DIRECT BEHAVIOR RATINGS:

Training Strategies to Improve Accuracy

Sayward E. Harrison, M.A./C.A.S.
T. Chris Riley-Tillman, Ph.D.
East Carolina University

Sandra M. Chafouleas, Ph.D.
University of Connecticut

THE CURRENT DILEMMA

- 1) Problem Solving Models (RTI or PBS) essentially mean interventions for everyone in need
- 2) No Child Left Behind and IDEIA mandate defensible outcome data on all interventions
- 3) Traditional models assume spending a great deal of time on individual children
  - Assessment orientation – Hours of assessment and report writing followed but meeting time
  - Traditional Consultation orientation – A number of consultation sessions allowing a consultee to come up with intervention idea

THE CURRENT DILEMMA FOR EDUCATIONAL PROFESSIONALS

- So…
  - More cases
  - Higher levels of accountability
  - And traditional methods assume there is lots of time…

- Solution…
  - Quick logical decisions
  - Evidence based interventions
  - Lots and lot of outcome data to determine effectives

AN EFFICIENT PROBLEM SOLVING PROCESS

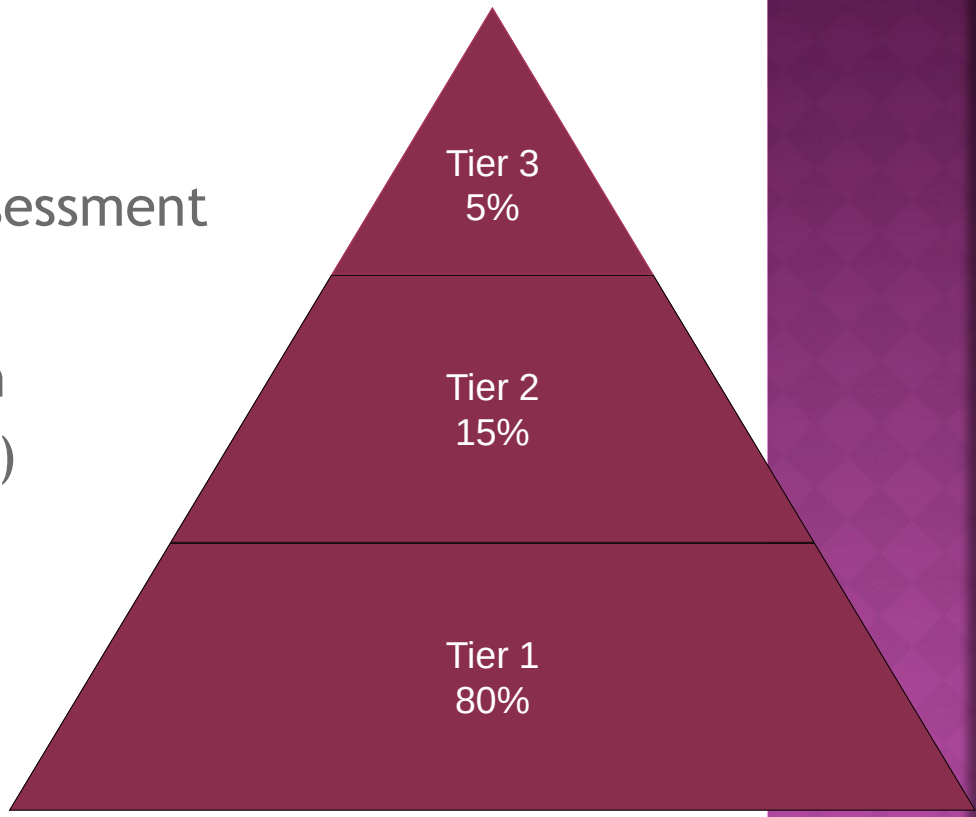
- Thus, it is even more critical for the problem solving process to be highly efficient
- How close are we to an efficient school-wide problem solving model?
  - We have the interventions
  - We have the academic assessment methods
  - We have the intervention methodology

  - But…we are missing a significant piece of the puzzle…

Social Behavior Assessment Methods

THE IDEAL VISION

- Tier 3
  - EB Individual Intervention
  - CBM, SDO and Standardized Assessment
- Tier 2
  - EB Group/Individual Intervention
  - Direct Academic Data (e.g., CBM)
  - **Direct Social Behavior Data**
- Tier 1
  - Evidence Based (EB) Curriculum
  - Extant Data: Academic
  - Extant Data: Social Behavior



SOUND FAMILIAR→ THE CASE FOR CURRICULUM BASED MEASUREMENT

- Difficulty/disagreement on how to assess student academic performance
- Achievement tests may not align with classroom objectives and teachers may not value the information obtained from them
- Informal observation of performance is the approach used and preferred by teachers.
  - BUT the reliability and validity of teachers' informal observation of student academic performance is unknown.

