Direct Behavior Rating: Use in Targeted Screening of Student Behavior
Purpose:

» To review critical features of Direct Behavior Rating (DBR) as a flexible, defensible, repeatable and efficient approach to behavior assessment

» To understand how DBR might be applied within multi-tiered models of service delivery (RTI) — assessment for screening and progress monitoring purposes.

» To learn about recent research to support DBR use in targeted screening assessment, and to acquire practical knowledge about how to use DBR in screening assessment.

» To build skill in using DBR within decision making about student behavior supports.
Purposes of Assessment

» Screening
  > Who needs help?

» Diagnosis
  > Why is the problem occurring?

» Progress Monitoring
  > Is intervention working?

» Evaluation
  > How well are we doing overall?

Emphasized within a Multi-Tiered Service Delivery Framework (RTI)
Desirable Features

Current methods of behavior assessment were not built for multi-tiered assessment

New options must possess four desirable characteristics...

Defensible, Efficient, Flexible, Repeatable

(Chafouleas, 2011; Chafouleas, Christ, & Riley-Tillman, 2009; Chafouleas, Volpe, Gresham, & Cook, 2010)
Direct Behavior Rating as an option...
DIRECT BEHAVIOR RATING: What is DBR?

An emerging alternative to systematic direct observation and behavior rating scales which involves *brief rating* of target behavior following a specified observation period.

-Chafoules, Riley-Tillman, & Christ (2009); Chafoules, Riley-Tillman, & Sugai (2007); Chafoules, Riley-Tillman, & McDougal (2002); Christ, Riley-Tillman, & Chafoules (2009)
Example Scale Formats for DBR

Source: Chafouleas, Riley-Tillman, & Christ (2009)

**Single Item Scale**

<table>
<thead>
<tr>
<th>% of Total Time</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
</table>

**Academically Engaged**

**Interpretation:** The student displayed academically engaged behavior during 80% of the observation period.

**Multi-Item Scale**

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the student follow class rules?</td>
<td>0</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Did the student follow teacher directions?</td>
<td>0</td>
<td>1 (2)</td>
</tr>
<tr>
<td>Did the student do his/her best work?</td>
<td>0</td>
<td>1 (2)</td>
</tr>
</tbody>
</table>

**Total number of points earned:** 5

**Interpretation:** The student earned 84% (5/6) of possible points during the observation period.
A little background...

Other Names for DBR-like Tools:
» Home-School Note
» Behavior Report Card
» Daily Progress Report
» Good Behavior Note
» Check-In Check-Out Card
» Performance-based behavioral recording

Contemporary Defining Features:
» SDO
» BRS

Used repeatedly to represent behavior that occurs over a specified period of time (e.g., 4 weeks) and under specific and similar conditions (e.g., 45 min. morning seat work)
Develop instrumentation and procedures, then evaluate defensibility of DBR in decision-making

Evaluate defensibility and usability of DBR in decision-making at larger scale

Funding provided by the Institute for Education Sciences, U.S. Department of Education
How does DBR work?
Interpretation: The student displayed *academically engaged* behavior during 80% of large group math instruction today.

Interpretation: The student received a 6 for *attention* during group circle time activities today.
DBR Targets: “The Big 3” General Outcomes

**Academic Engagement:**
Actively or passively participating in the classroom activity.

**Respectful:**
Compliant and polite behavior in response to adult direction and/or interactions with peers and adults.

**Disruptive Behavior:**
A student action that interrupts regular school or classroom activity.
Ratings should indicate how much you did the behavior.

For example: During Independent Reading, if you paid attention about half of the time, that would be like a so-so face – and you could give a rating of 5.
How do I use the DBR scale?

- Ratings should indicate how much you did the behavior.
- Another way to anchor your rating is to think in terms of Low, Medium, and High.

<table>
<thead>
<tr>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1 2</td>
<td>3 4 5</td>
</tr>
<tr>
<td>6</td>
<td>7 8</td>
<td>9 10</td>
</tr>
<tr>
<td>Never</td>
<td>Sometimes</td>
<td>Always</td>
</tr>
</tbody>
</table>

Never, Sometimes, Always
How do I use the DBR scale?

- BEFORE rating, pay attention to the **behavior** and the **scale**.

