOGY

In this thesis, I analyzed current research to uncover instructional strategies that would benefit students with exceptionalities and help teachers build lesson plans for the art classroom. To unearth the most useful strategies to teach students with exceptionalities in secondary school more effectively and efficiently, I must first research appropriate accommodations and modifications to use in the classroom. First, individuals with exceptionalities such as Autism, Down syndrome, and Visual Impairment were examined through articles and studies drawn from literature reviews in education and special education that focus on the students behaviors, natural accommodations, and learning abilities in regular and art classrooms. This should help establish learning environments that are the least restrictive to the student encouraged by the learning environment techniques, strategies, and classroom management used in their classrooms. The classroom management of both regular and special education classrooms were reviewed and used to formulate the structure of instruction and management of behavior. By analyzing the strategies and structure of the students in regular and special education classrooms, the goal was to gather valuable information that can be used to develop strategies that can be used in the art classroom to benefit the student's education. Once research has been analyzed and processed, a closer look will be given to tools and resources that are available or could be made to improve the education of students with exceptionalities. The challenges related to providing tools, as well as, the challenges faced with using regular classroom materials will be evaluated on the level of ease or difficulty to use for the students and how difficult it is to provide the tools.

The development of lesson plans were used to present concluding ideas that illustrate strategies and techniques identified through studies and reviews to have benefiting factors to a student with exceptionalities that can improve their learning in the visual arts secondary classroom. The lesson plans created at the end of this thesis illustration examples that can be used to support the significance of providing accommodations and modifications for all students in respect to four artistic mediums the students could be exposed to and practice in. The lesson plans are structured according to secondary education grades sixth through twelfth grade. The lessons indicate strategies that could be used to enhance the educational experience for students with Autism, Down syndrome, and Visual Impairment. With the accommodations and modifications in mind, all the lessons created were for every student and will not highlight a specific student, but instead indicate teaching strategies that can be used to increase student learning.

My thesis was structured around the principles of Universal Design for Learning (UDL) to make my findings clear and organized when discussing Autism, Down syndrome, and Visual Impairment (National Center for Universal Design for Learning, 2012). Universal design for learning is “a set of principles for curriculum development that gives all individuals equal opportunities to learn” The principles of universal design for learning structures the way that lessons and instruction are created in order to be flexible to teach every student in the classroom. UDL is important because it focuses on the how, what, and why of learning and will be able to break down and explain what strategies are useful for each exceptionality based off of the common characteristics associated with that exceptionality. First, looking at each exceptionality, I explored the “what” of learning or “recognition network” to evaluate how a student with an

exceptionality would “gather facts, categorize, and identify” information that is visual, audible, and readable.” For example, it is a common characteristic of Autism is that people with Autism recognize words literally whether it's a serious statement or figure of speech where an individual with a Visual Impairment may recognize a word from Braille. Second, the "how" or "strategic network" of learning will be analyzed to see how a student will "express their ideas" from what they have learned. When considering this principle of UDL, I searched for multiple means for which a student with Autism, Down syndrome, or Visual Impairment can express themselves in the art classroom. Giving the students multiple means to express themselves will allow the whole class to get creative instead of creating cookie cutter projects. Lastly, the "why" of learning or "effective network" will be analyzed as well to see how students with exceptionalities are "engaged and motivated" to learn. For example, some museums make replicas of artworks for people with Visual Impairment to touch in order to experience a work of art and involve them in the texture of a painting's surface or sculpture's curves. Universal Design for Learning will help organize teaching strategies and explain the “why” behind picking certain strategies over others because of the knowledge gained by evaluating the three principles with regards to Autism, Down syndrome, and Visual Impairment (National Center For Universal Design for Learning, 2012).

Over the course of the semester, I researched proven strategies that work for students with Autism, Down syndrome, and Visual Impairment. Month by month, I challenged myself with completing a task in order to complete my research. Each week I dedicated at least twenty-four hours to researching about Autism, Down syndrome, and Visual Impairment to collect an understanding with what teaching methods work best, what materials should be used, and what

adaptive tools can be brought into the classroom. My first task was to complete for the month of August a close analysis on the types of methods and strategies teachers are currently using to teach students with exceptionalities and which new methods could be used to benefit the entire class. Towards the middle of September, I finalized the results of my research and strategies to switch my focus to the types of materials that should be introduced into the classroom. I expect to extend findings to create these results from lesson plans to include my understanding of basic needs or characteristics that could inspire a student with an exceptionality to learn more through art. In the beginning of October, after finding the results of what materials would work best and be fun for the whole class, I shifted my focus to discover what adaptive tools are and how they can be helpful in the art classroom. By breaking down each valuable step to my research, I was able to manage my thesis to make sure that it is completed on time. Another part of my research was using the strategies and adaptive tools that I have found to create a series of lesson plans for the secondary art classroom, keeping in mind the three exceptionalities that I am analyzing. Autism, Down syndrome, and Visual Impairment. Each lesson plan is related to a different art medium and will be structured with an explanation of accommodations and modifications for Autism, Down syndrome, and Visual Impairment. Accompanying the lessons will also be an explanation on how the accommodations and modifications will also benefit all students in the classroom. A lesson was completed every two weeks to ensure they were completed in a timely manner. Once completing my timeline for my thesis, I was able to complete my research and prepare to defend my thesis by the required time.

CHAPTER FOUR: RESULTS

How Students With Autism Learn And What Teaching Strategies Work Best With Their Learning Style

Students with Autism have different ways of learning and communicating in the classroom. Most students with Autism have difficulty communicating with others around them because they do not understand expressions, emotions, or sarcastic remarks and often believe phrases of sarcasm and irony to be literal truth. "Individuals with Autisms inability to recognize faces, differentiate between them and identify facial expressions severely impairs social interaction" and this makes it difficult for them to socialize with their peers and communicate in the classroom (What is Autism, 2016). For example, if someone were to say, it is raining cats and dogs outside, the student would believe that cats and dogs are raining from the sky. Since students with Autism do not understand expressions it is challenging for them to connect with their peers through expressions and can often lead to social isolation. A multitude of these factors can reflect their performance in class in a certain topic or in general. This makes it imperative that a development of teaching strategies is formulated to assist in enhancing Autistic student learning and to improve their social interaction in the classroom.

When considering teaching strategies to use in the art classroom it is always a general rule to know your students individually and to know their individual needs because "Autism expresses itself differently in different individuals" (National Autism Society, 2016). Every student in your classroom is different and every student with Autism is also different. There is a

wide spectrum of Autism from high functioning to low functioning and one strategy that works for one student may not work for another. However, there are a few common traits that can be used to build teaching strategies that would be beneficial to designing lesson plans for every student in mind. Students with Autism, typically, are visual learners and tend to focus on certain details that are important to them and tend to file memories and “visually record their life experiences” (Furniss, 2008, p. 11). “Artworks of individuals with Autism are more than merely a representation, but rather, a unique interpretation of the world around them” leading them to focus on details that they see in a particular place or object (Furniss, 2008, p. 11). Since they focus on details, it can show you what they do focus on. For example, a student may be fascinated with a detail of a building and the building drawn out will be done in full detail from the crown molding to the tiny detail layout of the brick walls but may not put any detail into the cars parked outside the building or the people walking down the street. However, sometimes a fascination with an object or theme can encourage students to partake in lessons, given artistic freedom, they otherwise wouldn't because it is not in their interest. For example, if the student was really into baseball and could tell you about all the different designs that teams have and what colors represent the teams, the student would be really interested to do a project where he or she could include his or her interest.. Using the students interest would be a good teaching strategy to incorporate into the lesson. One lesson that would highlight this teaching strategy is the creation of a logo design. The students would learn about the importance of designing a logo with color, shapes, and quickness of reading the logo. The students would have the artistic freedom to design a logo for a made-up company or team of their choice. The teacher would encourage the student with Autism that is fascinated with baseball to design a logo for a baseball

team. The student would be engaged in the activity and would be able to complete the lesson with the understanding of the logo design.

