### ╋

Direct Behavior Rating (DBR): Overview and Possible Applications within Tier I



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To introduce Direct Behavior Rating (DBR) as an assessment method for progress monitoring of student behavior

To review options for use of DBR in Tier I assessment purposes

### + Overview of DBR in Assessment: History & Defining Features



Evaluation

**BRIEF REVIEW:** 

+

+ What is "problem-solving framework"?

### **Two Basic Questions**:

How do we know X is a "problem"?

How do we know if Y is an effective strategy for "handling" X?

> What is the problem? Why is it occurring? What should we do about it? Did it work?

(Bergan, 1977, Bergan & Kratochwill, 1990; Tilly, 2009; Reschly& Bergstrom, 2009)

# What are desirable features of assessment tools within PSM?

#### Defensible

 established through psychometric research to provide evidence of reliability and validity for interpretation and use

#### Flexible

 established by methods useful in guiding a variety of assessment questions and situations

#### Efficient

 established by methods that require relatively few resources (feasible <u>and</u> reasonable)

### Repeatable

 established by methods that yield necessary time series to evaluate intervention effectiveness

Source: Chafouleas, Riley-Tillman, & Christ, 2009; Chafouleas, Riley-Tillman, & Sugai, 2007; Christ, Riley-Tillman, & Chafouleas, 2009)



#### Adapted from Briesch & Volpe (2007)

### + BUT for behavior, it's not so simple...

### **Possible Methods**:

- Systematic direct observation
- Traditional behavior rating scales
- Permanent products (ODR)
- **Direct Behavior Rating**

# + DIRECT BEHAVIOR RATING : What is DBR?

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



Chafouleas, Riley-Tillman, & Christ (2009); Chafouleas, Riley-Tillman, & Sugai (2007); Chafouleas, Riley-Tillman, & McDougal (2002); Christ, Riley-Tillman, & Chafouleas (2009)

# + 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



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)

# + <u>Direct Behavior Rating</u>



#### **Direct**

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

# + <u>Direct Behavior Rating</u>



### **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).

# + <u>Direct Behavior Rating</u>



### <u>Rating</u>

- 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



# + Project VIABLE (2006-2011)

<u>Develop</u> instrumentation and procedures, then <u>evaluate</u> defensibility o DBR in decision-making



### + DBR – Single Item Scale

- Ratings should correspond to the <u>percentage of time</u> that the student was observed to display the target behavior.
  - Ex: When rating after 40-minute Independent Reading Block, if the student was engaged for 20 minutes, then the student receives a rating of 5 on the DBR.



# + Key Pieces to using DBR-SIS:

- Have the rating ready (date, name). Complete rating <u>immediately</u> following the activity period.
  - Skip rating if you did not observe for a sufficient amount of time.
- Ratings should correspond to the proportion of time that you actually observed the student display the target behavior.
- When rating, each behavior should be considered independently of the other targets. That is, total ratings across behaviors do not have to equal 100%.
  - For example, a student may be engaged 50% of the time, and disruptive 20%. A student may also be engaged for 100% of the time, and disruptive for 10%.

# + Which targets do I rate using DBR-SIS?

### 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.



## + Current Forms: <u>www.directbehaviorratings.com</u>



Application of DBR-SIS in Tier I: Examples and Considerations





### Progress Monitoring Assessment of a "group"

Small group, classwide

# Universal Screening Assessment for Early Identification of Risk Individual focus

# + Case Study Example: Classwide Assessment

Riley-Tillman, Methe, & Weegar (2009)

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



		<b>Phase</b>	Mean	
	<b>B1</b>	<b>A1</b>	<b>B</b> 2	<b>A2</b>
DBR	72	45	63	42
SDO	68	49	61	50

# Example: Early Identification and Monitoring using "Local" Norms

**Chafouleas, Kilgus, & Hernandez** (2009)

- <u>Sample</u>: full day K inclusive classroom, 2 teachers and 22 students
- <u>Measures</u>: teacher-completed DBR-SIS following am and pm over Nov-March for ALL students
- <u>Conclusion</u>: "Local" cut-score comparisons can be useful in examining individual student performance. Periodic reassessment of all may be needed to re-confirm appropriate comparison



		Con	dition			
		(est. via the "	gold standard")		3110	11
		Positive	Negative		P	NP
Test	Positive	TRUE Pos.	FALSE Pos.	= Pos. predictive	73	.96
Outcome			(Type I error)	value	20	.95
	Negative			- Neg predictive	)8 33	.94
	Negative	(Type II error)	mol neg.	- Neg. predictive	59	.94
		(Type if error)		value	¥1	.95
					38	.96
		= Sensitivity	= Specificity		19	.97
<ul> <li><u>Analyses</u>:</li> <li><u>Conclusio</u> initial iden may need compleme suggest in score'' ma is conside school-ba</li> </ul>	Diagnostic ac <u>n</u> : DBR may pro- ntification of p to be confirm entary measure terpretation of y be highly de- red to be a "tr sed behaviora	curacy statistics rovide efficient otential risk, but red through res. Findings of DBR-SIS "cut- ependent on what rue" indicator of al difficulty.	1.0 0.8- 0.6- 0.2- Vinitikity 0.4-			