For example, a **lower** score for ‘Disruptive’ shows better behavior, whereas a **higher** score on the other items indicates better behavior.
Other Helpful Hints...
1) Complete top portion of the form, and review the behavior definitions and rating directions

<table>
<thead>
<tr>
<th>Date:</th>
<th>Student:</th>
<th>Activity Description:</th>
</tr>
</thead>
<tbody>
<tr>
<td>M T W Th F</td>
<td>Rater:</td>
<td></td>
</tr>
</tbody>
</table>

**Observation Time:**
- **Start:**
- **End:**

**Behavior Descriptions:**
- **Academically engaged** is actively or passively participating in the classroom activity. For example: writing, raising hand, answering a question, talking about a lesson, listening to the teacher, reading silently, or looking at instructional materials.
- **Respectful** is defined as compliant and polite behavior in response to adult directions and/or peer interactions. For example: follows teacher direction, pro-social interaction with peers, positive response to adult request, verbal or physical disruption without a negative tone/connotation.
- **Disruptive** is student action that interrupts regular school or classroom activity. For example: out of seat, fidgeting, playing with objects, acting aggressively, talking/yelling about things that are unrelated to classroom instruction.

☐ Check if no observation today
2) Have the form ready for completion following each pre-identified observation period

✔️ For example: Reading block, independent seat work
3) Immediately following the activity period, complete the ratings.

- Only complete the ratings if...
- you are confident you directly observed the student for a sufficient amount of time
- you are able to complete the form soon after the end of the activity

<table>
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<tr>
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</tr>
</thead>
<tbody>
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<td>Rater:</td>
<td></td>
</tr>
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**Observation Time:**
- Start: ________
- End: ________

- Check if no observation today

**Behavior Descriptions:**
- **Academically engaged** is actively or passively participating in the classroom activity. For example: writing, raising hand, answering a question, talking about a lesson, listening to the teacher, reading silently, or looking at instructional materials.

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<th>Activity Description</th>
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</thead>
<tbody>
<tr>
<td>M T W Th F</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Observation Time:</th>
<th>Behavior Descriptions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start: __________</td>
<td><strong>Academically engaged</strong> is actively or passively participating in the classroom activity. For example: writing, raising hand, answering a question, talking about a lesson, listening to the teacher, reading silently, or looking at instructional materials.</td>
</tr>
<tr>
<td>End: __________</td>
<td><strong>Respectful</strong> is defined as compliant and polite behavior in response to adult directions and/or peer interactions. For example: follows teacher direction, pro-social interaction with peers, positive response to adult request, verbal or physical disruption without a negative tone/intonation.</td>
</tr>
</tbody>
</table>

☐ Check if no observation today

**Disruptive** is student action that interrupts regular school or classroom activity. For example: out of seat, fidgeting, playing with objects, acting aggressively, talking/yelling about things that are unrelated to classroom instruction.
Let’s Practice...

» Academically Engaged:
   Participating in the classroom activity.

- Examples: writing, raising hand, answering a question, talking about a lesson, listening to the teacher, reading silently, or looking at instructional materials.
Following the video, we will rate Jessie’s Academically Engaged behavior
How would you rate Jessie’s Academically Engaged behavior?

- Never (0%)
- Sometimes (50%)
- Always (100%)
**Academically Engaged**

Participating in the classroom activity.

*For example:* writing, raising hand, answering a question, talking about a lesson, listening to the teacher, reading silently, or looking at instructional materials.

<table>
<thead>
<tr>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>Occasionally</td>
<td>A little less than half the time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A little more than half the time</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
More Practice Opportunities...

Visit the On-Line Training Module at www.directbehaviorratings.org

Direct Behavior Rating:
Use in Assessment of Student Behavior

Project Director:
Sandra M. Chafouleas

Project Co-Pls: Chris Riley-Tillman, Greg Fabiano, Megan Welsh, and Hariharan Swaminathan

Design & Development:
Rose Jaffery, Rishi Saripalle, & Austin Johnson

Correct Score:

<table>
<thead>
<tr>
<th></th>
<th>AE</th>
<th>RS</th>
<th>DB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>10</td>
<td>10</td>
<td>0</td>
</tr>
</tbody>
</table>

This project was supported in part by a grant from the Institute for Education Sciences, U.S. Department of Education (O224A110017). Opinions expressed herein do not necessarily reflect the position of the U.S. Department of Education, and such endorsements should not be inferred.
Applications for DBR-SIS across Tiers for Targeted Screening and Progress Monitoring

- **Tier 1 (80%)**
  - Extant Data and Direct Behavior Ratings

- **Tier 2 (15%)**
  - Direct Behavior Ratings and Extant Data

- **Tier 3 (5%)**
  - Multi Method using SDO, DBRs and/or Rating Scales
REVIEW: Applications within Progress Monitoring
**INDIVIDUAL STUDENT MONITORING OF RESPONSE: DBR-SIS in Behavior Consultation Cases**

Chafoules, Sanetti, Kilgus, & Maggin (2012 – Exceptional Children)

Sample: 20 teacher-student dyads in elementary grades

Design and Intervention: A-B intervention involving behavioral consultation and DRC-based intervention. Five options for “change metrics” were calculated.

