Best Practices in Adaptive Behavior Assessment

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The University of Alabama
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Learning Objectives: Participants will be able to

• Understand current perspectives of adaptive behavior assessment for individuals with intellectual disabilities and other types of developmental, learning, and social-behavioral problems.
• Summarize features of major norm-referenced, adaptive behavior assessment instruments.
• Identify limitations of norm-referenced instruments and plan supplemental assessment techniques.
• Analyze major research findings about adaptive behavior assessment and their implications for assessment practice.
• Integrate adaptive behavior assessment into a data-based decision-making model of psychological and educational services.

Outline

• Foundations
• Purposes
• Elements
• Rating Scales
• Research
• Interventions
• Case Studies
• Best Practices

*Disclosure Statement Relevant for NASP (2010) Ethics Standard III.4.6: The ABAS-3 assessment instrument and the edited book, ABAS-II: Clinical Use and Interpretation, are referenced in the presentation. Patti Harrison is co-author/co-editor of these publications and, thus, has a financial interest in them.
Foundations: Adaptive Behavior Assessment

Foundations: Topics

- History
- Contributions of Edgar Doll
- Legal issues and legislation
- American Association on Mental Retardation (Now Intellectual Disabilities)
- Non-biased assessment and disproportionality in schools
- Definition
- Characteristics

History

- Adaptive behavior connected to intellectual and other disabilities since ancient times.
- Before formal assessment techniques: Focus on self-care and community engagement as criteria for disabilities.
- Binet’s first intelligence tests in early 1900s: Focus changed to measured intelligence.
- Improvements in education and treatment for disabilities throughout 1900s: Emphasized adaptive behavior.

Over-Emphasis on Measured Intelligence

- Development of intelligence tests in the early 1900s led to the widespread use of IQ scores to define intellectual AND other disabilities.

Contributions of Edgar Doll

- Focused on social competence of individual with intellectual and other disabilities.
- Developed the first adaptive behavior scale, Vineland Social Maturity Scale, in the 1930s.

Several significant events in the United States in the 1970s and 1980s impacted definitions of intellectual disabilities/mental retardation.

- Lawsuits about large, custodial institutions
- Lawsuits about disproportionate numbers of students from minority groups in special education programs for mental retardation
- Special education legislation
### Legal Issues: Non-Biased Assessment and Disproportionality in Schools

- Mercer’s (1972) “IQ: The Lethal Label”
- Court decisions through the 1960s-1990s: Implications for assessment and placement of children in special education and other programs.
- Cases such as Larry P. v. Riles in 1979, Marshall v. Georgia in 1984, and Lee v. Macon in 2000: Concluded that adaptive behavior must be assessed to determine eligibility for programs for persons with intellectual disabilities.

### Special Education Legislation

- Education for All Handicapped Children Act: Public Law 94-142 (1975) and reauthorizations: Appropriate assessment and decision making emphasized.
- Adaptive behavior deficits, in addition to subaverage intellectual functioning, must be established for eligibility determination for intellectual disabilities.
- Cut-off scores for adaptive behavior scales are typically not specified for a diagnosis of intellectual disabilities, but performance in several domains should be well below average.

### American Association on Mental Retardation (Now Intellectual Disabilities)

- Long history of leadership, with 11 definitions of MR/ID across the years.
- First definitions noted “incurability.”
- Fifth definition in 1959 formally included deficits in independent functioning and personal and social responsibility, in addition to low intelligence.
- Subsequent editions increased focus on adaptive behavior.

### Definition of Adaptive Behavior

Adaptive Behavior = Everyday Competence

- Adaptive behavior is defined as practical, everyday skills needed to function and meet the demands of one’s environments, including skills necessary to effectively and independently take care of oneself and to interact with other people.

### Characteristics of Adaptive Behavior

- Every person must use daily adaptive skills to function effectively and independently.
- People with deficits in adaptive skills can experience problems in meeting the various demands of many environments and situations.
- People with major deficits in adaptive skills may have difficulties with important life activities, including interacting with peers, taking care of personal needs, learning new skills, and general functioning in the home, school, and community.
- Comprehensive assessment of children’s adaptive skills is important for identifying strengths and needs and for focusing on important goals for intervention programs.

### Primary Domains of Adaptive Behavior

- **Conceptual skills**: language; reading and writing; and money, time, and number concepts
- **Social skills**: interpersonal skills, social responsibility, self-esteem, gullibility, naiveté (i.e., wariness), follows rules/obeys laws, avoids being victimized, and social problem-solving
- **Practical skills**: activities of daily living (personal care), occupational skills, use of money, safety, health care, travel/transportation, schedules/routines, and use of the telephone (AAIDD, 2010, p. 44)
### Specific Adaptive Skill Areas Within Domains (AAMR, 2002)

- **Conceptual Domain**
  - Communication
  - Functional Academics
  - Self-Direction
- **Social**
  - Leisure
  - Social

- **Practical**
  - Community Use
  - Home Living
  - Health and Safety
  - Self-Care
  - Work (for older adolescents and adults)
  (Additional motor adaptive skill area for young children)

### Purposes: Adaptive Behavior Assessment

#### Purposes: Topics

- Using a data-based decision making model of services
- Identification of strengths and limitations
- Diagnosis and classification of disabilities and disorders
- Planning programs and services to support needs
- Monitoring progress over time

#### Data-Based Decision Making

Adaptive behavior assessment is relevant for a data-based, decision-making model of psychological, educational, social, and rehabilitative services.

#### A data-based, decision-making model is applicable for:

- Assessing daily functional adaptive skills
- Identifying deficits or problems in adaptive skills
- Designing and implementing interventions for increasing adaptive skills
- Monitoring the effectiveness of adaptive skill interventions
Characteristics of adaptive behavior assessment for effective decision-making:

- Parents and professionals are important factors in adaptive behavior assessment.
- Assessment of adaptive behavior in people's natural environments is included.