The Abstract from Curriculum-Based Measurement: The Emerging Alternative, Deno, 1985

SOUND FAMILIAR→ THE CASE FOR CURRICULUM BASED MEASUREMENT

- CBM emerged as a tool which combines the advantages of both standardized tests and informal observations
  - CBM generates reliable data that is valid with respect to widely used indicators of achievement such as achievement test scores, age, program placement, and teachers' judgments of competence.
  - These data are now being used to make screening, referral, IEP planning, pupil progress, and program outcome decisions.

The Abstract from Curriculum-Based Measurement: The Emerging Alternative, Deno, 1985

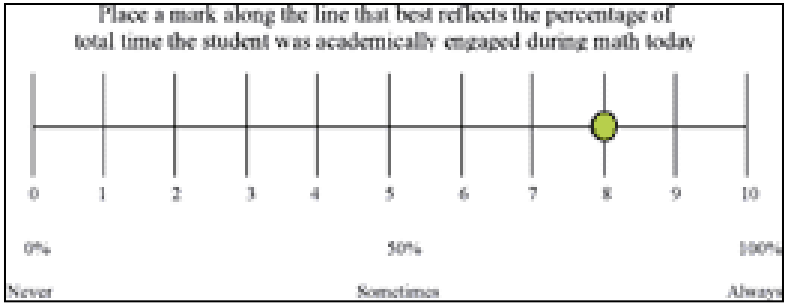
THE MISSING PIECE – SOCIAL BEHAVIOR

- We KNOW we need to assess **social behavior**, but don't agree about how this should be done
- Rating scales are lengthy, often not useful for intervention
- Informal observation of **social behavior** is the approach used and preferred by teachers.
  - Unfortunately, the reliability and validity of teachers' informal observation of **social behavior** is unknown.

Riley-Tillman, Christ and Chafouleas, 2008

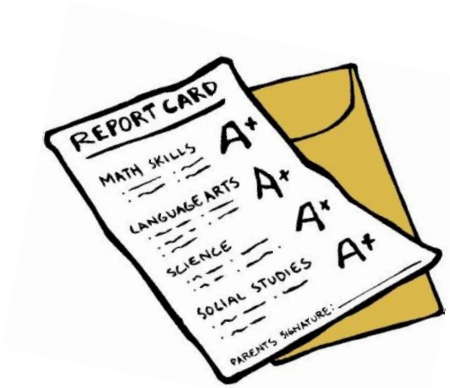
THE NEW EMERGING ALTERNATIVE: DIRECT BEHAVIOR RATINGS

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.



OTHER NAMES FOR THE DBR

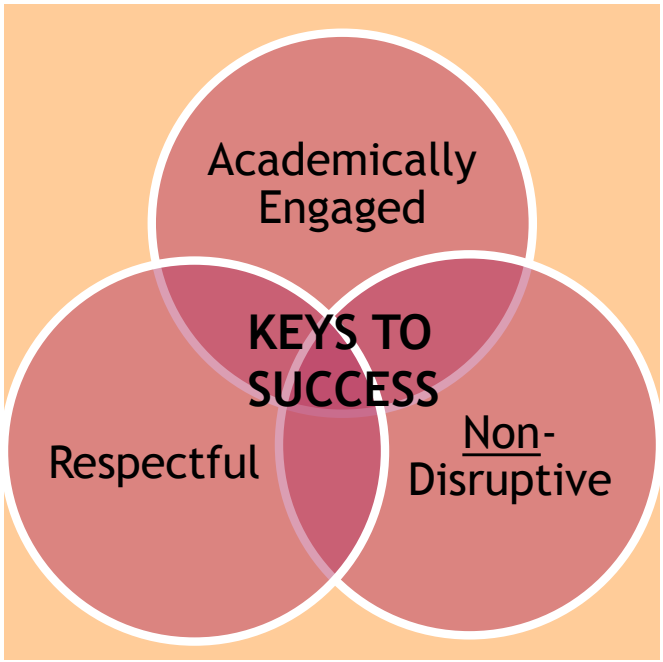
- Home-School Note
- Behavior Report Card
- Daily Progress Report
- Good Behavior Note
- Check-In Check-Out Card
- Performance-based behavioral recording



(Riley-Tillman, Chafouleas, & Briesch, 2007)

WHAT CLASSROOM BEHAVIORS ARE MOST IMPORTANT?