<u>Contact</u>: Dr.T. Chris Riley-Tillman <u>rileytillmant@ecu.edu</u> <u>www.directbehaviorratings.com</u> Using the Daily Progress Report Card (DPR) in the Check, Connect, & Expect Tier 2 Behavioral Intervention

Lori Lynass, EdD, NWPBISN





## Check, Connect, & Expect (CCE; Cheney & Lynass)

- Based on 15 years of research and practice from:
  - Oregon's Technical Assistance Center on Positive Behavior Support (Horner & Sugai, 2002)
  - Check and Connect (Sinclair, Christenson, Evelo, & Hurley, 1998), U. Minnesota
  - The Behavior Education Program (BEP; Crone, Horner, & Hawken, 2004) U. Oregon/Utah.







Goal:

Checked in	Yes	No
Checked out	Yes	No
Parent Signature	Yes	No

			Reading					Math	
Expectation	Tough Time	ОК	Good	Way to Go!	Expectation	Tough Time	ОК	Good	Way to Go!
Be Safe	1	2	3	4	Be Safe	1	2	3	4
Show Respect	1	2	3	4	Show Respect	1	2	3	4
Be Responsible	1	2	3	4	Be Responsible	1	2	3	4

Social St	udies/Scien	ce/Art				1	Sp	ecialist	
Expectation	Tough Time	ОК	Good	Way to Go!	Expectation	Tough Time	ОК	Good	Way to Go!
Be Safe	1	2	3	4	Be Safe	1	2	3	4
Show Respect	1	2	3	4	Show Respect	1	2	3	4
Be Responsible	1	2	3	4	Be Responsible	1	2	3	4

Way to Go! (4): Met expectations with positive behavior.

DAILY TOTAL

Good (3): Met expectations with only 1 reminder or correction.

OK (2): Needed 2-3 reminders or corrections.

Tough Time (1): Needed 4 or more reminders or corrections.

Parent Signature:	Teacher:
Comments:	Comments:







Expectations	Respect	Responsible	Safe	Integrity	Total
Period 1	1.2.34	1.2.3 4	1.2 3 4	1.234	
Period 2	1.2.34	1.2.3 4	1.2 3 4	1.2 3 4	
Period 3	1.2.34	1.2.3 4	1.2.34	1.234	
Period 4	1.2.34	1.2.3 4	1.2 3 4	1.2 3 4	
Period 5	1.2.34	1.2.3 4	1.2 3 4	1.234	
Period 6	1.2.34	1.2.3 4	1.2 3 4	1.2 3 4	

(4) Way to Go<sup>1</sup>/<sub>2</sub>: Met expectations with positive behavior.
(3) Good: Met expectations with only 1 reminder or correction.
(2) OK: Needed 2-3 reminders or corrections.
(1) Tough Time: Needed 4 or more reminders or corrections.

Checked-in	Yes No
Checked-out	Yes No
Has Materials	Yes No
Parent/Guardian Signed	Yes No

DAILY TOTAL /GOAL

Teacher Comments:

Parent/Guardian Comments:

Parent/Guardian Signature:



# Scoring the DPR

- Students scored based on reminders given by the teacher to the student.
- A reminder consists of the social expectation (i.e., Be Respectful, Be Responsible, Be Safe), the problem behavior and the desired behavior being verbally stated to the student.

# **Charting Function**

#### Daily Progress for Student #86

6 Sep 2005 to 5 Apr 2006. Periods: all. Expectations: all.





# What we Have Learned About the DPR in CCE

- Prompts teachers to give positively stated corrective feedback.
- DPR can be easily tailored for all grades and all types of behaviors.
- Through a self-monitoring process, students can learn to score themselves on the DPR.
- DPR data can be used to predict success when coupled with other data.
- Success can be predicted in 4-6 weeks.

### **Predicting Outcomes**

Variable start, but SSRS PB = 114 And SS = 90

#### Daily Progress for Student #669

Mon 17 Sep 2007 to Fri 7 Dec 2007 Periods: all Expectations: all



### Same Student - 10 weeks



### Student 2 - Outcomes?

Rough start, and SSRS PB = 130 SSRS SS = 94



### Student 2 - 8 Weeks





# What we Have Learned About the DPR in CCE

- Some expectations are more difficult for teachers to accurately score.
- Teachers must be trained to use DPR and committed to its use.
- Fidelity checks are necessary to assure proper use.
- The DPR works so well, some teachers want the student to stay on it forever.

