



# Quality of High School Programs for Students with ASD in the United States



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## Abstract

The purpose of this study is to examine the quality of high school programs for students with Autism Spectrum Disorders (ASD) in the United States. The Autism Program Quality Rating Scale (APERS) was used to rate quality in 56 high schools located in three geographic locations (CA, NC, WI) in the US. Separate ratings were given for standard diploma (inclusive) and modified programs. Measures of internal consistency reveal high reliability of the instrument. The general ratings revealed moderate to low levels of general quality with variation across domains. The highest rated domains were for physical environment, climate, and families. The domains with the lowest ratings occurred for interventions and instruction focusing on specific sets of skills (social, communication, functional behavior) and transition.

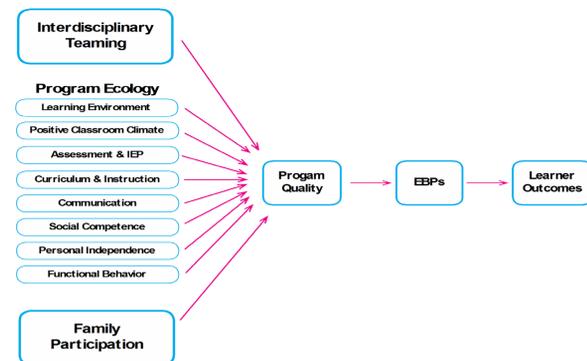
## Background and Research Needs

- With the increased prevalence of ASD, high schools are now providing services for more high school students with ASD.
- Providing a high quality program is especially important for high school students with ASD because it is the last opportunity for the school system to have an impact before students transition to post-high school settings.
- At the same time, high schools are complex and the challenges to providing a high quality program are great.
- To date, there has been little information about the quality of high school programs or even systems and tools that could reliably assess quality.

## Research Questions

- What is the internal consistency of the APERS?
- What is the overall quality of high school programs for students with ASD?
- Are there strengths in quality of high school programs in the US?
- Are there areas of weakness of high school programs in the US?
- What is the quality of transition programs?

## Conceptualization of Quality



## Assessment of Quality: The Autism Program Quality Rating System (APERS)

- The APERS-HS is a 66-item, five-point rating scale, with a score of 1 being the lowest and 5 the highest.
- 12 domains and 1 composite rating related to transition (consisting of items in different domains).
- Assessor base ratings on observations of students in school, interviews (usually 9-10 per school) and permanent products (IEPs).

Curriculum and Instruction	3	4	5	
28-1	<ul style="list-style-type: none"> <li>Team members do not use reinforcers to increase desired student performance.</li> <li>Team members use negative consequences in responding to errors during instruction (e.g., over-correction, humiliation).</li> </ul>	<ul style="list-style-type: none"> <li>When appropriate, key team member conducts a reinforcement assessment to determine appropriate individual reinforcement.</li> <li>Key team member uses positive reinforcers more frequently than negative consequences.</li> <li>Key team member applies positive reinforcers consistently and contingently to increase desired student performance.</li> </ul>	<ul style="list-style-type: none"> <li>Team members use natural reinforcers (e.g., grades, reduction in homework, free time at end of class).</li> <li>Team members apply positive reinforcers consistently and contingently to increase desired student performance.</li> <li>Team members use positive reinforcers more frequently than negative consequences.</li> </ul>	Classroom Instruction
29	<ul style="list-style-type: none"> <li>Team members do not use visual supports (other than schedules) during instruction in the classroom/setting or in other settings (e.g., outlines or notes for class period, teacher writes instructions for assignments on the board, PowerPoint during lectures, "First, then," timers, scripts).</li> </ul>	<ul style="list-style-type: none"> <li>Key team member uses some visual supports (other than schedules) during instruction (e.g., outlines or notes for class period, teacher writes instructions for assignments on the board, PowerPoint during lectures, "First, then," timers, scripts).</li> <li>Key team member uses visual supports during at least two activities (e.g., desk work, group work).</li> <li>Key team member uses visual supports that are appropriate for individual student needs (when needed).</li> </ul>	<ul style="list-style-type: none"> <li>Team members use visual supports (other than schedules) for instruction as needed (e.g., outlines for class period, teacher writes instructions for assignments on the board, PowerPoint during lectures, timers, "First, then," timers, scripts, iPad, iPod).</li> <li>Team members use visual supports in all settings including communal/shared areas (e.g., hallways, lunchroom).</li> <li>Team members use visual supports that are appropriate for individual student needs (when needed).</li> </ul>	

## Participants

- 56 high schools program (43 with modified program) and selected staff, students, and parents participated
- Located in North Carolina (NC), a large geographic area of Wisconsin (WI), and San Diego, California (CA).
- 400 students with ASD (84% male) participated in the study.
- The mean age for the students at the start of the study was 16.27 years.

