

Inclusion and Students with ASD

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Autism and ASD: Definition and Diagnosis

- DSM-IV
 - Autistic Disorder
 - Asperger's Syndrome
 - Rett's Syndrome
 - Pervasive development disorder-not otherwise specified
- ICD-10
 - Childhood Autism
 - Atypical Autism
 - Rett's syndrome
 - Other childhood disintegrative disorder
 - Asperger's syndrome
 - Pervasive developmental disorder, unspecified



Diagnostic Criteria

- Impairment in social interaction
- Impairment in communication
- Restricted repetitive and stereotyped patterns of behavior
- Onset prior to the age of three years



Demographics

- **75% are male**
- **Multiple causes related to neurobiological causes**
- **Unrelated to socioeconomic status or race**
- **Range of IQ scores, but many with intellectual disability**

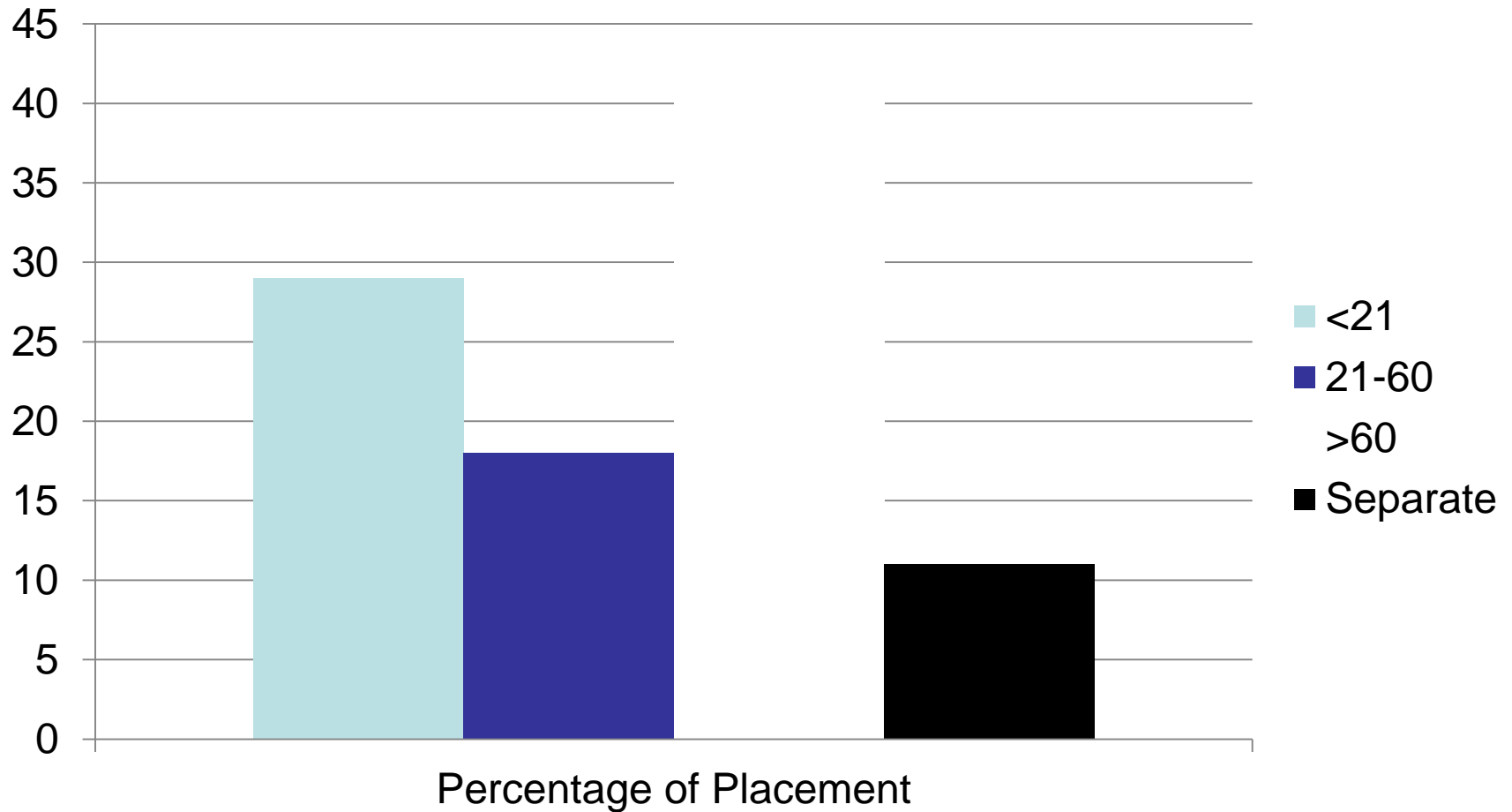


Prevalence of Students with ASD

- Most recent data from OSEP Report to Congress (2005)
 - 223,942
- Most recent prevalence rate
 - 1 in 103 (CDC)
 - 1 in 33 (Korean Study funded by Autism Speaks)
- 49.4 million students expected to attend public school in 2010
- Results in 414,475 attending school public school



Placement of Students with ASD (6-21) OSEP Report to Congress (2005 data)



So, what is happening in the public schools?



National Professional Development Center on Autism Spectrum Disorders



**A multi-university
center to promote
use of evidence-
based practice for
children and
adolescents with
autism spectrum
disorders**



THE NATIONAL PROFESSIONAL DEVELOPMENT CENTER ON
AUTISM SPECTRUM DISORDERS



- [Home](#)
- [About the Center »](#)
- [Evidence-Based Practices »](#)
- [Additional Resources »](#)
- [State Application »](#)

The map shows the United States with several states highlighted in white. Callouts point to specific states: 'Autism Internet Modules' points to Wisconsin, and 'EBP Briefs' points to Texas.

Each year, three states are selected through a competitive application process for a two-year partnership with the Professional Development Center.

[Learn more about the application process >>](#)

State Partners Login

User name:

Password:

[Need login help?](#)

The National Professional Development Center on Autism Spectrum Disorders is a multi-university center to promote the use of evidence-based practice for children and adolescents with autism spectrum disorders. The Center operates through three sites that include the [FPG Child Development Institute](#) at the University of North Carolina at Chapel Hill, the [M.I.N.D. Institute](#) at University of California at Davis Medical School, and the [Waisman Center](#) at the University of Wisconsin at Madison. Each year, three states are selected through a competitive application process for a two-year partnership with the Professional Development Center. The Center works in coordination with each state's Department of Education, Part C agency, and University Center for Excellence in Developmental Disabilities to provide professional development to teachers and practitioners who serve individuals from birth through twenty-two years with autism spectrum disorders.