Measures: researcher-completed SDO, teacher-completed DBR-SIS

Conclusion: Change (in expected directions) in student behavior across phases and sources. High correspondence between DBR-SIS and BOSS absolute change metrics suggests that students were ranked similarly across the two measures with regard to intervention responsiveness. Provides preliminary support for the use of DBR-SIS to differentiate between those who have or have not responded to intervention.

---

**Descriptive statistics across scales and phases**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DBR-SIS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disruptive Behavior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>4.26</td>
<td>1.97</td>
</tr>
<tr>
<td>Intervention</td>
<td>2.58</td>
<td>1.41</td>
</tr>
<tr>
<td>Academic Engagement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>4.97</td>
<td>2.28</td>
</tr>
<tr>
<td>Intervention</td>
<td>6.82</td>
<td>1.50</td>
</tr>
<tr>
<td>Compliance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>5.74</td>
<td>1.93</td>
</tr>
<tr>
<td>Intervention</td>
<td>7.34</td>
<td>1.31</td>
</tr>
<tr>
<td><strong>BOSS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-task</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>69.98</td>
<td>19.76</td>
</tr>
<tr>
<td>Intervention</td>
<td>81.94</td>
<td>14.22</td>
</tr>
<tr>
<td>Off-task</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>44.82</td>
<td>21.01</td>
</tr>
<tr>
<td>Intervention</td>
<td>28.69</td>
<td>18.54</td>
</tr>
</tbody>
</table>
INDIVIDUAL INTENSIVE STUDENT MONITORING: Kindergarten Example

Chafouleas, Kilgus, & Hernandez (2009 – Assessment for Effective Intervention)

Sample: full day K inclusive classroom, 2 teachers and 22 students

Measures: teacher-completed DBR-SIS following am and pm over Nov-March for ALL students

Conclusion: “Local” cut-score comparisons can be useful in examining individual student performance. Periodic re-assessment of all may be needed to re-confirm appropriate comparison

<table>
<thead>
<tr>
<th>Target Behavior</th>
<th>Rating Time</th>
<th>FALL M (SD)</th>
<th>SPRING M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>AM</td>
<td>8.72 (1.31)</td>
<td>9.40 (0.63)</td>
</tr>
<tr>
<td>Engagement</td>
<td>PM</td>
<td>8.25 (2.03)</td>
<td>9.37 (0.88)</td>
</tr>
<tr>
<td>Disruptive</td>
<td>AM</td>
<td>1.30 (1.47)</td>
<td>0.60 (0.62)</td>
</tr>
<tr>
<td>Behavior</td>
<td>PM</td>
<td>1.61 (2.08)</td>
<td>0.42 (0.52)</td>
</tr>
</tbody>
</table>

Note: Solid lines represent overall means for Academic Engagement (M = 8.992) and Disruptive Behavior (M = 0.739) across all student participants.
Riley-Tillman, Methe, & Weegar (2009 – Assessment for Effective Intervention)

- **Sample**: First grade classroom with 14 students
- **Design**: B-A-B-A
- **Intervention**: modeling and prompting of silent reading
- **Measures**: researcher-completed SDO, teacher-completed DBR-SIS
- **Conclusion**: DBR data can be sensitive to classroom-level intervention effects, maps closely to resource-intensive SDO

<table>
<thead>
<tr>
<th></th>
<th>B1</th>
<th>A1</th>
<th>B2</th>
<th>A2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DBR</strong></td>
<td>72</td>
<td>45</td>
<td>63</td>
<td>42</td>
</tr>
<tr>
<td><strong>SDO</strong></td>
<td>68</td>
<td>49</td>
<td>61</td>
<td>50</td>
</tr>
</tbody>
</table>
### External Review of PM Characteristics:
National Center on Intensive Intervention

