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# Autism Spectrum Disorder Students in Mainstream Schools and Classrooms: Effectiveness and Empowerment

by Kathleen S. Soltau, B.S.W.

MSW Clinical Research Paper

Presented to the Faculty of the
School of Social Work
St. Catherine University and the University of St. Thomas
St. Paul, Minnesota
in Partial fulfillment of the Requirements for the Degree of

Master of Social Work

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The Clinical Research Project is a graduation requirement for MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within a nine-month frame to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the university Institutional Review Board, implement the project, and publicly present the findings of the study. This project is neither a Master's thesis nor a dissertation.

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#### Abstract

This study examines teachers' perceptions of the effectiveness of mainstream educational practice in empowering students diagnosed with autism spectrum disorder. This study provides a focus on Minnesota and a mainstream educational program in southern Minnesota. Ten semi-structured interviews were conducted in order to better understand this topic. Interviews were transcribed and coded using grounded theory methods. Findings revealed an overwhelming amount of support for students with autism spectrum disorder in mainstream schools and classrooms. This support was shown through multiple themes identified by interviewees. Implications for social work practice and advocacy within mainstream schools serving students diagnosed with autism spectrum disorder are also discussed.

Keywords: autism spectrum disorder, empowerment, effectiveness

## Acknowledgements

There is a group of people that deserves the utmost acknowledgment for encouraging my success in this research project. Without you and the support you gave to me, this project would not have been possible. First, I would like to recognize my committee chair Laurel Bidwell. Without Laurel's continuous support, encouragement, and determination for my success, this research would have been incomplete. Along with Laurel's many hard hours of work, my committee members, Teresa George and Casie Hammel, assisted her toward this accomplishment. Teresa and Casie volunteered their time to serve as chair members and have greatly impacted the work I have done as a MSW student.

Along with my professional acknowledgements, I must make personal acknowledgements. Without the never-ending love and encouragement from my parents, I could not have endured the emotional toll this program has taken on me. To Tom and Jill Soltau; I will always be grateful for continued support through this project and program.

Lastly, I want to acknowledge the members of my Advanced Standing 1-year Cohort and my placement supervisor. Through the women in my cohort, I have gained life-long friends and an invaluable support network. I have the utmost confidence in the ability of my entire cohort to make successful social workers. To my clinical placement supervisor Linnea Dumke, thank you for your continued encouragement and support over the past year. I could not have done it without you.

Autism Spectrum Disorder Students in Mainstream Schools and Classrooms:

Effectiveness and Empowerment

## Introduction

This study examines the effectiveness of mainstream schools and classrooms to empower autism spectrum disorder students from the perspective of teachers and paraprofessionals implementing services. For this research, teachers and paraprofessionals include multiple staff members within a mainstream school district. For example, these teachers and paraprofessionals could include gym teachers, art teachers, mainstream classroom teachers, as well as both mainstream and autism paraprofessionals and teachers' aids. Autism spectrum disorder is a "neurodevelopmental disorder in the category of pervasive developmental disorders, and is characterized by severe and pervasive impairment in reciprocal socialization, qualitative impairment in communication, and repetitive or unusual behavior," (Levy, Mandell, & Shultz, 2009, p. 1628). Autism affects one in 68 children (Facts About Autism, 2014). It impacts children's abilities in schools in within a "wide range of social, academic, behavioral, and other needs," (Brock, Huber, Carter, Juarez, & Warren, 2014, p. 1). Due to the unique social and educational needs of this group of students, schools have tried multiple types of instruction in an attempt to help these students succeed. In the mid 1970's, beginning around the year of 1974, there were more than 1.75 million students not receiving educational services due to their disabilities. Along with the 1.75 million students not receiving educational services, there were 3 million students with

disabilities that did attend school but were unfortunately not able to receive the adequate accommodating services they needed (Gueye, 2014, p 2). More recently, specifically since 2004, due to the Individuals with Disabilities Education Act of 2004, children with autism spectrum disorder have been integrated into mainstream classrooms and schools.

## **Prevalence Rates of Autism**

A national website supporting children and adolescents with autism, Autism Speaks provides national statistics indicating autism spectrum disorder has risen 78% between the years of 2002 and 2012 and is five times more likely to affect boys than girls across the U.S. Autism spectrum disorder. Autism is said to be the "fastest-growing serious developmental disability in the U.S" (Facts About Autism, n.d.& Brock, et. al., 2014, p. 1).

According to the Minnesota Department of Health, it is estimated that one in every 88 children has been identified on the autism spectrum, with an even higher statistic in Minneapolis, Minnesota of one in 48 (Hewitt, Gulaid, Hamre, Esler, Punyko, Reichle & Reiff, 2013). Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder that can affect how children process information, as well as impacting their behaviors and social and communication skills. Autism Spectrum Disorder affects children in many different ways and to different degrees of severity (Autism Spectrum Disorders, n.d.).

## The History of Autism Spectrum Disorder

The term Autism Spectrum Disorder was originally initiated in 1943 when Dr. Leo Kanner studied children who were believed to have mental retardation. Through his observations, Dr. Kanner realized that some of those children showed less social interaction with their peers than other children with mental retardation being studied. He also found they focused on routines and schedules; these children did not respond well to changes in their particular routines. (Evidence-based Practice, 2009, p. 11). Before writing a paper titled *Autistic Disturbances of Affective Contact*, Dr. Kanner spent time studying Donald, a 5-year-old boy, and ten other children who were believed to have severe mental retardation. Dr. Kanner sought to, and succeeded in, omitting the previous descriptions and characterization of these children. (Fischbach, 2007, p. 1). Since the 1940's, there have been many changes in the understanding and classification of autism spectrum disorder, including the previous Pervasive Developmental Disorder (PDD) that had five sub disorders: autistic disorder, Asperger's disorder, Rett's disorder, childhood disintegrative disorder, and pervasive developmental disorder not otherwise specified. Since then, all five disorders under Pervasive Developmental Disorder have been combined into either Autism Spectrum Disorder or Rett Syndrome, (Connecticut Guidelines, 2013, p. 10). Most recently, in the DSM-5 Diagnostic Criteria, there are three levels of severity for autism spectrum disorder: individuals with Level 1 severity are stated as "Requiring Support", Level 2 states the individual will be "Requiring Substantial Support," and the severity Level 3 indicates the individual will be "Requiring Very Substantial Support," (Diagnostic, 2013, p. 52).

## Mainstream Education and the Individuals with Disabilities Education Act of 2004

Nationwide, students with Autism Spectrum Disorder currently fall under the Individuals with Disabilities Education Act of 2004. The Individuals with Disabilities Education Act has been formatted through previous acts for students with special needs. The first act created for students with special education needs was the Education for all Handicapped Children Act of 1975. (Archived, 2007). The Individuals with Disabilities Education Act is split into two groups defined by age; Part B, ages 3-21 and Part C, ages birth-2. "The Individuals with Disabilities Education Act (IDEA) is a law ensuring services to children with disabilities throughout the nation. IDEA governs how states and public agencies provide early intervention, special education and related services to more than 6.5 million eligible infants, toddlers, children and youth with disabilities," (Building the Legacy, n.d.).

"The term 'mainstreaming' was first used in the 1970s. This practice differs from inclusion, where children with disabilities are included in the regular classroom and receive support through comprehensive programming," (Lawrence, n.d.). Mainstream education is for students with and without disabilities including, but not limited to, developmental disabilities, learning disabilities, as well as physical and emotional illnesses. For the most part, students within mainstream education facilities are all held to the same standards, whether they do or do not have disabilities.

#### **Model of Mainstream Education**

When children with Autism Spectrum Disorder are in mainstream classrooms, they create a different atmosphere than in most classrooms within that mainstream

school. For the purpose of this study, a mainstream, autism room will be featured. The autism spectrum disorder program within this particular school district is part of a five school consortium serving special education; Southern Minnesota Education Consortium. The Southern Minnesota Education Consortium has representatives located at each of the schools within the consortium, as well as staff members that float between all five of the schools. The Southern Minnesota Education Consortium provides services within mainstream schools to students with Specific Learning Disabilities. Emotional/Behavioral disabilities. Autism Spectrum Disorder. Developmental Delays. Developmental Cognitive Disorder and Communication Disorders, (S.E.M.C., 2012). In this particular autism program, there is a classroom that has been converted to accommodate the needs of students with Autism Spectrum Disorder. Conjoining with the autism classroom, there is a sensory room. The sensory room is a major component to the accommodations needed for autism spectrum disorder students. There are different stations set up throughout the sensory room to focus on students' proprioceptive system. "Proprioception is the process by which the body can vary muscle contraction in immediate response to incoming information regarding external forces, by utilizing stretch receptors in the muscles to keep track of the joint position in the body," (The Proprioceptive System, 2014). Stations also focus on contracting and stretching muscles; visual system, their body's relationship to space; vestibular system, position of head in relationship gravity which primes the entire nervous system; and the auditory system, that has two functions and is closely tied to the vestibular system in that it deals with gravity/vibration and processing information that is heard, (Autism Room, n.d.).

