

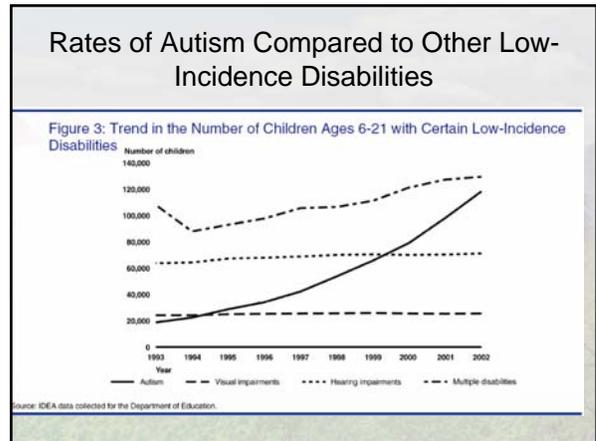
Building School District Capacity for the Provision of Early Intensive Behavioral Intervention for Students with Autism

Thomas S. Higbee, Ph.D., BCBA
Utah State University




Autism: The Fastest Growing Disability Category in the U.S.

- Autism is a severe developmental disability, marked by impairments of communication, social, emotional functioning
- Prevalence:
 - 3.4 per 1000 births (this estimate is much higher than previously thought)
 - equally distributed across races
 - 4:1 ratio of males to females
 - *Source:* Journal of the American Medical Association, January 2003
- Are we facing an autism epidemic?



Autism: Prevalence

- There is considerable disagreement between researchers about whether the increase in the number of children diagnosed with autism represents a true “epidemic” of autism or whether improvements in diagnostic procedures and public awareness can account for the observed change in the numbers
- It is probable that the answer lies somewhere between the two extremes
- Irregardless of the answer to this question, the fact remains that more students with autistic characteristics are entering the public school system

Autism: Education and Treatment

- While researchers have thus far been unsuccessful in identifying the cause of autism, they have developed effective methods for treating the disorder
- Research has shown that while children with autism do not learn readily from typical educational environments, they can learn a great deal when the environment is appropriately constructed
- Research has consistently demonstrated that successful treatments for children with autism are those based on principles of Applied Behavior Analysis (ABA)
- Research has also shown that behavioral interventions are most effective when they are intense (30-40 hours per week) and started at a young age (3-5 years of age)
- These same strategies, however, have been used successfully with older students as well

Research on Early Intensive ABA

- Over 550 studies published from 1960-1995 (Matson et al., 1996) document the effectiveness of ABA techniques for building skills in individuals with autism
- Documentation of the effectiveness of a comprehensive early intensive ABA program in a controlled study with long-term follow-up by Lovaas (1987) and McEachin, Smith, & Lovaas (1993)
- Multiple partial and systematic replications of Lovaas model have taken place since 1993
- Howard et al. (2005) documented effectiveness of EIBI in comparison to eclectic and traditional special education programs
- Various state and federal agencies have acknowledged the proven effectiveness of EIBI (New York State Dept. of Health, Maine Administrators of Services for Children with Disabilities, U.S. Surgeon General Report on Mental Health, 1999)
- Additionally, review panels of professional associations such as the American Academy of Child and Adolescent Psychiatry, the American Academy of Neurology, and the American Academy of Pediatrics report that EIBI is highly effective in meeting the needs of children with autism

Are other treatments effective?

- To date, no other treatment approaches have been demonstrated, through controlled research, to produce comparable student gains to early intensive ABA
- This has not stopped the development of “fad” interventions (e.g., Secretin therapy, sensory integration therapy, megavitamin therapy, special diets, holding therapy, dolphin therapy, mercury detoxification, etc.) and other systematically designed interventions (e.g., TEACCH, Floortime, etc.) that either have not been subjected to controlled research or have failed to produce comparable effects to ABA

Building School District Capacity for the Provision of Intensive Behavioral Intervention for Students with Autism

- Early intensive behavioral intervention (EIBI) programs for students with autism have traditionally been administered either within individual families' homes, at private schools, or at university centers
- While behavioral techniques are commonly employed, along with a variety of other techniques, within school district special education programs for students with autism, student to teacher ratios are often higher and the intensity of instruction (e.g., # of daily learning trials) are typically lower than in dedicated EIBI programs

What is ASSERT?