- NEWS AND EVENTS**
- [New CoP Discussion Forum](#)
 - [PRT online module now available](#)



Center Staff

FPG Child Development Institute Univ. of NC-Chapel Hill	M.I.N.D. Institute Univ. of CA-Davis Medical Center	Waisman Center Univ. of WI-Madison
Sam Odom, PI Ann Cox, Director S. Kucharczyk E. Shaw M. Brock G. Van Ark C. Sidor	Sally Rogers, PI L. Sullivan A. Stabel A. Mastergeorge D. Hatten	Len Abbeduto, Co – PI Linda Tuchman- Ginsberg, Co – PI E. Franzone K. Szidon LT. Henning J. Shears



All Current NPDC Data

- 58 school programs

12 Preschool

23 Elementary

12 Middle

11 High

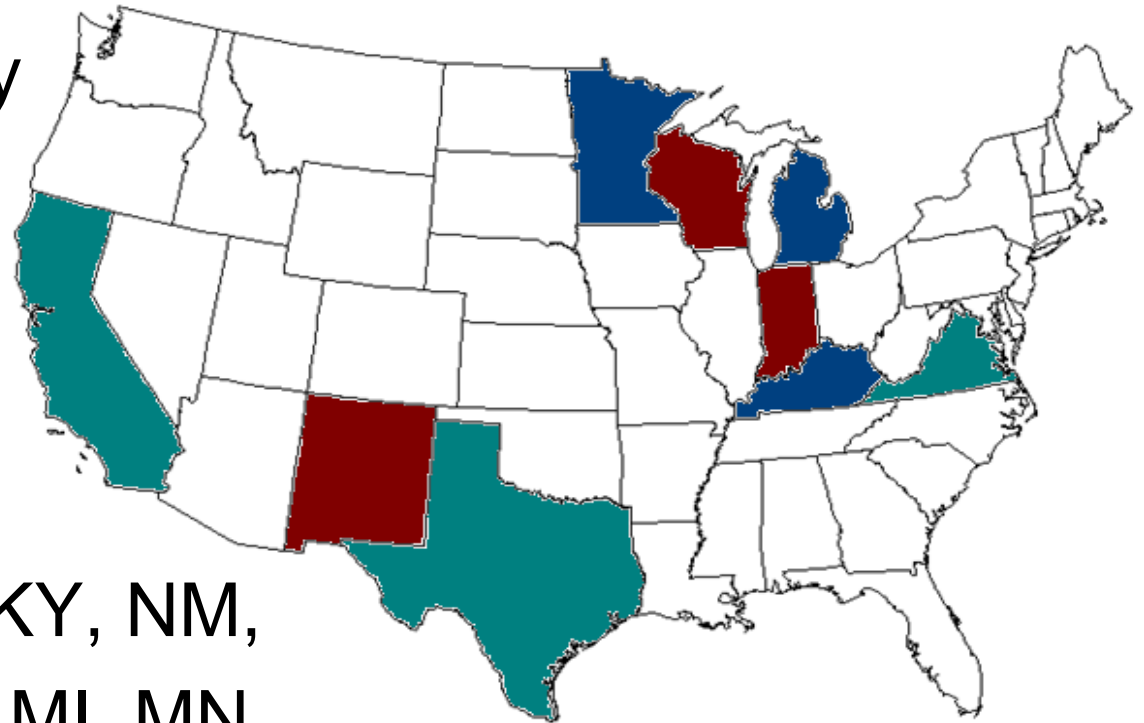
- 142 students

- Nine States:

Cohort 1: IN, KY, NM,

Cohort 2: KY, MI, MN,

Cohort 3: TX, VA, CA



Inclusive NPDC Data

(all subsequent slides use only inclusive data)

- 32 school programs

7 Preschool

15 Elementary

5 Middle

5 High

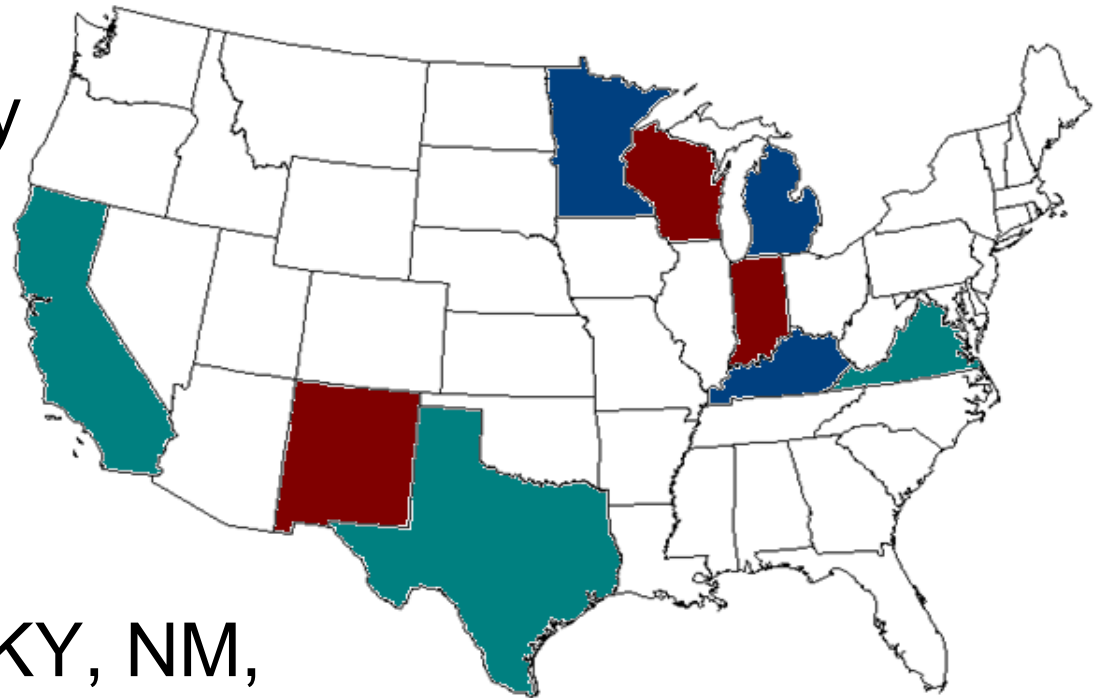
- 75 students

- Nine States:

Cohort 1: IN, KY, NM,

Cohort 2: KY, MI, MN,

Cohort 3: TX, VA, CA



Products Developed and Data Collected

- Assessment of Program Quality
- Identification of evidence-based practices
- Assessment of child outcomes



Quality Is a Necessary Foundation for Implementing Specific Evidence-Based Practices