The students with autism spectrum disorder at this school split time between the specialized autism classroom and mainstream classrooms, depending on the severity of their autism. Along with classroom time, they are also integrated with mainstream students in elective classes and activities including, but not limited to, music, gym, lunch, and art.

## **Role of Teachers and Paraprofessionals**

For the purpose of this study, "teachers and paraprofessionals" will be stated as both mainstream and autism spectrum disorder specialized teacher and staff members. These staff members may also include the school social worker, as well as gym, art, or music teachers. Their role in this process is to participate in the semi-structured interview to better explore the ability for autism spectrum disorder students to be effective and empowered within mainstream schools and classrooms. By having both mainstream and autism spectrum disorder teachers and paraprofessionals in this study, I will be able to compare and contrast perceptions between the two. Teachers and staff members were chosen as the area of study because they see, on a daily basis, what is helping or hurting students with autism spectrum disorder. They are the ones to assist these students with their disabilities and to problem solve when needs are not being met in the mainstream education system. Teachers, staff members, and paraprofessionals may also spend time mediating and advocating for the ASD students' particular needs if issues arise between the school district and the students' parents/caregivers.

## **Conceptual Framework**

The conceptual framework for this research will be based upon the empowerment model and theory. Empowerment theory is "the process of increasing personal, interpersonal, or political power so that individuals can take action to improve their life situations," (Gutierrez, 1990, p. 149). This definition mirrors the challenges of students with autism spectrum disorder within mainstream schools and classrooms. These students within mainstream schools are given the opportunity to increase their "life situations" within their education by having the same opportunities and choices as mainstream functioning students.

According to Carroll, empowerment theory is outlined by self-determination, participation, and social interventions. Along with these outlines, the community as a whole plays a large part in the framework of empowerment theory. Self-determination within empowerment theory is defined as "persons choosing a course of action on their own," (Carroll, 1994, p. 376). For the purpose of this study, students have the right to determine what happens to them and to choose what to do. This is noted as the least controversial outline of empowerment theory. Participation is perhaps the most controversial of the three outlined items. Prilleltensky claims that participation in our clients "reflects the best ideal that persons affected by individual and social interventions should be part of the decision-making process," (Prilleltensky, 1994, p. 360). Controversy stems from the fact that decision-making and participation of individuals will inadvertently affect others. Social intervention shows the differences between a given situation that happens when someone is alone and when he or she is in a group. "Plainly, this third value obviously guarantees nothing for the vulnerable population, the group is

people which is the main object of concern of empowerment theory," (Carroll, 1994, p. 378).

The community as a whole is described by Prilleltensky as "the social welfare of the population at large." He also states it is "an area largely neglected in professional circles," (Prilleltensky, 1994). This value forces us to realize that our clients are individuals, of which communities are comprised. When something impacts individuals in a significant way, it can also affect the community from a micro level all the way to a macro level.

Using empowerment theory for this research shows the connection between students with autism spectrum disorder and their surroundings within mainstream school systems and classrooms. "Empowerment is a construct that links individual strengths and competencies, natural helping systems, and proactive behaviors to social policy and social change," (Perkins & Zimmerman, 1995, p. 569). This research will also help to connect the links between an individual's well-being and the larger environment or community. "Theoretically, the construct connects mental health to mutual help and the struggle to create a responsive community," (Perkins & Zimmerman, 1995, p. 569).

In social work, empowerment is noted as groups or communities that can act to "prevent problems, gain or regain the capacity to interact with the social environment, and expand the resources available to meet their needs" (Hepworth, Ronney, Deewberry, Strom, & Larsen, 2010, pg. 414). This definition in social work can be related to the research empowering students with autism spectrum disorder. Empowerment in schools can actively engage students in decisions about their "well-being, potential, life satisfaction, and the outcome of realizing to the extent possible, control over their lives,"

(Hepworth, et. al., 2010, pg. 414). Though this stems from social work practices, many other professionals within schools can, and do, aid in the empowerment of students.

## **Current Study**

A study done by Hess, Morrier, Heflin, & Ivey in 2007 shows there is little research and evidence to show the effectiveness of interventions and treatments for children with autism spectrum disorder within mainstream classrooms. For this project, I will examine the effectiveness of mainstream schools and classrooms and their impact on autism spectrum disorder students, from a teacher's perspective. This study will compare the perceptions of mainstream teachers and paraprofessionals to that of autism spectrum disorder specialized teachers and paraprofessionals. The goal is to maximize through research the effectiveness of mainstream schools and classrooms to provide education and empowerment to students with autism spectrum disorder. Empowerment stemmed from many definitions, one being, "The process of giving power to, or empowering, others," (Janksksklsk, 2008, p. 1127).

Empowerment theory will be the framework of this research because it will be able to identify the capabilities and effectiveness of mainstream schools and classrooms and their ability to deliver this empowerment to students with autism spectrum disorder, instead of focusing on the risk factors that those particular students may encounter. Within this research empowerment framework will also "explore environmental influences of social problems," (Perkins & Zimmerman, 1995, p. 570).

In this study, empowerment refers to mainstream teachers, paraprofessionals, and school staff members helping to support students by empowering them to have a

sense of control and success in their educational experiences. A qualitative approach will be used in order to explore this effectiveness and empower students with autism spectrum disorder. I will be conducting semi-structured interviews with both mainstream focused staff and autism spectrum disorder-focused staff in order to complete this research.

Empowerment theory related to students with autism spectrum disorder will be the focus through various questions of empowerment within semi-structured interviews. As previously stated, empowerment theory is outlined by self-determination, participation, and social interventions; this makes empowerment in students with autism spectrum disorder capable by growth and development of experiences socially and academically.

This area of study is important because there is a significant increase in the number of students on the autism spectrum, not only in special education schools but also mainstream schools. For this research, each interview will be done on an individual basis between the researcher and a teacher.

For the purpose of this study, the following question will be addressed:

What are teachers' and support staff's perceptions about the effectiveness and

empowerment of Autism Spectrum Disorder students within mainstream schools and

classrooms?

This question will be explored using an empowerment perspective.

## **Definition of Terms**

Terms used for this research question can be described as the following:

- 1. *Teachers and paraprofessionals:* A combination of mainstream and autism spectrum disorder specialized teachers, paraprofessionals, and support staff.
- 2. *Effectiveness:* Providing an adequate learning experience for students from all domains and educational needs.
- 3. *Empowerment:* The ability for students to develop and grow within their social and academic experiences by being given opportunities to feel capable of and in control of their surroundings at school.
- 4. *Autism Spectrum Disorder students:* Students with a diagnosis of autism spectrum disorder, including those formerly diagnosed with Asperger's, no matter where they may fall on the spectrum or their functioning levels.
- 5. *Mainstream Schools and Classrooms:* Typical public schools and classroom, with special education being the minority.

#### **Review of Literature**

## **History and Present Autism Spectrum Disorder**

## History of Dr. Kanner & Autism Spectrum Disorder

A journal written by Jan Blancher and Lisa Christensen in 2011 explains multiple aspects of Dr. Leo Kanner's research leading to the identification of autism spectrum disorder. Approximately 70 years ago, Leo Kanner published his research based upon children exhibiting what would now be called "Autism." Kanner was a psychiatrist who came to the United States from Austria when he obtained a position at Johns Hopkins University Hospital. Kanner specialized in children and adolescents, which lead to his research on a large family with children who were known to have disturbing behaviors and metal retardation. Kanner studied these children in settings from micro to macro. He observed many behaviors and tendencies, some of which are now known as symptoms of autism spectrum disorder. Kanner then placed those behaviors and symptoms into categories: social interaction, language, repetitive behavior, and onset before age three. At that point, it was a requirement that children exhibit at least six symptoms to be classified as Autistic.

Notes made by Kanner describe certain symptoms and behavior issues. "He described their lack of social relatedness as 'extreme aloneness.' Regarding the child's lack of interest in others, Kanner stated that "it would be best to get these interferences over with, the sooner to be able to return to the still much desired aloneness." Kanner noted that many of the children had been diagnosed with schizophrenia at one point" (Blancher & Christensen, 2011, p. 180). Kanner also noted these children often had

difficulties in speech, rotating memory and pattern of sameness; and approximately half of the children studied had developmental history of being partially deaf at the beginning stages of life. (Blancher & Christensen, 2011, p. 180-181).

## **Neurodevelopmental Disorders**

Autism Spectrum Disorder is a Neurodevelopmental Disorder within the Diagnostic and Statistical manual of Mental Disorders, Fifth Edition (DSM-5).