- The Autism Support Services: Education, Research, and Training (ASSERT) program is a collaborative effort between the Department of Special Education and Rehabilitation and the Center for Persons with Disabilities at Utah State University.
- ASSERT staff:
 - Provide effective educational and behavioral early intervention to children with autism;
 - Conduct research to improve educational and behavioral interventions for children with autism;
 - Operate a model training classroom for education professionals throughout the intermountain region.

Autism Support Services: Education, Research, and Training (ASSERT)

- Background Information:
 - Started in the summer of 2003 as a 10-week summer program for four students with autism
 - Financial support provided by the USU Center for Persons with Disabilities (CPD) and Dept. of Special Education and Rehab.
 - Has an advisory board which consists of interested university professionals as well as representatives from local school districts and the USOE

Our first efforts at improving services for students with autism in public schools

- In the summer of 2004, we conducted a 2-week intensive training program with seven Utah special education professionals through a grant from the USOE
- This past year, through a second grant from the USOE, we provided follow-up consultation to these individuals in their classrooms
- While we documented that these professionals were able to learn behavioral intervention techniques and demonstrate both knowledge of behavior principles and the ability to apply them, these individuals were not able to make a major impact in their school districts due to a variety of systemic problems and roadblocks
- Even the best teachers could not be successful when the service delivery model did not allow them to do so
- This convinced us that system-wide intervention with administrative support is necessary to improve outcomes for students with autism

Why create EIBI programs within local school districts?

- There are more of them than there are of us: more students with autism than there are EIBI programs
- Serve the needs of students with autism living in rural environments who are unable to attend specialized private programs
- School districts have the primary responsibility for providing these students with a free and appropriate public education, not parents or third-party providers
- The EIBI preschool program could serve as a model training site for other teachers/paras working with students with autism in the district

Can it be done?

- This is the primary question that we are attempting to address: Can school district personnel successfully operate an EIBI preschool program and produce comparable student progress to what would be seen in a private EIBI program?
- Secondary questions include:
 1. Assuming that question #1 is answered affirmatively, how much support is needed from the university program to ensure that the district program continues to operate with fidelity and is able to adapt to serve the individual needs of new students as they enter the program?
 2. Can university support be decreased over time and, if so, to what level can it be decreased?

ASSERT Training Model for Collaborative School District Programs

- System-wide change is needed with support from "the top" (i.e., Special Education Director)
- Expectations from both parties, ASSERT and the school district, are made clear and agreed upon at the beginning of the relationship
- District appoints an on-site coordinator to have primary oversight of the classroom and be the primary liaison with ASSERT staff
- A doctoral student from ASSERT is designated as the project consultant and, under the direction of the ASSERT Director, provides primary support to the district program

ASSERT Training Model for Collaborative School District Programs

- ASSERT staff work with district coordinator to:
 - Select teacher and paraprofessional staff (core ratio= 1:1)
 - Choose a location for the classroom and order necessary furniture and curriculum supplies
 - Select students who will participate in program and conduct initial intake assessments (psychological testing with student and parents as well as curriculum-based assessments)
 - Design individualized instructional program based on results of initial curriculum-based assessments

ASSERT Training Model for Collaborative School District Programs

- 1-week EIBI "boot camp" training provided by ASSERT staff (on-site training+ visit to ASSERT USU classroom when possible) before the classroom opens
- Site visits by ASSERT consultant 4 days per month to provide ongoing staff training and curriculum support
- Site visits by ASSERT director 4 times per year to evaluate program, provide ongoing staff training, and meet with district Special Ed. Director site coordinator to ensure that all parties involved are satisfied with the current status of the program
- Communication between ASSERT consultant and district site coordinator is frequent and ongoing (email, phone calls, videoconferencing)