# Direct Behavior Ratings at Tier 3

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## The Challenge

- Providing a teacher friendly, functional method of progress monitoring behavior change at Tier 3
- Tool must be efficient, reliable, valid, and sensitive to change

### Individualized Behavior Rating Scale

- Origins
  - Prevent-Teach-Reinforce—Randomized controlled trial examining effectiveness of individualized behavior intervention
  - Compared to "services as usual"
  - Behavior Rating Scale developed for teachers to use daily
  - <u>Perceptual Scale</u> adapted from <u>LEAP</u> (
     <u>Kohler & Strain</u>)

Objective Date	2/1	2/2	2/3	2/4	2/5	2/8	2/9	2/10	2/11	2/12	2/15	2/16	2/17	2/18					
Alex will pass items to a peer throughout the day (circle, snack and play times) Level: Criteria: 6/7	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 0 D	4 2 1 0 ND	4 3 0 1 1 0 D	4 3 2 0 D	4 3 0 1 0 D	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 1 0 ND	4 3 2 1 0 ND	L= 3 2 1 0 ND	2 1 0 D	4 3 9 1 0 D	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND
Alex will accept items from a peer during play. Level: <u>3</u> Criteria: 5/6	4 3 2 1 0 ND	4 3 1 0 ND	4 2 1 ND	4 3 1 0 ND	4 2 1 0 ND	4 2 1 ND	4 3 1 0 ND	4 3 2 1 0 ND	4 2 1 0 ND	3 2 1 0 ND	4 3 2 1 0 ND	L=3 2 1 ND	3 2 1 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND
Alex will take turns with adults and children Level: <u>2</u> Criteria: 5/6	4 3 2 1 (0) ND	4 3 2 ⊕ 0 D	4 3 0 1 0 D	4 3 0 1 0 D	4 3 2 0 D	4 3 1 0 ND	4 3 2 1 0 ND	4 3 1 0 ND	4 2 1 ND	L=3 4 0 2 1 0 D	4 3 0 1 0 D	4 3 1 0 ND	4 2 1 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND
Alex will give his peers instruction (play organizer) around play during free play activities. Level: <u>3</u> Criteria: 6/7	4 3 2 1 0 ND	4 2 1 ND	4 3 1 0 ND	4 3 1 0 ND	4 3 2 1 0 ND	4 2 1 0 ND	4 3 2 1 0 ND	4 3 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND
Alex will follow the instruction of a peer during play. Level: <u>3</u> Criteria: 6/7	4 3 2 1 0 ND	4 2 1 ND	4 2 1 ND	4 3 3 1 0 ND	4 2 1 0 ND	4 2 1 0 ND	4 2 1 ND	L=4 3 2 1 ND	4 2 1 ND	3 2 1 ND	4 2 1 ND	4 3 2 1 0 ND	4 2 1 0 ND	4 3 2 1 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND

Data Collection for Tracking Measurable Objectives - Sample

4 = Child performs skill independently or when given a group direction. No adult intervention is needed.

3 = Adult points/gestures/models/ or verbally directs child to perform skill

2 = Adult provides partial physical assistance to complete skill but child can do some independently

1 = Adult provides 100% physical (hand over hand) assistance to complete skill

0 = Child refuses to perform skill; walks ignores adult; says "No"; tantrums

ND = No data for that session

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Objective	Date																				
Level: Criteria:		4 3 2 1 0 ND																			
Level: Criteria:		4 3 2 1 0 ND																			
Level: Criteria:		4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 1 0 ND	4 3 2 1 0 ND	4 3 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 2 1 0 ND	4 3 1 0 ND	4 3 1 0 ND	4 3 2 1 0 ND	4 3 1 0 ND	4 3 2 1 0 ND	4 3 1 0 ND	4 3 2 1 0 ND
Level: Criteria:		4 3 2 1 0 ND																			
Level: Criteria:		4 3 2 1 0 ND																			

#### Data Collection Form

4 = Child performs skill independently or when given a group direction. No adult intervention is needed.

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0 = Child refuses to perform skill, walks away, ignores adult, says "No", tantrums

ND = No data for that session

LEAP Preschool Project, Univ. of Colorado Denver

#### SOCIAL INTERACTION RATING SHEET

#### Child Name:

DATE																								
Gives Object on Peer Request Never Gives Object on Peer Request	5 4 3 2 1																							
Accepts Object Handed by Peer Never Accepts Object Handed by Peer	5 4 3 2 1	5 4 3 2	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1																			
Visually Attends to Peer During Play Never Attends to Peer During Play	5 4 3 2 1	5 4 3 2	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1																			
Appropriately Accepts Peer Assistance Never Appropriately Accepts Peer Assistance	5 4 3 2 1																							
Follows Simple Peer Directions Never Follows Simple Peer Directions	5 4 3 2 1	5 4 3 2	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1																			