Neurodevelopmental Disorders are mental disorders than happen during the developmental period, typically early in the developmental stages. These disorders often appear before children enter grade school and "are characterized by developmental deficits that produce impairments of personal social, academic, or occupational functioning," (Neurodevelopmental Disorders, 2013, p. 31). All Neurodevelopmental Disorders have a large range of developmental deficits that range from extremely specific deficits, or limitations, to broad impairments, usually within social skills and/or intellect.

"Autism spectrum disorder is characterized by persistent deficits in social communication and social interaction across multiple contexts, including deficits in social reciprocity, nonverbal communicative behaviors used for social interaction, and skills in developing, maintaining, and understanding relationships,"

(Neurodevelopmental Disorders, 2013, p. 31). In addition, in order for autism spectrum disorder to be diagnosed, there must be a "presence of restricted, repetitive patters of behavior, interests, or activities," (Neurodevelopmental Disorders, 2013, p. 31).

Because autism spectrum disorder varies widely between children from all ends of the spectrum, clinicians are able to individualize diagnoses. The ability for clinicians to do this stems from different specifiers including, but not limited to, "with or without accompanying intellectual impairment; with or without accompanying structural language impairment; associated with known medical/genetic or environmental/acquired condition; associated with another neurodevelopmental, mental, or behavioral disorder" (Neurodevelopmental Disorders, 2013, p. 32). Another factor used for clinicians to be able to specify the autism spectrum disorder diagnosis for each child are "specifiers that describe the autistic symptoms (age at first concern; with or without loss of established skills; and severity), (Neurodevelopmental Disorders, 2013, p. 32).

## Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition

In the DSM-5, autism spectrum disorder's diagnostic criteria is broken up into five pieces. The first part of autism spectrum disorder's criteria is "persistent deficits in social communication and social interaction across multiple contests," (Autism Spectrum Disorder, 2013, p. 50). This criterion gives illustrations of the above definition that can be either present or by history. These illustrations are "deficits in social-emotional reciprocity, deficit in nonverbal communication behaviors used for social interaction, and deficits in developing, maintaining, and understanding relationships," (Autism Spectrum Disorder, 2013, p. 50).

The second portion of diagnostic criteria for autism spectrum disorder is "restricted, repetitive patters of behavior, interests, or activities" (Autism Spectrum

Disorder, 2013, p. 50), which can also be present or in the child's history. Illustrations of this criteria include "stereotyped or repetitive motor movements, use of objects, or speech, insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior, highly restricted, fixated interests that are abnormal in intensity or focus, and hyper- or hypo-reactive to sensory input or unusual interests in sensory aspects of the environment," (Autism Spectrum Disorder, 2013, p. 50).

The third part of the diagnostic criteria for autism spectrum disorder is "symptoms must be present in the early developmental period" (Autism Spectrum Disorder, 2013, p. 50) with a specification of those symptoms not becoming "fully manifest until social demands exceed limited capacities, or may be masked by learned strategies in later life," (Autism Spectrum Disorder, 2013, p. 50). This portion leads into the fourth part of the autism spectrum disorder diagnostic criteria which states "symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning," (Autism Spectrum Disorder, 2013, p. 50).

The fifth and final part of the diagnostic criteria for autism spectrum disorder states, "these disturbances are not better explained by intellectual disability or global developmental delay," (Autism Spectrum Disorder, 2013, p. 51). This criterion goes on to further clarify "intellectual disability and autism spectrum disorder frequently co-occur; to make comorbid diagnoses of autism spectrum disorder and intellectual disability, social communication should be below the expected for general developmental level," (Autism Spectrum Disorder, 2013, p. 51).

According to the DSM-5, there are three levels of severity for autism spectrum disorder. These three levels are determined by social communication deficits, as well as

restricted and repetitive behaviors inflexibilities. Starting from the lowest level of severity, Level 1 is stated as "Requiring Support," (Autism Spectrum Disorder, 2013, p. 52). Social communication deficits within severity Level 1 state that "without supports in place, deficits in social communication cause noticeable impairments," (Autism Spectrum Disorder, 2013, p. 52). Examples of these deficits include "difficulty initiating social interactions and decreased interest in social interactions," (Autism Spectrum Disorder, 2013, p. 52). Restricted and repetitive behaviors inflexibilities for Level 1 of the severity of autism spectrum disorder states "inflexibility of behavior causes significant interference with functioning in one of more contests, difficulty switching between activities, and problems of organization and planning hamper independence," (Autism Spectrum Disorder, 2013, p. 52).

The middle level of severity, or Level 2, describes this severity as "Requiring Substantial Support," (Autism Spectrum Disorder, 2013, p. 52). Social communication deficits within the autism spectrum disorder severity of Level 2 states deficits in "verbal and nonverbal communication skills; social impairments apparent even with supports in place; limited initiation of social interactions; and reduced or abnormal responses to social overtures from others," (Autism Spectrum Disorder, 2013, p. 52). Examples of this deficit can include "a person who speaks simple sentences, whose interaction is limited to narrow special interests, and may have odd nonverbal communication," (Autism Spectrum Disorder, 2013, p. 52). The restricted and repetitive behaviors for Level 2 are "inflexibility of behavior, difficulty coping with change, or other restricted/repetitive behaviors appear frequently enough to be obvious to the casual observer," as well as,

"distress and/or difficulty changing focus or action," (Autism Spectrum Disorder, 2013, p. 52).

The most severe level for autism spectrum disorder, Level 3, is "Requiring Very Substantial Support," (Autism Spectrum Disorder, 2013, p. 52). The social communication deficits within this level of severity declares "severe deficits in verbal and nonverbal social communication skills cause severe impairments in functioning, very limited initiation of social interactions, and minimal response to social overture from others," (Autism Spectrum Disorder, 2013, p. 52). Examples of this include "a person with few words of intelligible speech who rarely initiates interaction and, when he or she does, makes unusual approaches to meet needs only and responds only to very direct social approaches," (Autism Spectrum Disorder, 2013, p. 52). The restricted and/or repetitive behaviors inflexibility for this level states "extreme difficulty coping with change, or other restricted/repetitive behaviors markedly interfere with functioning in all spheres; great distress/difficulty changing focus or action," (Autism Spectrum Disorder, 2013, p. 52).

## **History of Social Work in Schools**

School social work began in the years of 1906 and 1907 in New York, Boston, Hartford, and Chicago. Unlike school social workers today, these social workers were not employed by the school, rather under other agencies and civic groups at that time. At this time, the sole purpose of these school social workers was to bridge the gap between the school and its community (Constable, 2008, pg. 13).

Historically, school social work has followed the same concerns as other portions of the education system. "The problems confronted by the education institution over its long history have ranged from accommodating immigrant populations, discrimination against particular groups, truancy, and the tragic waste of human potential in emotional disturbances of childhood problems regarding schools disruptions," (Constable, 2008, pg. 11). School social workers have been put into place to aid and advocate for these students, as well as many others. School social workers' duties have grown to include administering group and individual sessions with students who could not otherwise participate. School social workers determine their functions based on the needs of the students and the educational institution to help students succeed to their fullest potential. "During the twentieth century, schools broadened their mission and scope toward greater inclusion and respect for the individual differences of all children," (Constable, 2008, pg. 11). As a result, in schools across the nation, universal respect for all individuals and their differences grow: "The belief that education, if available to any, should be available equally to all," (Constable, 2008, pg. 12).

In 1989, school social work experts were asked to develop a task sheet for entrylevel school social workers. These nineteen experts came up with this list of tasks for social workers to perform on a day-to-day basis. This task list lead to five job dimensions:

- "1. Relationships with and services to children and families
- 2. Relationships with and services to teachers and school staff
- 3. Services to other school personnel
- 4. Community services
- 5. Administrative and professional tasks," (Constable, 2008, pg. 15).

Along with these five job descriptions, one key skill was found as fundamental for school social workers: assessment. "Assessment is a systematic way of understanding what is taking place in relationships in the classroom, within the family, and between the family and the school," (Constable, 2008, pg. 25). This adds another aspect to the social worker's role as he or she looks for units of attention, for places where intervened is needed and will be most effective.

## **Special Education Acts**

## **History of Special Education Acts**

Students with autism spectrum disorder struggle with many learning barriers that mainstream students may not encounter. Common concepts which students with autism spectrum disorder find difficult are structure and format, information overload, and complexity, or multiple-step assignments (Instructional management, 2003). Historically and presently, autism spectrum disorder students fall under the Individuals with Disabilities Education Act (IDEA). IDEA has evolved through different acts since its inception in 1975 as the Education for all Handicapped Children Act of 1975. (Archived, 2007). Then, in 1990, the Individuals with Disabilities Education Act replaced the Education for all Handicapped Children Act. The focus of this change was to state that "children with disabilities are entitled to a few appropriate public education and that each child's education will be planned and monitored with an individualized education program (IEP) or an individualized family service plan," (Driscol & Nagel, 2010, p. 1). Another change then occurred in 1997 when the Individuals with Disabilities Education Act was amended to move its focus toward the emphasis of individual education plans

(IEP's) as primary tools. This change gave parents of students a larger role in the educational decision making (Driscol & Nagel, 2010, p. 1). An improvement was then made in 2004 that aligned with the No Child Left Behind Act; this is the most recent reauthorization of IDEA. (Driscol & Nagel, 2010, p. 2).