Since students with Autism “are better at processing images than words” and are visual learners, it is important to use visual aids in the classroom for lessons, as well as, for procedures to assist students in completing the activity for the lesson (National Autism Society, 2016). Displaying the procedures on the wall with visual aids will show students what the lesson's expectations are and the necessary steps needed to complete the activity. Visual aids in presentations will allow the student to follow along and understand the concepts more clearly instead of just being lectured to. This can give students the opportunity to quickly sketch thumbnails of each step for a lesson. Providing the student with an outline of the PowerPoint with the visuals would also benefit the student when new information is being presented. The addition of videos could be a source of visual aids to consider when designing lessons. When presenting a lesson, having physical examples for the student to see at multiple stages will give them the chance to visually see what each step looks like from start to finish and allows them the opportunity to ask questions about something they do not understand. One teaching strategy that can be useful in the classroom is having handouts of important information with visual aids at each table or for each individual student. The student can look onto their handout and follow along or simply watch the presentation or demonstration and be able to look back onto their own handout when working on the activity. Depending on the student, even an outline of the activity would be beneficial if it included clear and concise steps.

When considering what materials to use in the classroom it is important to know the level of comfort a student has with a material. Some students may have “hypersensitivities in processing sensory information such as sound, touch, or sight” be sensitive to the touch of certain materials or may not feel comfortable being in the darkroom (Furniss, 2008, p. 8). Some students with Autism do have a sensitivity to certain materials that may be wet or sticky and tend to stay away from these materials. They tend to be "particular about the materials they use or how they use them" to create art (Furniss, 2008, p. 11). Meaning, a student may like drawing, but may only like drawing in black pen and not in color and not with any other materials. There are a few teaching strategies that can be used when designing the lesson with a modification or accommodation for the student. First, consider if the material is important to use for the activity. For example, if the student is to make a color wheel, is it important that the student complete the color wheel using paint? Or is it more important that the student completes a color wheel with the understanding of what the color wheel is? Making small changes to your lesson beforehand can help eliminate the need to make modifications or accommodations. However, if the student was in a painting class and the requirement was to use watercolor paints and the student was not comfortable working with the wet medium, a solution could be having the student use watercolor pencils to shade in the color wheel and once completed either having the student use a big brush with a grip and adding a little bit of water to the watercolor pencils to get the painting effect or have the student paint in one or two colors and color in the rest.

Knowing your student is going to help you design teaching strategies that work for the students and your classroom. You may have a student with Autism who does not interact well with students and prefers the learning environment to be spacious and quiet. Using your

resources as a teacher and knowing the flow of your classroom will benefit the student to learn in your classroom. One solution that can be used is noise canceling headphones for the student to use in the classroom. This will restrict the noise of the classroom for the student to focus and remain calm. Providing the student with their own workspace in the classroom may be the best environment for the student to complete their art project. Having their own space will provide them with a space they can control themselves and not feel overwhelmed by their peers while working. The student is capable of doing all the lessons with the teachers understanding of when to provide avenues of accommodations and modifications.

How Students With Down Syndrome Learn And What Teaching Strategies Work Best With Their Learning Style

When considering teaching strategies that would benefit students with Down syndrome, it was best to understand general characteristics of a student with Down syndrome. Students with Down syndrome learn differently and think differently than other students that you may have in your classroom but that should not limit them to what they can learn as it is possible for the student with Down syndrome to "improve their intelligence with constant participation" (Gerber & Guay, 2006). Students with Down syndrome have a general commonality that they have "concrete thinking instead of abstract thinking" meaning that a student with Down syndrome approaches material and situations differently than their peers (Gerber & Guay, 2006). Concrete thinking is described as a literal sense and revolving around them. A student with Down syndrome will think literally but also the student may not consider the expectations that others have. For example, if a student with Down syndrome was informed that they would be seen

shortly they would expect to be seen at any moment. Another example might reflect the student handing a friend a card without their name in it the student may not understand that it is expected for them to write their name in the card so that the friend receiving the card knows how it is from. Students with Down syndrome often focus on whatever details grab their attention and it may not always be about the lesson. According to Gerber and Guay, students with Down syndrome generally focus their attention on “irrelevant details” during a lesson (2006). Meaning a student with Down syndrome may be paying attention to the pattern on your shirt during a demonstration instead of focusing their attention on the steps of the lesson. To assist the student with Down syndrome to stay on task it is important to use teaching strategies that redirect students back on the path towards the lesson. One teaching strategy that will aid a student with Down syndrome to pay attention is “asking questions throughout the lesson after each new bit of information” to ensure that the student is absorbing and understanding what the lesson is about (Gerber & Guay, 2006). Questions should not be asked if they can be answered with a yes or no but instead should “be very specific” and be related to the certain part of the lesson that the teacher is going over (Gerber & Guay, 2006). Some students with Down syndrome may also have “articulation” difficulties when communicating (Gerber & Guay, 2006). The communication difficulties can make it hard to understand the students needs and may require extra attention and having the student reiterate what they have said.

Students with Down syndrome often require some modifications and accommodations to lessons to make them more accessible to them in the classroom. During lessons, a teacher should think about how their student with Down syndrome soaks in and retains information because every student with Down syndrome is different. Students with Down syndrome think differently

than their peers and are able to retain vocabulary and procedures better if simplified. There are a few commonalities to consider when constructing lessons for students with Down Syndrome. When building lessons, the wording of information that will be presented to the students is very important; it should not be too complicated and should have “simplified procedures” that are presented one at a time (Gerber & Guay, 2006). By presenting information for the lesson one at a time, the student will be able to focus their attention on one procedure at a time instead of jumping ahead and not understanding an important part of the lesson. Providing simplified instructions will assist the students to comprehend what they are supposed to know. Repeating vocabulary words, throughout the lesson and steps, with the correct terminology will reinforce what the word means. Avoid using “substitute words because they would have little meaning and take too long to learn” while introducing a new concept or artist (Gerber & Guay, 2006). Reviewing vocabulary, steps, even classroom rules are a “necessary teaching strategy” because it is common for students with Down syndrome to have problems with their "short-term memory" (Gerber & Guay, 2006). The IQ of a student with Down syndrome is a characterization that has been used to note their intellectual disability. Below is the necessary repetition of new words in order for an individual to learn a new word based on their IQ as explained by Gerber and Guay (2006) from statistics:

- 1) Average IQ is considered in the range of 90-109= repetition 35 times
- 2) IQ range of 60-69= repetition 55 times
- 3) IQ for mental retardation/ Down syndrome= repetition 60 times or more

There are several ways in which a teacher can review material or provide a visual review for their students. The teaching strategies of having a “word wall with visuals, vocabulary or step list on their desk, having the students repeat back to you,” helpers (students and paraprofessionals), and demonstrations of one step at a time are a few examples of teaching strategies that would be beneficial to students with Down syndrome (Gerber & Guay, 2006). A really interesting strategy that I have come across during my literature analysis is “having the student describe to themselves what they are physically doing” (Gerber & Guay). For example, if a student is drawing a house, the student would describe “I’m drawing the roof” or “I’m drawing the door of the house.” The student is able to check off what they are accomplishing and stay focused on their activity.

