Screening for Social Emotional Concerns: Considerations in the Selection of Instruments

Jasolyn Henderson and Phillip Strain
January 2009

ROADMAP TO EFFECTIVE INTERVENTION PRACTICES
SOCIAL-EMOTIONAL DEVELOPMENT IN THE EARLY CHILDHOOD POPULATION

Access to high quality early childhood services is fundamental to the long-term success of our nation’s children and their families (NAEYC, 2000). For children, high quality early childhood services can increase the likelihood of academic success by improving cognitive, social, behavioral, language, and motor skills (e.g. NAEYC, 2000; NASP, 2002). For families, high quality early childhood services can provide the information and resources to help their children be successful in school. An overwhelming body of research indicates that the early years are very influential on later development (NAEYC, 2000; National Research Council, 1998, 2000, 2001; Shonkoff & Phillips, 2000). For some young children, the presence of challenging behavior is a major obstacle to their success in early childhood settings and even predictive of social and academic problems throughout school (Carter, Briggs-Gowan, & Davis, 2004). Although exhibiting some challenging behavior during early childhood is typical and varies greatly across environments, some children exhibit challenging behaviors that are more chronic and result in significant difficulties for the child, family, and learning environment. In these cases, it is important to have specialized early intervention services available to them and their families as soon as possible to help prevent long-term difficulties (Gorey, 2001). The initial step towards detection and amelioration of such problems and the prevention of more severe issues is to conduct screenings across developmental areas to help identify those children and families that would benefit from early and targeted intervention strategies. Universal screening enables service providers and families to quickly identify difficulties and implement strategies that are likely to lessen the probability of long-term negative outcomes including severe persistent challenging behaviors. The practice of universal screening is in line with the prevention approach that is the foundation of the Pyramid Model framework of the Technical Assistance Center on Social Emotional Intervention for Young Children (TACSEI) (www.challengingbehavior.org) and the Center on the Social and Emotional Foundations for Early Learning (CSEFEL) (www.vanderbilt.edu/csefel) as well as that embraced by many schools (Levitt et al, 2007). In addition to implementing targeted strategies for those children identified as at-risk by screening, special attention should be given to the quality of the environment and relationships that the all children have with those around...
In the current educational environment, data-based decision making has taken a central role in instructional practices (e.g., Response to Intervention [RTI]). In addition to universal screening, RTI includes other methods for collecting and analyzing data (e.g., progress monitoring, assessment, and evaluation). Therefore, it is necessary to understand the differences between these methods to ensure that the selected tools are used in accordance with their intended purposes. Screening involves the use of brief, inexpensive tools that can identify characteristics that are predictive of future difficulties. Screening tools cannot identify disabilities or disorders and should not be used for this purpose. Progress monitoring, defined by the National Center on Student Progress Monitoring, is a "scientifically based practice that is used to assess students' performance and evaluate the effectiveness of instruction". This type of assessment is also meant to be inexpensive and brief and cannot provide diagnoses of disabilities and disorders. In contrast, comprehensive evaluations are lengthy, expensive, and are individually administered by qualified professionals. Comprehensive evaluations are meant to provide information that enable judgments about a person's cognitive, physical, academic, emotional, or behavioral functioning. These evaluations allow qualified professionals to make eligibility determinations and/or provide specific diagnoses of disabilities or disorders that may lead to a significant change in educational services.

Screenings not only assist in the identification of children who may need early and specialized services, screening programs may reduce disproportionality in special education by providing early intervention services that reduce the likelihood of future special education placement and increase the likelihood of future school success (DEC, 1998; NRC, 2000). Screenings can help gather information about children's risk and protective factors, which then should be used for educational planning, program evaluation, and designing interventions and measuring their effectiveness (Rafoth, 1997). Although screening is useful for efficiently gathering information about a child's developmental status, screening should not be used in lieu of comprehensive assessment and should not be perceived as a means to fast-track to special education placement (Individuals with Disabilities Education Improvement Act, 2004).