Tier 1: Universal, effective, preventive, and proactive practices

- Tier 1 can include, for example, promotion of students' development of communication, self-direction, self-care, social, and other adaptive skills.
- Focus on typical acquisition and development of children's adaptive skills.
- Teachers, parents, and others assess needs, provide instruction and support to promote optimal development of adaptive skills for children in various contexts and environments, and monitor progress.
- Tier 1 supports also provide an opportunity for assessment and observations of children who are not responding.

Tier 2: Targeted, supplemental instruction and interventions

- Additional data collection and evaluation of children's adaptive behavior.
- Collaboration between teachers, parents, and other professionals to identify, for example, young students' difficulties with self-care skills, elementary age students' problems in interacting socially with other children, older students' lack of self-direction when completing assignments, etc.
- School-based teams assist teachers and parents with providing interventions for adaptive skill deficits, implementing needed supports and instruction to address deficits, and monitoring students' progress in improving and expanding skills.

Tier 3: Intensive, individualized instructions and interventions

- Comprehensive assessment and observations of students with more extensive deficits in adaptive behavior and other areas of functioning.
- Collaboration between teams, teachers, and parents in implementing and monitoring activities that result in skill acquisition and demonstration of needed behaviors.

Identification of Children’s Strengths and Limitations

- Comprehensive adaptive behavior assessment as an integral factor in assessment and interventions for daily, functional skills, such as interacting with peers, taking care of personal needs, learning new skills, and general functioning in the home, school, and community.
- Children with many types of difficulties, disabilities, disorders, and challenges exhibit needs, as well as strengths, in basic skills for their various environments and settings.
Identifying Strengths and Limitations: Assumptions

- Valid assessment considers cultural and linguistic diversity, communication and behavioral differences.
- Adaptive skills limitations co-exit with strengths.
- Adaptive skills limitations exit in community environments typical of the person’s age peers and are indexed to needs for support.
- Appropriate supports lead to improvement in life functioning.

(AAIDD, 2010)

Intellectual Disabilities (ID): Authoritative Professional Standards Specify Adaptive Behavior in Diagnosis

- American Association of Intellectual and Developmental Disabilities (AAIDD, 2010)
- DSM-5 (2013)
- IDEA (2004) impacting state education agency standards

Diagnosis and Classification of Disabilities and Disorders

- Intellectual disability
- Autism
- Developmental delays
- ADHD
- Behavior and/or emotional disorders
- Hearing and vision disorders
- Learning disabilities
- Traumatic brain injuries
- Physical and motor challenges
- Health-related concerns
- Others?

Intellectual Disabilities

- AAIDD (2010): “Intellectual disability is characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills. This disability originates before age 18.” (p. 1).
- Comparable definitions of ID in IDEA and DSM-5.
- Thus, adaptive behavior assessment is a required component for diagnosis of ID.

Adaptive Behavior Deficits: Criteria for ID

- AAIDD (2010): “…approximately two standard deviations below the mean of either (a) one of the following three types of adaptive behavior: conceptual, social, or practical or (b) an overall score on a standardized measure of conceptual, social, and practical skills” (p. 27).
- DSM-5 (2013): “…when at least one domain of adaptive functioning-conceptual, social, or practical—is sufficiently impaired that ongoing support is needed in order for the person to perform adequately in one or more life settings at school, at work, at home, or in the community.” (p. 38)

IDEA (2004) and Adaptive Behavior Deficits for ID

- Federal regulations for IDEA do not provide definition of adaptive behavior deficits for ID
  - 82% of states have no specific total score criterion for deficits
### Autism and Adaptive Behavior Assessment

- Adaptive behavior assessment often used for diagnosis, identification of strengths and weaknesses, and intervention planning.

### Autism: DSM-5 Criteria

- Persistent deficits in social communication and social interaction across multiple contexts
- Restricted, repetitive patterns of behavior, interests, or activities
- Present in early childhood
- Limits and impairs everyday functioning

### Autism: IDEA Definition

- Deficits in verbal and nonverbal communication and social interaction
- Generally evident before age three, and adversely affects a child's educational performance.
- Other characteristics often associated: Repetitive activities, stereotyped movements, resistance to change in environment or daily routines, and unusual responses to sensory experiences.

### Developmental Delay and Adaptive Behavior Assessment

- IDEA definition: Deficits in one or more: physical development, cognitive development, communication development; social or emotional development, or adaptive development.
- Deficits in adaptive behavior is one of the areas.
- Adaptive behavior assessment often provides information about physical, communication, and social emotional development, as well.

### Adaptive Behavior Assessment and Other Difficulties, Disabilities, Disorders, and Challenges

- Adaptive behavior should be assessed routinely for those who have challenges that may interfere with daily functioning, as part of comprehensive assessments for evaluating strengths and limitations, diagnosis and classification, or identifying needs for services and supports.
- Examples: Children for whom adaptive behavior assessment may be important.

### Designing and Implementing Interventions for Increasing Adaptive Skills

- Adaptive functioning determines level of supports required (AAIDD, 2010; DSM-5, 2013).
### Functional Daily Living Skills: Important Goals of Training and Interventions

- Skills needed during daily routines that occur naturally in home, school, community, and other environments.
- Skills that allow students to be independent in important environments and settings.
- Includes identification of both strengths and deficits.
- Requires evaluation of specific skills to function in current environments AND to assist with transition to next environments, including different school settings or less restrictive or more inclusive environments.