Using teaching strategies to simplify the information is extremely helpful to students with Down syndrome. The pace at which the information is presented to the student is just as important. The “pace should also be modified to meet the students needs” and during a lesson that may require extended time for students with Down syndrome to explore the media and learn about the art process (Gerber & Guay, 2006). The length of time for projects may be longer than expected to provide students the opportunity to fully learn about the tools, steps, materials, and expectations. Allowing the change of pace is okay and should be assessed based on your students needs and can rely on the severity of the students exceptionality. Assessing your student with Down syndrome and knowing their abilities will help determine if a lesson seems too complex or seems too long for the student to handle. Breaking it up into smaller, more attainable parts will help them in completing the activity (Copeland, B.,1984). The student may need “to progress at a slower pace” in order to complete the activity or project (Copeland, B., 1984, p.23). This means

the student with Down syndrome may be able to do all parts of the lesson, on their own or with assistance, at a slower rate than the average time it takes a student to complete the same task. Students with Down syndrome should not be limited to basic fundamentals of art only. Students with Down syndrome in a secondary visual art classroom are able to participate in all art activities but may need accommodations and/or modifications. Accommodations can be as simple as providing soft, gripped, or big handle tools for easy handling, adaptive scissors for cutting, hand over hand assistance, lists to order task for the student, and much more if needed.

How Students With Visual Impairment Learn and What Teaching Strategies Work Best With Their Learning Style

Students with vision impairment have a unique way of learning by using all of their senses in order to soak in knowledge. Students with low vision impairment are typically able to read through tactile touch using Braille printed text after being taught how to read Braille which is often a part of their extended core curriculum (Gerber& Guay, 2006). Braille is “a tactile system of raised dots designed for reading and writing” for individuals that are visually impaired (Gerber& Guay, 2006). The Braille reading system is composed of six dots that are composed of different compositions for letters, words, or symbols (Gerber& Guay, 2006). Including Braille for reading assignments would be beneficial to students with low vision impairment so that they are able to participate in learning that deals with conducting research or reading about concepts. It is important to note as well that just because the student has Visual Impairment doesn’t mean that the student is unable to see completely. The student may be able to see a certain color, shapes, or in certain light depending on the severity of the students Visual Impairment. Some

students are able to use their limited vision to see using adaptive tools provided to them.

Specialized adaptive tools that are generally used for students with vision impairment include a magnifying glass, special lighting, wearable glasses, a computer loaded with computer programs, Braille textbooks, and vibrant color.

Students with low vision impairment, or blindness often have difficulty in the classroom with the concept of perception. Their perception of an object is skewed because they cannot solely rely on their sight experiences to recall what an object is and it can often be “difficult to make a connection between the way an object feels and the way it formally appeared to the eye” in order to create an artwork (Lisenco, 1971). Haptic Sensing is associated with students with Visual Impairment that must rely on touch senses (Lisenco, 1971). Haptic Sensing refers to the way a person receives sensations through touch by “tensions and movements of muscles, bones, and tendons” to receive information (Lisenco, 1971). Students with Visual Impairment rely on haptic sensing to sense an object or material through touch to gain a perception of what it should “feel” like. Typically the artwork created in this manner focuses more on the “structure which is being perceived and does not vary” and gives little concern about the “distortions” that can occur in the outcome (Lisenco, 1971). Adding variation to the art form would be done in a tactile form focusing on the “textures” that can be used to create “variations from one area to the next” over other additive processes such as color or linear perceptible (Lisenco, 1971). Some student artists with Visual Impairment might tend to create a three dimensional form by focusing only on the parts they feel are important to the overall structure of the artwork that carries an "emphasis on the structure of parts that had meaning for the artist" such as the shape of eyes or texture of the hair on a three dimensional form (Lisenco, 1971). It is common for the artwork to show the

object distorted when special attention is given to certain features, even through distinct description.

One example given by author Lisenco in the book, *Art not by eye; the previously sighted visually impaired adult in fine arts programs*, describes what happens when the art teacher visually describes an animal to a group of students that once had vision but no longer are able to see. The animal was a bull; the teacher described the looks to the classroom of students with Visual Impairment. The teacher answered questions along the way any student had to give more description for their process of making the bull while the class shared their depiction of what they remember the bull looked like. This made the students rely on their “memory and on asking questions” (Lisenco, 1971). Out of asking the class of students with Visual Impairment at different severities, the students came up with different depictions that influenced their construction of the bull in a three-dimensional form (Lisenco, 1971). Each student's artwork was varied in form, length, height, and attention to detail because the students made an artistic decision about their perception of the bull. The importance of providing a heavily detailed visual description of the object was an effective teaching strategy that motivated students to create their own interpretations of a bull. When working with students with Visual Impairment, working with a visual description is just as important as working with a tactile surface or material that the student can manipulate. The teacher should provide a detailed description for the students with Visual Impairment using clear, concise wording at a pace the students can handle.

Colorblindness is an exceptionality that is more commonly prevalent in the “male population by 5% - 10% and the female population by 0.1% - 0.5% (Espinda, 1973). When

screening for color vision deficiency, researchers discovered that individuals with color vision impairment felt "anxiety, shame, embarrassment, and fear" of other people knowing they cannot see color or certain colors which affected the students behavior and learning in the classroom (Espinda, 1973). When the research was conducted there was a link between color Visual Impairment being "associated significantly with behavior problems" in the classroom with students that had other learning exceptionalities (Espinda, 1973). One of the reasons that a student with color Visual Impairment can have behavioral problems at a young age is because "using color in teaching techniques places the color deficient child at an unrecognized disadvantage which can result in behavioral problems" in the classroom (Espinda, 1973). Similar to observations that I have done in my student teaching internship, the majority of teachers did not know that their student(s) were colorblind. Often the teachers were unaware of the student having a colorblind Visual Impairment until it interfered with a lesson relating to color and were curious on why the student was not performing at the level of their peers. This realization is often discovered while the student is in elementary school when learning about the color wheel. Even then, the students were hesitant to mention anything about being colorblind to the teacher. Accommodations for students with colorblindness, as a Visual Impairment, is sometimes rarely thought of because the teachers are not always aware of the exceptionality. Once it is known to the teacher, teachers are able to use a few teaching strategies to assist students learning

However, the student can learn what colors are through other means so they are not discouraged or ashamed to learn what color is what. There are a few teaching strategies that can be used to assist students with color Visual Impairment to learn colors that the student sees as a gray. When the student with color vision impairment is in the art room one teaching strategy to

use to teach colors is by visually labeling each color so that the student can associate the word with the tone of gray. The next teaching strategy to implement is to use paint with sand or other materials added and use a hand over hand technique to guide the students finger to each color allowing the student to feel the consistency of each color with the added materials. The consistency of each paint color is different from each other and allowing the student to feel the difference will give them the opportunity to associate what each color should feel like if they cannot decipher the shades of gray. When using color, it can be discouraging for students at a young age when they first understand color in the classroom; older students may be able to handle the intensity of certain colors. Using vibrant colors in the classroom, a student with a color Visual Impairment may be able to see a faintness of the color or be able to more easily tell the colors apart because of the intensity of the pigment. Using the intense pigments in the classroom will provide an avenue of creativity for a student with colorblindness.

