

# Teaching Teachers: Collaborative Autism Program

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## Abstract

*This paper discusses the process and ideology leading to the pairing of community experts with university faculty to provide effective training for teachers to work with students who have been identified for an Autism Spectrum Disorder. This collaborative program includes the development of classes based on the INTASC Standards and Minnesota Autism Guidelines. Courses emphasize current research, medical understanding and classroom strategies, leading to an increased ability for teachers to provide students with Autism Spectrum Disorders an appropriate education and family support.*

## Introduction

As our society is faced with new startling facts concerning a substantial climb in the rise of children being diagnosed as having an Autism Spectrum Disorder we are compelled to work collaboratively to help school teachers, paraprofessionals, parents and care givers understand what they can do to help with the education of their children. Recent studies have shown us that with this rise comes an innate desire for both understanding along with the need for further education designed to teach children with Autism.

It was this concern for the rising numbers of individuals with autism spectrum disorders and profound need for training that we chose to investigate the needs and services in the southwest corner of Minnesota, which is the area primarily served by Southwest Minnesota State University. We also chose to pair with two autism specialists employed by the Southwest/West Central Education Service Cooperative. Both specialists completed extensive training and have provided consultation to member district teachers and families in the area of Autism Spectrum Disorders. Both agencies are located in Marshall, Minnesota. Together we collected research, conducted an area needs assessment, and developed an Autism Certificate that was approved by the Minnesota Department of Education and Minnesota System of Colleges and Universities governing body. This paper chronicles the process, development for this Autism Certificate. Many similar programs are being developed across our nation.

## Incidence of and Needs for Individuals with Autism Spectrum Disorders

Autism is a lifelong developmental disability that begins sometime during the first three years of a child's life. Autism is a neurologically based disorder. It affects the way children communicate, interact with other people and how they perceive and react to the world that surrounds them. Patterns of behavior that are characteristic of autism can include impairment of reciprocal social interactions, impaired communication skills, restricted range of interests, or repetitive behaviors. Autism is considered a spectrum because not all children display all characteristics. Each individual might display different combinations of behaviors, ranging from mild to severe. Other disorders related to autism are Rett's Disorder, Childhood Disintegrative Disorder, Pervasive Developmental Disorder Not Otherwise Specified (PDD-NOS), and Asperger's Disorder.

The Minnesota Department of Education, formerly known as Children, Families and Learning conducted a Descriptive Study in 2001 to determine the number of children in Minnesota being identified by school districts in the state under the special education category of Autism Spectrum Disorders(ASD). The data from the study was collected from 1981-2001 using the reported child count data collected from the school districts.

The goal of the study was to quantify and describe ASD trends from 1981 – 2000, evaluate potential explanations for the trends, and estimate future trends. The data reported in this analysis includes the individuals, birth to 21 years of age, identified by multidisciplinary assessment and determined eligible for special education services under the disability category of ASD by all school districts.

The executive summary of the study dated November 2001, revealed the disturbing upward trend of the number of students being served. According to the study, the rates of ASD have risen substantially since 1990 and they showed no sign of leveling off. If the 2001 ASD rate in 7 year old children is 49 per 10,000 remained stable, 7000 children, aged birth to 21 years, would be included in the ASD category by the year 2005. The average increase in identification at that time was 31% per year. That would indicate that the Minnesota CFL could see over 10,000 children in the ASD disability category in 2005.

A new study published in October 2009, by the American Academy of Pediatrics', there was a parent-reported autism prevalence rate of one in every 91 American children, including 1 in 58 boys. The most current information, dated December 19, 2009, from the US Centers for Disease Control published in *Morbidity and Mortality Weekly Report* (MMWR), states that 1% or 1 in every 110 children has been diagnosed with autism, including 1 in 70 boys. These statistics represent a 57 percent increase from 2002 to 2006, and a 600 percent increase in the past 20 years. Other findings include that a broader definition of ASDs does not account for the increase and While improved and earlier diagnosis accounts for some of the increase, it does not fully account for the increase. There is a decided increase in the number of individuals identified for ASD, with males continuing to be identified at a higher rate.