## Reliability of Measure

Cronbach's Alpha

	Modified	Diploma
Cohorts Combined	.95	.94
Cohort One	.95	.95
Cohort Two	.95	.95

Inter-rater Agreement

- Mean total item ratings were 3.31 and 3.33 for two ratings for the modified and 3.26 and 3.27 for the diploma.
- Individual item rating differences were .43 for modified and .38 for diploma. Lower than the agreement within one point.
- Correlation between raters for total item rating was .54.

## Quality of Programs

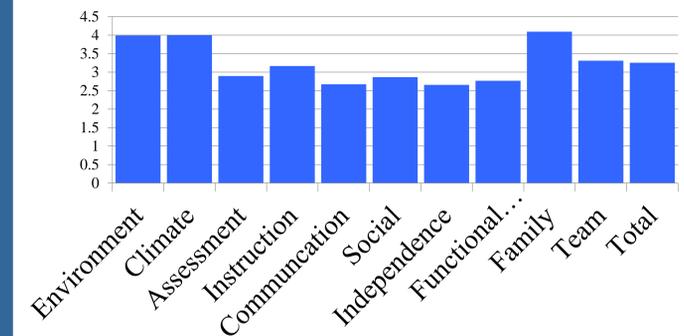
- The overall ratings for the diploma and modified programs were in the moderate/mediocre range (3.17 for diploma and 3.25 for modified).
- Ratings for the ecological features of the program and family were above the 3.0 level.
- Ratings of intervention and/or instructional approaches that focused on areas that tend to be the most needed by students with ASD (social, communication, independence, functional behavior) were uniformly below the 3.0 level.
- Transition composite scores were somewhat higher in the modified classes as compared to the diploma class but still below of 3.0.

## Conclusion

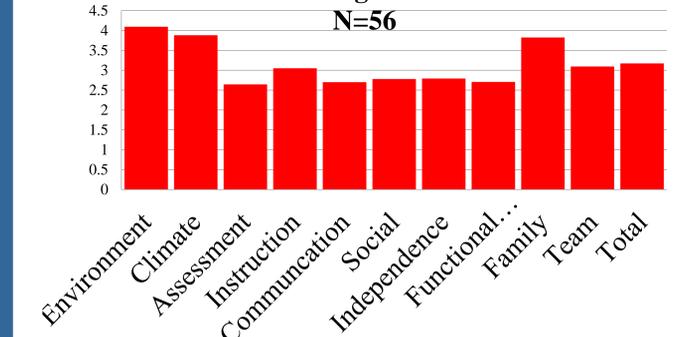
- APERS appears to be a reliable measure of program quality for high school students with ASD.
- Overall schools had a medium level of quality.
- Strongest features of schools were ecological features and family involvement.
- Lowest ratings of quality were for instructional and intervention practices.
- Transition practices were the quite low overall, with lower ratings occurring in diploma programs.

## Results by Program Type and Features

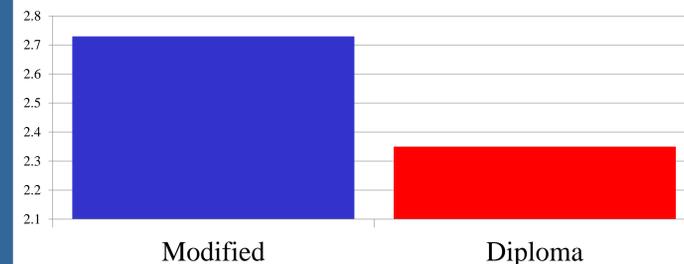
### APERS Scores: Modified Program N=43



### APERS Scores: Standard Diploma Program N=56



### APERS Scores Transition



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