LEAP Preschool Project, Univ. of Colorado Denver



- <u>Behavior Rating Scale</u> BRS (cf., Kohler & Strain, 1992)
  - Direct Behavior Rating (DBR)—Hybrid assessment combining features of systematic direct observations and rating scales
  - Efficient and feasible for teacher use
  - Provides data for decisions
  - Prioritized and defined behaviors measured
  - Requires minimum of 1 appropriate and 1 inappropriate behavior

### **Example: Behavior Rating Scale**

Behavior		01/15											
Screaming	9+ times 7-8 times 5-6 times 3-4 times 0-2 times	5 4 3 2 1											
Hitting	8+ times 6-7 times 4-5 times 2-3 times 0-1 times	5 4 3 2 1											
Expressing Frustration	40%+ 30-40% 20-30% 10-20% 0-10%	5 4 3 2 1											
Transition to Non-preferred	Whimper or squeal Louder than indoor voice Outdoor play voice Louder than outdoor play Ear penetrating	5 4 3 2 1											

Beh avi	Anchors												
or	Volume loud enough to hear it outside	5	5	5	5	5	5	5	5	5	5	5	5
Swearing AM	Louder than outside voice	5	J	4	4	4	4	4	4	4	4	4	4
	Indoor voice Loud whisper, others can hear	4	4	3 2	3 2	3	3 2	3	3 2	3 2	3 2	3 2	3 2
	Softly, other people cannot hear	3	3	1	1	1	1	1	1	1	1	1	1
		2	2										
		1	1										
		5	5	5	5	5	5	5	5	5	5	5	5
ing		Л	1	4 3	4 3	4 3	4 3	4	4 3	4 3	4 3	4 3	4
		-	Т	2	2	2	2	2	2	2	2	2	2
eam		3	3	1	1	1	1	1	1	1	1	1	1
) No.	ey: Definition: Swearir	າള	5 <del>2</del>	-S	ay	s/c	ha	Int	s Z	l le	ette	er	
W	ords loudly, in a song a	n	d	re	ре	etit	ive	ely	, to	)W	ar	d	
teachers/adults													

Beh avi or	Anchors												
Runs	40-50 (really bad day) 30 times (typical bad day) 20 times 15 times 0-10	5 4 3 2 1											
		5 4 3 2 1											

Runs—runs quickly (like a sprint) out of the assigned area into other classrooms and other non-assigned areas (e.g., outside, other areas of the school)



## **Behavior Rating Scale (BRS)**

- Behavior recorded at least once each day
  - Specific time period/routine
  - Whole day
  - Combination of both
- Anchors –scale of 1-5
- Measure options:
  - Frequency
  - Duration
  - Intensity
  - Percentage of opportunities

### Steps in Setting Up Anchors of BRS

- To obtain appropriate metric:
  - What is most important? How often the behavior occurs, how long it lasts, or how intense?
- To set anchors:
  - What is the occurrence of the behavior on a typical day?
    - ★ If problem behavior, set response at "4"
    - ★ If appropriate behavior, set response at "2"
  - What is a reasonable goal?
    - ⋆ Problem behavior—set at "1"
    - ⋆ Appropriate behavior—set at "5"

# **BRS** Psychometrics (Preliminary)

- Cohen Kappa (reliability) coefficients of:
  - Problem Behavior 1 = .84
  - Problem Behavior 2 = .76
  - Appropriate Behavior 1 = .61

N = 98 ratings

## **Other Uses of BRS**

- Systemic data tracking method for Tier 3
  - Campus and district levels
  - Sample system created by:
    - \* Cindy Anderson
    - \* School district in Florida



- Develop grant proposal to validate individual behavior rating scale
- Publish manual for use and non-uses of scale

### References

- Manual
  - Dunlap, G., Iovannone, R., English, C., Kincaid, D., Wilson, K., Christiansen, K., & Strain, P. (2010). Prevent-Teach-Reinforce: A school-based model of individualized positive behavior support. Baltimore:Paul H. Brookes
- Two journal articles
  - Iovannone, R., Greenbaum, P., Wei, W., Kincaid, D., Dunlap, G., & Strain, P. (2009). Randomized controlled trial of a tertiary behavior intervention for students with problem behaviors: Preliminary outcomes. Journal of Emotional and Behavioral Disorders, 17, 213-225.
  - Dunlap, G., Iovannone, R., Wilson, K., Strain, P., & Kincaid, D. (2010). Prevent-Teach-Reinforce: A standardized model of school-based behavioral intervention. Journal of Positive Behavior Interventions, 12, 9-22

## For Handouts

- Two options
  - Wait a few weeks until all presentations are uploaded to APBS website
  - E-mail Rose Iovannone at <u>iovannone@fmhi.usf.edu</u> for presentation