ASSERT Collaborative School District Program Description

- 30 hour/week program: 6 hours/day, 5 days/week
- Regular academic year plus an 8-week summer session
- Staffing: 1 teacher plus enough paraprofessionals to make the core ratio 1:1
- Classroom set up with individual work areas for each student, a small group instruction area, and play areas
- Ideally, the classroom is located at a site where typically developing peers are available for programmed social activities
- Start with four students and add students as classroom staff members' skills develop

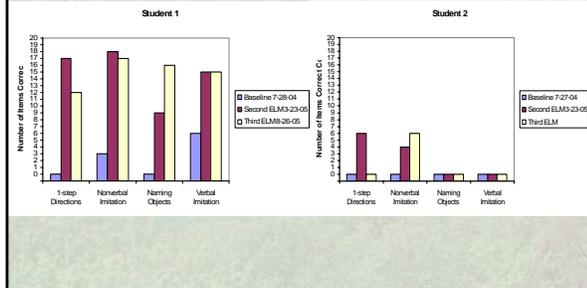
ASSERT Collaborative School District Program Description

- Parent training seminars are held at least once per month on strategies that parents can use at home to support things that the students are learning at school
- Parents are strongly encouraged to spend 2 hours per month in the classroom observing their child and interacting with and receiving instruction from classroom staff
- We are working on ways to include periodic in-home parent consultation as part of the program as we believe this to be important

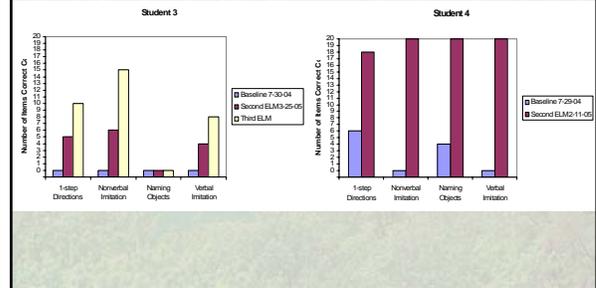
Parent Training Topics

- Introduction to Autism and Behavior Analysis
- Communication
- Dealing with Challenging Behavior(s)
- Community Outings
- Teaching Independent Play Using Activity Schedules
- Teaching Play Skills

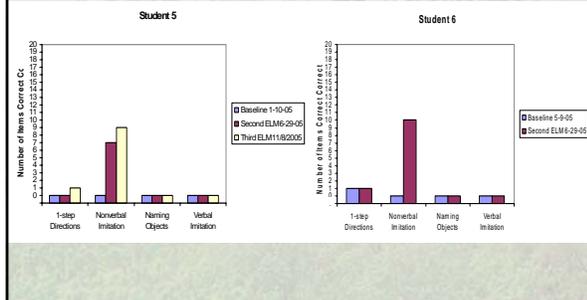
Washington Co. SD Outcome Data



Washington Co. SD Outcome Data

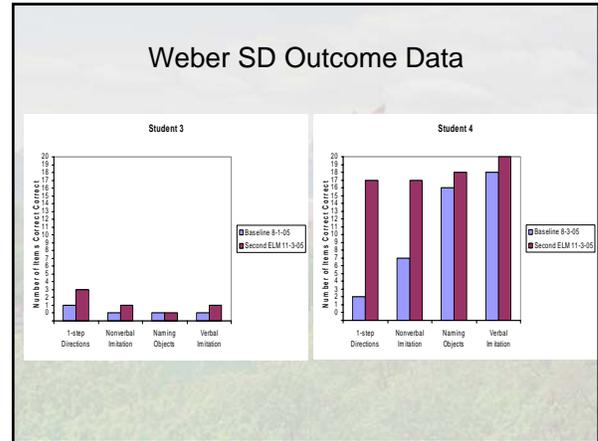
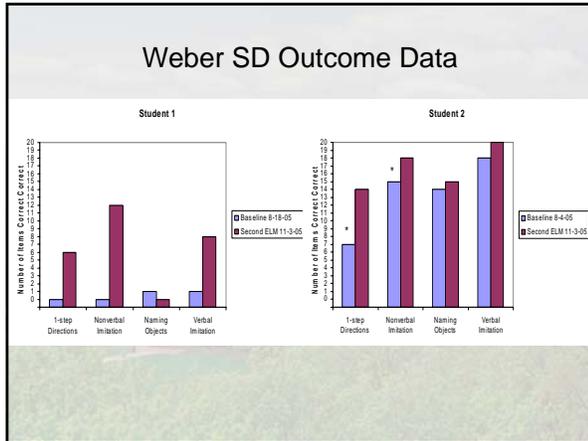