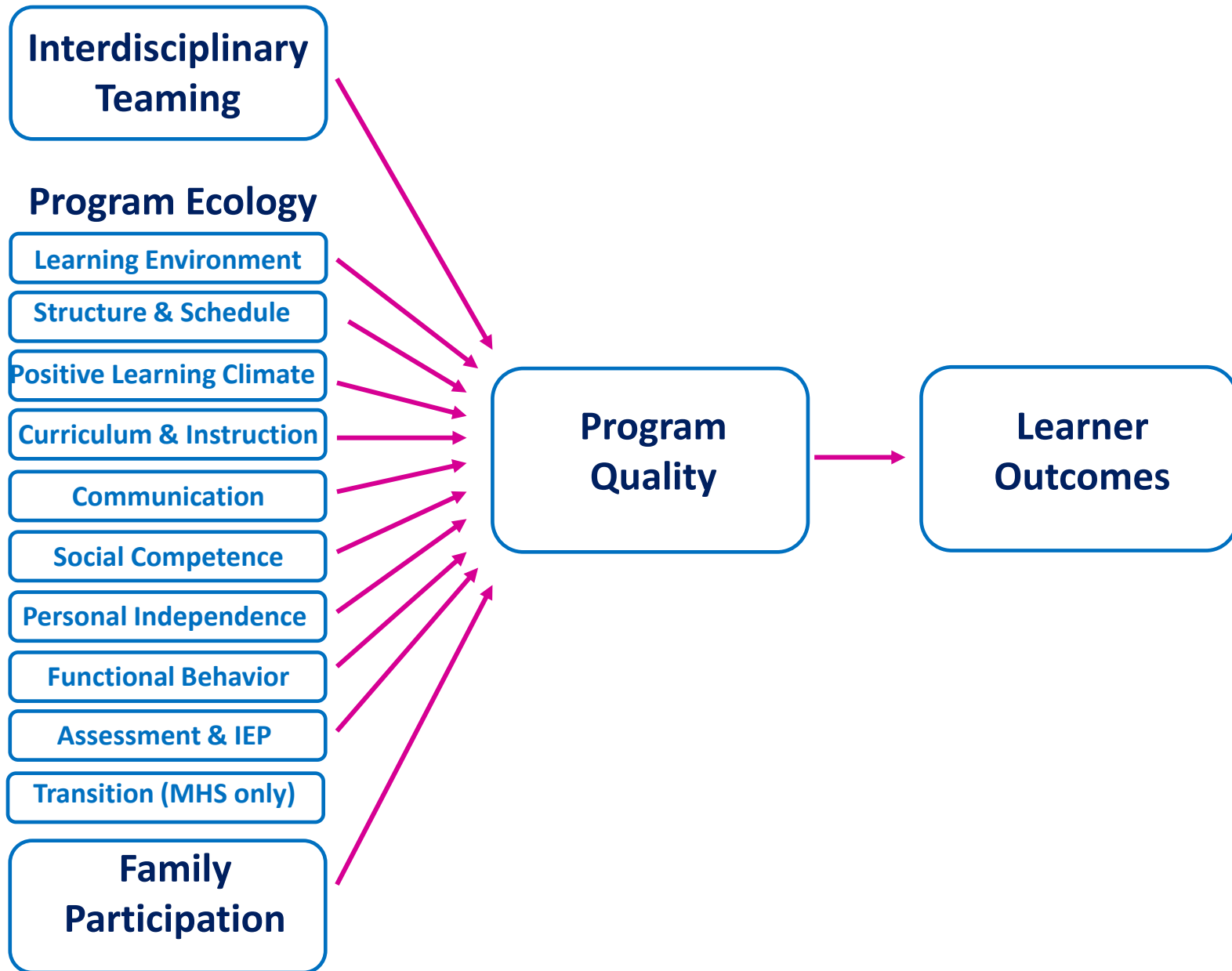
- Quality refers to the features of programs that match the characteristics and needs of the children and youth with ASD
- It sets the stage for growth, learning, and use of EBPs.



Focused Intervention Practices (Evidence-base practice-EBPs)

- Focused interventions are procedures that promote individual skills or learning within a specific skill area.
- Examples of focused intervention practices are:
 - Discrete trial training
 - Functional communication training
 - Independent work systems
 - Time-delay prompting





Assessment Tools for Measuring Quality

- Autism Program Environment Rating Scale
 - Preschool/Elementary (64 item)
 - Middle/High School (66 items)
- Used to assess quality of program environment
 - Observations in classes
 - Interview Teachers, Team Members, Families
- Generate Overall Score



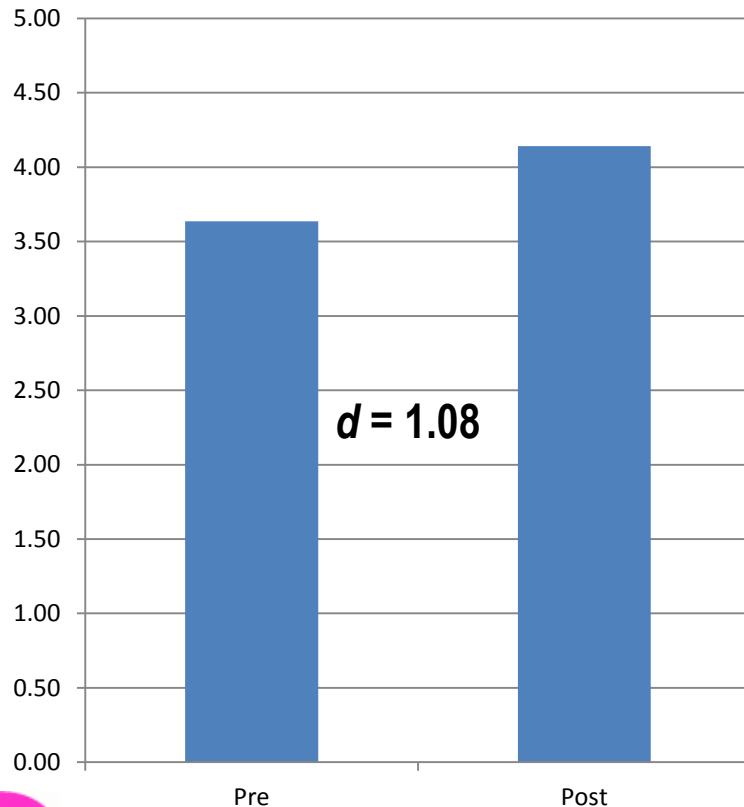
Example: Score of 5

27*	<ul style="list-style-type: none"><input type="checkbox"/> Team members consistently over-prompt students during instruction.<input type="checkbox"/> Team members consistently under-prompt or use no prompts during instruction.<input type="checkbox"/> When team members use prompts only one form is used with students (e.g., physical, verbal, gestural).	<ul style="list-style-type: none"><input checked="" type="checkbox"/> When needed, key team member uses a clear prompting hierarchy during instruction (e.g., less intensive prompts followed by increased support as needed).<input checked="" type="checkbox"/> When needed, key team member uses a variety of prompts during instruction to meet individual student needs (e.g., physical, verbal, gestural).	<ul style="list-style-type: none"><input checked="" type="checkbox"/> When needed team members use a clear prompting hierarchy during instruction (e.g., less intensive prompts, graduated guidance, simultaneous instruction).<input checked="" type="checkbox"/> When needed, team members use a variety of prompts to meet individual student needs.
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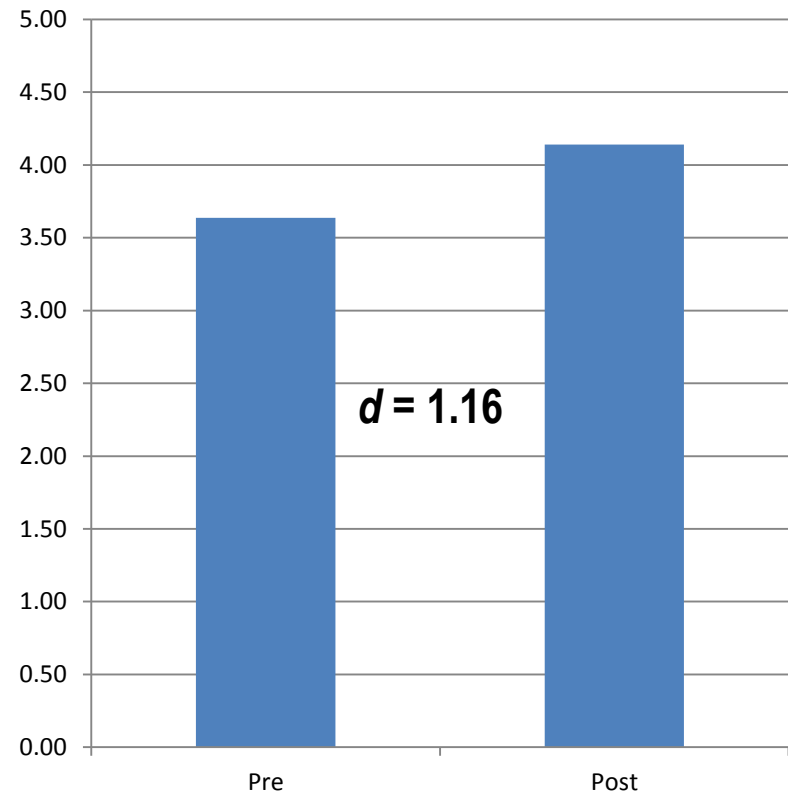