<table>
<thead>
<tr>
<th>Tool</th>
<th>Scale</th>
<th>Reliability</th>
<th>Validity</th>
<th>Disaggregated Reliability and Validity Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior Intervention Monitoring System (BIMAS)</td>
<td>Academic Functioning</td>
<td>🍎</td>
<td>🍎</td>
<td>🍎</td>
</tr>
<tr>
<td>Behavior Intervention Monitoring System (BIMAS)</td>
<td>Cognitive/Attention</td>
<td>🍎</td>
<td>🍎</td>
<td>🍎</td>
</tr>
<tr>
<td>Behavior Intervention Monitoring System (BIMAS)</td>
<td>Conduct</td>
<td>🍎</td>
<td>🍎</td>
<td>🍎</td>
</tr>
<tr>
<td>Behavior Intervention Monitoring System (BIMAS)</td>
<td>Negative Affect</td>
<td>🍎</td>
<td>🍎</td>
<td>🍎</td>
</tr>
<tr>
<td>Behavior Intervention Monitoring System (BIMAS)</td>
<td>Social</td>
<td>🍎</td>
<td>🍎</td>
<td>🍎</td>
</tr>
<tr>
<td>Direct Behavior Rating Single Item Scales (DBR-SIS)</td>
<td>Academically Engaged</td>
<td>🍎</td>
<td>🍎</td>
<td>-</td>
</tr>
<tr>
<td>Direct Behavior Rating Single Item Scales (DBR-SIS)</td>
<td>Disruptive Behavior</td>
<td>🍎</td>
<td>🍎</td>
<td>-</td>
</tr>
</tbody>
</table>

**Legend:**
- 🍎 Convincing evidence
- 🍎 Partly convincing evidence
- 🍎 Unconvincing evidence
- - Data unavailable
## External Review of PM Characteristics: National Center on Intensive Intervention

<table>
<thead>
<tr>
<th>Tool</th>
<th>Scale</th>
<th>Sensitive to Student Change</th>
<th>Levels of Performance Specified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior Intervention Monitoring Assessment System (BIMAS)</td>
<td>Academic Functioning</td>
<td><img src="image" alt="Unconvincing Evidence" /></td>
<td><img src="image" alt="Convincing Evidence" /></td>
</tr>
<tr>
<td>Behavior Intervention Monitoring Assessment System (BIMAS)</td>
<td>Cognitive/Attention</td>
<td><img src="image" alt="Unconvincing Evidence" /></td>
<td><img src="image" alt="Convincing Evidence" /></td>
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</tbody>
</table>

**Legend:**
- ![Convincing Evidence](image)
- ![Partially convincing evidence](image)
- ![Unconvincing evidence](image)
- ![Data unavailable](image)
Summary: Applications in Progress Monitoring

» Reliable tool for progress monitoring to evaluate responsiveness to intervention for moderate behavior

» Complement to other data sources (e.g. direct observation) that allows for frequent monitoring of intensive behaviors

» Viable option for class-wide monitoring to “check in” on strategy effectiveness

» Possibilities in cross-informant monitoring – increase communication around expectations!
Applications within Targeted Screening
Screening Options ... why “targeted” for DBR Core?

Teacher Referral
- Nomination and notification that there is a problem
  - Pro: minimal resources needed
  - Con: not proactive – problem usually already significant (e.g. discipline referral)

Intervention-Based Identification
- Put intervention in place and determine responsiveness
  - Pro: high accuracy in establishing significance of problem
  - Con: not proactive – problem usually already significant (e.g. discipline referral)

Universal Screening through Normative “Rating”
- Screening applied to all students
  - Pro: proactive at catching potential problem
  - Con: can be resource-intensive (cost, collection)

Combination – Multiple Gating
- Combination of options (e.g. teacher nomination followed by normative ratings)
  - Pro: potentially proactive and more resource-efficient
  - Con: WHICH pieces, WHO/HOW completed, and WHEN?

Adapted from Walker, Severson, & Seeley (2007)
**Goal for Screening... Correct Identification of Students in Need**

<table>
<thead>
<tr>
<th>Condition (as determined by &quot;Gold standard&quot;)</th>
<th>Test Outcome</th>
<th>Test Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition Positive</td>
<td>True Positive</td>
<td>False Positive (Type I error)</td>
</tr>
<tr>
<td>Condition Negative</td>
<td>False Negative (Type II error)</td>
<td>True Negative</td>
</tr>
</tbody>
</table>

- **Positive predictive value** = \( \frac{\Sigma \text{True Positive}}{\Sigma \text{Test Outcome Positive}} \)
- **Negative predictive value** = \( \frac{\Sigma \text{True Negative}}{\Sigma \text{Test Outcome Negative}} \)

**Sensitivity** = \( \frac{\Sigma \text{True Positive}}{\Sigma \text{Condition Positive}} \)

**Specificity** = \( \frac{\Sigma \text{True Negative}}{\Sigma \text{Condition Negative}} \)

Figure Source: [http://en.wikipedia.org/wiki/Sensitivity_and_specificity](http://en.wikipedia.org/wiki/Sensitivity_and_specificity)
Correct Identification of Students in Need... Not So Simple as Tests are Never Perfect

**Goal:** Get the risk identification right for each student!

- Correctly identifying when there is risk
- Avoid missing identifying when there is risk
- Avoid over-identifying risk
- Avoid under-identifying risk

### "Rules" utilized for determining optimal threshold for each grade level and time point

<table>
<thead>
<tr>
<th></th>
<th>Sensitivity</th>
<th>Specificity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Best</strong></td>
<td>0.9</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>0.8</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>0.9</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>0.8</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Worst</strong></td>
<td>0.7</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Smallest SN/SP discrepancy
Promising results for use of DBR-SIS data to inform screening decisions.

