The Emerging Alternative: 
Direct Behavior Rating

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For more information, go to the website: www.directbehaviorratings.com/index.html

Citation

Christ, T. J., Riley-Tillman, C. T., & Chafouleas, S. M.  

In addition, a special series of papers on Direct Behavior Ratings will be published in Assessment for Intervention. The issue is in press and will be published in Fall 2009.
Project VIABLE

Project VIABLE: Validation of Instruments for Assessing Behavior Longitudinally & Efficiently

Research was supported in part by a grant from the Institute for Education Sciences, U.S. Department of Education (R324B060014).

• Historical Context
  - Social-emotional & Behavior Assessment
  - Daily Behavior Report Cards (DBRC)

• Define Direct Behavior Ratings (DBR)
  - Direct Behavior Rating
  - Guiding Principles
  - Applications
  - Target Behaviors
  - Formats

• Use of DBR in Practice

www.directbehaviorratings.com/index.html
**Historical Context: Social-emotional & Behavior Assessment**

- **Early 1980s Projective Testing Dominant**
  - Goh & Fuller, 1981, 1983; Goh, Teslow, & Fuller, 1981
  - Rorschach, Draw-a-Person, and Thematic Appreciation Test
  - Idiosyncratic & personalized interpretation

- **1990s: Decline in Projectives**
  - Hutton, Dubes, & Muir, 1992; Kennedy, Faust, Willis, & Piotrowski, 1994; Stinnett, Havey, & Oehler-Stinnett, 1994
  - Projectives still in use
  - Greater emphasis on validity, reliability and empirical evidence
  - Ratings scales emerging as a viable alternative

**Historical Context**

**Recent Practice**

- Surveys indicate emphasis on ecology, behavior & intervention
  - (Demaray et al., 2003; Koonce, 2007; Shapiro & Heick, 2004)

  - 76% greater use of behavioral assessments (Shapiro & Heick, 2004)
  - 90% agreed that “behavioral assessments was valuable in linking assessment to intervention” (Shapiro & Heick, 2004).
  - 60 to 90% of cases included interviews, rating scales and direct observation (Shapiro & Heick, 2004)
  - Ratings scales and interviews most valuable for
    - Diagnosis of ADHD (Demaray et al., 2003)
    - Provide the most valuable information (Cashel, 2002)
DBR Example (standard form)

Observe then Record

Date: ________________ Time: ___ to ___

Academically Engaged (% of time)

0% 1 2 3 4 5 6 7 8 9 10
Never Sometimes Always

Disruptive Behaviour (% of time)

0% 1 2 3 4 5 6 7 8 9 10
Never Sometimes Always

So why, “Emerging Alternative?”


- General Outcome Measurement
- Reliable and Valid
- Useful for classroom decision-making
- Ideographic database
**Emerging Alternative: CBM**

- Despite general agreement that we should routinely assess the student performance outcomes from instruction, general agreement regarding how this should be done does not exist.

- Commercially distributed achievement tests are not always congruent with curriculum objectives and teachers tend not to value the information obtained from them.

- Informal observation of performance is the approach used and preferred by teachers.
  - Unfortunately, the reliability and validity of teachers' informal observation of student academic performance is unknown.

**Emerging Alternative: DBR**

- Despite general agreement that we should routinely assess the student performance in the classroom, general agreement regarding how this should be done does not exist.

- Commercially distributed rating scales are not useful for intervention and teachers tend not to value the information obtained from them.

- Informal observation of social behavior is the approach used and preferred by teachers.
  - Unfortunately, the reliability and validity of teachers' informal observation of student social behavior is unknown.
Emerging Alternative: CBM

- An emerging alternative to commercial standardized tests and to informal observations is curriculum-based measurement (CBM) that combines the advantages of both.
  - By standardizing observation of performance in the curriculum, CBM generates reliable data that is valid with respect to widely used indicators of achievement such as achievement test scores and teachers’ judgments of competence.
  - These data are now being used to make screening, referral, IEP planning, pupil progress monitoring, and program outcome decisions.
  - This article provides background on and illustrations of the use of CBM in special education.