Washington Co. SD Outcome Data



Washington Co. SD Student Progress to Date

Student	Items Mastered Current Programs	Programs Mastered
1	102	34
2	33	2
3	77	6
4	NA	38
5	84	2
6	106	1
Total	402	83



District Outcomes: A Paraprofessional's Perspective

"My name is Amy and I am an Aide at the Washington County School District Preschool. I work one on one with children throughout 5 sessions in a day. When this program first started I felt overwhelmed at what we were trying to accomplish but at the same time so excited to be a part of it. Knowing how much we would be able to shape young children's lives and help them succeed as they grow is a great challenge to me.

As an Aide I have felt that a big part of the success of our program has been due to our collaboration with Assert. The staff training was vital in helping our staff to be able to learn the programs and feel confident in working with the children. Another critical part was and continues to be the site visits. We are able to brainstorm as a team and we always have great input and valuable ideas from our consultant."

District Outcomes: A Paraprofessional's Perspective

"There have been many wonderful accomplishments I have seen the children make. We have been able to help build skills, which typical children learn through observation, which may have taken years for our kids to ever develop. We have one child who would walk back and forth on the curbing outside and stim on the numbers and letters on the ground. He is now seeking out playmates and appropriately playing on the equipment. Another child was not able to participate in circle time because he was so disruptive to the others; he now is sitting and imitating those around him. These are just 2 of the many successful outcomes and we are just beginning our second year. I feel it a privilege to be a part of this program."

District Outcomes: A Teacher's Perspective

"I was excited when approached with the idea of running a classroom using ABA methods. I have taught preschoolers with disabilities for 25 years, and I was very familiar with ABA techniques. However, I was rather apprehensive about having such young children be in the classroom for 6 hours daily. I was unsure that the children could adapt being in a structured setting for that length of time. Initially, I felt that the students should have more "down time". However, it only took about a week for me to realize that this was exactly what the children needed! I have seen a tremendous amount of growth and improvement in each child, and I attribute it to the intensive individual programs that are implemented daily..."

District Outcomes: A Teacher's Perspective

"...I was rather overwhelmed initially with the amount of data-keeping that was required. I wondered if it was really that necessary. I have come to realize that accurate data is essential in order to provide appropriate programming for each child. Currently, we have a child who was involved in a "typical" program for children with disabilities. We were able to bring him into our ABA program, and the difference in his performance is incredible! His behavior has improved tremendously, as have his independent classroom skills. Prior to his being in the ABA classroom, I would not have predicted that he would have any success in a typical kindergarten class. I now think that he could be mainstreamed into Kindergarten with appropriate supports when he enters school next year..."

District Outcomes: A Teacher's Perspective

"...Probably the greatest change has been in my feelings about the program ... I expect greater progress and I know the students have more potential than I ever gave them credit for in the past!"

District Outcomes:
Autism Specialist's Perspective

"I have always been a firm believer in intensive ABA based early intervention. When the opportunity to oversee an intensive ABA preschool autism program came I jumped at the chance. Even though I thought I had some good experience with ABA the task of creating an intensive program seemed overwhelming. The students needed to be identified and tested, staff needed to be hired and trained, we needed a good comprehensive curriculum, we needed to build a classroom suitable to discrete trial and small group instruction, we needed class supplies and curriculum materials, we needed to develop parent trainings and schedule home visits, and on and on. I was very excited to start this new challenge. I knew we had the potential to make some dramatic life changes in our students with autism."