Focus was on each individual DBR-SIS target, or within a gated approach.

Overall DBR-SIS diagnostic accuracy was consistently in the moderate range.

- AE performed consistently well, particularly in higher grade levels.
- DB performed well in lower grades. Performance in advanced grades varied.
Moving from the Pilot focused on Single Scores... Screening that incorporates DBR CORE simultaneously

**Academic Engagement:**
Actively or passively participating in the classroom activity.

**Respectful:**
Compliant and polite behavior in response to adult direction and/or interactions with peers and adults.

**Disruptive Behavior:**
A student action that interrupts regular school or classroom activity.
Using a Composite Score

**Academic Engagement (0-10)**

**AE**: Actively or passively participating in the classroom activity.

**Respectful (0-10)**

**RS**: Compliant and polite behavior in response to adult direction and/or interactions with peers and adults.

**Disruptive Behavior (0-10 – reverse)**

**DB**: A student action that interrupts regular school or classroom activity.

**Core Composite (0-30)**

$C$: Sum of scores across individual targets of AE, RS, and DB (reverse scored).

Example: Determining the average individual score

<table>
<thead>
<tr>
<th>AE</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE-1</td>
<td>8</td>
</tr>
<tr>
<td>AE-2</td>
<td>9</td>
</tr>
<tr>
<td>AE-3</td>
<td>10</td>
</tr>
<tr>
<td>AE-4</td>
<td>6</td>
</tr>
<tr>
<td>AE-5</td>
<td>8</td>
</tr>
<tr>
<td>AE-6</td>
<td>7</td>
</tr>
</tbody>
</table>

**Average 8**
Other Important Considerations in Targeted Screening Measures

» Replication of findings –
  > Do we see the same patterns in larger, more diverse samples?
  > Same for range of grade levels?

» “Best” choice of targets –
  > Individual or combined DBR-SIS targets?

» Time-specific cut scores –
  > Do risk scores vary across the school year and by grade?
VIABLE-II – Year 1 Data

Johnson, Miller, Chafouleas, Welsh, Riley-Tillman, & Fabiano (JSP – tentative accept)

» Sample: Approximately 1800 public-school students enrolled in 192 classrooms in CT, MO, NY
  > lower elementary (1st and 2nd),
  > upper elementary (4th and 5th)
  > middle school (7th and 8th)

» Procedures: Teacher rated 3x points over school year

» Conclusion: Time point and grade can vary findings.

» Implication: What happens when you combine scores?

Lower Elementary Example

Question:
Individual Targets or Combined Score?

Answer:
Combined meets “best” decision rule

<table>
<thead>
<tr>
<th></th>
<th>Lower Elementary</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Cut</td>
<td>SN</td>
<td>SP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>score</td>
<td>[95% CI]</td>
<td>[95% CI]</td>
</tr>
<tr>
<td>Fall</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AE</td>
<td>.83 [.80, .87]</td>
<td>8.2</td>
<td>.79 [.71, .87]</td>
<td>.72 [.68, .75]</td>
</tr>
<tr>
<td>DB</td>
<td>.84 [.80, .88]</td>
<td>1.2</td>
<td>.85 [.78, .91]</td>
<td>.71 [.68, .75]</td>
</tr>
<tr>
<td>RS</td>
<td>.78 [.73, .82]</td>
<td>9.1</td>
<td>.71 [.62, .79]</td>
<td>.70 [.66, .74]</td>
</tr>
<tr>
<td>C</td>
<td>.85 [.81, .89]</td>
<td>26.2</td>
<td>.86 [.79, .92]</td>
<td>.72 [.68, .76]</td>
</tr>
</tbody>
</table>
**VIABLE-II – Year 1 Data**

**Question:**

**Time-specific cut scores**

» Do cut scores vary across the school year?