Average APERS Scores

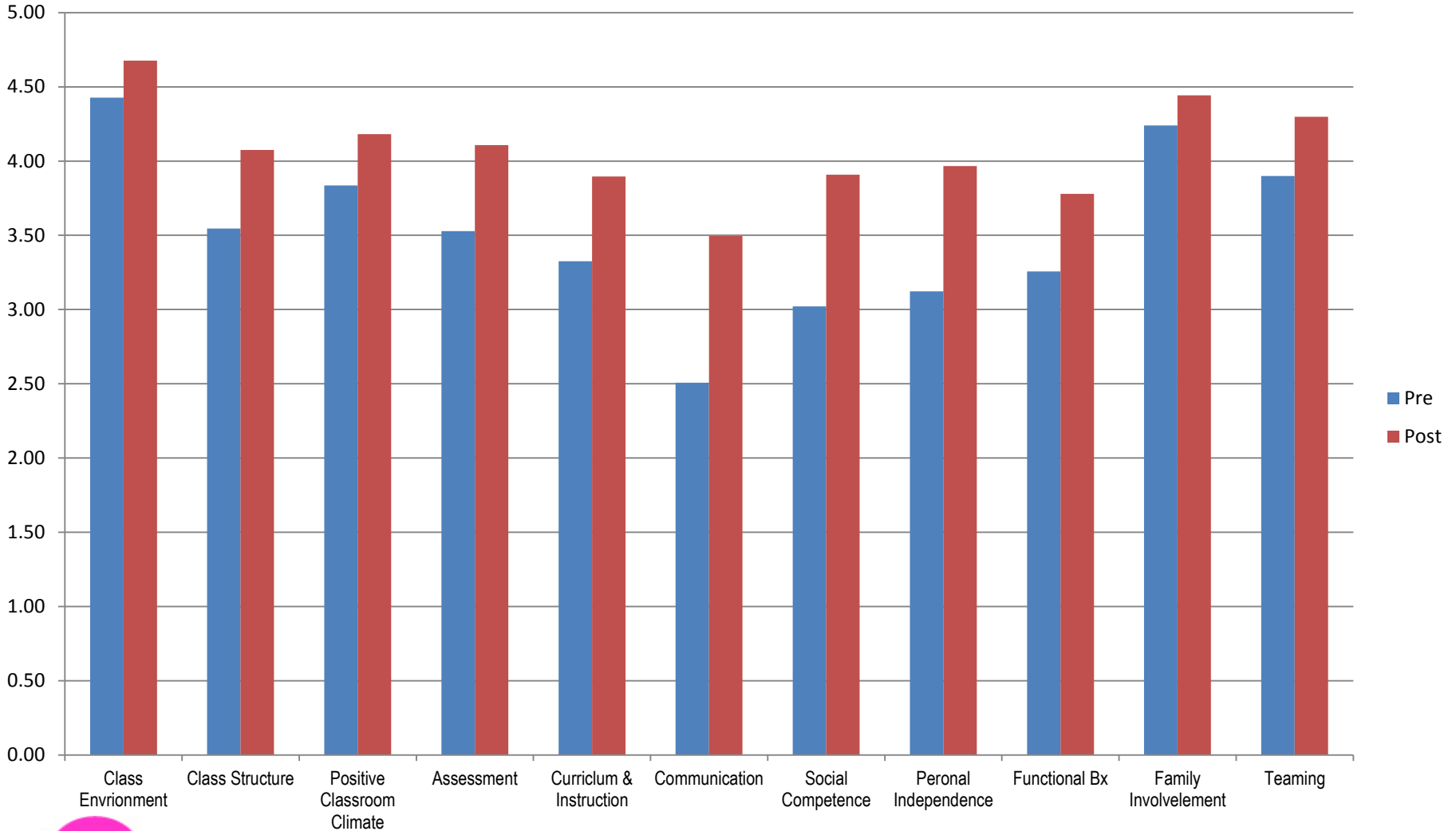
**Mean APERS Total Score:
Preschool/Elementary Version
(n = 22)**



