Asperger Syndrome Diagnostic Scale  
(ASDS)

Publisher/Date:  
• PRO-ED, Inc., 8700 Shoal Creek Blvd., Austin, TX 78758-6897. Published, 2001.

Purpose:  
• Individually-administered, standardized rating scale designed to assess individuals (ages 5-18) who may manifest symptoms of Asperger Syndrome (AS).

Provides:  
• The 50-item rating scale is completed by person(s) knowledgeable with the child’s functioning, and yields six scores (Language, Social, Maladaptive, Cognitive, Sensorimotor, and Total). Percentiles and standard scores are available for each subscale and the Total score, and results are interpreted in terms reflecting the “probability” of AS (very likely, likely, possibly, unlikely, very unlikely). “Key questions” are also provided in the record form, to assist in additional information-gathering.

Standardization Issues:  
• Norms consisted of 115 children diagnosed with AS, ages 5-18, from 21 states. The gender breakdown included a male-to-female ratio of approximately 4:1 (males to females). The sample included Caucasians (n=75), African-Americans (n=10), Hispanics (n=10), and Asian-Americans (n=5).

Reliability and Validity Issues:  
• Item-selection and development was based on DSM-IV and ICD-10 diagnostic criteria, review of recent published literature, and the original research of Hans Asperger. Item-analysis on the norm sample was conducted to demonstrate that the items were satisfactory. The overall composite’s reliability was good, however, reliabilities for the individual subscales were somewhat low, ranging from .64-.83. A very small study (n=14) which examined the relationship between parent and teacher ratings suggested good interrater reliability (.93), indicating that different raters who know the child well can use the ASDS and be relatively confident that overall ratings will be similar. The manual’s description of a criterion-prediction validity study (measuring the test’s accuracy at differentiating AS from Autism, Behavior Disorders, ADHD, and LD) was conducted with the original normative sample (n=115) plus an additional 177 students (representing the aforementioned clinical subgroups), resulting in an 85% accuracy-rate given the group-compositions.
Discriminant validity (AS vs Autism, via ASDS/GARS comparison) and construct validity evidence is outlined in the manual.

Additional Points:

- The Total Score’s (ASQ) reliability is sufficiently reliable to contribute to diagnostic decisions, but the individual subscales should not be interpreted separately in this regard. Interpretation of individual subscales should be restricted to targeting of intervention goals.
- While the manual describes examination of results for clinical comparison groups concerns are noted regarding the selection of participants comprising the norm (and clinical-comparison) groups, as there reportedly was no confirmation of diagnosis for the participants. This fact “may” call into question some of the psychometrics of the scale.
- (Campbell, 2005) published a review and comparison of five third-party rating scales for AS, which included the ASDS, Autism Spectrum Screening Questionnaire (ASSQ), the Childhood Asperger Syndrome Test (CAST), the Gilliam Asperger’s Disorder Scale (GADS), and the Krug Asperger’s Disorder Index (KADI). The ASDS’s Total Score (ASQ) demonstrated adequate floor, ceiling, and item gradients, but ceiling- and item-gradient concerns were indicated within 4 of 5 subscales (again, lending caution to interpretation of individual subscales).
- Campbell further outlined concerns with using the test for the purpose of differentiating High Functioning Autism (HFA) from AS. In the comparison of measures, the ASDS’ reported statistics encouragingly showed the highest discriminative power in differentiating AS from High-Functioning Autism (HFA)—which Campbell cites research questioning the theoretical plausibility in and of itself. Unfortunately, the cognitive level of the clinical Autism cohort in the test’s comparison study design was an important piece of information he indicated to be lacking, and confounds the meaningfulness of the comparison, since the Cognitive and Language subscales yielded the most discriminative scores between groups.
- Campbell’s comparison of the 5 scales, using Bracken’s (1987) recommended psychometric standards, indicated that all of the scales fell short in respects and should be used with caution. It is highly recommended that the rating scales be used as part of a comprehensive evaluation.