**Answer:**

» Yes, we do see changes over the course of the school year – changes vary by grade level group

---

**Example**

<table>
<thead>
<tr>
<th>Lower Elementary</th>
<th>Cut score (Combined)</th>
<th>SN [95% CI]</th>
<th>SP [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL</td>
<td>26.2</td>
<td>.86 [.79, .92]</td>
<td>.72 [.68, .76]</td>
</tr>
<tr>
<td>WINTER</td>
<td>26.4</td>
<td>.81 [.74, .88]</td>
<td>.71 [.67, .74]</td>
</tr>
<tr>
<td>SPRING</td>
<td>26.5</td>
<td>.82 [.74, .89]</td>
<td>.75 [.71, .78]</td>
</tr>
</tbody>
</table>
VIABLE-II – Year 1 Data

**Question:**

Replication of findings

» Do we see the same patterns in larger, more diverse samples?

» Same for range of grade levels?

**Answer:**

» Yes, similar patterns to prior work

» Some variation in “best” cuts across grade level groups

<table>
<thead>
<tr>
<th>Lower Elementary</th>
<th>Cut sore (Combined)</th>
<th>SN [95% CI]</th>
<th>SP [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL</td>
<td>26.2</td>
<td>.86 [.79, .92]</td>
<td>.72 [.68, .76]</td>
</tr>
<tr>
<td>WINTER</td>
<td>26.4</td>
<td>.81 [.74, .88]</td>
<td>.71 [.67, .74]</td>
</tr>
<tr>
<td>SPRING</td>
<td>26.5</td>
<td>.82 [.74, .89]</td>
<td>.75 [.71, .78]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Middle School</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL</td>
<td>27.5</td>
<td>.83 [.76, .90]</td>
<td>.71 [.66,.75]</td>
</tr>
<tr>
<td>WINTER</td>
<td>28.2</td>
<td>.90 [.83, .95]</td>
<td>.72 [.68, .77]</td>
</tr>
<tr>
<td>SPRING</td>
<td>28.1</td>
<td>.83 [.75, .90]</td>
<td>.71 [.66, .75]</td>
</tr>
</tbody>
</table>
Putting it all together: Blueprint for DBR Use in Systematic Screening
# Blueprint Steps for Systematic Screening

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establish decision making plan.</td>
</tr>
<tr>
<td>2</td>
<td>Determine who will conduct ratings</td>
</tr>
<tr>
<td>3</td>
<td>Conduct rater training.</td>
</tr>
<tr>
<td>4</td>
<td>Determine the order in which students will be rated.</td>
</tr>
<tr>
<td>5</td>
<td>Select DBR-SIS target behaviors.</td>
</tr>
<tr>
<td>6</td>
<td>Determine when and how often ratings will occur.</td>
</tr>
<tr>
<td>7</td>
<td>Complete DBR-SIS ratings.</td>
</tr>
<tr>
<td>8</td>
<td>Calculate summary single target scores and combined scale scores (if applicable).</td>
</tr>
</tbody>
</table>
1 Establish decision making plan

Determine the scope of the screening, and if at-risk students will be referred for (a) additional assessment or (b) intervention (via a titration or triage approach).

Example 1: ABC Middle School decides to screen all students twice per year (fall, spring) using DBR on the three core behavioral competencies. Composite scores will be reviewed by the appropriate grade level team (blue, red, green) to determine next steps (further assessment, tiered support plan).

Example 2: XYZ Elementary School decides to use a screening process in which each teacher nominates students as potentially at risk. Those students will be screened using DBR (core behavioral competences plus one schoolwide indicator). Screening will occur 3X per year for the targeted students, with review of each competency and composite occurring by the student support team.
2 Determine who will conduct ratings

Raters will likely be head teachers of the classroom in which each student spends the majority of her instructional time.

Example 1 – ABC Middle: It was decided that the Reading/Language Arts teachers would complete the assessments, with confirmation of findings (and second rater) discussed at the team meeting.

Example 2 – XYZ Elementary: The primary classroom teacher was determined as the most appropriate rater.
3 Conduct rater training

Raters should be directed to complete DBR-SIS training.

Example 1 – ABC Middle: Reading/Language Arts teachers used a planning session to independently complete the online training module. A portion of the fall professional development day was set aside with the school psychologist to problem-solve questions and set up rating materials.

Example 2 – XYZ Elementary: The school principal allocated half of the first professional development day to first review of behavior support systems and expectations in the school, and then rotate teachers through the computer lab to complete the online training module. The lab was staffed by the school psychologist and counselor for further questions.
5 Select DBR-SIS target behaviors

Include all single targets and combination scales that are pertinent to relevant cut scores, as well as school context. Determine the targets/scales on which students should be at-risk to be considered for additional assessment or intervention (see Step 1).

Example 1 – ABC Middle: As reviewed in step one, the three core behavioral competencies were selected as targets for all students, with use of the composite score to determine risk.