### Depending on the needs and developmental levels of students, different functional skills may be targeted for intervention: Examples

- Elementary ages: Readiness skills such as following directions, developing self-help skills, and interacting with peers.
- Students with more severe disabilities: Goals to prepare them to live life as independently as possible.
- Older students: Functional academics and functional pre-vocational skills.
- Students leaving secondary programs: Transition goals that include adaptive skills needed in job training programs and the workplace.

### Monitoring Effectiveness of Adaptive Skill Interventions

- Systematic and continuous data collection during interventions to:
  - Identify progress
  - Modify interventions
  - Measure goal attainment
  - Identify new goals
  - Plan new interventions
  - Evaluate generalization of skills and behaviors across settings

### Elements: Adaptive Behavior Assessment

### Elements: Topics

- Skills and performance
- Standardized and clinical methods
- Rating scale advantages and limitations
- Comprehensive assessment
- Multiple sources of information and methods
- Wise decision-making

### Skills and Performance

- Ability and skills (cannot do)
- Demonstration of behaviors
  - Frequency (does not do---or how often does do)
  - When needed
  - Without reminders
  - Without assistance
<table>
<thead>
<tr>
<th>Standardized and Clinical Methods</th>
<th>Selecting Respondents</th>
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<tbody>
<tr>
<td>Multiple methods of adaptive behavior assessment:</td>
<td>Carefully select respondents who know the child's daily adaptive behaviors.</td>
</tr>
<tr>
<td>• Norm-referenced instruments</td>
<td>• Should have:</td>
</tr>
<tr>
<td>• Interviews (often as follow-up to rating scale)</td>
<td>—Frequent, recent, prolonged contact with the individual (e.g., most days, over the last few months, for several hours each day).</td>
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<tr>
<td>• Structured observations</td>
<td>—Opportunities to observe important adaptive skills.</td>
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<tr>
<td>• Direct testing</td>
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<table>
<thead>
<tr>
<th>Multiple Respondents</th>
<th>Special Administration Considerations</th>
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<tbody>
<tr>
<td>• ALL adaptive behavior assessment scales: Obtain rating forms from two or more respondents. Comprehensive assessment will obtain information across settings, in response to various environmental demands and expectations, and from unique perspectives.</td>
<td>• Completing rating forms off-site: Take steps to ensure validity</td>
</tr>
<tr>
<td></td>
<td>• When a respondent completes rating forms for multiple individuals (e.g., when a teacher completes rating forms for several students): Focus carefully on each individual separately.</td>
</tr>
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<table>
<thead>
<tr>
<th>Rating Scale Advantages and Limitations</th>
<th>Understand Advantages: All Types of Rating Scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Most common method of adaptive behavior assessment is with behavior rating scales completed by respondents.</td>
<td>• Allow for a comprehensive assessment of a large number of adaptive skills</td>
</tr>
<tr>
<td>• ALL behavior rating scales have advantages and limitations.</td>
<td>• Involve important informants in the assessment process.</td>
</tr>
<tr>
<td></td>
<td>• Provide information from multiple perspectives and multiple sources of information.</td>
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<td></td>
<td>• Focus on adaptive skills occurring in naturalistic settings.</td>
</tr>
<tr>
<td></td>
<td>• Provide information about what a client actually does and how often he or she does it when needed at home, school, community, and work settings</td>
</tr>
<tr>
<td></td>
<td>• Considered to be one of the most valid, practical, and efficient techniques for assessing adaptive skills.</td>
</tr>
</tbody>
</table>
Also Understand Limitations: All Types of Rating Scales

- Ratings for individual items reflect a summary of the relative frequency, rather than exact frequency, of the client’s skills.
- Ratings reflect respondent’s standards for skills that may differ from respondent to respondent and setting to setting.
- Thus, use of multiple respondents assists in providing information from different perspectives.
- HOWEVER, ratings reflect the respondent’s perceptions and honesty in communicating these perceptions.
- Respondent’s ratings may be influenced by characteristics of the client (e.g., appearance, ability, background) other than the trait being assessed.

Multiple Sources of Information and Methods

Multiple Assessment Methods for Adaptive Behavior

- Systematic observations in the classroom and other settings to observe actual occurrences of adaptive skills.
- Parent, teacher, and student interviews in order to assess functional, daily adaptive behavior.
- Administration of adaptive behavior scales to multiple informants.
- Assessment instruments for specific functional skills (e.g., social skills, maladaptive behaviors)
- Administration of rating scales measuring related skills, including social skills and occupational behavior.
- Direct, performance-based assessment of adaptive skills (e.g., direct tasks requiring dressing skills, money skills, etc.)

Comprehensive Assessment

- Understand individual’s environments and needs
- Consider information from multiple sources and settings and validity/importance of each
- Use multiple assessments across major areas of functioning (e.g. intellectual, academic, behavior, language, etc.)
- Use multiple assessment methods (e.g., standardized assessments, observations, interviews, etc.)
- Avoid relying solely on test scores alone for decision making.

Multiple Sources of Information Emphasized in Adaptive Behavior Assessment:

- Multiple environments (classroom, home, work, community)
- Multiple data sources (teachers, parents, family members, supervisors)
- Multiple domains of adaptive functioning (self-care, home living, social skills, communication, community use, self-direction, health & safety, functional academics, leisure, work)
- Across time (assessing progress, monitoring outcomes, etc.)

