

The Emerging Alternative: Direct Behavior Rating

Theodore J. Christ, Ph.D.
(tchrist@umn.edu)
University of Minnesota

Christopher Riley-Tillman, Ph.D.
(crileytillman@yahoo.com)
East Carolina University

Sandra M. Chafouleas, Ph.D.
(sandra.chafouleas@uconn.edu)
University of Connecticut

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

Citation

Christ, T. J., Riley-Tillman, C. T., & Chafouleas, S. M.
(2009, February) *An emerging alternative for
Response to Intervention (RtI): Direct Behavior
Rating (DBR)*, Paper presented at the annual
conference for the National Association of School
Psychologists, Boston, MA.

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).



Direct Behavior Ratings

Assessment • Communication • Intervention

www.directbehaviorratings.com/index.html

- 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

Historical Context: Social-emotional & Behavior Assessment

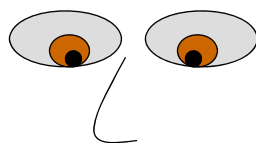
- Early 1980s Projective Testing Dominant
 - Goh & Fuller, 1981, 1983; Goh, Teslow, & Fuller, 1981
 - Rorschach, Draw-a-Person, and Thematic Appreciation Test
 - idiosyncratic & personalized interpretation
- 1990s: Decline in Projectives
 - Hutton, Dubes, & Muir, 1992; Kennedy, Faust, Willis, & Piotrowski, 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

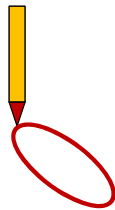
Recent Practice

- 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
0%										100%
Never						Sometimes				Always

Disruptive Behavior (% of time)

0	1	2	3	4	5	6	7	8	9	10
0%										100%
Never						Sometimes				Always

So why, “Emerging Alternative?”

Deno, S. L. (1985). Curriculum-based measurement: The emerging alternative. *Exceptional Children*, 52(3), 219-232.

- 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

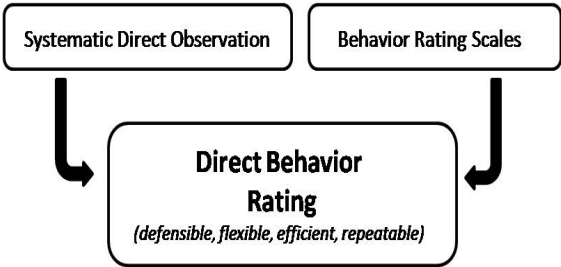
- An emerging alternative to commercial standardized tests and to informal observations is curriculum-based measurement (CBM) that combines the advantages of both.
 - By standardizing observation of performance in the curriculum, CBM generates reliable data that is valid with respect to widely used indicators 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.



Direct Behavior Ratings

Assessment • Communication • Intervention

www.directbehaviorratings.com/index.html

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

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

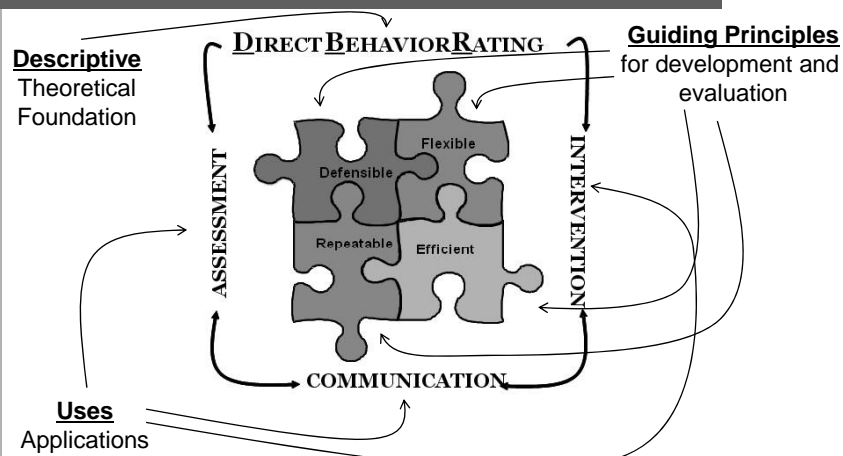
Daily Behavior Report Cards


(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





Direct Behavior Ratings
Assessment • Communication • Intervention
www.directbehaviorratings.com/index.html