Consultation with specialists such as school psychologists, educational psychologists, or early childhood specialists may be helpful when developing a comprehensive screening program. These specialists can also assist with professional development and training, data management, designing long-term measurement strategies, information dissemination, program evaluation, data interpretation, and designing intervention plans. When designing a screening program special consideration needs to be given to such issues as predictive validity (i.e., one of the most important psychometric properties for choosing screening instruments; see Glover & Albers, 2007 for more in depth discussion), strengths and weaknesses of using multiple assessors across environments, strengths and weaknesses of particular screening instruments, how screening data will be used and shared with stakeholders, and the overall goals of the screening program (Keith & Campbell, 2000; Rafoth, 1997). In addition, consideration should be given to what developmental areas (e.g., cognitive, adaptive, social-emotional, language, motor development) will be screened. Because there is an interconnection between domains of development (Powell, Dunlap, Fox, 2006), it is imperative that a screening program aimed at identifying children with challenging behavior initially assess all developmental areas. Deficits in one or more developmental areas may lead to displays of challenging behavior.

Screening approaches can vary based on frequency of screenings, targeted domains, informant types, targeted constructs,
...effective screening programs should be structured so that data can be quickly and easily aggregated, maintained, retrieved and analyzed.

Social-emotional screening with young children should include skills such as prosocial behavior, self-regulation, self-concept, and self-efficacy because research demonstrates that these skills are strongly related to school readiness and future school success (Fantuzzo, Bulotsky-Shearer, McDermott, McWayne, Frye, & Perlman, 2007). Several screening methods are available (i.e., behavior rating scales, direct assessment, criterion-referenced, norm-referenced, naturalistic observations). More importantly, when choosing measures that are relevant to assessing behavioral skills in the preschool population, tools should be chosen with careful consideration to issues such as: (a) their purpose (e.g., the ability of the tool to assess both strengths and weaknesses); (b) demographics of the population with which they are to be used and demographics of the population on which the instrument was standardized; (c) values, norms, preferences, and knowledge base of those who will be utilizing the data, as well as the environments in which they will be used; and (d) theoretical and empirical support (e.g., reliability and validity; Glover & Albers, 2007). Screening tools should be brief, easy to administer, score, interpret, and understand by all stakeholders (Glover & Albers, 2007). Structuring the screening program to include multiple screenings using a variety of sources, raters, and techniques across environments is often necessary with preschool children because their social behavior functioning varies widely from day-to-day and from setting-to-setting (Keith & Campbell, 2000; Rafoth, 1997). In addition to the information provided by screenings, information about medical history, developmental history, social history, and family history should be obtained as part of the follow up process when a reason for concern has been indicated through screening (Rafoth, 1997; Printz, Borg, & Demaree, 2003).

The following pages contain descriptions of social, emotional, and behavioral screening and assessment tools for pre-school aged children. These instruments were chosen because they are relatively brief, easy to understand, less than ten years old, and have adequate psychometric properties. Most tools presented here have reliability and validity coefficients that meet or exceed .70. A psychometric property that is especially important when selecting screening tools is predictive validity (Glover & Albers, 2007). Predictive validity refers to the accuracy with which a tool correctly identifies those who will and will not develop subsequent problems. Although there are several indices of predictive validity (e.g., sensitivity, specificity, positive predictive value, negative predictive value, and hit rate), positive predictive value and sensitivity are most important when selecting screening tools (Glover & Albers, 2007). Positive predictive value is the proportion of students correctly identified as at-risk out of all students identified by the screening instrument as being at risk (Glover & Albers, 2007). Sensitivity is defined as the percentage of individuals with a disorder, as identified by a criterion measure, who are also correctly identified by the screening measure as having the disorder (Levitt et al, 2007). For both of these indices, higher values are desired (e.g., >.75). However, obtaining this information to inform selection decisions may be problematic because oftentimes it is unreported (Levitt et al, 2007).