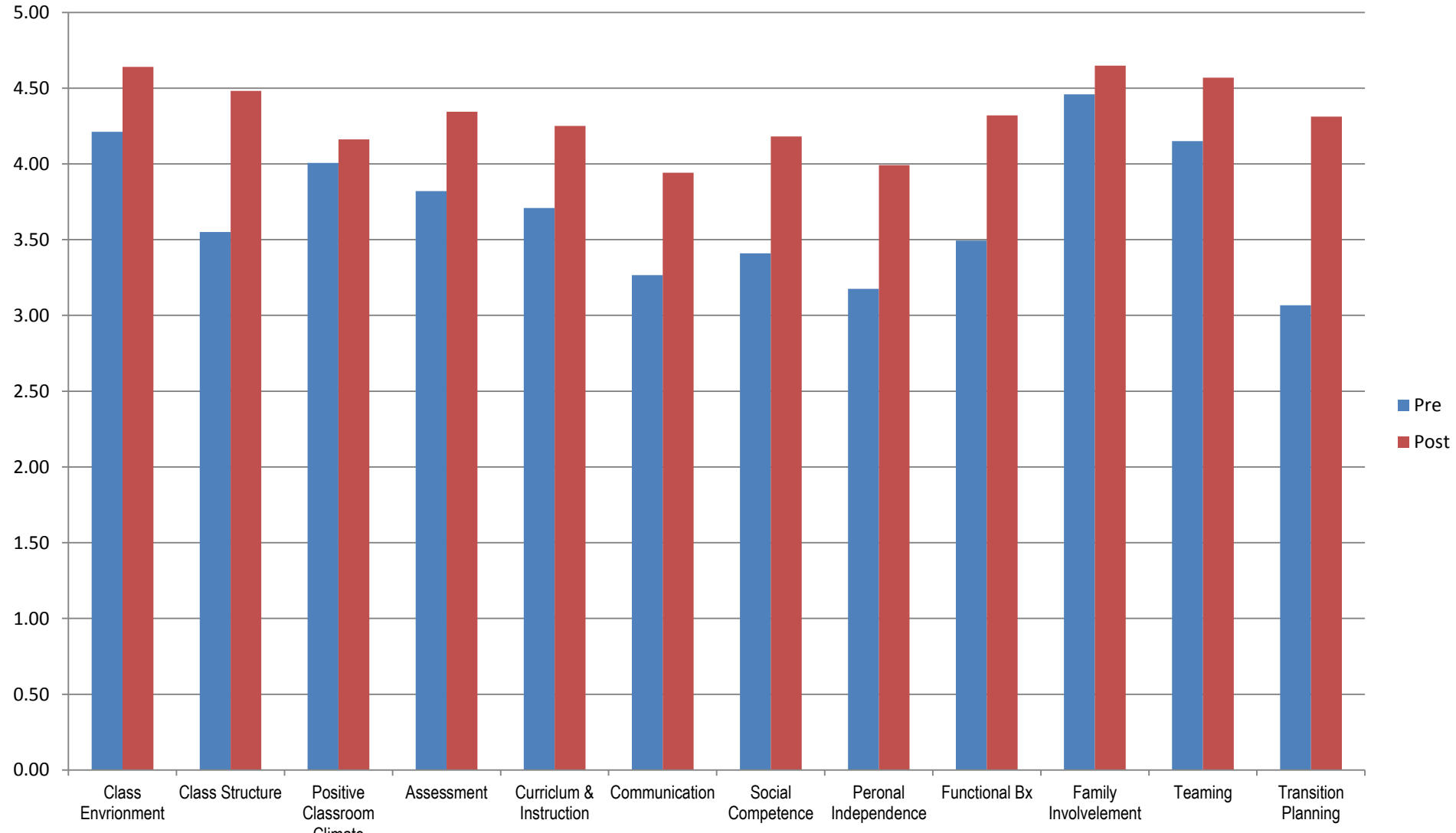
**Mean APERS Total Score:
Middle/ High School Version
(n = 10)**



Mean APERS Subdomain Scores: Preschool/Elementary Version (n = 22)



Mean APERS Subdomain Scores: Middle/High School Version (n = 10)



Assessing Use of EBP

- Antecedent-based interventions
- Computer-aided instruction
- Differential reinforcement
- Discrete trial training
- Extinction
- Functional behavior assessment
- Functional communication training
- Naturalistic interventions
- Parent-implemented intervention
- Peer-mediated instruction/intervention
- Picture Exchange Communication System™
- Pivotal response training
- Prompting
- Reinforcement
- Response interruption/redirection
- Self-management
- Social narratives
- Social skills training groups
- Speech generating devices
- Structured work systems
- Task analysis
- Time delay
- Video modeling
- Visual supports



Resources on NPDC's EBP

- EBP Briefs (<http://autismpdc.fpg.unc.edu>)
 - Overview
 - Evidence Base
 - Steps for Implementing
 - Implementation Checklist
 - Sample Data Collection Forms (optional)