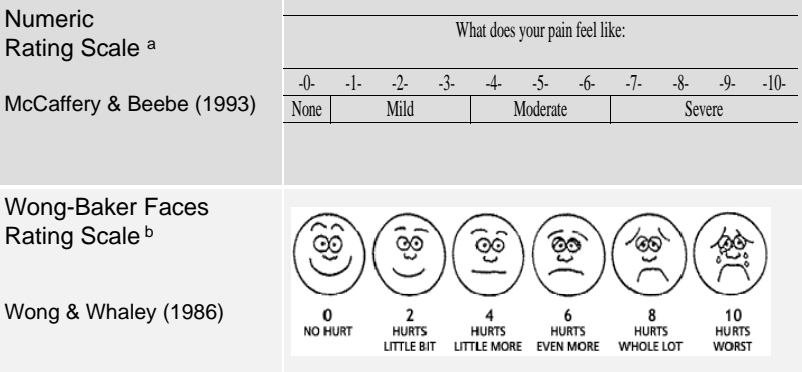
Development and Evaluation of Direct Behavior Ratings

DIRECT BEHAVIOR RATINGS

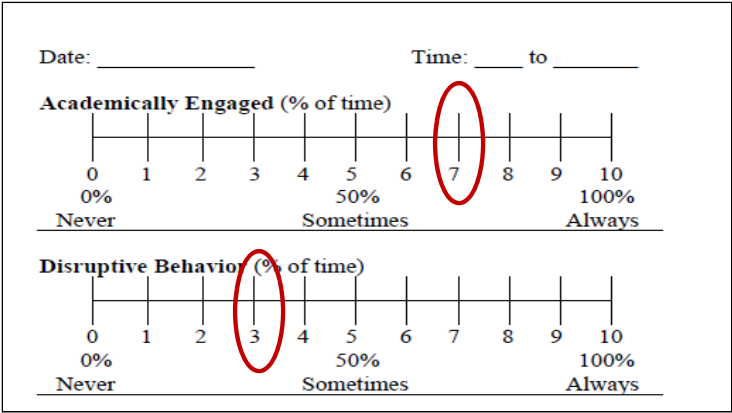
What is Direct Behavior Rating?

- 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



DBR Example (standard form)



Direct Behavior Rating



Direct

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

Direct Behavior Rating



Behavior

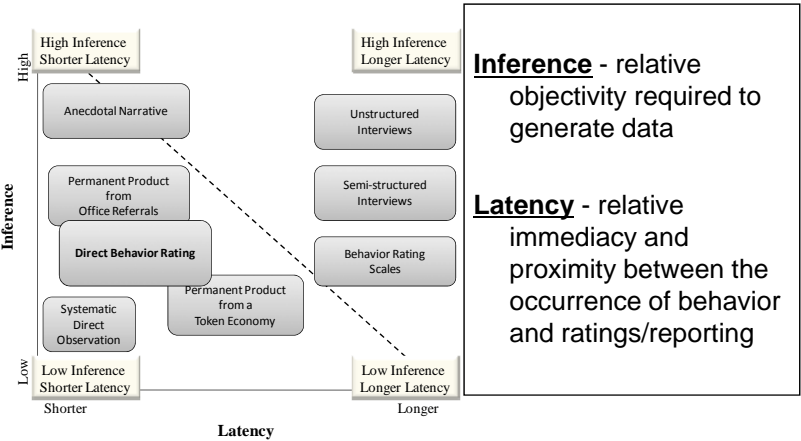
- the target of assessment must be **accessible for observation** and evaluation by the intended rater.
- the preference is to observe behavior within the **naturalistic setting**.
- contents/modalities for behavioral assessment are **motor, physiological, and cognitive** (Cone, 1978).