Teachers with students who have Visual Impairment may have resources at their schools such as a paraprofessional that can assist in the classroom; however, adaptive materials may be needed in the classroom as well. The *American Printing House for the Blind Materials* provides a catalog of materials that an art teacher can use at their fingertips through "Federal Quota Fund Program" (Gerber& Guay, 2006). Some of the materials available include:

1. Tactile graphics kits
2. Tangible graphs
3. Aluminum diagramming foil
4. Bold line paper
5. Embossed pencil writing paper
6. Bold and embossed graph paper
7. Teachers guide
8. Low and high tech

When presenting information to the students, it may be challenging to present information in a “tactile aesthetic” for students with Visual Impairment (Gerber & Guay, 2006, p.130). Students with Visual Impairment are able to use all of their senses to gather information and it is “critical that all teachers help students develop the use of their other senses to gather important environmental information,” especially through touch (Gerber & Guay, 2006, p.129). One way that the teacher can present information is by planning field trips to museums. There are a few museums that teachers can plan field trips to or contact for materials for students with Visual Impairment. Some museums “allow students with Visual Impairments to touch selected works of art” providing an experience to the student to feel the surface of artworks (Gerber & Guay, 2006, p.131).

CHAPTER FIVE: CONCLUSION

The intent of this thesis was to discover teaching strategies for students who have an exceptionality with a focus on students who have Autism, Down syndrome, or Visual Impairment. I looked at how these teaching strategies can be used to teach students in a mainstreamed secondary visual art classroom. Since the mainstreaming of students with exceptionalities in the public school system increased, it has caused uncertainty among teachers on what teaching strategies are useful in the classroom to meet all of their students needs.

In an effort to assist secondary visual art teachers to formulate appropriate teaching strategies for students with exceptionalities in the secondary art classroom with a focus on students with Autism, Down syndrome, and Visual Impairment a literature analysis was conducted to discover teaching methods, learning abilities, and general characteristics of students with Autism, Down syndrome, and Visual Impairment. After understanding general characteristics that students have with Autism, Down syndrome, and Visual Impairment what I was searching for during my research became clear. The collection of teaching strategies found for students with Autism, Down syndrome, and Visual Impairment will help assist teachers with the needs of the students to participate in lessons and activities in the visual art classroom providing the students with the least restrictive environment. Based on my research, the teaching strategies discussed in my findings will assist secondary visual art teachers with presenting information, demonstrating activities, and providing adaptive tools to students with Autism, Down syndrome, and Visual Impairment.

Summary

The need for effective teaching strategies for every student in the secondary visual arts classroom became more evident when researching about students with Autism, Down syndrome, and Visual Impairment. As the mainstreaming of students with exceptionalities keeps increasing, and has since the 1970s, in all classrooms, it is important that secondary visual art teachers prepare themselves for every student that walks through their doors. Inclusion of all students in the visual art classroom has brought attention to the importance of understanding different exceptionalities and researching further into them.

When performing a literature analysis of Autism, it shocked me that Autism is the most common neurological learning disability that a student in this day and age has. Autism has no relation to ethnicity and normally is apparent in students as early as age three (Volkenburg, 2015). Students with Autism have commonalities that involve not understanding irony, emotions, expressions, sarcasm, and phrases making it hard for them to communicate with their feelings and communicate with their peers. Typically, students with Autism struggle to communicate and understand certain things regarding wording. Students with Autism generally think literally and are visual learners making art an escape. One important teaching strategy to note is to create a list or break the task into parts that the student can focus on at a time because it is common for students to get overwhelmed by the workload.

Amid researching about Down syndrome, Down syndrome is diagnosed in one in every 700 children and is the most common chromosomal disorder. There are three different disorders that fall under Down syndrome, they include trisomy (the majority), translocation, and

mosaicism (National Down Syndrome Society, 2012). Students with Down syndrome have common physical character traits that include low muscle tone, small stature, upward slanted eyes, a single crease across the center of their palm, flattened face, tongue that sticks out of their mouth, and white spots on their iris (National Down Syndrome Society, 2012; Center for Disease Control and Prevention, 2016). Students with Down syndrome can have an intellectual disability which can alter the way they can communicate and absorb information (Gerber & Guay, 2006). There are three important teaching strategies to remember for students with Down syndrome: a task analysis of the procedures, a troubleshooting process of the vocabulary, and frequent questions to review the directions (Gerber & Guay, 2006).

Students with Visual Impairment are learners with all of their senses, except sight. Visual Impairments can be anywhere from wearing a low prescription glasses to being completely blind. However, students with Visual Impairments can be colorblind, able to see only colors, shapes, or in certain light. Students with Visual Impairments rely heavily on tactile touch or “haptic sensing” to feel what an object should feel and look like in order to complete their project (Lisenco, 1971). During this process, it is important to note that since the student is using all of their senses to develop their artwork, it is likely to be out of proportion. Students with Visual Impairment are able to participate in lessons with visual descriptors and a tour of the learning environment.

Educational Implications

When conducting this research about teaching strategies in the secondary visual art classroom with a focus on students with Autism, Down syndrome, and Visual Impairment it illustrated the importance of the teaching strategies gathered and how it would benefit the students and teachers in the classroom.

Based on the results of my findings, I have created a series of lesson plans, seen in Appendix A through Appendix D, that illustrate certain teaching strategies that would prove beneficial to use for students with Autism, Down syndrome, and Visual Impairment. Each lesson plan presents a new topic and art medium for the students to explore. The Florida Sunshine State Standards for the visual art classroom for grades 9-12 have been carefully thought out along with appropriate learning objectives. At the end of each lesson plan I explain the accommodations and modifications strategies that can be used to improve student involvement and learning about the subject matter. An example of an accommodation found in Appendix A: A Gel Medium Transfer Lesson for Autism is providing the student with tools that have soft or padded handles for gripping and a toothbrush to remove the paper instead of making the student use their hands. An example of a modification found in Appendix A: A Gel Medium Transfer Lesson for Autism is if the student has sensitivity to getting wet, the teacher, paraprofessional, or peer assistant can assist with removing the paper in water. When creating the lessons in Appendix A through Appendix D, it was important for me to take the knowledge I learned from my research and apply it into different artistic mediums that would be fun for students to learn about. Each lesson has its own level of difficulty and comfort for students but I believe through the teaching

strategies added to the lesson it will be intriguing for all students. The lessons in Appendix A through Appendix D are designed to show that any student with Autism, Down syndrome, and Visual Impairment are included in lesson planning for every lesson for the class.