Emerging Alternative: DBR

- An emerging alternative to (indirect) rating scales and to informal observations is the method of Direct Behavior Rating (DBR) that combines the advantages of both.
  - By standardizing observation of performance in the classroom, DBR generates reliable data that is valid with respect to widely used indicators such as rating scales, interviews, and teachers’ judgments of competence.
  - These data can be used to make screening, referral, IEP planning, pupil progress monitoring, and program outcome decisions.
  - This paper provides background and illustrations of the use of DBR for Response to Intervention.
Emerging Alternative: DBR

An emerging alternative to behavior rating scales, systematic direct observation and to informal observations is direct behavior ratings (DBR) which combines the advantages of both.

Systematic Direct Observation  Behavior Rating Scales

Direct Behavior Rating
(defensible, flexible, efficient, repeatable)

Development and Evaluation of Direct Behavior Ratings

A METHOD BY ANY OTHER NAME
**Good Bad or In Between**  
(Chafouleas, Riley-Tillman, & McDougal, 2002)

Got the ball rolling … with a review of “Daily Behavior Report Cards”

- Observed many communication and intervention applications
- Proposed ASSESSMENT applications
  - Proposed DBRC as a formative assessment measure
  - Provided initial conceptualization

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**Other Names for the DBR**  
(Riley-Tillman, Chafouleas, & Briesch, 2007)

- Daily Behavior Report Card (DBRC)
- Home-School Note
- Behavior Report Card
- Daily Progress Report
- Good Behavior Note
- Check-In Check-Out Card
- Performance-based behavioral recording
- Also
  - Self Management/Monitoring Card
  - Point Card
  - Teacher Rating Form
Who already uses the Daily Behavior Report Cards (DBRC)?
(Chafouleas, Riley-Tillman, & Sassu, 2006)

Teacher Survey about DBRC:
- **Purpose**
  - 60% use to change student behavior (Intervention)
  - 32% use to monitor (Assessment)
  - 32% use “routinely” for classroom management (Intervention)
- **Types of Behaviors**
  - 81% to identify positive behaviors,
  - 77% to identify negative behaviors
- **For Whom?**
  - 86% use with individual students
  - 19% with whole class
  - 9% with small groups

Initial Studies and Findings

- *What do Daily Behavior Report Cards (DBRCs) measure? An initial comparison of DBRCs with direct observation for off-task behavior*
  - (Chafouleas, McDougal, Riley-Tillman, Panahon, & Hilt, 2005)
  - **Conclusion:** a moderate association between teacher perceptions of behavior as measured by DBRC ratings and direct observation conducted by an external observer.
Initial Studies and Findings

- An analysis of the similarity of Direct Behavior Ratings and Systematic Direct Observation for off-task and disruptive behaviors
  - (Riley-Tillman, Chafouleas, Sassu, Chanese, & Glazer, 2008)
  - Conclusion: replicated moderate association between teacher perceptions of behavior as measured by DBRC ratings and direct observation conducted by an external observer.

Initial Studies and Findings

- Acceptability and reported use of Daily Behavior Report Cards among teachers
  - (Chafouleas, Riley-Tillman, & Sassu, 2006)
  - Conclusion: provide support to previous claims that the DBRC is both a used and accepted tool in practice
Initial Studies and Findings

- The consistency of Daily Behavior Report Cards in monitoring interventions
  - (Chafouleas, Riley-Tillman, Sassu, LaFrance, & Patwa, 2007)
  - Conclusion: suggested similar conclusions might be drawn when visually examining data collected by an external observer using either systematic direct observation or a DBRC

The End of the DBRC Line

- A school practitioner’s guide to using Daily Behavior Report Cards to monitor interventions
  - (Riley-Tillman, Chafouleas, & Briesch, 2007)
  - The first “how to” guide for practitioners on DBRC for assessment
The End of the DBRC Line

Daily Behavior Report Cards
(Description was limiting)

- "Daily"
  - Predefines schedule
  - Precludes alternatives
  - Atheoretical

- "Report Cards"
  - Communication emphasis
  - Precluded other uses

What other description might have stronger - and theoretically consistent - implications for what we are trying to do?

The Emerging Method

Descriptive
Theoretical Foundation

DIRECT BEHAVIOR RATING

Guiding Principles
for development and evaluation

ASSESSMENT

INTERVENTION

COMMUNICATION

Uses
Applications
What is Direct Behavior Rating?