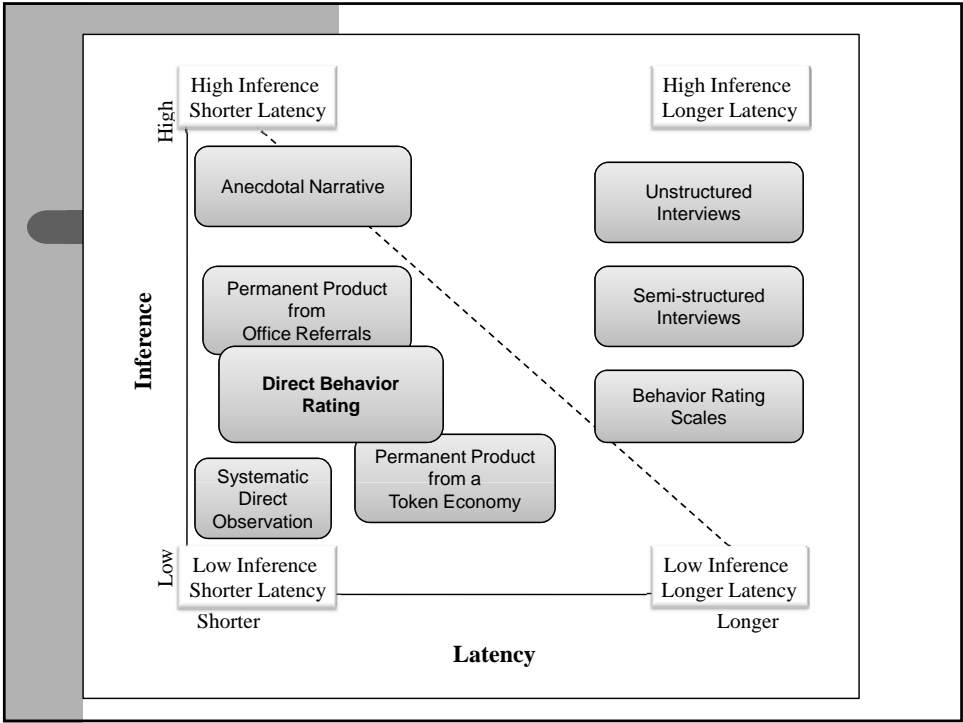
Direct Behavior Rating



- 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





DIRECT BEHAVIOR RATING

ASSESSMENT INTERVENTION
COMMUNICATION

Direct Behavior Ratings
Assessment • Communication • Intervention
www.directbehaviorratings.com/index.html

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



Direct Behavior Ratings


Assessment • Communication • Intervention

www.directbehaviorratings.com/index.html

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

DIRECT BEHAVIOR RATING

ASSESSMENT

INTERVENTION


COMMUNICATION

Defensible

Flexible

Repeatable

Efficient



Direct Behavior Ratings

Assessment • Communication • Intervention

www.directbehaviorratings.com/index.html

Development and Evaluation of Direct Behavior Ratings

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.

Standard DBR

DBR Form

Observer Name: _____

Observer Title: _____

Observer Date: _____

Observer Time: _____

Observer Location: _____

Observer Notes: _____

Teacher Name: _____

Teacher Title: _____

Teacher Date: _____

Teacher Time: _____

Teacher Location: _____

Teacher Notes: _____

Check if no observations made

Check if observed behavior is

Teacher Name: _____

Teacher Title: _____

Teacher Date: _____

Teacher Time: _____

Teacher Location: _____

Teacher Notes: _____

Check if no observations made

Check if observed behavior is

Teacher Name: _____

Teacher Title: _____

Teacher Date: _____

Teacher Time: _____

Teacher Location: _____

Teacher Notes: _____

Check if no observations made

Check if observed behavior is

Teacher Name: _____

Teacher Title: _____

Teacher Date: _____

Teacher Time: _____

Teacher Location: _____

Teacher Notes: _____

Directions for Using a Direct Behavior Rating (DBR)

What is a DBR?

• DBR is a tool that provides a brief report (e.g., 10%) of student behavior frequency in a specified period of time (e.g., 10 minutes of class group work).

• DBR allows a single target behavior to be observed and recorded across many different settings.

• DBR can be completed by a teacher, a paraprofessional, or a student (e.g., a teacher, a paraprofessional, or a student).

How to use a DBR

Step 1: Choose a behavior to observe (e.g., writing, reading, or listening).

Step 2: Define the behavior in observable and measurable terms.

Step 3: Choose a setting to observe the behavior (e.g., writing, reading, or listening).

Step 4: Choose a time to observe the behavior (e.g., writing, reading, or listening).

Step 5: Immediately after the observation period, complete the DBR. Check the "no observations made" box if you were unable to observe the behavior or if the behavior was not observed.