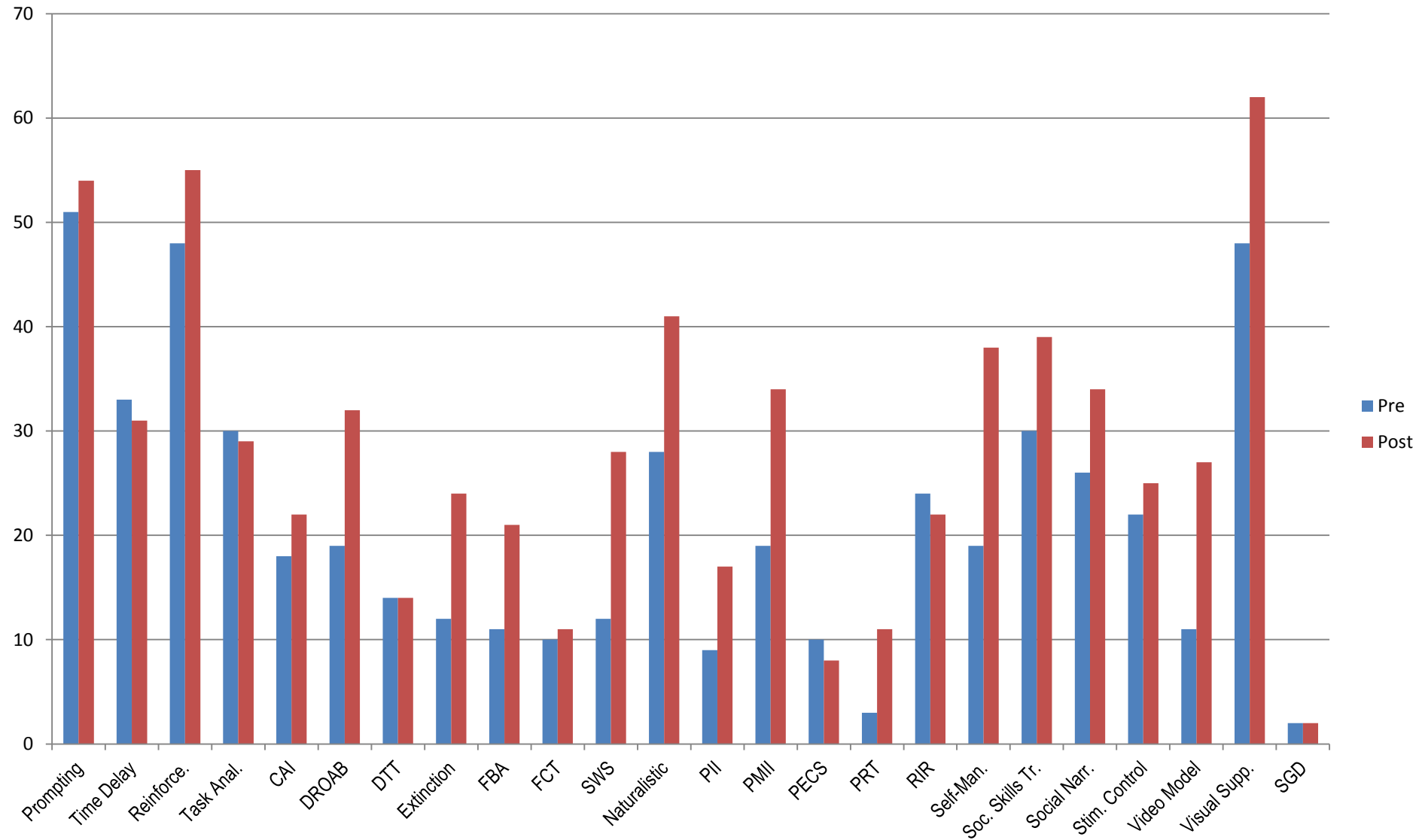


Resources on NPDC's EBP

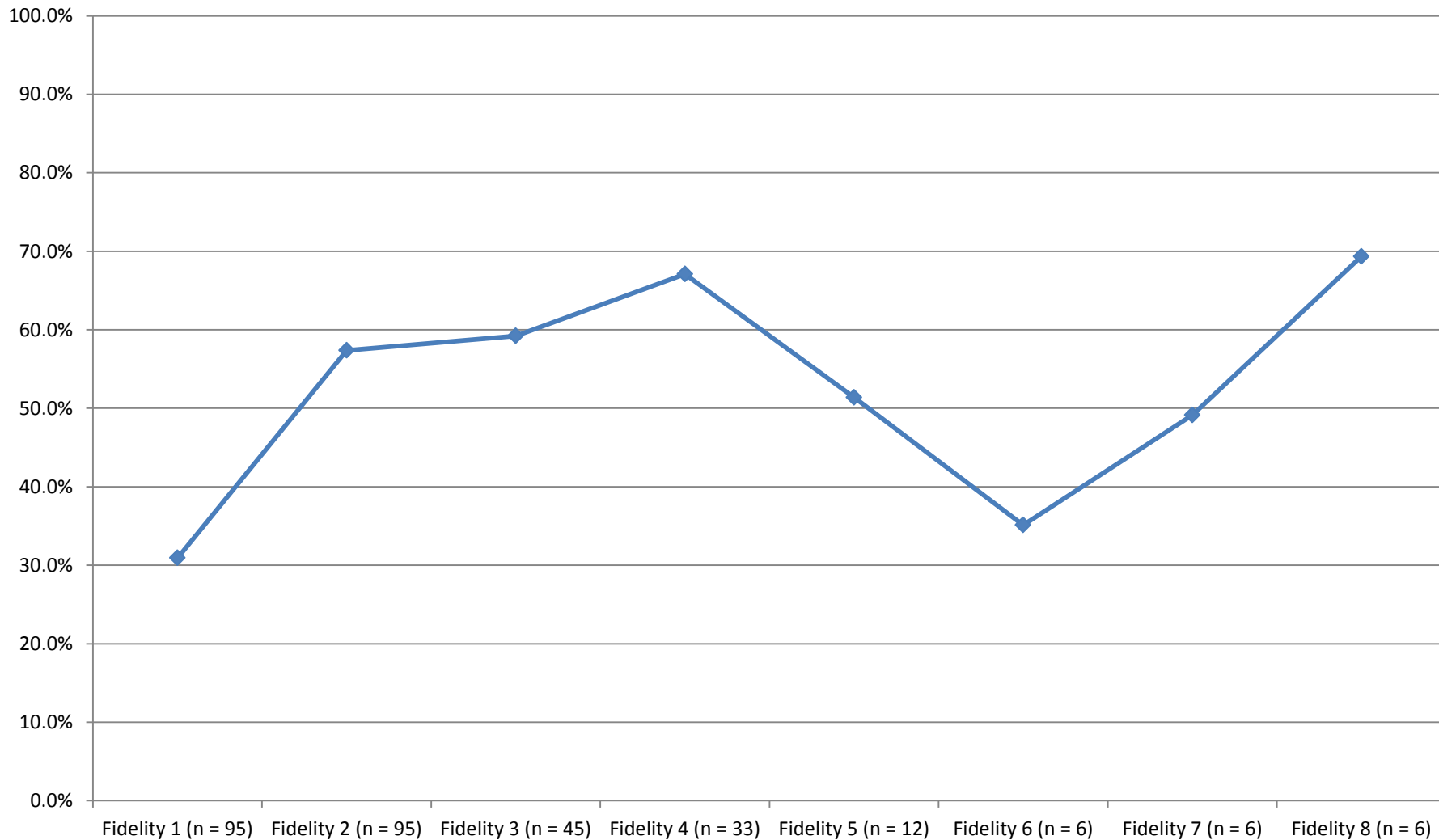
- Online Modules (Collaboration with OCALI)
 - Posted on AIM Website (www.autisminternetmodules.org)
 - Narrative content with video examples of practices being implemented
 - Includes downloadable EBP brief components
 - Pre/ Post knowledge assessment
 - Case study examples
 - Learning activities, Discussion questions



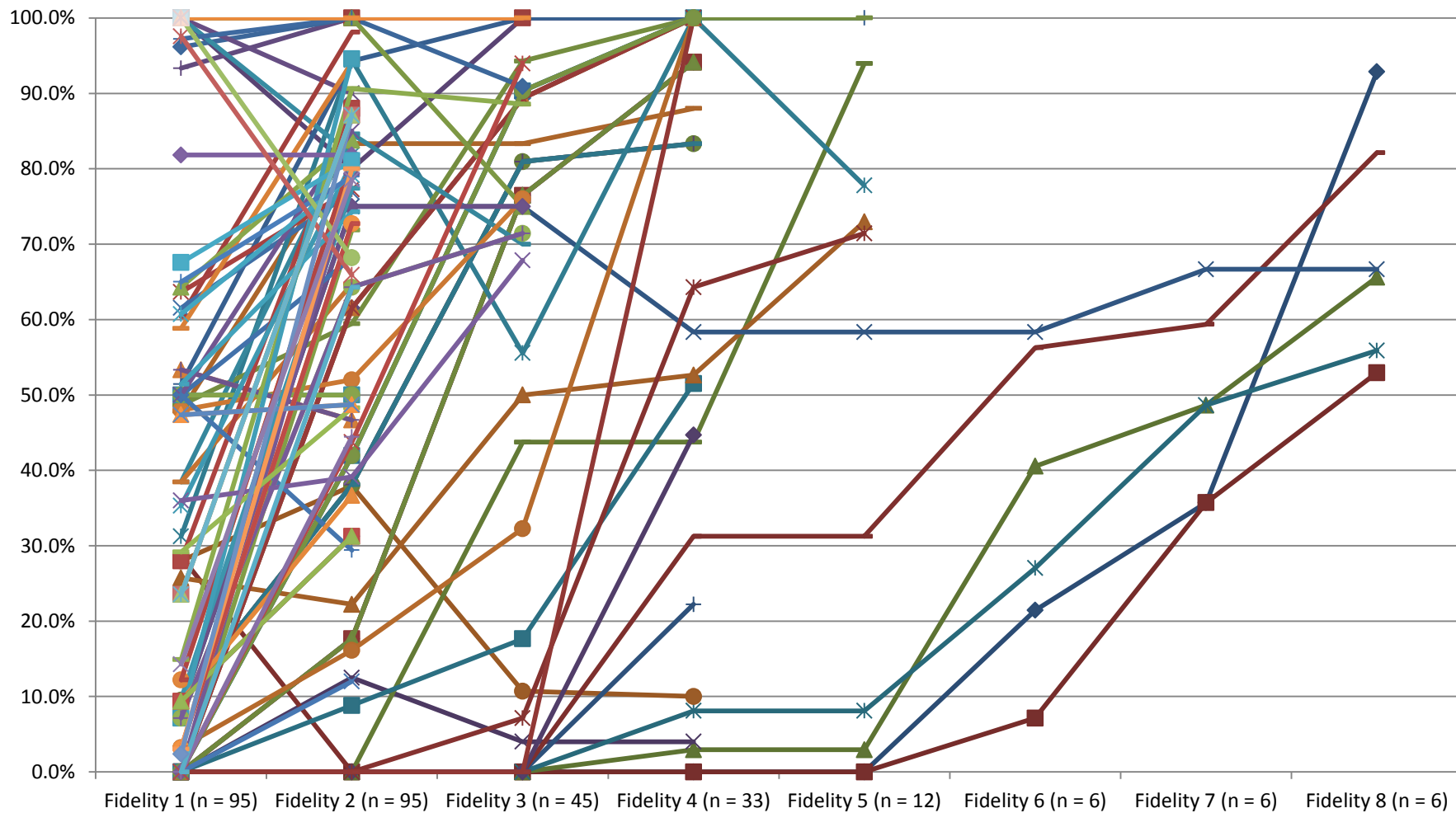
Number of Students Targeted with EBPs (n = 63)