One of the major concerns expressed by the Center for Disease Control and Prevention (CDC) is that even though parents typically express concerns about their child's developmental progress before age three, the average age of an Autism Spectrum Disorder diagnoses is not until 53 months. This is alarming because there is evidence that shows the earlier a child can be identified and begin formal intervention the better the chances are that the child will have fewer complications later in life. According to the CDC, the new findings reinforce the urgency of autism as a major public health crisis, requiring intensified action from the public and private sectors.

### **One Program, Two Agencies**

The SW/WC Service Cooperative has been in existence since the 1960's, which provides programs and services to its member school districts. The SWWC Cooperative serves Regions 6 and 8 which are located in the south western part of Minnesota. These regions encompass 18 counties and 12,500 square miles. There are 59 public schools, 14 non-public and charter schools, 130 cities, counties, and other governmental agencies that are all members of SW/WC. Within the Cooperatives constraints, there are over 7,600 public school teachers and over 51,000 students. It has become to be known an agency of choice that provides high quality, flexible, responsive, and innovative services to our school, city, county, and other governmental agency members. The Cooperative is governed by an elected board that is selected by the members of the Cooperative. Advisory committees provide planning and evaluation input for the Cooperative. The graduate special education program at Southwest Minnesota State University was approved and initiated fall semester 2001 and offered licensure in developmental disabilities, early childhood special education, emotional behavioral disabilities, and learning disabilities. The State of Minnesota recently authorized an Autism Certificate and the special education faculty determined that a certificate program was needed in our area. That interest began the collaboration process between SMSU and SW/WC Education Cooperative.

The focus of the Autism Spectrum Disorders Certificate program is to prepare individuals to teach and effectively interact with children or adults with an autism spectrum disorder. Major components would need to include identification, eligibility, assessment, social skill development, cultural/linguistic diversity, communication issues, proactive behavioral supports, educational programming, and transition plans.

Two faculty from Southwest Minnesota State University (SMSU) in cooperation with two specialists in autism spectrum disorders from the South West/West Central Cooperative (SW/WC) worked together to develop an

Autism Certificate Program that would meet the needs of the southwest area of Minnesota. The four individuals attended specialized training as part of the Minnesota Autism Project and Network.

We then conducted a needs assessment survey that was distributed to school administrators, teachers, and paraeducators. We also canvassed parents who were already involved in the special education network. Data were collected during a six month period of time. During this data collection, SMSU and SW/WC collaborated on a one-day workshop named *No More Meltdowns: Skills Training & Positive Behavioral Supports*. This was offered in June of 2009 and led by Dr. Jed Baker. Previous June workshops typically draw 100 or less participants. To our surprise, we had to expand the size of our conference location and meal count. By the registration deadline we had more than 250 registrants. This more than exceeded our anticipated number. Also, we had attendees from all over the state of Minnesota. This included attendees from the twin cities area. This was significant because it is a three or more hour drive and many training opportunities are offered in this highly populated center. If there had been any question about the critical need for information and training related to ASD, none were left.

The Certificate Program was developed using the proposed Competencies for Special Education Teachers Working with Students with Autism Spectrum Disorders from the Minnesota Autism Project of 2003. Those competencies were arranged in the following ten categories: 1. Foundations in the education of learners with ASD, 2. Development and characteristics of learners with ASD, 3. Individual learning differences in the area of ASD, 4. Instructional Strategies for learners with ASD, 5. Learning environments and social interactions for learners with ASD, 6. Language/communication in the education of students with ASD, 7. Instructional planning for learners with ASD, 8. Assessment of learners with ASD, 9. Professional and ethical practices in the education of learners with ASD, and 10. Collaboration in the education of learners with ASD.