Example 1: DBR

Teacher Name: _____

Teacher Title: _____

Teacher Date: _____

Teacher Time: _____

Teacher Location: _____

Teacher Notes: _____

Example 2: DBR

Teacher Name: _____

Teacher Title: _____

Teacher Date: _____

Teacher Time: _____

Teacher Location: _____

Teacher Notes: _____

Example 3: DBR

Teacher Name: _____

Teacher Title: _____

Teacher Date: _____

Teacher Time: _____

Teacher Location: _____

Teacher Notes: _____

Example 4: DBR

Teacher Name: _____

Teacher Title: _____

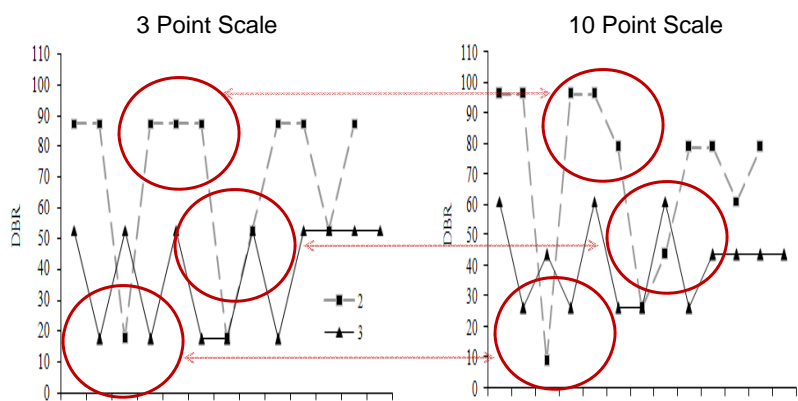
Teacher Date: _____

Teacher Time: _____

Teacher Location: _____

Teacher Notes: _____

DBR Format: 10 Gradients



DBR: Progress Monitoring Booklet

DIRECT BEHAVIOR RATING

ASSESSMENT

COMMUNICATION

MONITORING

Student Name

Rater Name

Date Range

*Setting Information

*The setting (time and activity) must be consistent across all ratings. For example, setting could be all day, morning, or math class.

© Chafouleas, Riley-Tillman & Christ

Behavior Definitions

Academically engaged is 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 is 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.

Optional Behaviors are chosen by the rater and can be used to track behaviors that are specific to the student being rated. For example, if the student throws objects in the classroom, the rater may write a definition for throwing objects that is concrete, observable, and measurable. Additionally, the definition should include examples and non-examples of the behavior.

Optional Behaviors (be sure to clear define)

Interaction with Peers

Physical Behavior toward Others

Physical Behavior toward Self

Respectful

Compliance

Verbal Behavior

Out of Seat

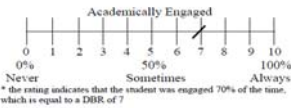
Tantruming

© Chafouleas, Riley-Tillman & Christ

DBR: Progress Monitoring Booklet

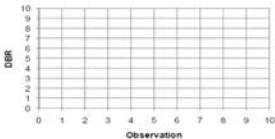
Directions for Direct Behavior Rating (DBR)

- 1. Determine the behaviors of interest, either by selecting from among the possible pre-defined target behaviors or identify your own target behavior.
- 2. Decide who, where, and how often to collect behavior ratings with DBR (e.g., daily, AM, PM). Ratings can be completed in a matter of seconds.
- 3. Observe and estimate the amount of time that the behavior occurs during an observation period (e.g., full day, half day, class period).
- 4. Collect multiple ratings across multiple occasions (see below).
- 5. Plot data graphically, and evaluate child behavior.

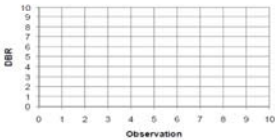


© Chafouleas, Riley-Tillman & Christ

Behavior: _____

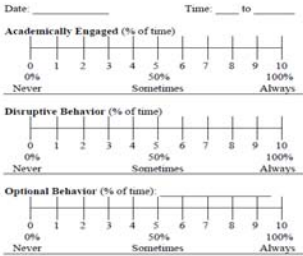


Behavior: _____



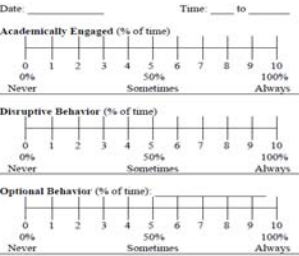
© Chafouleas, Riley-Tillman & Christ

DBR: Progress Monitoring Booklet



Notes:

© Chafouleas, Riley-Tillman & Christ



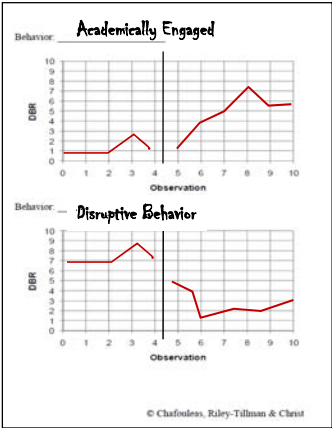
Notes:

© Chafouleas, Riley-Tillman & Christ

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



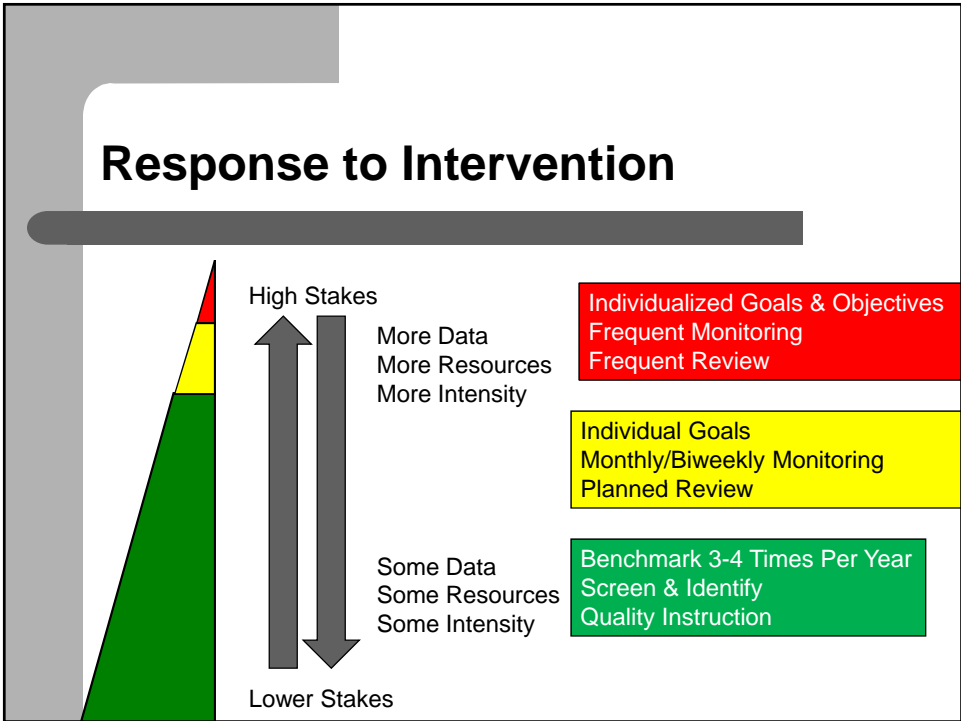
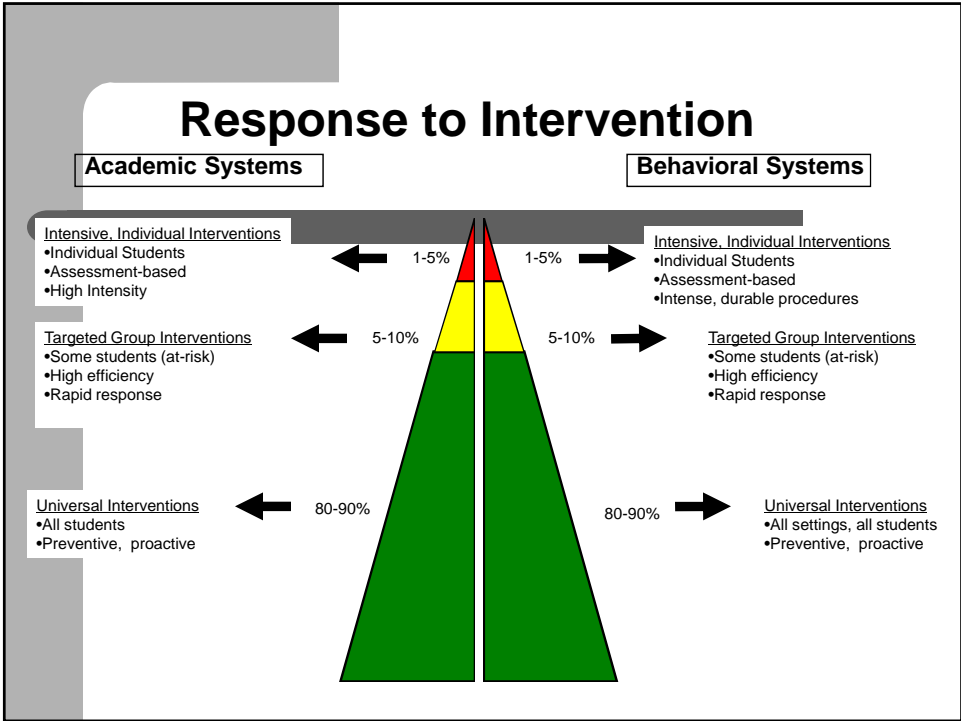
Direct Behavior Ratings