This is not an exhaustive list of available screening tools in the area of social-emotional development. Information contained within the table was obtained from the publishers’ websites, research articles, test reviews in the Mental Measurements Yearbook database, test manuals, and personal communication from publishers. The screening tools were examined with emphasis on the guiding principles for assessment of young children identified in the DEC Recommended Practices: A Comprehensive Guide for Practical Application (Sandall, Hemmeter, Smith, McLean, 2005). These guidelines are meant to assist practitioners in choosing assessment instruments that are appropriate for young children and their families. Developmentally appropriate assessment practices are described as including the following qualities: utility,
acceptability, authenticity, collaboration, convergence, equity, sensitivity, and congruence (Bagnato & Neisworth, 2005). These qualities are incorporated into guidelines and practices which were identified by focus groups (including both professionals and families), supported by the literature, and recommended by professional organizations (Bagnato & Neisworth, 2005). Important aspects of these qualities were used in this review to examine social-emotional screening tools.

In addition to these eight qualities of developmentally appropriate assessment, the following DEC assessment practices and examples should be considered when choosing assessment tools (Bagnato & Neisworth, 2005):

**Professionals and families collaborate in planning and implementing assessment**

A8. Families participate actively in assessment procedures (p.52).

**Assessment is individualized and appropriate for the child and family**

A13. Professionals use multiple measures to assess child status, progress, program impact and outcomes (p.53).
A19. Professionals gather information from multiple sources (p.55).
A20. Professionals assess the child’s strengths and needs across all developmental and behavioral dimensions (p.52).

**Assessment provides useful information for intervention**

A21. Families and professional assess the presence and extent of atypical child behavior that may be a barrier to intervention and progress (p.55).
A23. Program supervisors in concert with the EI/ECSE team, use only those measures that have high treatment validity (p.56).
A26. Professionals choose and use scales with sufficient item density to detect even small increments of progress (p.57).

**Professionals meet legal and procedural requirements and meet Recommended Practice guidelines**

A39. Psychologists rely on authentic measures of early problem-solving skills (instead of traditional intelligence tests) that link directly to program content and goals and that sample skills in natural rather than contrived, circumstances (p.59).
A40. Professionals when appropriate choose only those norm-referenced measures that are developed, field validated, standardized and normed with children similar to the child being assessed (p.60).
A41. Professionals monitor child progress based on past performance as the referent rather than on group norms.

**Professionals share information in respectful and useful ways**

A30. Professionals report assessment results so that they are useful for families (p.57).
A31. Professionals report strengths as well as priorities for promoting optimal development (p.58).

Lastly, these assessment tools were also examined according to time needed for administration and scoring, cost, age range, readability, and whether a data-management system was available for purchase.

**SUMMARY**

An effective comprehensive screening program requires a long-term investment of time, money, and personnel resources. Although the initial investment may be substantial, long-term benefits may include an overall decrease in costly special education referrals and grade retentions. Challenges of the 21st century require a systems approach to early intervention and prevention services informed by valid and reliable data collection. Universal screening programs are essential to ensuring that the children who need services earliest get just that.
### Ages and Stages Questionnaire: Social-Emotional