The four members worked together to understand the needs of the students who would be taking the courses. After deliberation and brainstorming it was decided to offer four courses. This was a difficult task because we were working with multiple competencies organized into ten categories. Much of the curriculum is intertwined and needs to remain that way. While each course has a clear focus, the content is spiraled. Spiraling content means that content is revisited in each course to reinforce learning and demonstrate the interconnectedness of all strategies. Each course would be three credits for a total of twelve credits for the certificate. It was decided that there would be no prerequisites to take the courses as to allow everyone the opportunity to take the courses.

The first course is offered as a dual class for both undergraduate and graduate candidates. This would be an introductory class that could be taken by anyone interested in learning more about Autism and an overview of the characteristics of autism spectrum disorders and the needs of individuals with ASD and those who live and work with them. The remaining three courses are offered at the graduate level only. Graduate students with a non-education bachelor's degree are open to take the courses, but will need access to a classroom or individual's with ASD to complete the field experience portion of each course.

One of the major focuses in the design phase was to make sure that the courses offered would be written so they did not have to be taken in succession. This was essential for teachers so they could begin taking the courses at any semester or summer session that worked for them.

To create a certificate program, you must follow state guidelines, state competencies, university processes, and standards from the Council for Exceptional Children. All of these played a role. The focus of the Autism Spectrum Disorders Certificate program is to prepare individuals to teach and effectively interact with children or adults with an autism spectrum disorder. Once the structure for the program was determined, the individual courses needed to be developed.

### **Course Development**

Each course was designed to include time working with small groups and individuals with autism spectrum disorders. This was preferred over a separate field experience or lab course so the practices and strategies for each course are closely connected to presentation of content. And because classmates are working in the field while taking the course, there is opportunity for sharing and reflection of their experiences. Support and collaboration

during this time is a key component to improving and refining practices and is a model for best practices in all educational settings.

The introductory class was named Autism Spectrum Disorders: Issues and Needs. This course provides an overview of autism spectrum disorders for individuals from birth through age 21. Identification and legal requirements, current theories and practices, medical and neurological perspectives, social/behavioral characteristics, and coexisting conditions will be studied with an understanding that educators rely on the assistance of and partnership with parents. It will be offered for undergraduates, as well as graduates. The course objectives are as follows.

1. Theories and research that provide the basis for special education and related services for individuals with ASD, birth to 21 years. (F.K1)
2. Legal issues that impact education and practice in the field of special education and related services for individuals with ASD. (F.K2)
3. Impact of medical and neurological perspectives on the education of individuals with ASD. (F.K3)
4. Access information regarding theories, research, medical and legal requirements and their relation to current promising practices in education for individuals with ASD. (F.Si)
5. Early indicators of ASD in infants/toddlers, preschoolers, and school age individuals, (D.K1)
6. Possible courses of development and outcomes in individuals with ASD from infancy to adulthood. (D.K2)
7. Range of communication, social and behavioral characteristics and coexisting, a condition associated with ASD. (D.K3)
8. Articulate the early indicators, characteristics, and learning styles of students with ASD to parents and other staff. (D.Si)

The second course was named Autism Spectrum Disorders: Assessment and Programming. This course covers assessment, eligibility criterion, programming, and transition plans for individuals with ASD. Generalization of skills to natural environments is included. The course objectives are as follows.

1. Strengths and limitations of instruments and procedures used to evaluate for eligibility under ASD category. (A.K1)
2. Minnesota state criteria DOE eligibility and comprehensive evaluation for students with ASD. (A.K2)
3. Use procedures and instruments to screen and evaluate for ASD eligibility and determine needs. (A.Si)
4. Collaborate with building staff in making physical and environmental modifications/accommodations for students with ASD in regular classroom settings as well as other natural environments (including home, daycare, and other school settings). (E.S.2)
5. Write a variety of behavior change plans for individuals with ASD including proactive behavior modification plans to teach alternative behavior/skills. (E.S6)
6. Write and implement individualized goals and objectives to address the core features of ASD based on individual strengths and needs identified through evaluation. (P.S1)
7. Implement instructional programs that address transition needs of individuals with ASD (i.e. jobs and training, home living, recreation and leisure, community living and post secondary education). (S.S4)
8. Demonstrate the ability to accurately collect and interpret data to document progress on outcomes for students with ASD, and make necessary changes in programming when indicated. (S.S5)

The third course was named Autism Spectrum Disorders: Communication and Social Skills. This course covers the communication needs and supports for individuals with ASD and their relationship to social skill development. The impact of cultural and linguistic diversity is included. The course objectives are as follows.