I hope to share the knowledge gained to future and current educators for practice in their own classrooms to expand the students creative development. As a future educator myself, I plan on implementing the teaching strategies to give students with Autism, Down syndrome, and Visual Impairment the creative freedom to experiment with their artistic ability and art materials to expand their knowledge of different art processes. The most efficient way that the teaching strategies can be imparted to other educators is through educational journals, meetings, conferences, and talks. The most efficient way to implement the teaching strategies into my own classroom is to first assess my students that have an exceptionality and determine what they can handle and what they are comfortable doing. Assessing the students will provide a starting point to grow from with the student because every student is different and every student has different needs. Through a further understanding of Autism, Down syndrome, and Visual Impairment teaching strategies may be altered or improved on through the implication of the strategy with future students.

Recommendations

Secondary visual art teachers should be prepared for every student that walks into their classroom with the understanding that it may be challenging and require research on their part. I recommend reading a few materials to help any teacher get started on creating inclusive lesson

plans for their visual art classrooms. The following list contains imperative reading material that is suggested from the references but is not limited to: *Mainstreaming Art for the Handicapped Child* by Betty Copeland; *Celebrating the Artmaking of Children With Autism* by Gillian J. Furniss; *Reaching and Teaching: Students With Special Needs Through Art* by Beverly Levett Gerber & Doris M. Guay; *Making art special* by Helen Goern Shafton; *Art Not By Eye: The Previously Sighted Visually Impaired Adult in Fine Arts Programs* by Yasha Lisenco; and *The National Down Syndrome Society* website. The reading materials suggested also contain teaching strategies and example lessons that can help teachers build their own lesson plans for different concepts the students may be learning about.

After reading the suggested material it is always best reach out to the resources at your school for assistance with a student if you believe an extra pair of hands is what the student needs or if the student needs specific adaptive tools to ensure their success in your classroom. Often times the schools may be able to provide a paraprofessional to assist the student with an exceptionality in the classroom to keep them on task and aid during a tasks to help the student complete an activity. Never assume anything. Never assume because you've had one student with the same exceptionality that your new student with the same exceptional will have the same needs or will behave the same. Each student has their own characteristics, learning styles, and behavior. Even though there are commonalities that students with Autism, Down syndrome, or Visual Impairment may have, keep in mind that it is best to assess each student in order to efficiently prepare your lessons and activities to know what accommodations or modifications you may have to make. Above anything else, never assume that a student cannot do anything. Always believe in your students and they will believe in themselves.

Concluding thoughts and future research

This research was extensively based upon a literature review, rather than observational research of students with Autism, Down syndrome, or Visual Impairment to provide evidential support on what teaching strategies are being used in the secondary art classroom currently and what strategies could be implemented in the secondary visual art classroom. I believe that it is important to consider further exploration in teaching strategies for students with Autism, Down syndrome, and Visual Impairment as materials become more accessible and inclusion becomes more streamlined in the visual art classroom. Autism, Down syndrome, and Visual Impairment still need to be researched more thoroughly due to the lack of resources of the exceptionalities found when conducting my research. This is still a “new” area of study and the majority of research on Autism, Down syndrome, and Visual Impairment dates after the 1970’s. To further my research on students with Autism, Down syndrome, and Visual Impairment, I would like to dive deeper into the different spectrums that some of the exceptionalities have and discuss teaching strategies that teachers can use for their students. For example, when finding results on Visual Impairment. I was at first only thinking of sight and how well or how bad a student could see, I did not take into account the variations of color blindness and would like to explore this more thoroughly to understand common characteristics of color blindness and ways that I could teach students in visual art the different colors. By expanding my research to include more parts of the spectrum, it would better support the teaching strategies and the reason behind why teachers should implement the teaching strategies in their classrooms. I want to be able to develop more lesson plans along with the lesson plans created in Appendix A through Appendix D for my future students. I would like to further my research by implementing these lessons

created and observing how the students are learning with the accommodations and modifications made to the lessons. Seeing the lesson plans in action, will help me formulate a better understanding of what direction my research will take in order I need to better teach my future students.

APPENDIX A: GEL MEDIUM TRANSFER LESSON

Gel Medium Transfer Lesson

Standards:

VA.912.H.2.1 Identify transitions in art media, technique, and focus to explain how technology has changed art throughout history.

Objectives:

Students will apply gel medium transfer techniques by completing a transfer onto a surface with at least 70% of the image not being damaged.

Materials:

Gel medium

Paintbrush/sponge brush

Printed photo

Transferring surface

Roller

Tray of water

Fixative- clear oil or gloss spray

Steps for the Lesson:

1. The teacher will have the standard and learning objective on the board for students to copy down into their journals for bell work
2. After the bell rings the teacher will give the students a few more minutes to copy down the standard and learning objective
3. The teacher will use this time to distribute a page of listed steps for choosing an image, what tools to use in Photoshop, and the steps for gel medium transfer
4. The teacher and class will discuss the standard and how it relates to a gel medium transfer and why it is important that we know this as an artist.
5. The teacher will use leading questions to generate creative thinking among students to formulate answers
6. A PowerPoint presentation with visual aids will be given to students covering how to choose an image for transferring, what tools on Photoshop are necessary to use, and the steps to completing a successful gel medium transfer
7. The students will be shown a video on gel medium transferring
8. The students will be shown a demonstration from start to finish
9. The students will be given the rest of the class period to work on an image for the gel medium transferring process

Selecting your Image:

1. Choose your favorite image that you have taken so far
2. In Photoshop, crop the image to a square
3. Make the image a 4"x 4" at 300 resolution

4. Add text to the image
5. Once done, you are going to flip the image in Photoshop

Flipping your Image:

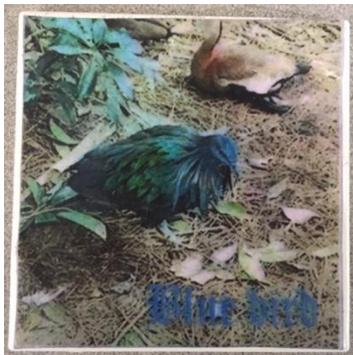
6. *When will I do this?* **After** the image has been changed to a 4” x 4” square at 300 resolution
7. Go to "Image" along the top toolbar
8. Scroll down to *Image rotation*
9. Select *Flip Horizontally*
10. Your image will appear backward (This is important so that your image appears the correct way when the transfer is finished)
11. Save the image as a PSD FIRST, then resave as a JPEG

Procedural steps for gel medium transfer:

1. The students will have at least three images selected and printed on regular paper
2. The students will gather needed materials at work area (surface to be transferred onto, gel medium, paint brushes, smoothing device)
3. The students will lay newspaper on work area
4. The students will layout materials and surface to be transferred
5. The students will prepare the transfer surface with gel medium by using a paintbrush to brush the gel medium onto the surface

6. Next, the students will place image onto the gel medium surface carefully
7. The students will roll or rub, at medium pressure, the surface to remove bubbles out from underneath the image
8. Set to dry overnight in an open space
9. The next class time, the students will submerge the image in water and gently and carefully rub the paper off of the surface using their thumb or a toothbrush
10. Teacher will address the importance of this step to be continued carefully until the paper is off to obtain the majority of the image
11. The students will lay it to dry for several hours or overnight
12. The teacher will spray the surface with a fixative or painted with oil to obtain color and give the surface a clean, glossy finish

Examples:



Accommodations:

Autism: Allowing the students to use soft or padded handles for the roller or paint brushes to use during the process will assist students in gripping the handles better to accomplish the task. The

student may be particular about putting their hands or artwork in the water source and having a sponge attached to a rounded handle or having a toothbrush to use to remove the paper off of the surface may assist the students. Having a list of simplified steps with visual aids at their table while working on the art project would remind students of the order of the steps.