The Individuals with Disabilities Education Act also has an impact on deciding whether students with autism spectrum disorder should be placed in public schools or restrictive settings. This determination, by a designated multidisciplinary team, is based upon the student's functioning and learning abilities, as well as the school's ability to provide the necessary services for the particular student to succeed (Horrocks, White, & Roberts, 2008, p. 1462).

## **Individuals with Disabilities Education Act**

The Individuals with Disabilities Education Act of 2004 provides services to more than 6.5 million people across the nation ages 21 and under. "IDEA governs how states and public agencies provide early education, special education, and related services to...infants, toddlers, children and youth with disabilities," (Building the Legacy, n.d.). Through the Individuals with Disabilities Education Act, there are two parts or options to serve children. Part C provides services to children from the age of birth up to two years old, as well as providing services to their families. Part B provides services to children and their families ages three to 21.

On December 3, 2004, President George W. Bush signed the reauthorization of the Individuals with Disabilities Education Act into law. When President Bush signed the act revision, the only portion that immediately went into effect was the qualification and

definition of a "highly qualified teacher." Some requirements for a teacher to be classified as a "highly qualified teacher" include, but are not limited to, obtaining special education teacher certifications or licensing, developing per state, holding at the minimum a bachelor's degree, and participating in intensive supervision with continuous support for teachers. (IDEA, 2006).

On July 1, 2005, the remaining majority of the revisions to the re-authorized Individuals with Disabilities Education Act went into effect. The remaining items became effective August 14, 2006. Many of the revisions that were made for the Individuals with Disabilities Education Act were divided into specific categories. Many of them are put in place and used within classrooms and schools with students with autism spectrum disorder. These categories include the No Child Left Behind Act, which provides developmental assistance to students for basic skills; Discipline, which allows schools to make specialized disciplinary actions for students based on their disabilities; Evaluation and Reevaluation, which offers changes in initial Individualized Education Plans; Funding, which includes both local and state funding projects; Highly Qualified Teachers (HQT), which sets regulations to classify special education teachers to teach core academic subjects: Identification of Specific Learning Disabilities, which adopts the requirement of severity for learning disabilities; Individualized Education Program (IEP), which states that there must be a written statement for each child with a disability; Procedural Safeguards, which insures Due Process Hearings and Mediation; and Statewide and Districtwide Assessments, which focuses on students disabilities' plans and options for further educational success (IDEA, 2006).

#### Minnesota

Because the research will be conducted in southern Minnesota, for the purpose of this research, this paper will focus specifically on Minnesota and the rules, regulations, and systems in place in Minnesota.

## **Minnesota Administrative Education Rules**

In Minnesota, students with autism spectrum disorder are defined as students who exhibit "a range of pervasive developmental disorders, with onset in childhood, that adversely affect a pupil's functioning and result in the need for special education instruction and related services," (Minnesota Administrative Rules). The Minnesota Administrative Rules Education Department, Chapter 3523. 1325 states definitions, criteria, team membership and implementation of students with autism spectrum disorders.

Criteria and qualification for students with autism spectrum disorder are stated to make certain educational institutions meet the students' needs for related services. A multidisciplinary team, as well as supported evidence from multiple settings and sources, makes the determinations of eligibility. There are two criteria considered when a student is being evaluated for eligibility, item A and item B. Item A states, "An educational evaluation must address all three core features in subitems (1) to (3). The team must document that the pupil demonstrates patterns of behavior described in at least two of these sub-items, one of which must be subitem (1)," (Minnesota Administrative Rules).

As stated by the Minnesota Administrative Rules Education Department, subitems one and two within item A discuss "qualitative impairment" in both social interaction and

communication. Both of these subitems state documentation must be present in a certain number of instances or indicators. Subitem three within item A discusses "restricted, repetitive, or stereotyped patterns of behavior, interest, and activities" being documented by a proper number of behavioral indicators. All three subitems within item A of chapter 3523.1325 give examples of described behavioral indicators.

Item B discusses the multidisciplinary team by indicating, "The team shall document and summarize in an evaluation report that autism spectrum disorder adversely affects a pupil's performance and that the pupil is in need of special education instruction and related services," (Minnesota Administrative Rules). Item B, like item A, has three subitems. Those items include evaluations, observation, and summary. These three subitems are focused on students with autism spectrum disorder and their performances in an educational setting (Minnesota Administrative Rules).

The next subpart, post criteria, is team membership. This is the portion of the chapter that states how and why the multidisciplinary team forms their decision on autism spectrum disorder programming placement and the school's ability to reach educational goals for the particular student (Minnesota Administrative Rules).

The last subpart within this Minnesota Administrative Rules Education

Department Chapter is implementation. Plainly, this is the implementation of special education services. This subpart states even though "a clinical or medical diagnosis is not required for a pupil to be eligible for special education services. A pupil must meet the criteria in subpart 3 (Criteria) to be eligible," (Minnesota Administrative Rules).

## **Minnesota Department of Education**

The Minnesota Department of Education places focus on special education teachers with a spotlight on autism spectrum disorders. Currently in Minnesota, there is an autism spectrum disorder license that teachers may obtain by a specific process. To be considered for the autism spectrum disorder license, a teacher must have a full-time teaching license in the special education field in the state of Minnesota. They must also have experience with students with autism spectrum disorder and must have participated in professional development focusing on autism spectrum disorder. If a current teacher meets these qualifications, they are then able to begin the transition process to add the autism spectrum disorder licensure to their current Minnesota teaching and/or special education license.

## **Minnesota Department of Human Services**

In 2013, the Minnesota Legislature passed a new law regarding children with autism spectrum disorders; this law allows Medical Assistance to be used for different forms of early autism spectrum disorder intervention for children beginning at birth to age 18. This will allow a portion of Medical Assistance to be focused on specific interventions needed for children with autism spectrum disorder, as well as supporting their families through possible long-term outcomes. Services eligible for early intervention and long-term support may include "Comprehensive Multi-Disciplinary Evaluations, treatment options and supervisions including Applied Behavioral Analysis and Developmental and Behavioral Interventions, family/caregiver training and

counseling, care consultations, and Individual Service Plans," (Children with autism, 2014).

Along with this new legislation, the Minnesota Department of Health has offered many supports to better serve students with autism spectrum disorder including an autism spectrum disorder advisory council; autism spectrum disorder focus groups for advocacy, professionals, and parents; and direct pathways to services for children with autism spectrum disorder (Children with autism, 2014).

## **Empowerment**

Empowerment is ultimately "power being granted to individuals and groups" (Waddock, 2008, p. 714). Students with autism spectrum disorder are often unable to experience their own empowerment as easily as other students within mainstream schools are. With this being stated, there is a process of empowerment that happens, especially toward students within schools, as both individuals or as a group. The steps of one type of empowerment process are as follows:

"The person in authority must make a decision to give up some current level of power and communicate that decision to those who are currently not empowered. The individuals who are to be empowered need to be given training and education about their new tasks, responsibilities, or authorities. Then, any necessary organizational reporting shifts must take place, including appropriate changes of the reward structure," (Waddock, 2008, p. 714).

These steps can be adapted into schools and toward students simply by breaking it down step by step and adjusting a few small words to demonstrate the empowerment process to students.

The steps above can be modified a school/student setting. The first step: "The person in authority must make a decision to give up some current level of power and communicate that decision to those who are currently not empowered," could be translated to, "The teacher or staff in charge must decide what type of reinforcement to give to heighten the students' current level of interests and specifically communicate that to their students." The next step "The individuals who are to be empowered need to be given training and education about their new tasks, responsibilities, or authorities," can be adjusted to read; "The students who are to be empowered need to be told how they can work toward that empowerment and what their roles and responsibilities will be once in that new position of power." And lastly, the step reading "Any necessary organizational reporting shifts must take place, including appropriate changes of the reward structure" could remain in tact as it already can be applied to students.

"The term empowerment has been applied in educational settings to the development of self-efficacy, competence, and confidence in students," (Waddock, 2008, p. 715). Within education settings, as well as many other settings, empowerment of others is known to be a highly effective and ethical theory within most circumstances, "provided it is done with proper motivations, training, and reward structures in place," (Waddock, 2008, p. 715). Even though empowerment is considered highly effective within schools, there are some negative responses to empowerment in these settings. "Some critics believe that the so-called empowerment programs do not provide much

real decision-making capacity to those who are being empowered..." (Waddock, 2008, p. 715).