Example 2 – XYZ Elementary: As reviewed, the three core behavioral competencies plus “be responsible” were selected for initial teacher nomination. Targeted screening using DBR then occurred, with evaluation using the single targets for consideration.
**ABC MIDDLE**: If a student’s **combined** summary score is equal to or less than this value, the student is considered at-risk.

<table>
<thead>
<tr>
<th>Time Point</th>
<th>Cut Score</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>PPV</th>
<th>NPV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>27.5</td>
<td>.83 [.76, .90]</td>
<td>.71 [.66, .75]</td>
<td>.41 [.37, .45]</td>
<td>.95 [.92, .97]</td>
</tr>
<tr>
<td>Spring</td>
<td>28.1</td>
<td>.83 [.75, .90]</td>
<td>.71 [.66, .75]</td>
<td>.41 [.37, .45]</td>
<td>.94 [.92, .97]</td>
</tr>
</tbody>
</table>

**XYZ LOWER ELEMENTARY**: If a student’s summary score for Academically Engaged Behavior is equal to or less than this value, the student is considered at-risk.

<table>
<thead>
<tr>
<th>Time Point</th>
<th>Cut Score</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>PPV</th>
<th>NPV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>8.2</td>
<td>.79 [.71, .87]</td>
<td>.72 [.68, .75]</td>
<td>.38 [.34, .42]</td>
<td>.94 [.92, .96]</td>
</tr>
<tr>
<td>Winter</td>
<td>8.4</td>
<td>.88 [.81, .94]</td>
<td>.70 [.66, .74]</td>
<td>.40 [.37, .44]</td>
<td>.96 [.94, .98]</td>
</tr>
<tr>
<td>Spring</td>
<td>8.5</td>
<td>.85 [.78, .92]</td>
<td>.74 [.70, .77]</td>
<td>.39 [.35, .43]</td>
<td>.96 [.94, .98]</td>
</tr>
</tbody>
</table>

Note. Conditional probability statistics are presented alongside a [95% confidence interval]
6 Determine when and how often ratings will occur

Identify the days (e.g., October 1-5) and times (e.g., 9:00am-12:00pm and 12:30-3:30pm) during which each group of students will be observed and rated. An attempt should be made to schedule 10 ratings for each student within each group.

Example 1 – ABC Middle: Language Arts and Reading blocks, averaging 6 times per week at varying days and times given scheduling.

Example 2 – XYZ Elementary: Morning (school start to lunch) and afternoon (post-lunch to bus time) each day, providing up to 10 opportunities per week.
Complete DBR-SIS ratings

Teachers should complete DBR-SIS ratings as soon as possible following each rating period.

Example 1 – ABC Middle: Done at end of block over transition, with decision to skip rating if not completed by end of school.

Example 2 – XYZ Elementary: Done, with decision to skip rating completion if not done before moving to the next rating period (e.g. morning ratings done before end of lunch period).
8 Calculate summary single target scores and combined scale scores (if applicable).

For single target scores, compute the mean of scores within each DBR-SIS target (e.g., mean of all AE ratings). For combined scale scores, compute the mean within each DBR-SIS target, remembering to reverse-score all DB scores. Sum the means of each target to derive the DBR-SIS combined scale summary score. It is recommended that means comprised of less than 6 ratings are not used.

Example 1 – ABC Middle: Reminder, based on composite.
Example 2 – XYZ Elementary: Reminder, based on individual target.
Compare resulting summary target/scale scores to their corresponding cut scores. Ensure identified cut scores are appropriate for the target/scale under consideration, as well as the grades and time of year within which DBR-SIS was administered. Use cut scores to generate a list of at-risk students to refer for additional assessment or intervention.

Example for ABC Middle. Note XYZ would have additional columns for each target.

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Combined Score</th>
<th>Cut Score</th>
<th>At-risk</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>□ Yes</td>
<td>□ No</td>
</tr>
</tbody>
</table>
What’s next in DBR research? Coming Soon...
Behavior Screening – How Often?

» Examining the variance in scores attributable to time point

» Examining changes in risk-status across the school year
Who Rates? - Students as Monitors of Responsiveness

Comparison of teacher ratings, student ratings, and external observations

Examine traits (AE, DB, RS) and methods (Teacher DBR, Student DBR, Teacher rating scale, Student rating scale, and SDO)
Is it Usable? - Teacher Perceptions of Student Behavior & Behavior Assessments

» Examining how teachers assign ratings using DBR
  > Why a rating of 8 vs 7?
  > What dimensions of behavior are reflected in the rating?

» Examining teacher perceptions of usability
  > Identify strengths/weaknesses/barriers

Note: Higher System Support Scores reflect a perception to implement with greater independence
Continued Exploration of DBR Applications in Progress Monitoring

» Examining DBR as a progress monitoring tool
  > Is it sensitive to change for students with mild-moderate behavioral challenges?