*(ASQ:SE; Squires, Bricker, & Twombly, 2002)*

| **Utility (multiple purposes):** | Screening, Progress Monitoring (e.g., Parents can complete short questionnaire at several designated age intervals), Intervention Planning (e.g., User’s guide includes creative activities and behaviors that can be provided to service providers and parents), Research. Spanish version available. |
| **Acceptability (social validity):** | 60% of parents indicated that it took less than 10 minutes to complete, 96% of parents indicated was easy to understand; 90% of parents indicated that question content was appropriate. Used in several studies. |
| **Authenticity & Equity (accommodating and developmentally appropriate content, materials, methods):** | Behavioral questionnaires that examines strengths and challenges in self regulation, compliance, communication, adaptive functioning, autonomy, affect, interpersonal interactions. Developed by using sources, such as standardized social-emotional and developmental assessments, textbooks and other resources in developmental and abnormal psychology, education and intervention resources, and language and communication materials. ASQ examines naturally occurring behaviors in the child’s typical daily environments through observations of play and learning (Neisworth & Bagnato, 2004). Appropriate for a variety of cultural groups and families. If an item is believed to be inappropriate for a family, scoring procedures can be adjusted. Normative sample included children identified as at-risk, children with identified developmental disabilities, and children identified with social-emotional disabilities. |
| **Congruence & Sensitivity (psychometrics):** | Underrepresentation of Caucasians; overrepresentation of mixed ethnicity; higher percentage of well-educated mothers; higher percentage of families with lower incomes. Strong reliability and validity results (Squires, Brickers, Twombly, 2004). Predictive Validity—Sensitivity ranged from a low of 70.8% at 24 months to a high of 84.6% at 60 months. Specificity ranged from 89.5% at 30 months to 98% at 6 months. Positive predictive value ranged from a low of 61% at 30 months to a high of 91% at 6 months. |
| **Collaboration & Convergence (multiple sources):** | Parent/Caregiver |
| **Age Range:** | 3-66 months |
| **Time (admin. and scoring):** | 15-20 min/administration, 2-3 min/score |
| **Readability:** | Less than 6th grade |
| **Cost:** | Less than $200 ASQ System Protocols (can be copied) |
| **Data Management System:** | No |
**Behavior Assessment System for Children, Second Edition Behavioral and Emotional Screening System**  
*(BESS; Kamphaus & Reynolds, 2008)*

<table>
<thead>
<tr>
<th><strong>UTILITY</strong> (multiple purposes):</th>
<th>Screening system for measuring behavioral and emotional strengths and weaknesses. Spanish version available.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACCEPTABILITY</strong> (social validity):</td>
<td>No data reported</td>
</tr>
<tr>
<td><strong>AUTHENTICITY &amp; EQUITY</strong> (accommodating and developmentally appropriate content, materials, methods):</td>
<td>Behavioral questionnaire that examines strengths and problem behavior. Scale content includes items that examine hyperactivity, aggression, anxiety, depression, functional communication, social skills, attention, and learning problems. Items originated from pool of items created during development of BASC-2.</td>
</tr>
<tr>
<td><strong>CONGRUENCE &amp; SENSITIVITY</strong> (psychometrics):</td>
<td>Normed on a representative sample of more than 12000 cases that approximates recent U.S. Census characteristics. Acceptable to strong reliability and validity. On the preliminary version of the BESS, higher scores on the Pre-K teacher short form were related to a lack of behavioral school readiness; higher Pre-K teacher short form scores related to lower grades and test scores in second grade (DiStephano &amp; Kamphaus, 2007). For the Pre-school tool, sensitivity ranged from .82 (Total score on Teacher Scale) to .30 (Internalizing Problems score on Parent Scale). Specificity ranged from .97 (Total score on Teacher and Parent Scale) to .91 (Internalizing Problems score on Teacher and Parent Scale). Positive Predictive Value ranged from .82 (Total score on Teacher Scale) to .38 (Internalizing Problems score on Parent Scale). Using BESS, there is a greater risk of overidentifying students as at-risk.</td>
</tr>
<tr>
<td><strong>COLLABORATION &amp; CONVERGENCE</strong> (multiple sources):</td>
<td>Parent/Caregiver, Teacher, Student (Grades 3-12)</td>
</tr>
<tr>
<td><strong>TIME</strong> (admin. and scoring):</td>
<td>5-10 min/ administration. Qualified examiner needed for scoring. Computer scoring available.</td>
</tr>
<tr>
<td><strong>READABILITY:</strong></td>
<td>Parent and teacher forms—6th grade; Student form—2nd grade</td>
</tr>
<tr>
<td><strong>COST:</strong></td>
<td>Approx. $100 for manual, 25 pk. Teacher, and 25 pk. Parent forms</td>
</tr>
<tr>
<td><strong>DATA MANAGEMENT SYSTEM:</strong></td>
<td>Yes. Data Base/ Scoring Software $589</td>
</tr>
</tbody>
</table>
**UTILITY** (multiple purposes):
Screening, Progress Monitoring, Research. Sensitive to autism, learning problems, & delays in social-emotional competencies. Available in French, Spanish, Hebrew, Dutch; Other translations in progress.