## Methods

## **Research Design**

To examine the effectiveness and empowerment mainstream schools and classrooms provide to student with autism spectrum disorder, a qualitative research design was used. "Qualitative research focuses in understanding a research query as a humanistic or idealistic approach... Qualitative method is used to understand people's beliefs, experiences, attitudes, behavior, and interactions," (Pathak, Jena, & Karla, 2013). For the purpose of this study, students with autism spectrum disorder were combined as one, regardless of the severity of their disorder.

## **Participants**

This examination focuses on the perceptions of teachers and paraprofessionals within the specific mainstream school district at the Le Roy- Ostrander School<sup>1</sup>. The staff members used for these perceptions were mainstream classroom teachers and paraprofessionals, as well as autism spectrum disorder specialized teachers and paraprofessionals. Data was collected from ten teachers and paraprofessionals in January of 2015. Of the ten participants that were interviewed, five were identified as autism specialized and five identified as mainstream, general education staff; eight were females and two were males. These staff members range in their years spent as professional educators, anywhere from two years to 37 years. These staff members were chosen for

<sup>&</sup>lt;sup>1</sup> Le Roy- Ostrander Schools asked to be identified in this research and was approved to do so by the St. Catherine University IRB.

the voluntary participation in this study with help from the school's principal, as well as the special education director.

## **Program Description**

The autism program used for this research is based in a mainstream school, with separate classrooms and workspaces for the students with autism spectrum disorder. This program is funded and operated by the Southern Minnesota Education Consortium. Students in this program start their day by coming to school using many different means of transportation. Students are aided into the classroom by staff and put their belongings into their personal lockers. All students within the autism program has a locker of their own that contains their belongings, as well as an extra change of clothes, and in the winter months, an extra hat and mittens. From this point in the morning, each student's day becomes personalized and somewhat different. Some students remain in the autism classroom for all academic purposes and learning, while some students split their academic time between the autism classroom and the mainstream classroom of their grade. Each student has opportunities to spend time within the sensory room, which is conveniently connected to the autism classroom.

The sensory room houses multiple sensory stations for the students, as well as waiting areas and workstations. "Sensory Integration Therapy is extremely important to students with autism. This area is designed to work with students' proprioceptive system (contracting and stretching muscles), visual system (their body's relationship to space), vestibular system (position of head in relationship to gravity which primes the entire nervous system), and auditory system (has two functions-closely tied to vestibular

system in that it deals with gravity/vibration and processing information that is heard) (Le Roy-Ostrander Public, n.d.). The sensory room is set up to fit each student's "individualized sensory diet," which determines how many times a day a student will benefit from sensory therapy. Within the sensory room, there are color-coded schedules that help to guide students through their sensory breaks. Each station has a matching color to help students know where to be and to help staff organize students when there are several in the sensory room.

There is also a space off the sensory room called the "Low-Sensory Room" which is used for students to take a break at any time during the day. This space is often requested by the students but sometimes prompted by staff. "This space can promote self-relaxation skills for some students before getting back to their schedule," (Le Roy-Ostrander Public, n.d.). The program staff makes sure to state and reinforce that the low-sensory room is not a time-out room for students.

The autism classroom schedule is set up differently than most classrooms within this mainstream program. The classroom schedule for students with autism spectrum disorder is visual and uses pictures to communicate the sequence and schedule of activities that the students will do each day. Each schedule is individualized for the student, including all activities in and out of the autism classroom. Mini schedules are also available for student within the autism classroom to guide them through a task if they need more assistance completing tasks one at a time. For example, a mini schedule could be used to help students remember the appropriate steps of going to the bathroom: In Bathroom, Sit on Toilet, Flush, Wash Hands, Out Bathroom.

Other important workstations in this classroom include purple, red, yellow, green, and independent work stations. Many of these workstations are designed so there are no distractions to the students by seeing other students or any visual stimulus. The purple station within the autism classroom is used for music therapy. "Music can have many different rewards. This structured station can have social skills imbedded, hand-eye coordination, different speech patterns practice, songs tied to academics, rhythmic movements (voga) etc." (Le Roy-Ostrander Public, n.d.). The red station is used for academics where students can work on their classroom work with a staff one-on-one. The yellow workstation is used to provide occupational therapy and art to students when schedules. "This station is used for students to have additional time to support find motor skills, visual phonics, art, supplemental academics, etc." (Le Roy-Ostrander Public, n.d.). The green workstation is used by the social worker who comes into the classroom and work with the students individually on their social skills. Different social skills are taught for different amounts of time, depending on the students and their individual treatment plans and goals. "Depending on each student's needs this may include turn taking, perspective taking skills, socially appropriate behaviors, and pre-teaching curriculum that the student will be a part of in the general education classroom during character education with the social worker," (Le Roy-Ostrander Public, n.d.). Last is the independent workstations; "independent work stations are set up for students to implement mastered skills in an independent and structured environment," (Le Roy-Ostrander Public, n.d.). This workstation, like others, is individualized for each student but typically follows three things to work on: an academic task, a find motor skill, and a puzzle that is academically related.

This autism classroom, like many other autism programs, has supports in place for students with limited verbal abilities. The autism classroom in this research uses a Picture Exchange Communication System (PECS) in the form of a book. Non-verbal students are then able to communicate their preferred activities by moving the pictures into a line to form a sequence or sentence. For example, these sequences could state "I want water" or "I need break." The Picture Exchange Communication System is "a common treatment choice for non-verbal children with autism," (Lerna, Esposito, Conson, Russo, & Massagli, 2012, pg. 609). PECS was developed in 1985 as a form of alternative communication for individuals with autism spectrum disorder. Its process is to teach individuals to communicate by giving them a picture of the desired item and eventually allowing them to put the pictures together into sequences, ultimately making sentences (What is PECS, n.d.).

There are multiple forms of technology used within the autism classroom, just as in many of the mainstream classrooms within the school. Each classroom within the school, including the autism room, has a Smartboard, a touch-sensitive board that allows teachers and students to be hands on, specifically using their hands as a mouse or writing utensil. The students within this classroom are drawn to the Smartboard as it has the ability to increase their computers skills. The Smartboard is also implemented into the students' classroom schedule to review and discuss their morning meeting. Along with the Smartboard, the autism classroom has been able to utilize an iPad; this iPad has been helpful to students with autism by the use of different apps (applications) available. Some students have also been given the opportunity to use their PECS book digitally on the iPad (Le Roy-Ostrander Public, n.d.).

Parent/guardian interaction for this autism program, as in many others, is crucial. Each day, students are sent home with a journal about the day's events to give to their parents. Parents and guardians can expect to see these every school day. These journals give parents the opportunity to be involved in what is going on at school on a daily basis and to communicate with their child about the activities they completed or did not complete that day. Before the communication journal gets returned to school with the student each morning, parents/guardians are asked to put three checkmarks into it: how the child slept, how well he or she ate breakfast, and the child's overall feelings of the morning. The purpose of this part of the journal is for the staff to know about events leading up to the school day in order to meet the needs of each individual student each day. There is always room each day for a parent or guardian to write any questions, comments, concerns, and upcoming appointments for their child (Le Roy-Ostrander Public, n.d.).

Significant roles within the success of the autism program include autism and general education teachers and paraprofessionals, as well as (consortium based) occupational therapists, physical therapists, and social workers. Within the autism program at Le Roy- Ostrander, the social worker spends her time working with students with ASD both individually and in groups, focusing on social skills. The school social worker is present within the autism classroom(s) multiple days out of the week and is located within the building at other times. Thus when not in the autism classroom, the school social worker is easily accessible if crises arise. Currently the social worker splits her time between students with autism spectrum disorder and general education

students; this is to fulfill all requirement reflected on students' IEP's (Individualized Education Plan).

Other adaptations and supports within this classroom intend to help students with autism spectrum disorder succeed through their day include the reading cove, snack time, and a private bathroom. The reading cove is a place for students to go to read independently or listen to books that are on tape or CD. Often, students with autism spectrum disorder can have difficulty tolerating certain foods. As a result, some student may not be able to eat a large portion of their school lunch. To compensate, snack time is scheduled twice into these students' day at 10 a.m. and 2 p.m. Snacks are to be provided by each student's parents or guardians; milk is available for purchase at the school. The autism classroom has a private bathroom for students within this program due to specific needs and possible distractions in the public bathrooms (Le Roy-Ostrander Public, n.d.)

### **Human Subjects Protection**

There are two main pieces to the protection of human subjects within this research. First, the Institutional Review Board at St. Catherine's University must approve this research. The purpose of the Institutional Review Board is to review and monitor research involving human subjects, (Regulatory Information, n.d.). Prior to the approval by St. Catherine's University's Institutional Review Board, there was a required training (Collaborative Institutional Training Initiative) to add additional training about protection of human research subjects. The Collaborative Institutional Training Initiative's mission is "to promote the public's trust in the research enterprise by providing

high quality, peer reviewed, web based, research education materials to enhance the integrity and professionalism of investigators and staff conducting research," (Mission and History, n.d.).