» Further evaluate DBR relative to SDO
  > Implications for decision-making

» Investigate use and influences on problem-solving behavior
» What are the possibilities across assessment, communication, intervention?

Closing Considerations...
www.directbehaviorratings.org

Direct Behavior Ratings
Assessment • Communication • Intervention

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News

Check out our updated site!

See our presentations from APA 2013!

Updated DBR Materials including:
- DBR Overview PowerPoint
- DBR in Self-Monitoring
- Materials
- Standard DBR Form with Smiley Faces

Updated DBR in Assessment: Online Training Module

Recent Publications

About Us

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School Psychology
Research Scholar
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“Provide quick Assessment of Behaviors”

“I was surprised at how easy it was to complete the Direct Behavior Rating forms. This information is really valuable in helping me understand what’s happening in my classroom.” Sue, Kindergarten teacher

What is Direct Behavior Rating (DBR)?

DBR involves rating of behavior following a specified observation period, and then sharing of that information to inform decisions. As an example, a teacher might use DBR to rate how well Johnny paid attention in math class. Then, that teacher might share that rating with Johnny and, as part of an intervention, link a consequence (e.g., sticker) to that rating. DBR tools have a long tradition of use as a component of behavior support plan (e.g., self-management, behavior contract), as well as the method for collecting information about behavior change over time (e.g., monitoring effects of medication for ADHD). Other common terms for DBR tools have included home-school note, good behavior note, behavior report card, etc...

DBR for Assessment

DBR is a rating tool used to provide information to evaluate child behavior and guide decisions related to behavior supports. For example, a DBR may be used to answer the question, “What percentage of the time is Sarah disruptive during math class?” or “What percentage of the time is Tom compliant with adult instructions?”

How can I use a DBR in assessment?

1. Determine the behaviors of interest, either by selecting from among the possible pre-defined target behaviors or identify your own target behaviors.
2. Decide where, when, and how often to collect behavior ratings with DBR (e.g., daily, weekly). Ratings can be completed in under a minute.
3. Collect multiple ratings across different occasions (e.g., periods, days) for DBR Standard Form and instructions.
4. Plot data graphically, and evaluate child behavior (see DBR Scoring and Interpretation).

Who can use a DBR for assessment?

DBR can be used by parents, teachers, students, and intervention teams to collect information and make decisions regarding a child’s behavior. It’s a great tool for everyone because it is quick, flexible, and evidence-based.

Additional Resources

- PowerPoint Handout: DBR for Assessment
- DBR Assessment Handbooks
- DBR Standard Form and Instructions
- DBR in Assessment: Training Module
- Related Links
Other Resources

www.intensiveintervention.org

www.interventioncentral.org

National Center on INTENSIVE INTERVENTION
at American Institutes for Research

Learn the Language of Intensive Intervention

- Data-based Individualization
- Intensive Intervention
- Intervention Adaptation
- Intervention Platform
- Multi-tiered System of Support
- Positive Behavioral Interventions and Supports
- Progress Monitoring

Intervention Adaptation
Teachers use data including progress monitoring and diagnostic data to revise, intensify, or individualize an intervention to target a student’s specific needs. Strategies for intensifying an intervention may occur along several dimensions including but not limited to changes in frequency, duration, or intensity of the intervention or by providing feedback.

Ask the Expert
How does the use of evidence-based practices and the approach to instruction and intervention change as behavior or academic issues become more severe?

Watch and listen as Dr. Chris Rieth-Tillman, a Professor at the University of Missouri and NCII Center Trainer, discusses how evidence-based practices, instruction, and intervention change as behavior or academic issues become more severe?

Recent Resources
- Designing and Delivering Intensive Interventions in Behavior (DBI Training Series Module 81: Designing and Delivering)

Register for Our Next Webinar
On Tuesday, April 25th, 2014 from 3:00 – 4:30 PM ET, NCII will host a webinar, “What is the Next? Strategies for Intensifying Interventions when Standard Approaches Do Not Work,” presented by Dr. Shannon Vaughn of the University of Texas Austin and Dr. Rebecca Zumeta of NCII. This webinar will discuss approaches to intensifying academic interventions for students with significant challenges.

Click here to register for the webinar (https://www.ncii.org/content/dam/ncii/docs/webinars/november-2013/09-2013-building-eighth-grade-vocabulary-4-networks-click-here-to-register-for-the-webinar.pdf)
Website: www.directbehaviorratings.org
Contact: sandra.chafouleas@uconn.edu
        fgmiller@umn.edu

Questions, comments, and thanks....