Student Impact of cultural and linguistic diversity on the evaluation of individuals with ASD (i.e. social values, customs, language comprehension, etc.). (A.K3)

1. Design and implement instructional programs that promote effective communication skills and appropriate verbal, augmentative and alternative communication systems for individuals with ASD. (C.S1)

2. Impact of cultural and linguistic diversity on the evaluation of individuals with ASD (i.e. social values, customs, language comprehension, etc.). (E.K3)
3. Instruction to promote communication and social alternatives to undesirable behaviors for both non-verbal and verbal students with ASD. (E.K5)
4. Provide environmental and structural accommodations across learning environments (e.g. use of visual, picture schedules, transition management techniques, classroom routine, and others) for students with ASD. (E.S3)
5. Foster social skills development for individuals with ASD through on-going peer interactions, direct instruction, and role-playing in a variety of settings. (E.S5)
6. Impact of the combination effect of the restricted range of interests, limited social cognition, impaired language skills and idiosyncratic sensory behaviors upon the individual's ability to benefit from incidental learning opportunities. (L.K1)
7. Consider assistive technology options for individuals with ASD, for example, picture/symbol exchange communication systems, electronic devices, sensory equipment, visual schedules and others. (S.S2)
8. Implement instructional programs that improve social skills and interactions between students with ASD, their peers and adults across various settings. (S.S3)

The fourth, and last, course was named Autism Spectrum Disorders: Behavior and Instructional Strategies. This course covers factors that affect behavior in individuals with ASD. This includes research-based methods, proactive strategies, and positive behavioral supports. The course objectives are as follows.

1. Methods and strategies specific to managing behavior in ASD. (E.K1)
2. Associated factors such as mental health, sensory issues, diet, medications and their possible relationship to behavior in individuals with ASD. (E.K2)
3. Effective structured teaching methods, communication systems, environmental adaptations, and their possible relationship to behavior in individuals with ASD. (E.K3)
4. Potential of proactive strategies to teach pro-social behavior in ASD, prevent development of interfering behaviors, and decrease the need for reactive strategies (i.e. time-out/crisis intervention). (E.K6)
5. Demonstrate consistent use of proactive strategies and positive behavioral supports for individuals with ASD. (E.S4)
6. Design a learning environment with physical modifications/accommodation to address the possible visual, auditory or other sensory needs for students with ASD. (E.Si)
7. Implement a range of direct instructional strategies that promote the generalization of skills. (L.Si)
8. Research-supported instructional methods and promising Practices for toddlers, preschoolers, and school-age individuals with ASD. (S.Si)

### **Hope and the Future**

To continue the collaboration model, the courses will be taught by pairing the SMSU faculty members and SW/WC specialists as instructors. Throughout the first year of implementation, the entire autism certificate program will be evaluated in several ways. Evaluations of course content and delivery of the content will be evaluated to determine the effectiveness of the materials, mode of delivery and teacher knowledge and teaching effectiveness. This data will be collected using the Survey Monkey program. This will allow the instructors to fine tune teaching styles and methods in order to meet the delivery methods and learning needs of students.

Approval for the Autism Certificate was given from the Minnesota Department of Education and the Minnesota System of Colleges and Universities in July 2009. The first course will be offered spring semester 2010. We will continue to monitor the latest research and statistics to keep the program in sync with new strategies and needs. Data from the Survey Monkey will allow us to aggregate data, such as undergraduate students, graduate students, family members, and other demographics. We will continue to collaborate with SW/WC to provide workshops for area teachers and family members. Putting this program together gives hope to our area of Minnesota that the educational and personal needs for individuals with an autism spectrum disorder and their families will be better served.

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