Assessment • Communication • Intervention

www.directbehaviorratings.com/index.html

Development and Evaluation of Direct Behavior Ratings

DBR IN PRACTICE

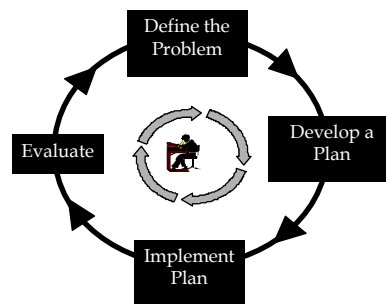


Problem Solving

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

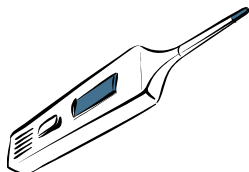
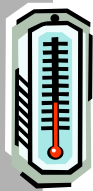


Assessment with PS & Rtl

- **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

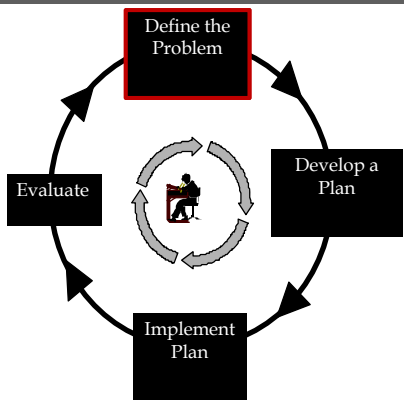
Indicator of Behavior

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



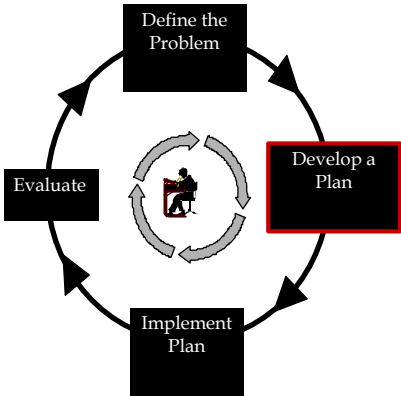
Dr. Ted Christ

Screening & Problem Definition



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

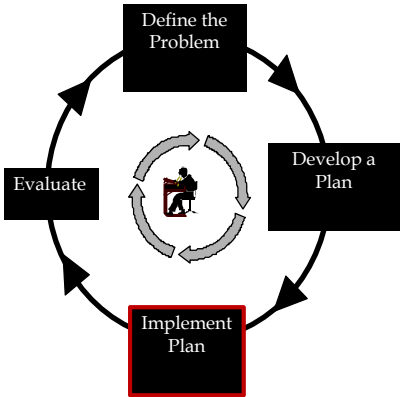
Problem Analysis



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

```
graph TD; A[Define the Problem] --> B[Develop a Plan]; B --> C[Implement Plan]; C --> D[Evaluate]; D --> A;
```

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

Direct Behavior Ratings

Assessment • Communication • Intervention

www.directbehaviorratings.com/index.html

Direct Behavior Ratings

Assessment • Communication • Intervention • People • DBR News • Projects • Library • DBR.A.B.I. Login

News

Remembering Robert Rutter of the Journal of Applied Behavior Analysis...
A new Direct Behavior Rating (DBR) form...
Remembering DBR's 10th Anniversary...
Congratulations to Robert Rutter on his 80th birthday...
Direct Behavior Rating (DBR) is a...
DBR is a simple and effective way to...
DBR is a simple and effective way to...
DBR is a simple and effective way to...