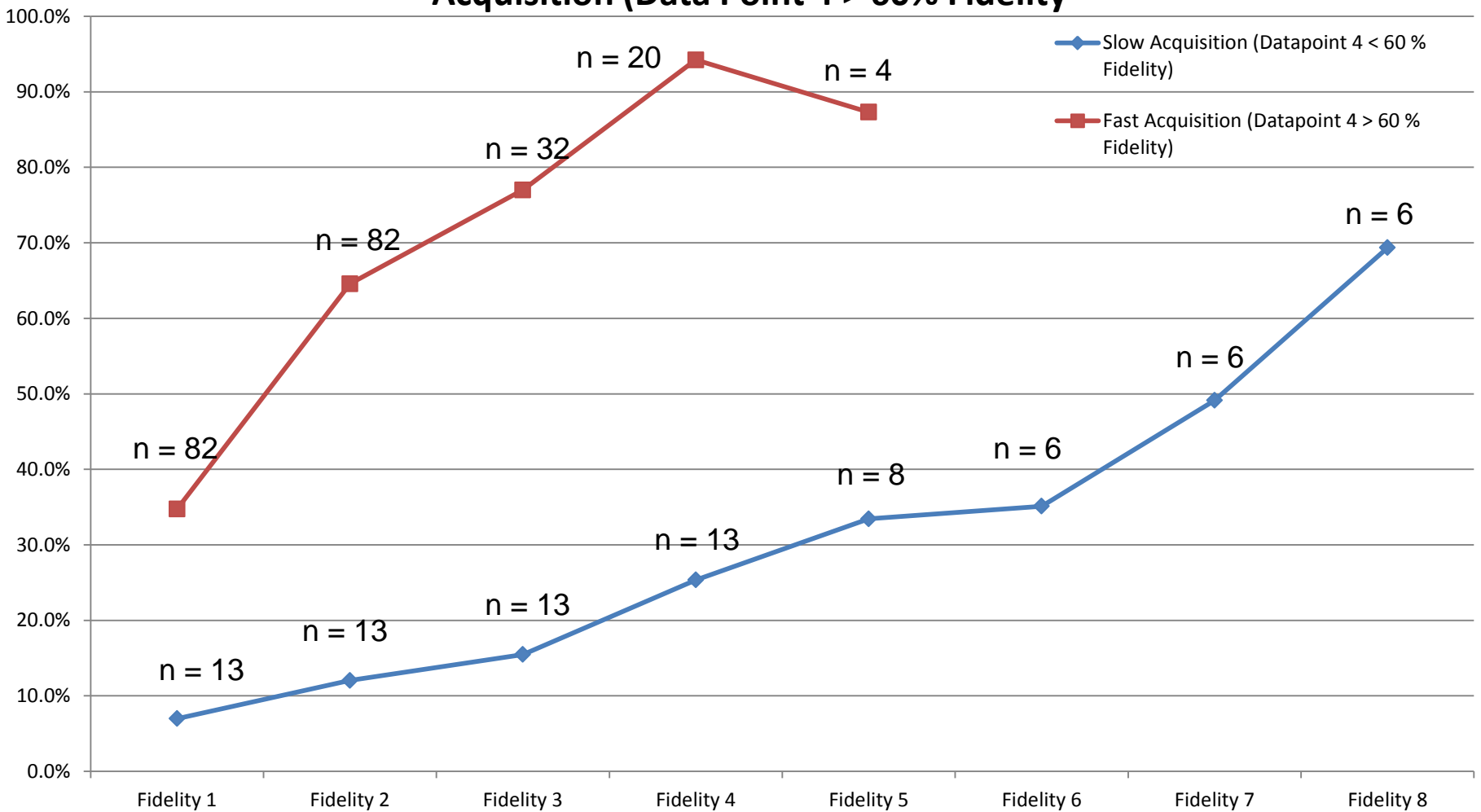
Average Percentage of Steps for Implementation Followed with Fidelity for All Cases with 2 or more Data Points



Percentage of Steps for Implementation Followed with Fidelity for all Cases with 2 or More Data Points



**Average Percentage of Steps for Implementation Followed with Fidelity
for All Cases with 2 or more Data Points
Groups Split into Slow Acquisition (Data Point 4 < 60% Fidelity) and Fast
Acquisition (Data Point 4 > 60% Fidelity)**



Assessing Student Progress

- Goal Attainment Scaling: a five point range of performances for students:
 - Much less than expected
 - Somewhat less than expected
 - Expected level of outcome
 - Somewhat more than expected
 - Much more than expected