- A tool that involves a **brief rating** of a target behavior following a **specified observation period** (e.g. class activity).

  - Single or (brief) Multi-Item
Prior DBR-like Examples

<table>
<thead>
<tr>
<th>Numeric Rating Scale a</th>
<th>What does your pain feel like:</th>
</tr>
</thead>
<tbody>
<tr>
<td>McCaffery &amp; Beebe (1993)</td>
<td>None</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Wong-Baker Faces Rating Scale b</th>
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DBR Example (standard form)

Date: _______  Time: _____ to _____

Academically Engaged (% of time)

0% 1 2 3 4 5 6 7 8 9 10
Never 50% Sometimes Always

Disruptive Behavior (% of time)

0% 1 2 3 4 5 6 7 8 9 10
Never 50% Sometimes Always
Direct Behavior Rating

Direct
- establishes that the observation and rating occur at the time and place that behavior occurs.
- This minimizes inference & retrospective judgments

Behavior
- the target of assessment must be accessible for observation and evaluation by the intended rater.
- the preference is to observe behavior within the naturalistic setting.
- contents/modalities for behavioral assessment are motor, physiological, and cognitive (Cone, 1978).
Direct Behavior Rating

**Rating**
- quantify a person’s **perception** or attitude toward something.
- DBR can be compared to any of a variety of other problem solving and behavioral assessments
  - SDO
  - Interviews
  - behavioral rating scales

Direct Behavior Rating & Other Methods of Social/Emotional & Behavioral Assessment

**Inference** - relative objectivity required to generate data

**Latency** - relative immediacy and proximity between the occurrence of behavior and ratings/reporting
Development and Evaluation of Direct Behavior Ratings

GUIDING PRINCIPLES
Guiding Principles

**Defensible**
- standardization and demonstrable technical adequacy (e.g., accuracy, reliability, validity).
- A systematic line of research is necessary and ongoing to evaluate and develop both DBR procedures and instrumentation.

Guiding Principles

**Flexible**
- a wide variety of purposes, contexts and behaviors.
  - Variety of instruments
  - Variety of behaviors
  - Variety of purposes
    - screen and identify behavior problems,
    - define the magnitude of problems,
    - monitor progress and intervention
    - evaluate problem solutions
    - part of a multi-method approach to diagnostic and classification decisions.
Guiding Principles

Efficient

a) ratings are completed by those persons who are naturally occurring in the context of interest, and
b) rating are collected in brief periods of time (i.e. few seconds), resulting in minimal disruption.

Guiding Principles

Repeatable

- facilitates ongoing data collection within and across occasions
Development and Evaluation of Direct Behavior Ratings

APPLICATIONS

Applications of DBR

**Assessment**
- DBR provides information to evaluate child behavior and guide decisions
  - "What percentage of time is Sarah disruptive during math class?" or
  - "What percentage of the time is Immanuel compliant with adult instructions?"
Applications of DBR

Communication
- to share information among those key persons in a child's life (e.g. teacher-child, home-school, teacher-teacher).
- immediate and consistent feedback about student behavior
- fosters shared responsibility for student welfare
- establish shared behavior goals across settings and persons
- Increases opportunities for feedback & positive attention

Applications of DBR

Intervention
- substantial body of research exists to demonstrate the effectiveness of interventions that include DBR as one component
  - Incentive Programs
  - Self Management
INSTRUMENTATION & PROCEDURES

What, When, Where to Observe

Instrumentation
- What bx
  - General
  - Specific
- Definitions
- Rating item(s)

Procedures
- When
- Where
- Who
- How often
  … that data are collected
Which behaviors will I rate?

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

- **Disruptive Behavior**: Disruptive behavior is defined as a student action that interrupts regular school or classroom activity.
  - For example: out of his/her seat, fidgeting, playing with objects, acting aggressively, talking/yelling about things that are unrelated to classroom instruction.