About Us

Direct Behavior Ratings, Inc.
10000 North 10th Avenue, Suite 100
Denver, CO 80231
Phone: 303.755.1234
Email: info@directbehaviorratings.com
Website: www.directbehaviorratings.com

Copyright © 2009 Direct Behavior Ratings, Inc.
All rights reserved.

Direct Behavior Ratings

Assessment • Communication • Intervention • People • DBR News • Projects • Library • DBR.A.B.I. Login

DBR for Assessment

DBR use in assessment provides information to evaluate child behavior and guide decisions related to behavior supports. For instance, a DBR may be used to answer the question, "What percentage of time is Sam disruptive during math class?" or "What percentage of the time is Michael compliant with adult instructions?"

How can I use a DBR in assessment?

It's simple and quick! Print out a DBR form and complete the top section.

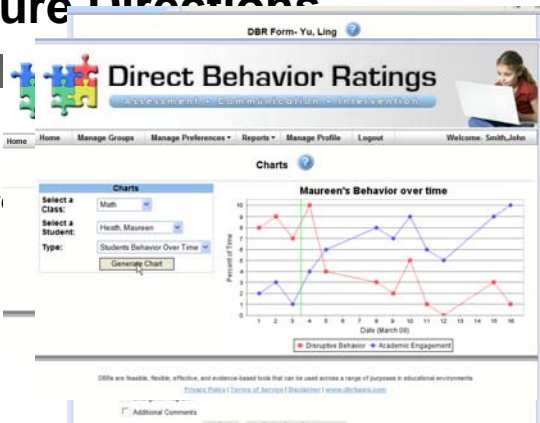
1. Determine the behaviors of interest, either by selecting from among the possible predefined target behaviors or identify your own target behavior.
2. Decide who, when, and how often to grade behavior ratings with DBR (e.g., daily, weekly). Ratings can be completed in a matter of seconds.
3. Collect multiple ratings across different occasions (e.g., periods, weeks, days).
4. Plot the ratings, and evaluate and interpret behavior (see DBR graphing and interpretation).

Additional Resources

- PowerPoint: DBR for Assessment
- DBR Standard Form
- DBR Standard Form Instructions
- DBR Graphing and Interpretation
- Other Resources

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?

Theodore J. Christ, Ph.D.
tchrist.umn.edu

Christopher Riley-Tillman, Ph.D.
rilleytillmant@ecu.edu

Sandra M. Chafouleas, Ph.D.
sandra.chafouleas@uconn.edu



Recent Publications

Chafouleas, S.M., Kilgus, S.P., & Hernandez, P. (in press). Using Direct Behavior Rating (DBR) to screen for school social risk: A preliminary comparison of methods in a kindergarten sample. *Assessment for Effective Intervention*.

Chafouleas, S.M., Riley-Tillman, T.C. & Christ, T.J. (in press). Direct Behavior Rating (DBR): An Emerging Method for Assessing Social Behavior within a Tiered Intervention System. *Assessment for Effective Intervention*.

Christ, T.J., Riley-Tillman, T.C., & Chafouleas, S.M. (in press). Foundation for the Development and Use of Direct Behavior Rating (DBR) to Assess and Evaluate Student Behavior . *Assessment for Effective Intervention*.

Christ, T.J., & Boice, C.M. (in press). Rating scale items: A brief review of nomenclature, components, and formatting to inform the development of Direct Behavior Rating (DBR). *Assessment for Effective Intervention*.

Riley-Tillman, T.C., Chafouleas, S.M., Christ, T.J., Briesch, A.M., & LeBel, T.J. (in press). The impact of wording and behavioral specificity on the accuracy of Direct Behavior Ratings (DBRs). *School Psychology Quarterly*.

Schlientz, M.D., Riley-Tillman, T.C., Briesch, A.M., Walcott, C.M., & Chafouleas, S.M. (in press). The impact of training on the accuracy of Direct Behavior Ratings (DBRs). *School Psychology Quarterly*.

Chafouleas, S.M., Christ, T.J., & Riley-Tillman, T.C. (2009). Generalizability and dependability of scaling gradients on Direct Behavior Ratings (DBRs). *Educational and Psychological Measurement*, 69, 157-173.