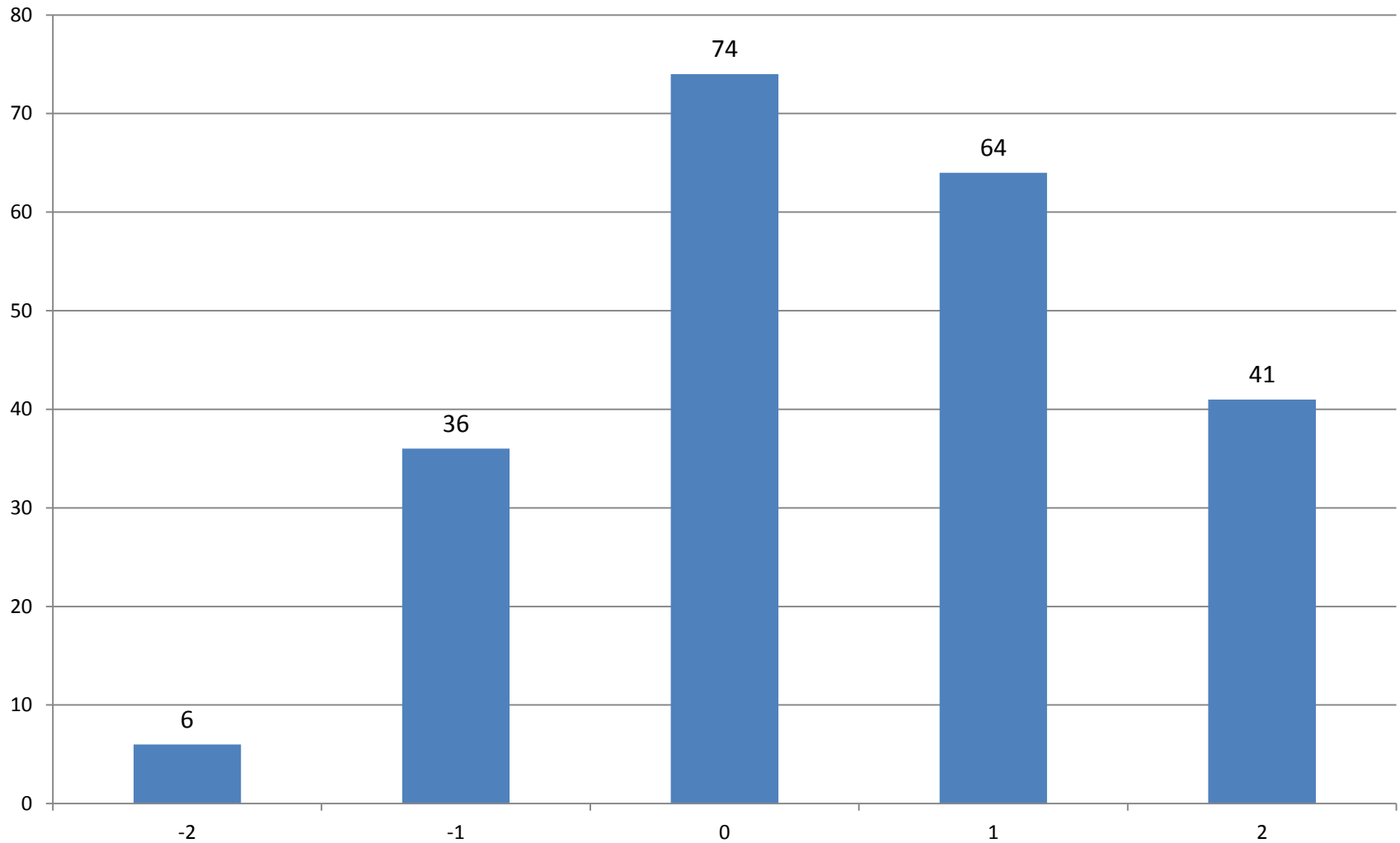


Assessing Student Progress

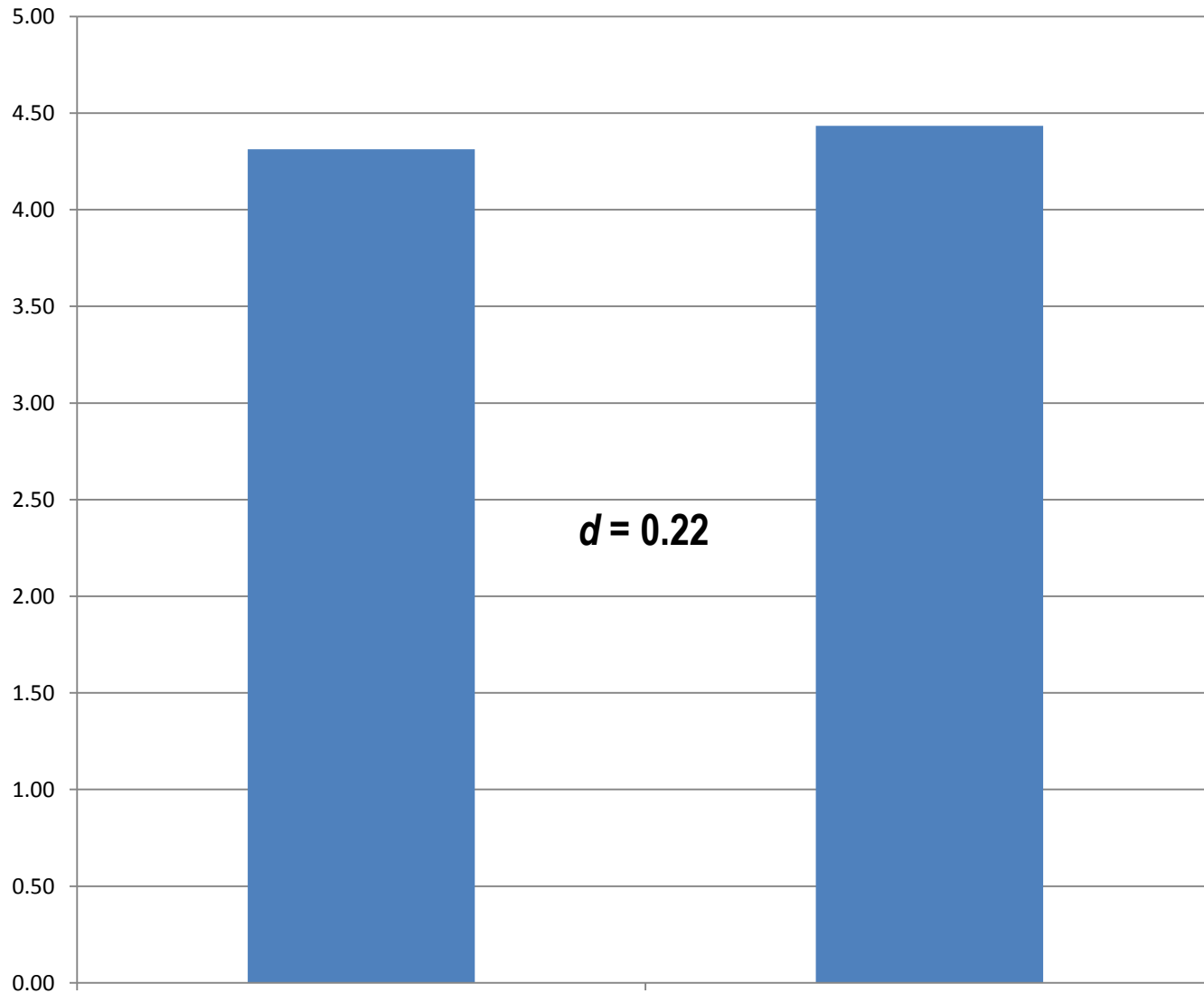
- Goal Attainment Scaling: a five point range of performances for students:
 - Much less than expected
 - Somewhat less than expected
 - Expected level of outcome
 - Somewhat more than expected
 - Much more than expected



Frequency of GAS Outcome Ratings (n = 221)



Family Program Questionnaire (n = 58)



Promoting Inclusive Programming for Students with ASD: Synthesis Points ECRII

- Inclusion is about belonging and participating in a diverse society
- Individuals - teachers, families, administrators - define inclusion differently.
- Beliefs about Inclusion Influence Its Implementation.
- Programs, not children, have to be “ready for inclusion”.



Promoting Inclusive Programming for Students with ASD

- Collaboration is the Cornerstone of Effective Inclusive Programs
- Adequate Support is Necessary to Make Inclusive Environments Work
- Inclusion Can Benefit Children With and Without Disabilities



Is Inclusion Always the Right Thing?

- With appropriate accommodations, probably right for many children with ASD
 - Need of a social environment
 - Need to learn to live in a real world setting
- Do needs supersede inclusive placement?
 - When accommodations and supports are not in place (Would you include a child in a burning house?)
 - High school and the move to transition, community, and work