Down syndrome: Rubbing the surface to remove the paper could be done with many tools that may allow a student with Down syndrome to grip the artwork better while working. A sponge attached to a rounded brush handle would work to remove the paper or even using a soft grip toothbrush could be used to remove the paper off of the surface. Using thick handled brushes to apply the gel medium to the image surface. Using rounded or soft handles attached to a roller to allow for more grip and a softer handle to not rub against the palm of the hand. Hand over hand guidance may be used to assist students with certain parts of the steps that may seem too difficult for that particular student. Having a list of simplified steps with visual aids at their table while working on the art project would remind students of the order of the steps.

Visual Impairment: Students with a Visual Impairment may be given a *magnifying monitor* to make the work area larger for students to see that have a less severe Visual Impairment. The light for the work area may be adjusted with a *lamp* if the student can only see in certain light. Students with more severity that can only see shapes or colors may need *hand over hand* assistance. The teacher can *apply hot glue to the surrounding surface* to create a tactile border for the student to feel.

Modifications:

Autism: Depending on the student with Autism there are a few modifications that you may consider. If the student does not enjoy getting wet it may be advised that the teacher, paraprofessional, or peer assist with the removing of the paper with water. Another option would be to have the student with Autism do the transfer the opposite direction; eliminating the need to use water for the transfer.

Down syndrome: Students with severe intellectual and/or physical disabilities may need assistance with the whole process from a teacher or paraprofessional. The teacher may need to ask the student questions to choose an image and use hand over hand technique to help the student apply the transfer to the surface as well as removing the paper off of the surface. If the student is not severe, providing a list to the student to check off a task when they have completed it would make the student feel like they are accomplishing the objective.

Visual Impairment: Students with a severe Visual Impairment may need assistance with the whole process from a teacher or paraprofessional. The teacher may need to ask the student questions to choose an image and use hand over hand technique to help the student apply the transfer to the surface as well as removing the paper off of the surface.

APPENDIX B: SALTY CARTOON LESSON

Salty Cartoon Lesson

Standards

VA.68.F.1.1. Use non-traditional thinking and various techniques to create two-, three-, and/ or four-dimensional artworks

Learning Objectives:

The students will learn how to watercolor using a dropper

The students will learn how salt reacts to the watercolor paint

The students will be able to complete a personalized painting

Materials:

Black paper

Glue

Salt

Watered down tempera paint

Water

Dropper

Scissors

Paintbrush

Container for glue

Small container for salt

Procedures/Steps:

1. The teacher will have the students come into the classroom and sit down
2. The teacher will have cartoon characters out on all the tables
3. The teacher will explain to the class that each student must choose a cartoon character for a painting that they will be doing in class (teacher can print out a character if the student does not find one they like)
4. Next, the teacher will have a student from every table pass out a piece of black paper to everyone at their table
5. Next, the teacher will inform the students that they can either cut out their character and trace it or the student can freehand the character drawing on their paper
6. Once the students have completed this step, the teacher will demonstrate the next steps to the students first
7. The teacher will model painting glue inside the cartoon character, a little bit at a time and apply thin
8. The teacher will sprinkle salt onto the glue little by little until the cartoon character is filled completely
9. The students will then begin painting glue and adding salt to their cartoon character until it is finished (glue and brushes are already on the table)

10. Once finished, one table at a time will go and gather watercolor paint and a small cup of water (doing this will help the glue dry a little more before they begin adding color)
11. Next, the teacher will demonstrate to the students how they will use the watered-down tempera paint
12. The teacher will choose a color and place the dropper on the surface and squeeze the liquid into the dropper
13. The teacher will slowly drip the color randomly over the character until the color runs out
14. The students will now begin by choosing one color and dropping the color over the character (this step is repeated for each color used)
15. Once the students have completed their artwork the students, with the teacher's help, will place their art on a drying rack

Assessment: 3 critical thinking questions

Assignment: 3- Short Response

1. Why did you choose the cartoon that you did? Explain.
2. Why do you think the salt-soaked up the watercolor?
3. How else do you think you could complete this project? Explain how you would.

Example of artwork:



Accommodations:

Autism: Allowing the students to use soft or padded handles for the paint brushes to use during the process will assist students in gripping the handles better to accomplish the task. The student may be particular about putting their hands in salt; providing a salt shaker may be a good substitution. Having a list of simplified steps with visual aids at their table while working on the art project would remind students of the order of the steps. Having a small number of colors to choose from will eliminate over thinking what colors to use.

Down syndrome: Using thick handled brushes to apply the glue to surface. Providing the student with a salt shaker with a grip on it will assist the students with shaking the salt onto the glue. Hand over hand guidance may be used to assist students with certain parts of the steps that may seem too difficult for that particular student. Having a list of simplified steps with visual aids at their table while working on the art project would remind students of the order of the steps.

Visual Impairment: Students with a Visual Impairment may be given a *magnifying monitor* to make the work area larger for students to see that have a less severe Visual Impairment. The light

for the work area may be adjusted with a *lamp* if the student can only see in certain light. Students with more severity that can only see shapes or colors may need *hand over hand* assistance. The teacher can *apply hot glue to the surrounding surface* to create a tactile border for the student to feel. For adding color drops, the teacher can ask the student what colors to drop onto the surface.

Modifications:

Autism: Depending on the student with Autism there are a few modifications that you may consider. If the student does not enjoy getting messy with materials, provide containers that the student can use to sprinkle the salt on and drop the color on top of the salt.

Down syndrome: Students with severe intellectual and/or physical disabilities may need assistance with the whole process from a teacher or paraprofessional. The teacher may need to ask the student questions to choose a cartoon and outline the shape with hot glue so the student has a border to glue in. If the student is not severe, providing a list to the student to check off a task when they have completed it would make the student feel like they are accomplishing the objective.

Visual Impairment: Students with a severe Visual Impairment may need assistance with the whole process from a teacher or paraprofessional. The teacher may need to ask the student questions to choose an image and use hand over hand technique to help the student apply the drops of color and salt to the correct areas.