**ACCEPTABILITY** (social validity):
Greater than 80% of subset of respondents indicated easy to read; Greater than 65% of respondents would recommend to others (Briggs-Gowan, Carter, Irwin, Wachtel, & Cicchetti, 2004).

**AUTHENTICITY & EQUITY** (accommodating and developmentally appropriate content, materials, methods):
Behavioral questionnaire that assesses problems & competencies. Examines four domains of behavior: Externalizing, Internalizing, Dysregulation and Competence. Especially suited for settings with limited time, resources, and/or technical training. Items were developed specifically for infants and toddlers through a review of literature and existing instruments, expert panel review, statistical analyses, and DSM and DC 0-3 diagnoses criteria (Carter, 2001).

**CONGRUENCE & SENSITIVITY** (psychometrics):
Norming Sample: Based on 2002 Census
Sample Size: 600
Ethnicity:
- Caucasian - 66%
- African American - 16%
- Asian/PI - 2%
- Hispanic - 5%
- Biracial - 8%
- Other - 2%
SES: 18% Below Poverty & 16% Borderline Poverty

**COLLABORATION & CONVERGENCE** (multiple sources):
Parent, Child care provider

**TIME** (admin. and scoring):
5-7min/ administration. Qualified examiner needed for scoring. Computer scoring available.

**AGE RANGE:**
12-36 months

**READABILITY:**
4th-6th grade

**COST:**
$99/ Kit (50 forms)

**DATA MANAGEMENT SYSTEM:**
No
### Devereux Early Childhood Assessment (DECA; LeBuffe & Naglieri, 1999)

**Utility (multiple purposes):**
Screening, Progress Monitoring (e.g., DECA can be administer 2-3 times per year), Intervention planning (e.g., DECA program includes Classroom Strategies Guide which includes for universal and targeted intervention strategies), Research. DECA Program includes: DECA Preschool (DECA), DECA Infant & Toddler (DECA-I/T), e-DECA, DECA-Clinical (DECA-C), DECA Protective Factor Kit. Spanish version available.

**Acceptability (social validity):**
No data reported. DECA is useful, quick, reliable and requires minimal training to interpret, administer, and score (Buhs, 2003).

**Authenticity & Equity (accommodating and developmentally appropriate content, materials, methods):**
Examines: Initiative, Self-control, Attachment, & Problem behaviors. Developed with professionals in the early care and education field, parents, current research, and information from American Psychiatric Association. DECA program designed to promote resilience in children ages 2-5 and based on developmentally appropriate practices described by NAEYC: child-centered, strengths-based, encourages collaboration between service providers and families, aligns with current practices of early childhood environments, encourages data-driven decision making. DECA program uses multiple methods for data collection.