Supplemental Adaptive Behavior Assessment Approaches (compiled from chapters in edited ABAS-2 textbook by Oakland & Harrison, 2008)

- Task analysis
- Direct observations in natural environments
- Direct tests of skills
- Ecological assessments
- Assessments of choices and preferences
- Collaborative assessment
- Arena assessment
## Wise Decision-Making

Thorndike and Hagen’s (1977) Classic Principles of Data-Based Decision Making

- Decisions must be made
- Decision-makers should use many tools for decision making
- Decision-makers must know what information means and how much it can be trusted
- Decisions are complex and include both facts and values
- Wisdom of decision-makers is crucial

## Adaptive Behavior Rating Scales


- Vineland Adaptive Behavior Scales, 2nd ed. (VABS-II; Sparrow, Cicchetti, & Balla, 2005, 2006)
- Other Adaptive Behavior Scales: SIB-R, ABES-R2, ABDS

## ABAS-3: Overview

- Comprehensive, norm-referenced measure
- Revision of ABAS-II; retains major features
- Same number of items as ABAS-II
- Item content: About 78-88% of original ABAS-II items retained or updated; rest are new items
- Standardized with large, nationally representative samples
- Includes intervention planner

## ABAS-3: Five Forms

- Parent/Primary Caregiver Form (Ages 0–5)
- Teacher/Daycare Provider Form (Ages 2–5)
- Parent Form (Ages 5–21)
- Teacher Form (Ages 5–21)
- Adult Form (Ages 16–89)
ABAS-3: Composites and Skill Areas

General Adaptive Composite (GAC, OVERALL TOTAL SCORE)
- Conceptual Domain
  - Communication
  - Functional Academics
  - Self-Direction
- Social
  - Leisure
  - Social
- Practical
  - Community Use
  - Home Living
  - Health and Safety
  - Self-Care
  - Work (only for older adolescents and adults)
(Additional motor adaptive skill area for young children)

ABAS-3: Item Ratings

- Circle 0 if person is **not able** to perform the behavior--- if they can’t do this behavior because they don’t have the ability
- If person **is able** to perform the behavior, rate how often they perform the behavior when needed, without reminders and without help
  - Circle 1 if person **never (or almost never)** performs the behavior when needed.
  - Circle 2 if person **sometimes** performs the behavior when needed.
  - Circle 3 if person **always (or almost always)** performs the behavior when needed.

ABAS-3: Normative Scores

- Composites-GAC and Conceptual, Social, and Practical domains.
  - Standard scores ($M = 100, SD = 15$)
  - Confidence intervals
  - Percentile ranks
- Adaptive skill areas
  - Scaled scores ($M = 10, SD = 3$)
  - Test-age equivalents (optional)

ABAS-3: Descriptive Classifications for GAC and Domains

<table>
<thead>
<tr>
<th>Standard Scores</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 or higher</td>
<td>High</td>
</tr>
<tr>
<td>110-119</td>
<td>Above Average</td>
</tr>
<tr>
<td>90-109</td>
<td>Average</td>
</tr>
<tr>
<td>80-89</td>
<td>Below Average</td>
</tr>
<tr>
<td>71-79</td>
<td>Low</td>
</tr>
<tr>
<td>70 or lower</td>
<td>Extremely Low</td>
</tr>
</tbody>
</table>

ABAS-3: Descriptive Classifications for Adaptive Skill Scaled Scores

<table>
<thead>
<tr>
<th>Scaled Scores</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 or higher</td>
<td>High</td>
</tr>
<tr>
<td>13-14</td>
<td>Above Average</td>
</tr>
<tr>
<td>8-12</td>
<td>Average</td>
</tr>
<tr>
<td>6-7</td>
<td>Below Average</td>
</tr>
<tr>
<td>4-5</td>
<td>Low</td>
</tr>
<tr>
<td>3 or lower</td>
<td>Extremely Low</td>
</tr>
</tbody>
</table>
### ABAS-3: Ipsative Analyses

- Allow comparisons between across a person’s own scores to identify relative strengths, weaknesses, patterns, etc.
- Useful for generating hypotheses, targeting priority intervention goals, etc.
- Two types of ipsative analyses:
  - Statistical significance of score differences
  - Base rates from standardization sample indicating unusual or rare differences for clinical or practical significance

### VABS-II: Overview

- Comprehensive, norm-referenced measure
- Revision of VABS; retains major features
- Item content: Similar item content as VABS but with additional items especially for younger children
- Standardized with large, nationally representative samples
- Third edition due in 2016

### Vineland Adaptive Behavior Scales, 2nd ed. (VABS-II; Sparrow, Cicchetti, & Balla, 2005, 2006)

### VABS-II: Four Forms

- Survey Interview Form (Ages 0-90)
- Survey Parent/Caregiver Form (Ages 0-90)
- Expanded Interview Form (Targeted for Ages 0-5)
- Teacher Rating Form (Ages 3-21)

### VABS-II: Composites and Subdomains

**Adaptive Behavior Composite (ABC, OVERALL TOTAL SCORE)**

- Communication Domain
  - Receptive
  - Expressive
  - Written
- Daily Living Skills Domain
  - Personal
  - Domestic (Academic on Teacher Rating Form)
  - Community (School Community on Teacher Rating Form)
- Socialization Domain
  - Interpersonal Relationships
  - Play and Leisure Time
  - Coping Skills
- Motor Skills Domain (ages to 6): Gross and Fine
VABS-II: Maladaptive Behavior Index (Survey Forms)

VABS-II: Item Ratings
- 2: Usually or habitually performed without help or reminders
- 1: Sometimes or partially performed without help or reminders
- 0: Never performed or never performed without help or reminders
- DK or Est possible (N/O possible for some items)

VABS-II: Administration
- Survey Form Interview:
  - Uses semi-structured interview format
  - Items organized by subdomain and content category; content categories used for questions and probes by examiner
  - Uses age starting points
  - Establishes basals/ceilings for subdomains (4 consecutive items)
- Survey Form Parent/Caregiver Form and Teacher Rating Form:
  - Use start points for child’s age
  - Teacher Rating Form-two subdomains with stop points