### **Procedures**

Data was gathered from multiple semi-structured interviews that took place with teachers and paraprofessionals from a mainstream school in southern Minnesota. The questions asked during the semi-structured interview were based around the effectiveness of mainstream schools' and classrooms' ability to provide a positive and empowering educational experience to students with autism spectrum disorder, refer to Appendix A. Interviews were conducted voluntarily with teachers and paraprofessionals within the school; interviewees were given the choice to have the approximately one hour interview at the Le Roy-Ostrander School or at another location of their choice. These interviews were recorded and transcribed for further examination and analysis. I am confident the transcribed interview shows themes that furthered my research on this topic to determine the general perceptions of teachers and other staff members, as previously stated. Steps taken in obtaining data are as follows: obtaining consent from Le Roy- Ostrander School and IRB, obtaining participants, having participants follow IRB protocol by signing consent forms, meeting each participant individually to conduct semi-structured interviews (Appendix A), transcribing recorded interviews, reviewing and coding.

# **Data Analysis**

Portions of the Grounded Theory were used to structure the analysis of the data obtained. The data obtained from the semi-structured interviews that took place were transcribed and read by the researcher to determine several themes corresponding to quotes from interviewees. The transcriptions were reviewed three times by this researcher to find reoccurring subjects (themes). Those themes were then narrowed down to the most prevalent and most discussed themes. Those emergent themes became the focus of further research.

# **Findings**

Research Question: What are teacher's perceptions about the effectiveness and empowerment of Autism Spectrum Disorder (ASD) students within mainstream schools and classrooms.

Interviews revealed overwhelming support for mainstream ASD practices.

Participants spoke about the growth in the program that has happened over time and the support that they have received from the local community. Teachers and staff felt that the ability to mainstream ASD students was beneficial, not only for the ASD students themselves but for general education students as well. Teachers also described specific school-based resources that they felt most contributed to the success of the ASD students in the mainstream classrooms. Additionally, educators talked specifically about the role of empowerment with ASD students, as they discussed what they felt contributed to student empowerment. Lastly, participants shared some of their "wish list" items that

they thought would further improve services for ASD students. Each of these themes will be explored, in detail, below.

# **Support for Mainstream ASD Practices**

All participants in this research have observed their student(s) in a mainstream classroom with frequency being at the most that is allowable. It was unanimous throughout all participants that the ability to mainstream students with autism is positive and beneficial. One participant commented more broadly on the mainstream practices:

"Well, I think we get a great opportunity to mainstream the kids [autism students] as much as possible."

Another participant elaborated on how mainstream practices benefit the entire school community:

"I guess I am just a big, big pusher of getting these ASD students into the mainstream environment because, at least in my experience, it has been nothing but beneficial. It's really beneficial for everybody. It's beneficial for the kids, both mainstream and ASD, and for you as the teacher, because it pushed you to adjust to some thing's where you maybe regularly wouldn't have to. It's been a really good experience overall."

# **Growing with the Students**

When the autism program began at Le Roy-Ostrander, accommodation of students was possible only at the elementary level.. As students have continued to grow educationally, the program has also continued to grow. The hope and belief among multiple interviewees is that the autism program will soon grow into a full k-12 program, like the mainstream school. Sixty percent of participants wanted to discuss the possibility of the autism program continuing to grow with the students. For instance, one participant reflected on the growth that they had already witnessed over the years:

"I like how it's now moved up with the kids. It kinda started off as just elementary and very simple, but now we see it more in the middle school level as well."

Another participant talked about the success of the transition due to the consistency of the teachers:

"It's kinda the same idea, same concepts as it's moved up and some of the... before this year some of the people were the same each year so they were able to move the same thing up. Yeah, it's worked out really well so far."

# **Community Support**

"I would say the support of the community is HUGE..."

Le Roy- Ostrander School is located in a small school district and in a rural community. As is often true of small communities, rallying around a cause, particularly

for children, illustrates the generous spirit of the residents. This research revealed that communities of Le Roy and Ostrander had that same willingness to be involved. When the Autism program started multiple years ago, the teachers never expected to receive so much support, not only from local residents but from surrounding communities as well. One participant shared a memory of a Christmas concert where she had the first class of students with autism participating in the concert with their mainstream classmates:

"After our first concert, I had at least five people come up to me crying and saying they couldn't believe that this particular student was able to stand up there and sing and that he could do what needed to be done for the concert."

Other community support within the Le Roy- Ostrander area includes multiple businesses and townspeople becoming involved with the autism program. A participant shared stories of community members and businesses building different things for the autism program and sensory room, and often asking if teachers needed more equipment to be built. Local ambulance and fire crews have also joined in supporting the autism program and the general education of people with autism. One participant talked about collaboration with the local EMS in order to provide education and information useful in emergency situations:

"I was asked to come and speak to the ambulance crew and help to put together a tote that stays on the ambulance with sensory objects and picture reels so if they ever were called to someone with ASD, they would be prepared and knowledgeable."

# **Benefits to the Entire Student Body**

"I think it's been good for the other students... to learn. So they are able to see differences, and I think it's made them be maybe a little more... compassionate for students that are different than them. If they were just closed off in their own room and the students didn't get to see them, they wouldn't realize that... there are children out there than have difficulties."

One hundred percent of participants expressed the belief that the mainstream programming was not only beneficial for students with autism but for general education students as well. When speaking with participants about how mainstream students react to frequent interaction with students with autism, participants expressed the following:

"And at this school, the kids [general education students] are just very accepting.

They grow up understand it [autism], and it works in our favor, for all students."

"I can see the kids [general education students] that are very nurturing; they want to be friends with them [students with autism]."

One staff member that has been in more than one school district was able to explain the interaction he sees between the general education students and the students with autism:

"For the most part, it's been positive... I think that's a benefit of being in a small school, these kids have gone to school together forever so they know each other. I very rarely have seen anything negative."

### **Essential School-Based Resources**

Participants talked about essential school-based resources that they feel are fundamental to the success of the program. These resources include the following: 1. Access to sensory room 2. Use of paraprofessionals 3. Flexibility in programming 4. Picture exchange and visuals 5. Manipulatives.

# 1. Access to Sensory Room

Another focus of the interviews was on the level of resources and accommodations available to staff and students. Interviewees regarded the sensory room at Le Roy-Ostrander's Autism program as a critical accommodation for the students with autism spectrum disorder. The sensory room houses multiple sensory stations for the students. Participants described the sensory room to be largely beneficial to the student with autism by increasing their ability to maintain consistency and education efficiency. When asked how beneficial he sees the sensory room to be and if he sees the students with autism make good use out of it, this was one interviewees reply:

"Yes... well everyone starts out here [in the sensory room] every morning plus if they need breaks throughout the day, they all have the option to use it. It comes in very handy many times throughout the day for these students."

# 2. Use of Paraprofessionals

Of the participants, 60% listed having paraprofessionals as a beneficial daily support for the students with autism; the remaining participants did not have paraprofessionals in their classroom. When participants were asked about the most beneficial school-based resources for students with autism at Le Roy- Ostrander, the following was stated:

"Yeah, a para is the most... this year, the most beneficial to them [students with autism] and us [educators]."

"This year, the [autism] students that I have are high functioning so mostly their support is a para."

With that in mind, there may be the worry that a paraprofessional being at the side of a student with autism, potentially 100% of the time, could be a disadvantage to their education, empowerment, and social growth. This idea of a potential disadvantage became a topic with all of the participants who discussed having a paraprofessional in their classroom as a daily support for students with autism. When participants were asked how interactions between paraprofessionals and students played out, they responded with the following:

"I think they [students with autism] know they can work as independently as they want to. The para is sometimes wandering around the room and not helping them, and I think they realize and understand that."

"I think they [paraprofessionals] really try to sit back and not repeat; like if I say

"color the box red," they don't repeat it, they give the kids [students with autism] a

chance to do it on their own and not to struggle but just to be as independent as they

can. But yet they're pretty good about noticing when the students [with autism] are

struggling and knowing when to step in when they are frustrated."

# 3. Flexibility in Programming

When discussing flexibility with students with autism spectrum disorder, many things came into play, including assignment modification and classroom modifications. Some students with autism spectrum disorder require things to be very specific, for example in the use of a specific color or font. Thus teachers and staff at Le Roy- Ostrander become aware of these needs and provide the required accommodation. Sixty percent of participants spoke of assignment and (mainstream) classroom modifications; specifically beneficial seating for students with autism. One participant said the following when discussing classroom modifications:

"Other basic modifications and stuff are him/her in the front of the room cause he/she has a hard time seeing and stuff so he/she sit in the front of the room and not

next to certain people because he/she will egg-on certain people and just doesn't get along with them. So making sure he/she feels comfortable is kinda a big goal."