**Congruence & Sensitivity (psychometrics):**
**Norming Sample:** Representative, nationwide sample of 2,000 children. Shown to predict academic performance in primary grades. Adequate validity and reliability. Sensitivity, specificity, and positive predictive values unavailable in technical manual. Construct and criterion validity 0.65 and 0.69, respectively. Several research studies available at: [http://www.devereux.org/site/PageServer?pagename=deci_research_bulletins](http://www.devereux.org/site/PageServer?pagename=deci_research_bulletins)

**Collaboration & Convergence (multiple sources):**
Parent/Caregiver, Teacher

**Age Range:**
2–5 yrs

**Time (admin. and scoring):**
5-10 min/administration. Qualified examiner needed for scoring.

**Readability:**
Reported as “low” in technical report

**Cost:**
$199/ Starter Kit

**Data Management System:**
e-DECA $250 Annual License Fee
**Eyberg CBI (Eyberg & Pincus, 1999)**

**UTILITY (multiple purposes):**

Screening, Progress Monitoring (e.g., Sensitive to changes during intervention), Research. Contact Publisher for Spanish, Chinese, Danish, Finish, German, Japanese, Korean, Norwegian, Russian, and Swedish translations.

**ACCEPTABILITY (social validity):**

No data reported.

**AUTHENTICITY & EQUITY (accommodating and developmentally appropriate content, materials, methods):**

Behavior questionnaire that examines frequency and severity of disruptive behaviors in the home/school settings and whether parents and/or teachers find the behavior troublesome. Does not assess strengths or competencies. Items selected by reviewing charts completed by teachers. Items represent the most typical behaviors reported by parents of conduct-disordered children over a 2-year period from case record data. ECBI originally designed for completion by parents in clinical settings. SESBI items also selected from chart review of problem behaviors most frequently reported by teachers of children referred for treatment of behavior problems.

**CONGRUENCE & SENSITIVITY (psychometrics):**

**Norming Sample:** 1999 sample based on child and adolescent population in the southeastern U.S

**Sample Size:** 798 (ECBI); 415 children from Gainsville, FL (SESBI-R)

**Ethnicity ECBI**

- Caucasian - 74%
- African American - 19%
- Asian/PI - 1%
- Hispanic - 3%
- Native Am. - 1%
- Mixed/Other - 2%

- Burns and Patterson (2001) analyzed ECBI & SESBI-R data on a sample of 2,527 (2 yrs-17 years old) for more relevant interpretation of cutoff scores and to provide more useful information for using tool as screening instrument.

- For ECBI (N=682; 2-4 yr olds). Sample included African-Americans (28.7%) Latinos (46.8%) non-Latino Whites (24.5%). 56% Low Income, 44% Middle/Upper income. Reliabilities were strong, validity adequate to strong for diverse population (Gross et al, 2007).

**Ethnicity SESBI-R**

- Caucasian - 49%
- African American - 49%
- Hispanic - Less than 1%
- Mixed/Other - Less than 1%

- Not all ages were represented in standardization sample

- Cautions are recommended about using this instrument due to standardization sample, limited validity studies. For SESBI-R, sensitivity and specificity rates were not reported in the manual.

- Gender and the interaction of child and teacher ethnicity significantly influenced scores; consider local norms in determining cutoff scores (Caselman & Self, 2008)

- ECBI—“Highly accurate screening tool for conduct problems (p.177)” (Levitt, Saka, Romanelli, Hoagwood, 2007).

- In nonreferred sample of 74 preschoolers from predominantly middle class backgrounds, SESBI-R demonstrated satisfactory reliability and validity (Quiero & Eyberg, 2003).

**COLLABORATION & CONVERGENCE (multiple sources):**

Parent/Caregiver (ECBI), Teacher, (SESBI-R)