VABS-II: Normative Scores
- Composites-ABC and Communication, Daily Living Skills, Social, and Motor domains.
  - Standard scores (M = 100, SD = 15)
  - Confidence intervals
  - Percentile ranks
- Subdomains:
  - v-scale scores (M = 15, SD = 3)
  - Age equivalents
  - Stanines

VABS-II: Adaptive Levels for Adaptive Behavior Composite and Domains

<table>
<thead>
<tr>
<th>Standard Scores</th>
<th>Adaptive Level</th>
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<tbody>
<tr>
<td>130 or higher</td>
<td>High</td>
</tr>
<tr>
<td>115-129</td>
<td>Moderately High</td>
</tr>
<tr>
<td>86-114</td>
<td>Adequate</td>
</tr>
<tr>
<td>71-85</td>
<td>Moderately Low</td>
</tr>
<tr>
<td>70 or below</td>
<td>Low</td>
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</tbody>
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VABS-II: Adaptive Levels for Subdomains

<table>
<thead>
<tr>
<th>Standard Scores</th>
<th>Adaptive Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 or higher</td>
<td>High</td>
</tr>
<tr>
<td>18-20</td>
<td>Moderately High</td>
</tr>
<tr>
<td>13-17</td>
<td>Adequate</td>
</tr>
<tr>
<td>10-12</td>
<td>Moderately Low</td>
</tr>
<tr>
<td>9 or below</td>
<td>Low</td>
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</tbody>
</table>
### VABS-II: Ipsative Analyses

- Allow comparisons between across a person’s own scores to identify relative strengths, weaknesses, patterns, etc.
- Useful for generating hypotheses, targeting priority intervention goals, etc.
- Two types of ipsative analyses:
  - Statistical significance of score differences
  - Base rates from standardization sample indicating unusual or rare differences for clinical or practical significance

### Other Adaptive Behavior Scales

- Scales of Independent Behavior – Revised (SIB-R; Bruininks, Woodcock, Weatherman, & Hill, 1996)
- Adaptive Behavior Evaluation Scale, Revised 2nd ed. (ABES-R2; McCarney & Arthaud, 2006)
- Adaptive Behavior Diagnostic Scale (ABDS; Pearson, Patton, & Mruzek, 2016)

### Adaptive Behavior Research and Applications for Assessment Practices

### Research: Topics

- Relationship with intellectual and achievement measures
- Inter-informant agreement
- Research with clinical groups (ID, Autism, Developmental Delay, EBD, ADHD, SLD, physical and sensory disabilities)
- Research-based assessment practices

### Relationship Between Adaptive Behavior and Intellectual Assessment: Selected Research Findings

- Adaptive behavior and intelligence scales measure distinct, but related, constructs (Keith, Fehrmann, Harrison, & Pottebaum, 1987).
- ABAS-II manual: GACs correlations generally in the .40s to .50s with WPPSI-III, WISC-III, WISC-IV, WAIS-II, WASI, and S-B Full Scale scores.
- ABAS-3 manual: GAC and RIAS correlations of .50 for teacher form and .88 for parent form. (NOTE: Clinical sample ages 4-14 with low functioning; correlations likely inflated due to restriction in range).
- VABS-II manual: Survey Forms ABC score correlations of .12 with WISC-III FSIQ (sample ages 6-16) and .20 with WAIS-III (sample ages 17-68). Teacher Rating Form ABC score correlations of .50 with WISC-III FSIQ (sample ages 6-11) and .18 with WISC-IV FSIQ (sample ages 10-17).
### Relationship Between Adaptive Behavior and Intellectual Assessment: Factors

- Intelligence tests:
  - Sample best possible performance
  - Interpreted in terms of a trait system
  - Presume stability
- Adaptive behavior scales:
  - Provide descriptions of everyday behavior
  - Infrequently interpreted in terms of a trait system
  - Presume performance can change

### Inter-Informant Agreement: Selected Research Findings

- **ABAS-II manual:** Correlation of .68 between teacher/daycare and parent GAC (sample ages 2-5). Correlation of .70 between teacher and parent GAC (sample ages 5-21).
- **ABAS-3 manual:** Correlation of .52 between teacher/daycare and parent GAC (sample ages 2-5). Correlation of .55 between teacher and parent GAC (sample ages 5-21).
- **VABS-II manual:** Correlations of .41 (sample ages 3-6), .48 (sample ages 1-11), and .32 (sample ages 12-18) between Teacher Rating Form and Survey Forms.

### Inter-Informant Agreement: Factors

- Ecological validity and different contexts
- Respondent lack of information or opportunities to observe skills
- Different behavior of child in different settings
- Generalization of skills across environments
- Different expectations/frame of reference in different settings
- Understanding of items and behavior
- Respondent honesty in reporting/bias

### Inter-Informant Agreement: Decision-Making

- Both parents and teachers are valuable informants to be used in adaptive behavior assessment.
- Evaluation of the reasons for differences between parent and teacher ratings often has significant implications for decision-making and planning interventions.
- Informal interviews with significant people in children’s environments, including parents and teachers, and direct observations may provide additional information about children and their environments and assist in exploring differences between informants’ ratings on adaptive behavior scales.