When it comes to assignments, particularly as the students with autism grow into the middle school, an overwhelming amount of numbers on an assignment may disregulated them and stifle ability to learn. One participant specifically discussed flexibility with tests and homework assignments and how the amount of numbered items appearing on an assignment page or other homework can provoke dysregulation:

"Test modification. Like I even asked him/her, 'do you wanna do the odds or the evens?' Then he/she chooses. Okay, so we do the evens for him/her. So he/she had a little say in what they got to do. But modifying tests, that's always a thing. And homework, being more lenient of his/hers than other students."

One participant explained his theory on assignment and test modifications for students with autism. He explained that although there may be an assignment modification on some things, those students are rarely receiving perfect scores. The following was stated when asked the participants reasoning behind this concept:

"I think it would more negatively impact [student name] if I made him/her do all 20 spelling words every week as to where he/she may get 0 out of 20... I think that

would be much more detrimental than trying to find success in picking ten words and focus on getting them right."

# 4. Picture Exchange and Visuals

Over half of participants spoke of visual supports, including the Picture Exchange Communication System (PECS)<sup>2</sup> as beneficial to students with autism. One participate discussed the impact of visuals:

"I see visuals really helping with everything. Visual daily schedules and visuals on their iPads so they still have the 1:1 like every students but just using it in different ways and for different purposes. I see it as giving the students what they need."

Students within the autism program at Le Roy- Ostrander often need and use visual supports to help them to communicate. Not only do both autism and general education staff at Le Roy- Ostrander use visual supports, but also they often specifically use the Picture Exchange Communication System. The following was discussed when participants were asked when and how they use visual and picture exchange:

"What is on our daily schedule (PECS); the PECS, we make them big and they are... so for example, we have one that says 'gym' so when they check their schedule there is a picture and also a word, so then on the Gym doors, there is the same picture, that

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<sup>&</sup>lt;sup>2</sup> Picture Exchange Communication System (PECS) was developed in 1985 as a form of alternative communication for individuals with autism spectrum disorder; it is a process to teach individuals to communicate by using pictures.

says 'gym' with that picture. And that is everywhere; music, lunchroom, teachers desks, so in the classroom, on the teachers desk, there is a picture that says 'teacher' so they know they are not allowed to touch it."

As previously stated, the autism program at Le Roy- Ostrander is currently continuing to expand as the students reach higher education levels. The question of change in visuals was asked when students move from elementary to middle school. One participant responded as such:

"It's the PEC system on the iPad. It is exactly the same pictures so that way it is consistent throughout our program, and they are comfortable with it so it is less change. They are not very comfortable with change usually."

# 5. Manipulatives

According to interviewees, Le Roy- Ostrander staff uses both concrete and physical manipulatives with their students. For this portion of research, concrete manipulatives will be the focus. Participants were asked if they used manipulatives within classrooms; 100% acknowledged they did in fact often use manipulatives. When asked examples of specific manipulatives, participants responded as follows:

"I guess I gave them number strips and stuff like that, that I didn't give to other kids [general education students], like manipulative things that the other kids [general education students] didn't necessarily need to have but they [students with autism]

needed to have them. Ya know, if they needed coin money to help them count or the little individual clocks if they needed that."

"And with the binder, they have clear plastic sleeves, which make it really easy. I have one student who is falling behind in multiplication right now so I just slipped a multiplication chart in the back of their binder, that they can use during math to help them. None of the other students can really see it; so they can just flip to the back of their binder. It's hidden just for them so they can use it when they need to."

# **Empowerment**

The empowerment of students with autism appeared to be an "umbrella-like" theme within this research. Four sections identified how the students within the Le Roy-Ostrander Autism Program were empowered. Those identified sections were as follows:

1. Self-Supportive 2. Reward Systems 3. Break Out Spaces 4. Peer Interaction.

# 1. Being Self-Supportive

100% of participants interviewed made confident comments about students with autism being able to gain their own self-satisfaction and self-support through the mainstream school process. One participant was asked why the autism classroom is self-supportive:

"Well, I think, in a limited area, it will give them some independence. It allows them to make certain choices that they are capable of, and ya know then they are very smart students, they are just autistic."

Another participant was prompted to discuss in further detail how having a paraprofessional within the classroom could be self-supportive:

"I think they [students with autism] know they can work as independently as they want to, the para is sometimes wandering around the room and not helping them and I think they realize and understand that. But when that happens, it means that they are doing what they are supposed to be doing and I think that brings out their own self-satisfaction, too."

# 2. Reward System

When interviewees were asked to specify the most empowering daily support available to students, reward systems were a majority answer; seventy percent of participants discussed different forms of reward systems used within the autism classroom and general education classrooms and how they may interact between all classrooms. One participant shared what she has learned about reward systems:

"So each kid [student with autism] gets their own reward and each reward system is catered to each individual child and what they like. They do it everyday. So how ever

many [points] they earn by the end of their day. I've come to learn that, from the beginning of the year, rewards HAVE to be immediate."

At Le Roy- Ostrander, staff uses sticker charts to keep track of students' reward system within the middle school autism program and "critter points" within the mainstream system/general education classrooms. Critter points are an electronic way to keep track of the reward points/system. These techniques are often blended together for students with autism at Le Roy- Ostrander. The quotes below come from both ASD staff and general education staff concerning how beneficial reward systems are:

"Rewards. The rewards are it. If you look around the room, there are sticker charts everywhere. There are some right here and over there [pointing]. They each have a sticker chart at their desk, usually in kinda a hidden place."

"The ASD staff has some. I don't know the exact steps but they get so many Critter Points, and then they earn a reward, and they earn that so they know, 'Okay. Cool. I did the right thing. I get to go back and put up a critter point.' And they probably know in their head how close they are to earning something."

# 3. Use of Breakout Spaces

Breakout spaces within the autism program at Le Roy- Ostrander attempt to remain as consistent as possible from the elementary program to the middle school program. This helps students to know what they are expected to do and to have that

sense of empowerment when they succeed in a breakout space. A participant provided additional details to the breakout spaces:

"We set a timer, and they [students with autism] just know when the timer goes off, they come out and rejoin. Unless I can see that they need more time, then we change it to what is needed. It's a set time of two minutes. We try to keep a lot consistent between the elementary and the middle school because these kids went through the elementary program so they know what to expect of the [middle school] program."

When discussing the empowerment students gain being able to express (both verbally and non-verbally) that they need a break, the following was stated:

"Two of them are able to verbally do it, two of them just don't. They aren't yet able to understand that a break is what they need, so sometimes that gets to be kinda a struggle so getting them to use their visuals of 'I need a break' is one of our biggest, but most rewarding, challenges."

#### 4. Positive Peer Interaction

One hundred percent of participants stated that peer interaction at Le Roy-Ostrander was a major component of the empowerment of students with autism. At Le Roy-Ostrander, the autism program is located in the same elementary and middle school areas as the general education classrooms; students with autism and general education students are often interacting. Participants shared their experiences seeing peer

interaction between students with autism and the general education students and the empowerment this interaction promotes:

"Well, I just think it's really being involved in everything that their peers are being involved in. And I think in the phy ed setting, it is so unique that we get the opportunity to do that very easily by having teams for different games and by, well just the other day, we did a relay race where each students has to complete it [the relay] individually but they are a part of a team and so we get a good opportunity to experience not only teamwork but also encouragement by not only them but by their classmates as well, and I just think empowerment is a result of that."

One classroom teacher explained interactions specifically to his classroom:

"I guess I can speak directly for the student in this grade, when they [students with autism] get here I think they are given that ability to grow socially because they're able to come in the classroom and they go to all other classes, and the extras like gym class and lunch, so they are there with their classmates..."

# **Wish List for Improvement:**

The "magic question" was asked of participants for this research: If they could have anything imaginable to help the empowerment and effectiveness of the students with autism at Le Roy- Ostrander, what would it be? Multiple participants had an answer

based upon sensory issues and specifically the sensory room. One participant stated the following when asked the "magic question":

"This is totally far-fetched, but it would be really nice if every [regular] classroom had a sensory room! That way we could have them [students with autism] in the mainstream classroom more often, and it would just be used as a break, where we wouldn't have to physically leave the room. They would still be in there, with their peers but taking a break... ya know that is so far-fetched though. You would have to have a million acres of land to be able to have that."

# **Summary of Findings**

Research findings lead to the highlighting of strengths for students with autism spectrum disorder being enrolled in a mainstream, general education school district and building. Both the autism-specialized staff, as well as general education staff, showed overwhelming support (i.e.: understanding, patience, and empathy to students and the ability to collaborate with a multidisciplinary team) to the autism program at Le Roy-Ostrander. My research has shown that a major benefit of the autism program at Le Roy-Ostrander is its ability to grow with the students as they advance in academics and age. All participants agreed on the autism program being beneficial to the school and community, as well as it having full support from the school and community. Findings showed positive impacts on both students with autism, as well as mainstream students. The autism program proves to benefit the entire student body: both students with autism and general education students learn from and grow with each other. There are multiple

barriers that can occur when having students with autism in a mainstream education building but as the research above shows, those barriers can be and are being overcome at Le Roy- Ostrander. All participants confirmed the access students with autism spectrum disorder have to essential school-based resources as being extremely beneficial. Empowerment of students with autism was demonstrated in multiple ways in the research above by 100% of participants.