APPENDIX C: ABSTRACT PORTRAITS LESSON

Abstract Portraits Lesson

Standard:

VA.912.O.24: Concentrate on a particular style, theme, concept, or personal opinion to develop artwork for a portfolio, display, or exhibition

Learning Objectives:

The students will learn what a contour drawing is

The students will be able to complete a blind contour drawing

The students will learn to use elements of art

The students will be able to abstract their blind contour drawing

Materials:

Drawing paper

Pencils

Chalk

Sharpie

Procedures/Steps:

1. The teacher will have the student come in and sit down

2. The teacher will have an image of a contour drawing, a gesture drawing, and a drawing of a line
3. The teacher will use these three images to question the students on the images. What makes these drawings different from each other? Which drawing shows a closed shape? Which drawing is very sketchy?
4. After taking some answers the teacher will explain to the students what they will be doing
5. The teacher will explain that the students will be completing a contour drawing of one of their peers, blindly
6. The teacher will explain to the students that this means they will draw their peer without looking at their paper and if they do they must stop drawing when they look at the paper
7. The teacher will demonstrate a blind contour drawing using a student
8. The teacher will model to the students what to do
9. When finished the teacher will pair the students off into groups of two
10. Next, the students will be drawing their peer one at a time (one student models while one draws) (give enough time for them to make two each- 5 minutes or less a drawing)
11. Once each student has drawn their peer, the teacher will explain the next step which is making the portrait abstract
12. The students will color in shapes and/or add elements of designs into the shapes that were created from drawing

13. Give students 5 minutes at the end to clean up materials

14. The teacher will collect their artwork

Examples of artwork:



Assessment: Rubric

Name of Assignment: _____ Date: _____ Assessment Checklist for:	Self- Assessment	Teacher Assessment
Creating		
I choose how I would draw. (what materials)	<input type="checkbox"/>	<input type="checkbox"/>
I was innovative in problem-solving.	<input type="checkbox"/>	<input type="checkbox"/>
Applying Creative and Critical Thinking Skills		
I experimented with drawing without looking at my paper.	<input type="checkbox"/>	<input type="checkbox"/>
Using Tools, Media, and Processes		
I used different types of charcoal, pencils, and watercolor to complete my project.	<input type="checkbox"/>	<input type="checkbox"/>
Completing Project		
I completed my project to the best of my ability and held it to good craftsmanship standards.	<input type="checkbox"/>	<input type="checkbox"/>

Accommodations:

Autism: Allowing the students to use soft or padded pencils or paint brushes to use during the process will assist students in gripping the handles better to accomplish the task. The student may be particular about adding color to their image and by providing the student with their favorite color they may be more inclined to add color. Having a list of simplified steps with visual aids at their table while working on the art project would remind students of the order of the steps.

Down syndrome: Using thick handled brushes to paint the abstract portraits may assist the students with gripping the handles better to complete the painting. Soft, rounded, or large pencils will assist the students during the drawing process. Hand over hand guidance may be used to assist students with certain parts of the steps that may seem too difficult for that particular student. Having a list of simplified steps with visual aids at their table while working on the art project would remind students of the order of the steps.

Visual Impairment: The light for the work area may be adjusted with a *lamp* if the student can only see in certain light. Students with more severity that can only see shapes or colors may need *hand over hand* assistance.

Modifications:

Autism: Depending on the student with Autism there are a few modifications that you may consider. If the student does not enjoy getting wet it may be advised that the teacher, paraprofessional, or peer assist with the removing of the paper with water. Another option would

be to have the student with Autism do the transfer the opposite direction; eliminating the need to use water for the transfer.

Down syndrome: Students with severe intellectual and/or physical disabilities may need assistance with the whole process from a teacher or paraprofessional. The teacher may need to ask the student questions to keep the student on task having the student draw from an image may help the student not feel overwhelmed. If the student is not severe, providing a list to the student to check off a task when they have completed it would make the student feel like they are accomplishing the objective.

Visual Impairment: Students with severe vision impairment may be able to feel a sculpture of a face and draw what they feel or use a peer to draw from.

APPENDIX D: LUMEN PRINTS LESSON

Lumen Prints Lesson

Standard:

VA.912.S.3.8: Develop color-mixing skills and techniques through the application of the principles of heat properties and color and light theory.

Learning Objectives:

Students will apply their understanding of light theory to create a lumen print by using plants and photo paper to formulate an original artwork serious of three images.

Materials:

Black and white photography paper

Plants or other objects the students have found

Sunlight

Glass (or frame)

Flat board (or frame)

Fixer

Procedures/Steps:

Bellwork:

- The students will copy down the standard and learning objective
- The students will then copy down the vocabulary words

- As a class, we will determine what the lesson has to do with our standard of learning and define the vocabulary words together through critical thinking

Procedural steps for lumen prints:

1. The previous day the students were asked to bring in parts of plants and/or flat objects to use for today
2. The students will be introduced to a PowerPoint on Lumen prints and be introduced to photographer Jerry Burchfield
3. The teacher will demonstrate the process to the students by collecting plants, a frame (glass and board), and photo paper together
4. The teacher will show that the paper will be placed on the board of the frame with the plants placed on top of the paper
5. The glass will be placed on top of the plants and photo paper and secured together
6. Next, the teacher will take the piece outside to lay out and be exposed to the sun informing students to periodically check on their image while it develops in the sun
7. While the image develops outside the students will prepare their paper and place their image outside
8. While the students papers are being exposed outside in the sun, the teacher will bring their example inside and inform students that the image is placed in the fix (NOT THE DEVELOPER AND NOT THE STOP) to fix the chemical reaction for one minute
9. The image will then be placed in a wash (water bath) for 3 minutes

10. Next, the students will bring their pieces in and place them in the fix for 1 minute

11. The students will then place their image into the water for 3 minutes

Vocabulary:

Lumen prints: are made by using black and white photo paper that has not been exposed and placing objects such as flowers or plants on top of the image and leaving it out in the sun to expose. Color will appear on the image

Fixer: stabilizes the image and removes the unexposed silver halide remaining on the paper and leaves behind the image

Examples of artwork:



Accommodations:

Autism: Providing the student with a limited number of objects or with objects that they like texture wise will help students make decisions on what to use and how to use them. Having a list of simplified steps with visual aids at their table while working on the art project would remind students of the order of the steps.

Down syndrome: Providing the student with a limited number of objects will assist student decision making. Having a timer to assist the student with tracking time would be helpful. Hand over hand guidance may be used to assist students with certain parts of the steps that may seem too difficult for that particular student. Having a list of simplified steps with visual aids at their table while working on the art project would remind students of the order of the steps.

Visual Impairment: The light for the work area may be adjusted with a *lamp* if the student can only see in certain light. Students with more severity that can only see shapes or colors may need *hand over hand* assistance. Students with a severe Visual Impairment may need hand over hand assistance with placing objects onto the paper.

Modifications:

Autism: Depending on the student with Autism there are a few modifications that you may consider. If the student is not comfortable or does not like getting wet, it may be advised that the teacher, paraprofessional, or peer assist with the placing the image into the chemical bath.

Down syndrome: Students with severe intellectual and/or physical disabilities may need assistance with the chemicals. The teacher, paraprofessional, or peer may assist the student

during the chemical process to ensure safety and timing of the chemical bath. The teacher may need to ask the student questions to keep the student on task during the process. If the student is not severe, providing a list to the student to check off a task when they have completed it would make the student feel like they are accomplishing the objective.