### Research with Clinical Groups

- Many research studies reported in assessment manuals and in research journals.
- Selected research findings from test manuals

### Intellectual Disabilities: Selected Research Findings

- **ABAS-II manual:** Mean GAC and other scores consistently lower than two SDs below mean and significantly lower than matched control groups. Scores distinguished between individuals with mild and moderate ID.
- **ABAS-3 manual:** Mean GAC and other scores consistently lower than two SDs below mean and significantly lower than matched control groups.
- **VABS-II manual:** Mean ABC and other scores consistently lower than two SDs below mean and significantly lower than matched control groups. Scores distinguished between individuals with mild, moderate, and severe ID.
Autism: Selected Research Findings

- ABAS-II manual: Teacher/daycare form (sample ages 3-6) mean GAC score of 77. Parent form (sample ages 3-6) mean GAC score of 64. Greatest deficits in adaptive skill areas for Communication, Health/Safety, Leisure, and Social Skills. Teacher form (sample ages 5-18) mean GAC score of 54.
- ABAS-3 manual: Teacher/daycare form (sample ages 2-6) mean GAC score of 62. Parent form (sample ages 2-6) mean GAC score of 60. Teacher form (sample ages 5-20) mean GAC score of 76. Parent form (sample ages 5-20) mean GAC score of 74. Greatest deficits generally in adaptive skill areas for Communication and Social Skills.
- VABS-II manual: Mean Survey Forms ABC of 66 for autism-verbal group (sample ages 2-10) and 51 for autism-nonverbal group (sample ages 3-19); Socialization lowest domain score; high scores on Maladaptive Behavior Index and Externalizing. Mean Teacher Rating form of 71 for autism-verbal group (sample ages 3-16) and 43 for autism-nonverbal group (sample ages 3-15); Socialization (verbal group) and Communication (nonverbal group) were lowest domain scores.

ADHD: Selected Research Findings

- ABAS-II manual: Teacher form (sample ages 5-9) mean GAC score of 77; significant differences between with control group were found on all adaptive skill areas. Parent form (sample ages 6-21) mean GAC score of 91; significant differences with control group were found on adaptive skill areas of Communication, Home Living, and Self-Direction. Self-direction lowest adaptive skill areas for both samples.
- ABAS-3 manual: Teacher form (sample ages 4-16) mean GAC score of 81. Parent form (sample ages 4-16) mean GAC score of 82. Most skill areas had significant effects sizes, with largest difference for Self-Direction.
- VABS-II manual: Mean Survey Forms ABC of 94 (sample ages 6-18); greatest deficits in Socialization domain and high Maladaptive Behavior Index. Mean Teacher Rating Form ABC of 89 (sample ages 5-19); greatest deficits in Communication domain.

Developmental Delay: Selected Research Findings

- ABAS-II manual:
  - Mean GAC scores not as low as for samples with ID.
  - Teacher/daycare form (sample ages 2-6) and parent form (sample ages 8 months-5 years) mean GACs from 82-84 (22-28% had GACs lower than 2 SDs below mean) and significantly lower than matched control groups.

Emotional or Behavioral Disorders: Selected Research Findings

- ABAS-II manual-Behavior disorders: Teacher form (samples ages 6-21) GAC of 77; self-direction lowest adaptive skill area.
- ABAS-II manual-Emotional disorders: Teacher form (samples ages 6-21) GAC of 78; self-direction lowest adaptive skill area.
- VABS-II manual: Mean Survey Forms ABC of 86 (sample ages 8-17); greatest deficits in Socialization domain and high Maladaptive Behavior Index, Internalizing, and Externalizing. Mean Teacher Rating Form ABC of 81 (sample ages 7-20); greatest deficits in Socialization domain.

Learning Disabilities: Selected Research Findings

- ABAS-II manual: Teacher form (samples ages 5-9, 10-12, 13-21) and parent form (sample ages 7-21) mean GACs from 84-91 and significantly lower than control groups. Greatest deficits in adaptive skill areas for Communication, Functional Academics, and Self-Direction.
- VABS-II manual: Mean Survey Forms ABC of 95 (sample ages 7-17). Mean Teacher Rating Form ABC of 88 (sample ages 6-18). Greatest deficits in Communication domain.

Physical and Sensory Disorders: Selected Research Findings

- ABAS-II manual-Biological risk factors (low birth weight, FAS, etc.): Teacher and parent forms (samples ages birth to 3) mean GACs of 77 and 82.
- ABAS-II manual-Motor and physical impairments: Teacher and parent forms (samples ages 2-5) mean GACs of 76 and 79.
- VABS-II manual-Hearing Impairments: Mean Survey Forms ABC of 90 (sample ages 6-18), Mean Teacher Rating Form ABC of 86 (sample ages 5-18). Greatest deficits in Communication domain.
### Summary and Recommendations: Research-Based Assessment Practices

- Relationship with intellectual and achievement measures
- Inter-informant agreement
- Research with clinical groups (ID, Autism, Developmental Delay, EBD, ADHD, SLD, physical and sensory disabilities)

### Adaptive Behavior Assessment and Planning Interventions

### Interventions: Topics

- Goals of training and interventions
- Prioritized targets
- Steps
- Methods
- Progress monitoring

### Goals: Functional daily living skills important for training and interventions.

- Depending on the needs and developmental levels of students, different functional skills may be targeted for intervention.

### Prioritizing of goals: Needed for interventions and supports to increase functional, daily living skills (AAMR, 2002).

- The first step is to identify students’ skills that appear to be deficits or require supports.
- Next, activities to develop skills and other support activities are chosen with a focus on students’ improvement within that area.