	Percentage of	
Categories	Participants	Supported by Previous/
	Responding in	Other Research
	this Study	
Support for Mainstream ASD Practices	100%	YES
Growing with Students	60%	YES
Community Support	50%	NOT FOUND
Benefit to the Entire Student Body	100%	YES
Access to Sensory Room	40%	YES
Use of Paraprofessionals	60%	YES
Flexibility in Programming	60%	NOT FOUND
Picture Exchange & Visuals	60%	YES
Manipulatives	100%	YES
Being Self-Supportive	100%	YES
Reward System	70%	YES
Use of Breakout Spaces	40%	YES
Positive Peer Interaction	100%	NOT FOUND

<sup>\*</sup>The graph above is a physical representation of the information noted above; as well as if research found is supported by previous research.

#### Discussion

The results of this study show an overall positive reaction to having an autism program within a mainstream, general education school building. Along with the positive reaction to its physical location within a general education building, the empowerment added to students with autism by mainstream faculty and students can be stated as admirable. Multiple findings within this research study are well supported by previous research. (See chart above.)

One strength found within this research that is supported by previous research is the ability to mainstream students with autism. Both mainstream and autism professionals and educators from Le Roy- Ostrander agreed that they were able to provide successful education while integrating autism students into the general education classrooms. This is supported by previous research done by Kamps, Barbetta, Leonard, and Delquadri in 1994 where it is stated, "For integration procedures to be successful, they must be easily incorporated into classroom routines and enhance or minimally maintain learning of nondisabled students," (Kamps, et. al., 1994, pg. 49). This study also supports the research findings of mainstreaming being beneficial for both mainstream and autism spectrum disorder students. It is stated in previous research that mixing general education students with autism students will, "Improve the academic and social skills of all students involved," (Kamps, et. al., 1994, pg. 49).

Among the majority of participants, Community support was also stated to be a positive impact and enhancement to the autism program at Le Roy- Ostrander. Earlier research shows that community support is needed for a part of small programs and schools, like the researched autism program and mainstream school, success. "The

community must understand, appreciate, and support the varied and difficult responsibility of our public schools," (Meyer, 1952, pg. 379).

As previously stated, a majority of participants stated that the sensory room within the autism program at Le Roy- Ostrander helped to empower students with autism, as well as to make their educational experiences more successful. Previous research reinforces this conclusion by indicating that students within schools show less inappropriate behaviors within schools when they have a place to go for their sensory needs. "It has been noted that some specific instances of stereotypic [ASD] or self-injurious behavior may be maintained by sensory stimulation," (Carter & Stephenson, 2011, pg. 96). As my research also shows, multiple portions of the brain stimulate behaviors, which can be decreased by access to a sensory room/sensory stimulation.

In my research, paraprofessionals were noted to be one of the most influential daily supports available to autism students within a mainstream, general education school. Paraprofessionals were shown to be beneficial to both students and teachers. In previous research Washburn-Moses, Chun, & Kaldenberg documented paraprofessionals to be "critical to special education service delivery in inclusive classrooms where there are used to support teachers [and students]," (Washburn-Moses, et. al., 2013, pg. 34).

# Strengths and Limitations of the Study

There were numerous strengths to the study of empowerment to student with autisms within a mainstream school. Initially when this research was proposed, there was little research of the empowerment of student with autism, specifically in mainstream schools. This research was fortunately based out of one autism program in

southeastern Minnesota at the Le Roy- Ostrander School. The greatest strength this research provided was to put educational theory and experiences behind the empowerment of student with autism that are in a mainstream school. Many rural areas have students that are unable to receive specialized schooling supports, so this research will show that mainstream schools provide empowerment to students with autism spectrum disorder.

Even though there was an abundance of knowledge and education gathered from this study, there were limitations as well. Just as a strength of this study was to have all participants from one school district and program, that is also a limitation because programs in different schools could be run differently. There could be diverse outcomes of research if this study would have encompassed multiple autism programs within different mainstream schools.

Another limitation within this study is shown within the findings of the research. With the interview being semi-structured and all questions being open-ended, there were very few guided answers. This lead to multiple different responses to all questions. With so many different answers, results were often skewed, For example, a result of 60% implies the remaining 40% of participants did not agree with reported results, which is incorrect. Percentage responses would have most likely been higher if a specific response were prompted.

# **Implications for Social Work Practice**

The idea of autism spectrum disorder within mainstream schools is growing on a yearly basis for school districts. This idea will continue to impact administrators,

educators, as well as social workers within those school districts. Within this research, multiple implications for social work practice were found. An important implication for school social workers is to connect the dots between the families of students and the representatives of the school district, whether that is administration or educators. This role is often called a liaison. Often times, families need support from the school social worker to advocate for their child. This leads into another implication for social work practice, advocacy. Advocacy within school social work can include advocating for a student, for the student's family, and even for staff members if need be.

Social workers within a school are often largely responsible for securing funding, and finding those funding potentials and resources. Many times a social worker within a school with ASD students would be the primary writer of a grant, often with the help of an ASD teacher. As stated in research above, successful funding will help a school to gain resources and physical components that will help to empower students. All social work implications within this setting will potentially lead to the empowerment of both mainstream students and students with autism spectrum disorder.

Empowerment is imbedded within the mission of social work practice and its values. "These core values, embraced by social workers throughout the profession's history, are the foundation of social work's unique purpose and perspective: service, social justice, dignity and worth of the person, importance of human relationships, integrity, and competence," (Code of Ethics, 2008). All of these unique values set forth for social work practice show to mirror empowerment to clients, and in the case of this research, students with autism spectrum disorder.

# **Suggestions for Future Research**

The purpose of this research is to make minds question the process and findings and lead to further research on such topics. The expansion of research on autism students in mainstream schools is critical for both mainstream schools and autism programs, both separately and together. In future research, findings could be more effective if multiple autism programs were researched, rather than one specific program as this study entailed. This may lead to different and more in-depth findings, which may or may not support my research.

Another area that would benefit from expansion of this research would be to research the effects on the mainstream, general education students when there is an autism program centered within their school building. This could open doors to future research on the effects all special education programs and students have on mainstream schools and classrooms.

### **Conclusion**

Through this study, the effectiveness of mainstream schools' and classrooms' ability to empower autism spectrum disorder students was explored. Conceptual framework for this research was based upon the empowerment theory which has been shown to mirror some challenges of students with Autism Spectrum Disorder within mainstream schools and classrooms. The results of this study were gained by semi-structured interviews of teacher and paraprofessionals at the Le Roy-Ostrander School who teach and aid students with autism spectrum disorder on a daily basis.

Though there are few studies on this topic, the conclusions of my research appear to support the conclusions of prior research: an autism program within mainstream

schools is a positive and strengthening component for schools and communities. In addition my research aligns with earlier research in demonstrating how autism programs empower their students. Research on Autism Spectrum Disorder and students with autism spectrum disorder must be extended to maintain effective care and empowerment for these children and students. These students, just as much as general education students, are the future of our world.

One interviewee made the following statement. It is one that will forever represent the time and passion put into this research:

"They are very bright, they are just like you and me, I tell everybody, they are extremely bright, they are just autistic."

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# Appendix A

What are teacher and support staff's perceptions about the effectiveness and empowerment of Autism Spectrum Disorder students within mainstream schools and classrooms. This question will be explored using an empowerment perspective.

# **Qualitative Interview Questions:**

- 1. Overall, what do you see as the biggest strengths of the autism program within your school?
- 2. In the same aspect as the previous question, what do you see as the biggest weaknesses to your program?
- 3. What types of daily supports are available for students with autism spectrum disorder, within the mainstream classrooms? \*\*Examples of supports: social stories, transportation adjustments, routine modification, etc.

Next, I'm going to ask you some questions about empowerment.

- 4. When you think of a student with autism spectrum disorder, who is empowered?
  - a. What does that look like?
  - b. What do you see happening?
- 5. In your professional opinion, which one of the supports available (in question three) helps to empower students?
  - a. Follow-up question: how does it empower them?
  - 6. Are there any reoccurring situations that you see within the mainstream school system that may negatively impact students with autism spectrum disorder?
  - 7. Can you explain to me any typical interactions seen and heard, both positive or negative, between students with autism spectrum disorder and mainstream students?
  - 8. If you could wave a magic wand, what services or practices would you like to see implemented in mainstream classrooms in order to support the empowerment of students with autism spectrum disorder?