**AGE RANGE:**

2-16 yrs

**TIME (admin. and scoring):**

5 min/admin; 5 min/score; Qualified examiner for scoring

**READABILITY:**

6th grade

**COST:**

$174 Starter Kit

**DATA MANAGEMENT SYSTEM:**

No
### Greenspan Social Emotional Growth Chart
*(Greenspan, 2004)*

<table>
<thead>
<tr>
<th>Utility (multiple purposes):</th>
<th>Screening, Progress Monitoring, Intervention planning (e.g., Caregiver report includes activities that promote social-emotional competence)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptability (social validity):</td>
<td>No data available about social validity.</td>
</tr>
<tr>
<td>Congruence &amp; Sensitivity (psychometrics):</td>
<td>Norming Sample: 2003 sample of children ages birth to 4 years based on 2000 U.S. Census stratified according to race/ethnicity, region, and parent or guardian educational level. Gender was generally equal at all age levels with the exception of males overrepresented at the 6- to 9-month level and females overrepresented at the 19- to 24-month level. Sample Size: 456 children in the United States, ages 15 days to 42 months. Limited reliability and validity information reported in manual. No information provided on predictive validity. Limited psychometric data makes recommending tool difficult (Owens, 2007).</td>
</tr>
<tr>
<td>Collaboration &amp; Convergence (multiple sources):</td>
<td>Parent/Caregiver</td>
</tr>
<tr>
<td>Age Range:</td>
<td>0-42 mos.</td>
</tr>
<tr>
<td>Time (admin. and scoring):</td>
<td>10 min/administration. Qualified examiner needed for scoring.</td>
</tr>
<tr>
<td>Readability:</td>
<td>NR</td>
</tr>
<tr>
<td>Cost:</td>
<td>$99/Intro Kit</td>
</tr>
<tr>
<td>Data Management System:</td>
<td>No</td>
</tr>
</tbody>
</table>
**INDICATORS OF INDIVIDUAL GROWTH AND DEVELOPMENT FOR INFANTS AND TODDLERS—EARLY SOCIAL INDICATOR (ESI)**

*(IGDI; Early Childhood Research Institute on Measuring Growth and Development, 1998)*

<table>
<thead>
<tr>
<th><strong>UTILITY (multiple purposes):</strong></th>
<th>Screening, Progress Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACCEPTABILITY (social validity):</strong></td>
<td>IGDIs are designed and field-validated by early childhood practitioners and interventionists. Brief to administer and economical. ESI was developed from outcome statement that was socially validated in a national survey of parents and practitioners (Priest et al., 2001).</td>
</tr>
<tr>
<td><strong>AUTHENTICITY &amp; EQUITY (accommodating and developmentally appropriate content, materials, methods):</strong></td>
<td>ESI is observational system meant to identify “authentic” child behaviors in natural settings. ESI was developed from social skills literature and uses developmentally appropriate manipulatives and practices. ESI allows for the use of parent or other uncertified individual as play partner. Also allows for accommodations for children with physical and/or sensory impairments.</td>
</tr>
<tr>
<td><strong>CONGRUENCE &amp; SENSITIVITY (psychometrics):</strong></td>
<td>Sample recruited from 5 childcare centers in Kansas. Sample included 57 children resulting in 326 observations. Limited demographic information available about sample. Criterion validity ranged from poor to moderate, split half &amp; alternate forms reliability ranged from moderate to strong. Important to note that during standardization there was near zero frequency of negative social behaviors.</td>
</tr>
<tr>
<td><strong>COLLABORATION &amp; CONVERGENCE (multiple sources):</strong></td>
<td>For use by certified EC service providers.</td>
</tr>
<tr>
<td><strong>AGE RANGE:</strong></td>
<td>0-36 months</td>
</tr>
<tr>
<td><strong>TIME (admin. and scoring):</strong></td>
<td>6-10min/administration by certified practitioner.</td>
</tr>
<tr>
<td><strong>READABILITY:</strong></td>
<td>Observational system</td>
</tr>
<tr>
<td><strong>COST:</strong></td>
<td>There are no costs to download and learn to use the IGDI instruments through website.</td>
</tr>
<tr>
<td><strong>DATA MANAGEMENT SYSTEM:</strong></td>
<td>Yes. <a href="http://www.igdi.ku.edu/index.htm">http://www.igdi.ku.edu/index.htm</a></td>
</tr>
</tbody>
</table>
**Preschool and Kindergarten Behavior Scales-2nd Ed.**  
*(PKBS-2; Merrell, 2003)*