### IDENTIFYING TARGET SKILLS FOR INTERVENTIONS (AAMR, 2002)

- Identification
  - Skills needed to function now
  - Skills needed to function in target environment
  - Skills preferred by student
• Higher Priority Skills
  — Critical in domestic, personal, leisure, community, vocational domains
  — Critical to health and safety
  — Highly preferred by client
  — Will promote increased independence
  — Will contribute to satisfaction/acceptance

• Lower Priority Skills
  — Can only be learned with great difficulty
  — Age inappropriate, time-limited, no future value

### Planning Adaptive Behavior Interventions: Steps
- Identify skill/performance levels needed in current environment or the environment into which person is moving.
- Identify adaptive behavior strengths/weaknesses relative to environmental requirements.
- Identify and prioritize intervention objectives based on analysis of environmental needs and individual’s strengths/weaknesses.
- Implement interventions.
- Monitor implementation, progress, and effectiveness

### Adaptive Behavior Interventions: Methods
(Compiled from chapters in edited ABAS-2 textbook by Oakland & Harrison, 2008)
- Functional training with task analysis
- Direct instruction
- Applied behavior analysis
- Prompting reinforcement
- Backward chaining
- Naturalistic approaches
- Milieu interventions

### ABAS-3 Intervention Planner
- Provides intervention strategies for each ABAS-3 item
- Using the ABAS-3 Intervention Planner
  — Conduct the ABAS-3 assessment and complete scoring
  — Identify adaptive skill areas to be targeted during intervention
  — In targeted adaptive skill area(s), identify items rated 0 or 1

• Play interventions
• Simulations
• Community-based instruction
• Generalization strategies
• Participatory interventions
• Instruction along-side peers
• Video taping
• Coaching caregivers
— Prioritize items to form objectives for most relevant for environmental needs and individual’s strengths/weaknesses.
— For prioritized items/objectives, select and implement corresponding intervention strategies from ABAS-3 Intervention Planner, as well as additional strategies suggested by parents, teachers, others.
— Monitor implementation, progress, and effectiveness

**Example ABAS-3 Item: Makes his or her own bed.**

“Give the child a simple bedspread that they can pull up each morning. Establish a morning routine that includes the child pulling up their blankets and bedspread (for example, get up, make bed, then get dressed). Initially, you will need to help the child make their bed, praising them for any attempts at pulling up the bedclothes. As the child’s bed-making skills improve, offer less and less assistance and praise them for doing a better job.” (ABAS-3 Intervention Planner, p. 63)

## Adaptive Behavior Interventions: Progress Monitoring

- Measuring progress for specific goals
  — “Is the program working?”
  — Has the child gained skills since the last assessment?
  — Does the child need additional or different interventions?
  — What skill should child work on next?”
  (Armstrong, 2015)

## Adaptive Behavior Assessment: Case Studies

## Case Studies: Brief Hypothetical Samples

- Intellectual Disability
- Learning Disability
- Autism

## Brief Case Example: Charlie, Age 12 Years, Reevaluation for Intellectual Disabilities

- KABC-II: Mental Processing Index of 67; all other scale standard scores 64-69
- KTEA-3: All composite standard scores 60-70
Charlie: VABS-II Composites

Survey Form (Mother)  Teacher Rating Form
Communication:  69  Communication:  65
Daily Living Skills:  91  Daily Living Skills:  65
Socialization:  80  Socialization:  61

Charlie: VABS-II Sub-Domain Scores

Survey Form- Mother  Teacher Rating Form
Communication:
Receptive:  12  Receptive:  10
Expressive:  8  Expressive:  7
Written:  8  Written:  7
Daily Living Skills:
Personal:  14
Domestic:  14
Community:  13
Socialization:
Interpersonal:  11
Play & Leisure:  13
Coping Skills:  10

Relationship between adaptive behavior and intellectual assessment: Assessment results for Charlie

- Most Survey Form scores from parent not consistent with intelligence and achievement scores.
- Lower score in the Communication Domain of the Vineland Survey From. Performance on this domain is more consistent with intelligence and achievement scores than performance on other Survey Form domains.
- Teacher Rating Form scores consistent across domains and with intelligence and achievement scores.
- What hypotheses should be explored for investigating parent and teacher scores?

Assessing adaptive behavior with third-party informants: Assessment results for Charlie

- Vineland Survey Form Adaptive Behavior Composite higher than Teacher Rating Form Adaptive Behavior Composite,
- Vineland Survey Form and Teacher Rating Form consistent for Communication domain, but not for Daily Living Skills and Socialization.
- Hypotheses about why different parent and teacher scores for Daily Living Skills and Socialization?

Data-based Decision-Making for Charlie

- Does Charlie continue to be eligible for special education?
- What types of further investigations of discrepancies between VABS-II Survey Form and Teacher Rating Form are needed?
- What appear to be high intervention priorities for Charlie?

Brief Case Example: Wendy, Age 7 Years, Eligible for SLD, ABAS-3 Administered for Program Planning

- Low academic performance since kindergarten
- Few friends; poor peer relationships
- Poor relationships with teachers and parents
- Low motivation and self-esteem
- Quiet and withdrawn
- Multi-tiered interventions: Insufficient progress
- Average intelligence test scores; low achievement in classroom and standardized tests
- Meets criteria for SLD
### ABAS-III Composites for Wendy

<table>
<thead>
<tr>
<th></th>
<th>Parent</th>
<th>Teacher</th>
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<tbody>
<tr>
<td>General Adaptive Comp</td>
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### ABAS-III Adaptive Skill Area Scores for Wendy

<table>
<thead>
<tr>
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<th>Parent</th>
<th>Teacher</th>
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<td>Conceptual Domain</td>
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<tr>
<td>· Communication</td>
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<tr>
<td>· Functional Academics</td>
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<td>6</td>
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<td>· Self-Direction</td>
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<tr>
<td>Social Domain</td>
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<td></td>
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<tr>
<td>· Leisure</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>· Social</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Practical Domain</td>
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<td></td>
</tr>
<tr>
<td>· Community Use</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>· Home Living/School Living</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>· Health and Safety</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>· Self-Care</td>
<td>11</td>
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</tbody>
</table>

### Wendy: Ipsative Analysis of ABAS-3 Scores

- Consistency across parent and teacher forms.
- Domains: Practical higher than Conceptual or Social, significant at p<.05, base rate less than 5%.
- Adaptive Skill Areas: significant at p<.05, base rate less than 5%.
  - Strengths in Health & Safety and Self-Care
  - Weaknesses in Functional Academics, Self-Direction, and Social

### Wendy: How would you use this information?

- How does information about adaptive behavior add to our understanding of Wendy and her intervention needs?
- What additional information is needed for Wendy?
- What supplemental assessment methods would you use for Wendy? Why?
- What appear to be Wendy’s highest priority needs related to adaptive skills?