Visual Impairment: A student with a severe Visual Impairment may require assistance during the chemical part of the lumen process and timing of the exposure. The teacher, paraprofessional, or peer may have to assist the student with placing the image into the chemical by using a hand over hand technique.

REFERENCES

- Anderson, A. (2015) *Arts integration and special education: An inclusive theory of action for student engagement*. New York, NY: Routledge.
- Bailey, B. R., & Downing, J. (1994). Using visual accents to enhance attending to communication symbols for students with severe multiple disabilities. *RE: View*, 26(3), 101-18. Retrieved from <https://login.ezproxy.net.ucf.edu/login?auth=shibb&url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ494811&site=ehost-live&scope=site>
- Carroll, K. L. (2008). In their own voices: Helping artistically gifted and talented students succeed academically. *Gifted Child Today*, 31(4), 36-43.
- Centers for Disease Control. (20016, March 03) Retrieved July 20, 2017, from <https://www.cdc.gov/ncbddd/birthdefects/downsyndrome.html>
- Chou, W., Lee, G. T., & Feng, H. (2016). Use of a behavioral art program to improve social skills of two children with Autism spectrum disorders. *Education and Training in Autism and Developmental Disabilities*, 51(2), 195-210.
- Clark, G. A. (1993). Judging children's drawings as measures of art abilities. *Studies in Art Education*, 34 (2), 72-81.
- Clark, G., & Zimmerman, E. (1986). A framework for educating artistically talented students based on Feldman's and Clark and Zimmerman's models. *Studies in Art Education*, 27 (3) 115-122 doi:10.2307/1320475

- Copeland, B. (1984). Mainstreaming art for the handicapped child: Resources for teacher preparation. *Art Education*, 37(6), 22-29. doi:10.2307/3192776
- Dalke, C. (1984). There are no cows here: Art and special education together at last. *Art Education*, 37(6), 6-9. doi:10.2307/3192771
- Espinda, S. D. (1973). Color vision deficiency: A learning disability? *Journal of Learning Disabilities*, 6, 163-166. doi:10.1177/002221947300600307
- Furniss, G. J. (2008). Celebrating the artmaking of children with autism. *Art Education*, 61(5), 8-12
- Furniss, G. (2009). Art Lessons: For a Young Artist with Asperger Syndrome. *Art Education*, 62(3), 18-23. Retrieved from <http://www.jstor.org/stable/20694764>
- Gerber, B. L., & Guay, D. P. (2006). *Reaching and teaching: Students with special needs through art*. Reston, VA. National Art Education Association, 2006.
- Goren Shafton, H. (2012). Making art special. *School Arts*, 112(1), 16.
- Guay, D. (2003). Paraeducators in Art Classrooms: Issues of Culture, Leadership, and Special Needs. *Studies in Art Education*, 45(1), 20-39. Retrieved from <http://www.jstor.org/stable/1321106>
- Guay, D.M. (1993). Cross-Site Analysis of Teaching Practices: Visual Art Education with Students Experiencing Disabilities. *Studies in Art Education*, 34(4), 222-232. doi:10.2307/1320406

- Hadary, D. E., Hadary, S. H., & Cohen, S. H. (1978). *Laboratory science and art for blind, deaf, and emotionally disturbed children: A mainstreaming approach* Baltimore: University Park Press, 1978.
- Heller, J. (1983). A concrete mainstreaming experience: Cementing relations through art. *Teaching Exceptional Children*, 15(2), 90-93.
- Henley, D. R. (1990). Adapting art education for exceptional children. *School Arts*, 90(4), 18-20.
- Hurwitz, A. & Day, M. (2007). *Children and their art: Methods for the elementary school* San Diego, CA: Harcourt Brace Jovanovich
- Kraft, M. (2004). Least restrictive environment: Policy analysis and case study of a high school art class. *Visual Arts Research*, 30(1), 22-34.
- Legal Information Institute. (2004). Retrieved from <https://www.law.cornell.edu/uscode/text/20/1400>
- Lindsay, S., Proulx, M., Scott, H., & Thomson, N. (2014). Exploring teachers' strategies for including children with Autism spectrum disorder in mainstream classrooms. *International Journal of Inclusive Education*, 18(2), 101-122. doi:10.1080/13603116.2012.758320
- Lisenco, Y. (1971). *Art not by eye; the previously sighted visually impaired adult in fine arts programs*. New York, NY; American Foundation for the Blind, Inc.
- Lund, P. A., & Massey, L. (2004). Art teacher preparation and learners with exceptional needs. *Visual Arts Research*, 30(1), 53-58.

Mason, C. Y., & Steedly, K. S. (2006). Lessons and rubrics for arts integration. *TEACHING Exceptional Children Plus* 3(1) 1-10.

Michalski, P., Hodges, D., & Banister, S. (2005). Digital storytelling in the middle childhood special education classroom: A teacher's story of adaptations.

National Autism Society (2016). Retrieved on July 24, 2017, from

<http://www.autism-society.org/>

National Center for Universal Design for Learning. (2012). Retrieved July 24, 2017, from

<https://www.udlcenter.org/aboutudl/whatisudl>

National Down Syndrome Society. (2012) Retrieved July 20, 2017, from

<https://www.ndss.org/>

National Down Syndrome Congress. (2014) Retrieved July 20, 2017, from

<https://www.ndscenter.org/>

Peters, B., Tullis, C. A., & Gallagher, P. A. (2016). Effects of a group teaching interaction procedure on the social skills of students with Autism spectrum disorders. *Education & Training in Autism & Developmental Disabilities*, 51(4), 421-433.

Platt, J. M., & Janeczko, D. (1991). Adapting art instruction for students with disabilities.

Teaching Exceptional Children, 24(1), 10-12.

Rozema, R. (2015). Manga and the Autistic mind. *English Journal*, 105(1), 60-68.

- Schwartz, D. C., & Pace, D. (2008). Students create art: Expanding an after-school program. *TEACHING Exceptional Children*, 40(4), 50-54.
- Sisk, D. A. (1990). The state of gifted education: Toward a bright future. *Music Educators Journal*, 76(7), 35-39.
- Steuten, M. (2015). What do I teach students on the Autism spectrum? *Teacher Learning Network Newsletter*, 22(1), 14-16.
- Sugita, T. (2016). Current trends in psychological and educational approaches for training and teaching students with Autism in California. *International Electronic Journal of Elementary Education*, 9(2), 307-316.
- Van Volkenburg, J. B. (2015). Reaching children with Autism spectrum disorders using creative dramatics: The building blocks model. *Dimensions of Early Childhood*, 43(2), 13-20.
- Winner, E. (1993). Exceptional artistic development: The role of visual thinking. *Journal of Aesthetic Education*, 27(4), 31-44. doi:10.2307/3333498
- Wolfe, P. (1997). A really good art teacher would be like you, Mrs. C.: A qualitative study of a teacher and her artistically gifted middle school students. *Studies in Art Education*, 38(4), 232-245. doi:10.2307/1320523