More problematic

- **Compliance**: To initiate/complete a response to an adult request in a timely and socially acceptable manner.
  - For example: following classroom directions/instructions, responding to teacher within 5 seconds, being respectful of others while complying, and responding without exhibiting any defiance.
DBR Format: 10 Gradients

DBR: Progress Monitoring Booklet

© Chafouleas, Riley-Tillman & Christ
DBR: Progress Monitoring Booklet

**Directions for Direct Behavior Rating (DBR):**

1. **Identify the behaviors of interest:** either by selecting from among the possible pre-defined target behaviors or by identifying your own target behaviors.
2. **Describe when, where, and how often to collect behavior ratings:** with DBR (e.g., daily, AM, PM). Ratings can be completed in a number of seconds.
3. **Observe and estimate the amount of time that the behavior was present during an observation period:** (e.g., full day, half day, class periods).
4. **Collect multiple ratings across multiple occasions:** (see below).
5. **Plot data across cells:** and evaluate child behaviors.

---

**Academically Engaged**

<table>
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<th>0%</th>
<th>25%</th>
<th>50%</th>
<th>75%</th>
<th>100%</th>
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<tbody>
<tr>
<td>Never</td>
<td>Sometimes</td>
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*The column indicates that the child was engaged % of the time relative to a DBR of 1.*

---

**Behavior:**

- Observation 1
- Observation 2

---

**DBR: Progress Monitoring Booklet**

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**Behavior:**

- Observation 1
- Observation 2
**DBR: Progress Monitoring Booklet**

**How Often?**

We recommend (5 to) **10 datapoints** per phase, but the emphasis is on ideographic analysis *and* high/low stakes decisions.

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**DBR IN PRACTICE**

**Direct Behavior Ratings**

**Development and Evaluation of Direct Behavior Ratings**

www.directbehaviorratings.com/index.html
Response to Intervention

**Academic Systems**

- **Intensive, Individual Interventions**
  - Individual Students
  - Assessment-based
  - High Intensity
  - 1-5%

- **Targeted Group Interventions**
  - Some students (at-risk)
  - High efficiency
  - Rapid response
  - 5-10%

- **Universal Interventions**
  - All students
  - Preventive, proactive
  - 80-90%

**Behavioral Systems**

- **Intensive, Individual Interventions**
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- **Universal Interventions**
  - All settings, all students
  - Preventive, proactive
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---

**Response to Intervention**

- **High Stakes**
  - More Data
  - More Resources
  - More Intensity

- **Individualized Goals & Objectives**
  - Frequent Monitoring
  - Frequent Review

- **Lower Stakes**
  - Some Data
  - Some Resources
  - Some Intensity

- **Individual Goals**
  - Monthly/Biweekly Monitoring
  - Planned Review

- **Benchmark**
  - 3-4 Times Per Year
  - Screen & Identify
  - Quality Instruction
Problem Solving

**Problem Solving: Questions**
- Define the Problem
  - Is there a problem and what is it?
- Develop a Plan
  - Why is it happening?
- Implement Plan
  - Is the intervention working?
- Evaluate Effects
  - Did the intervention work?

**Problem Solving: Process**

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Assessment with PS & RtI

- **Success** if enabled by
  - Shared, low inference problem definitions
  - Shared, low inference measurement
  - Shared, explicit process of data collection
  - Shared, explicit process of data use

- **The ecology** is a critical variable
  - The interaction between the ecology and the student determines outcomes
**Indicator of Behavior**

- GOM for social behavior
  - General Outcome Measure
  - Dynamic Indicator of Behavior (DIB)
- Indicator of health
- Behavioral thermometer

**Screening & Problem Definition**

- Screening
- Problem Identification
- Problem Definition
- Norms & Criterion
  - Classroom
  - Grade
  - School
Problem Analysis

Not really an analysis tool, but…

- Like a scatter plot,
  - When does bx occur?
  - Where does bx occur?
  - Bx contingency?
  - Bx function?

Intervention Monitoring

Assessment
- Baseline
- Intervention
- Progress Monitoring

Communication
- Home-school
- School-school
- Teacher-Support Team

Intervention
- Incentive program
- Self monitoring
Intervention Evaluation

- Archival time-series data set to evaluate at the conclusion (or at intervals) to **evaluate** support plan

Define the Problem

Develop a Plan

Implement Plan

Evaluate

Direct Behavior Ratings

Current - Future Directions

- DBR – BASIS
  - A web-based application will serve to increase utility of the DBR in behavioral assessment given ease of data entry, analysis, and presentation.

Questions? Discussion?

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Recent Publications