### Wendy: Program Planning

1. Identify current areas of strength and weaknesses relative to environmental requirements.
   - What are Wendy’s most relevant strengths and weaknesses?
2. Identify skill levels needed in one’s current environment or the environment into which the person is moving.
   - What are possible environment requirements for Wendy?
3. Identify and prioritize intervention objectives based on discrepancies between environmental needs and personal attainment.
   - What should be the highest priority objectives for Wendy?
4. Implement interventions.
   - What intervention methods could be effective to meet objectives for Wendy?
5. Monitor their implementation and effectiveness.
   - What techniques can be used to monitor Wendy’s progress?
**Brief Case Example: Mary, Age 3 Years, Autism** (from Harrison & Oakland, 2015)

- Diagnosed at age 2; currently enrolled in intensive community program for autism
- ADOS-2 Total score exceeded autism cut-off; Comparison Score-high degree of autism-related symptoms
- Bayley-3 : Cognitive-76; Motor-80; Language-60.
- Occupational therapist evaluation: Delays in motor, self-care, play, attention, communication, and sensory integration

**ABAS-III Composites for Mary**

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<thead>
<tr>
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<th>Parent</th>
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<td>Practical Domain</td>
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</table>

**ABAS-III Adaptive Skill Area Scores for Mary**

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<thead>
<tr>
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<th>Parent</th>
<th>Teacher</th>
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<td>Functional Pre-Academics</td>
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<tr>
<td>Social</td>
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<td>Practical Domain</td>
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<tr>
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<tr>
<td>Home Living/School Living</td>
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<tr>
<td>Self-Care</td>
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<td>2</td>
</tr>
<tr>
<td>Motor Adaptive Skill Area</td>
<td>6</td>
<td>7</td>
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</tbody>
</table>

**Mary: Program Planning**

- Major needs identified by parents and teachers
  - Skills needed for transition to a preschool in public school
  - Specific skills in communication, social, and self care

**Mary: Interventions Identified by Parents and Teachers**

- Promote communication by naming common objects (receptive), prompting Mary to repeat names (expressive), and providing rewards.
- Encourage socialization at school by assigning common tasks to Mary and higher functioning or older students. Use similar efforts at home with her step-sister and grandmother.
- Focus on self-care skills expected in preschool, especially toileting skills. Begin with flushing and successively work backwards.

**Adaptive Behavior Assessment: Recommendations for Best Practices**
Routinely incorporate adaptive behavior assessment into a comprehensive data-based decision making framework that focuses on provision of effective services for all children.

- Adaptive behavior assessment is important for children with many types of difficulties, disabilities, disorders, and challenges.

Within a multi-tier model of services for students, collaborate with teachers and parents during data collection, instruction, and progress monitoring related to students’ adaptive skills.

- Through data-based decision making and problem-solving, contribute to core instruction, targeted interventions, and intensive interventions aimed at teaching important adaptive skills for all students, as well as providing interventions for students with specific adaptive skill needs.

Do not use a single procedure as the sole or even primary criterion for determining eligibility.

- Intellectual disabilities as well as other disabilities and disorders: Score(s) from individual intellectual evaluation must NEVER be the sole or primary criterion.

Focus on comprehensive assessment across multiple domains, environments, methods, and sources of information.

Emphasize a convergence of information across intellectual evaluation, adaptive behavior assessment, academic assessment, and other evaluation and that evidence supports important decisions about children.

Do not rely solely on standardized, norm-referenced assessments of intelligence, adaptive behavior, and achievement as the only methods of assessment.

- Standardized, norm-referenced assessments provide important information but do have limitations.
- Supplement information from standardized, norm-referenced assessments with additional and alternative methods of assessment and must determine that there is a convergence of evidence across all assessments.
Because any adaptive behavior scale will provide only limited assessment of a person's adaptive skills, gather additional information about adaptive skills and use supplemental methods of assessment to determine if there is a convergence of information.

Remember that adaptive behavior scales are behavior rating scales.
- All types of rating scales can have threats to validity and must be interpreted carefully.
- Thus, address validity of results for the informant (e.g., teacher, parent, family member), the child's behavior, and the setting.
- Parent and teacher scores may be inconsistent, yet both still valid.

Recognize that many factors may be the cause of a person's poor functioning or low scores on any type of evaluation and can impact validity of results.
- Factors may include cultural, linguistic, environmental, sensory, motor, physical, school, classroom, instructional, emotional, etc. factors.
- Address all factors carefully and systematically when interpreting the results of evaluations, including adaptive behavior assessment.
- The wisdom of decision-makers is crucial!

Recognize that increases in adaptive skills represent important intervention goals for many students.
- Prioritize identification of needs and development of plans for interventions.
- Use adaptive behavior assessment data to plan interventions that actually improve children's independence and expand important life skills.

Emphasize comprehensive adaptive behavior assessment as an integral factor in assessment and interventions for daily, functional skills, such as interacting with peers, taking care of personal needs, learning new skills, and general functioning in the home, school, and community.

Incorporate comprehensive adaptive behavior assessment into data collection and interventions plans for all students experiencing many types of learning and behavior problems, because many students experience associated difficulties in functional, daily living skills.
References