<table>
<thead>
<tr>
<th><strong>UTILITY</strong> (multiple purposes):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening, Progress Monitoring, Assessment, Intervention Planning, Research. Spanish version available.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>ACCEPTABILITY</strong> (social validity):</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>AUTHENTICITY &amp; EQUITY</strong> (accommodating and developmentally appropriate content, materials, methods):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PKBS developed using a rational-theoretical approach, with content validation based on examination by 16 early childhood professionals. Behavioral questionnaire that examines positive social skills and problem behaviors. Subtests include Social Cooperation, Social Interaction, Social Independence, Externalizing Problems, and Internalizing Problems. Items developed based on child development literature review. Difficult to use for progress monitoring during early childhood because of the failure to separate norm tables by age (Madle, 2005). In addition, no research provided in manual attesting to usefulness as progress monitoring tool (Allin, 2004).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>CONGRUENCE &amp; SENSITIVITY</strong> (psychometrics):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Norming Sample: Ethnicity, socioeconomic status, and special education classification closely resembles 2000 US census. Sample Size: 3,317 children, ages 3 through 6, with majority collected between 1992 to 1994, remainder collected between 1996 and 2000. Adequate to strong reliability and validity results, with the exception of interrater reliability which ranged from poor to moderate. Information on predictive validity is not reported in the manual.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>COLLABORATION &amp; CONVERGENCE</strong> (multiple sources):</th>
<th><strong>AGE RANGE:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent/Caregiver, Teacher</td>
<td>3-6 yrs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TIME</strong> (admin. and scoring):</th>
<th><strong>READABILITY:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>8-12 min/admin.</td>
<td>Not reported.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>COST:</strong></th>
<th><strong>DATA MANAGEMENT SYSTEM:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>$114-Starter Kit</td>
<td>No</td>
</tr>
</tbody>
</table>


## Temperament and Atypical Behavior Scale (TABS; Bagnato, Neisworth, Salvia, Hunt, 1999)

### Utility (multiple purposes):
Screening, Monitoring, Intervention planning (e.g., Manual includes information on interventions), Research, Assessment and Eligibility Determination (e.g., Assessment component also available).

### Acceptability (social validity):
No data reported. "Promising developmentally appropriate screening measure with moderate to strong psychometric properties (p.135; Bricker, Davis, Squires, 2004). Brief and easy to administer and score.

### Authenticity & Equity (accommodating and developmentally appropriate content, materials, methods):
Behavioral questionnaire that assesses temperament, attention and activity, attachment and social behavior, neurobehavioral state, sleeping, play, vocal and oral behavior, senses and movement, and self-stimulatory behavior in infants, toddlers, and preschoolers. Per author-TABS meets all professional standards for educational and psychological tests of the American Psychological Association, NAEYC, and DEC standards for authentic and developmentally appropriate assessment (http://www.brookespublishing.com/store/books/bagnato-tabs/faqs.htm). Item development based on literature review of various infancy and early childhood disorders.

### Congruence & Sensitivity (psychometrics):
**Norming Sample:** Included approximately 1000 infants and toddlers (i.e., 11-71 months old).
Sample not nationally representative, limited demographic information available about sample. Significantly positively correlated with PKBS-2 Problem Behavior Scale, significantly negatively correlated with PKBS-2 social skills subscale (Gallen & Horrell, 2007). Adequate to strong reliability and validity results. Sensitivity (i.e., .72) and specificity (i.e., not reported in manual) described as ”superior” by author, predictive validity not reported in manual.

### Collaboration & Convergence (multiple sources):
Parent/Caregiver, Teacher

### Age Range:
11-71 mos.

### Time (admin. and scoring):
5 min/admin.

### Readability:
3rd grade

### Cost:
$75/Manual & 50 screening protocols

### Data Management System:
No
REFERENCES


RESOURCES


Technical Assistance Center of Social Emotional Intervention (TACSEI). http://www.challengingbehavior.org/