District Outcomes:
Autism Specialist's Perspective

"The task has been every bit as difficult as expected. However, the help of Utah State's ASSERT program has been invaluable. They helped us to train our staff, they helped us develop a comprehensive curriculum, suggested curriculum materials, conducted parent trainings, consulted with us often as we implemented our program, and continues to help us problem solve and improve our program. We are 5 – 10 years further ahead because of the help we have received. The curriculum, data collection, and program integrity is much stronger than we could have accomplished on our own."

District Outcomes:
Autism Specialist's Perspective

"The life changing improvements we have expected from our students are happening. The hard work has paid off and we have seen dramatic positive changes in our students. We have a number of students who started with no language, no learning skills, and no play/social skills of any kind. It is incredible to see these students begin to talk, learn how to learn, and begin to spontaneously interact with those around them. It is amazing to see other students go from oppositional, aggressive, tantruming, "unteachable" kids to well behaved, compliant, hard working students.
The program has been as difficult as expected to get to set up. However, it no longer seems overwhelming. It is very hard work, but we improve our program each day and feel confident we can implement an effective, intensive, ABA early intervention program."

The Doc. Student/Consultant's Perspective:

"Overall, I have had a very positive experience as a consultant for Weber County. This experience has provided me the opportunity to train educators and paraprofessionals who would not have been exposed to this particular methodology. The teacher and speech therapist with whom I work have demonstrated tremendous growth in behavior analytic skills, as well as skills in training and providing feedback to the paraprofessionals involved. "

The Doc. Student/Consultant's Perspective:

"I have been able to participate in every aspect of getting a replication program started. This has helped hone my skills in the areas of curriculum development, hiring and training of staff, behavior management, and ordering of materials. I am also able to teach others to provide in home support for a variety of issues, as well as provide monthly parent trainings. The success of this particular program is evident, as in the coming year we will begin to serve as an observational site for new teachers, offering training in applied behavior analytical techniques."

The Doc. Student/Consultant's Perspective:

"I am proud to be able to be a part of the development and implementation of this program. It provides me the opportunity to truly put my skills to the test in a public school setting. I think an important part of any behavior analytic doctoral program is community outreach...the local districts and families should benefit from our skills and services. I feel confident that I have the skills to train educators in public school settings to effectively implement behavior analytic programs for children with autism and other developmental disabilities."

Are we having an impact?

- Student outcomes:
 - Preliminary classroom data and ELM assessments indicate that all students have made significant gains during the first 8 months of the program (Mean percent change on ELM=37%-WCSD, 22% WSD)
 - Significant decreases in challenging behaviors and increases in positive behaviors that are not reflected on ELM
- Family outcomes:
 - Parent satisfaction surveys indicate that, overall, parents are very pleased with the services their children are receiving and the progress that they are making
- School District outcomes:
 - Anecdotal reports from school district personnel also indicate that they are pleased with the program
 - Based on last year's success, we opened a second classroom in Washington Co. and are expanding the classroom in Weber SD through a grant from the USOE

Considerations

- Financial investment by the district
 - Pay now, or pay later
 - Must be a long term commitment
 - Will they keep the program going once we fade out our support?
- Measurement issues
 - Best method of documenting fidelity of implementation
 - Best method of documenting student progress
 - Best method of measuring the programs impact on families
 - Practicality and ethics of conducting a true experiment in this context

Considerations

- Continued development of the support model
 - Systemization of our curriculum and training procedures
 - What exactly will the support fading program look like?
 - How do we enable school district personnel to provide their own district-wide training?
 - How to build successful student transitions to school age programs?
 - How to measure the long-term progress of students, parents and staff?

For more information...

Download the handout for this presentation from the ASSERT Website:

<http://sped.usu.edu/ASSERT/announce.html>

Questions?:

Email: tom.higbee@usu.edu