- **Academically Engaged**
- **Respectful**
- **Disruptive**



Chafouleas, Riley-Tillman, Christ, & Sugai (Nov. 2009) – www.directbehaviorratings.com

Standard DBR

DBR Form

Date: M T W Th F	Student: / Rater:	Activity Description:
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 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. (If desired) **Optional Behavior** is	

Directions: Place a slash (/) along the line that best reflects (a) % of total time student was academically engaged and (b) % of total time or total # of times student exhibited disruptive behavior during the observation period. If desired, an additional behavior may be included by providing a definition above and then rating on the "optional behavior" line.

Academically Engaged

% of Total Time

0 1 2 3 4 5 6 7 8 9 10
0% 50% 100%
Never Sometimes Always

Disruptive Behavior

Circle Type of Rating:
% of Total Time
or
# of Times

0 1 2 3 4 5 6 7 8 9 10+
0% 50% 100%
Never Sometimes Always

Optional Behavior

Circle Type of Rating:
% of Total Time
or
# of Times

0 1 2 3 4 5 6 7 8 9 10+
0% 50% 100%
Never Sometimes Always

Directions for Using a Direct Behavior Rating (DBR)

What is a DBR?

- DBR is a tool that involves a brief repeated (e.g., daily) rating of student behavior following a specified period of time (e.g., 45-minutes of math group work).
- DBR offers a way to quickly collect information over time about student behavior in the classroom.
- DBR can complement information about behavior gathered from other tools (e.g. office discipline referrals, direct observation, behavior rating scales).

How to use a DBR.

Step 1: Complete information at the top of form, including specifying the observation period.
Step 2: Review the definitions for academically engaged and disruptive behavior.
Step 3: Decide whether to rate disruptive behavior as % of total time or total # of times.*
Step 4: Determine whether to rate an additional behavior (e.g., sleeping, stereotypy) and if so, write in the definition in the optional behavior section.
Step 5: Immediately following observation period, complete the ratings. Check the "no observation today" box if you were unable to observe the student enough to confidently rate student behavior.

Example 1: Mrs. Smith is rating the ***% of total time*** that Emily was academically engaged during math instruction (10 - 10:44am). In this example, Emily displayed academic engagement 35% of the total observation period.

Academically Engaged

Circle Type of Rating:
% of Total Time
or
# of Times

0 1 2 3 4 5 6 7 8 9 10+
0% 50% 100%
Never Sometimes Always

Example 2: Mr. Green is estimating the ***% of total time*** that Seth displayed disruptive behavior. Here, Seth was disruptive during 40% of the total observation period.

Disruptive Behavior

Circle Type of Rating:
% of Total Time
or
# of Times

0 1 2 3 4 5 6 7 8 9 10
0% 50% 100%
Never Sometimes Always

Example3: Mr. White has decided to rate an additional behavior involving ***total # of times*** John displayed "yells at teacher" during science class (1:12 - 1:50pm). In this example, John displayed this behavior 7 times during the observation period.

Optional Behavior ("Yells at Teacher")

Circle Type of Rating:
% of Total Time
or
# of Times

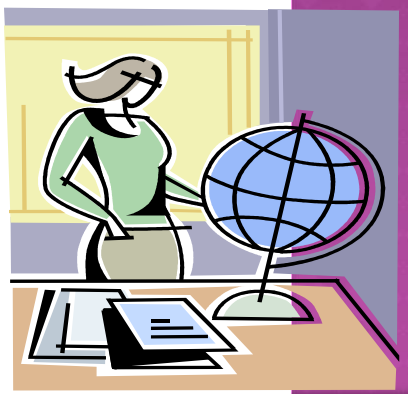
0 1 2 3 4 5 6 7 8 9 10+
0% 50% 100%
Never Sometimes Always

* Use % if disruptive behavior varies in duration or seems continuous in nature (e.g., time out of seat, fidgeting for lengths of time). Use # if disruptive behavior is short, unique events (e.g., hit, throw object, swear).

WHO ALREADY USES THE DBR?

- 60% of teachers surveyed already use DBRs to change student behavior
- 32% to monitor or observe student behavior
- 81% to identify positive behaviors, 77% to identify negative behaviors
- 86% use with individual students, 19% with whole class, 9% with small groups
- 32% use DBRs “routinely” as part of classroom management plan

(Chafouleas, Riley-Tillman, & Sassu, 2006)



MANY POTENTIAL USES FOR THE DBR

- Increase communication (teacher-student, home-school)
- As a component of an intervention package, particularly in self-management
- Provide “quick” assessment of behaviors, especially those not easily captured by other means
- Monitor student behavior over time

THE THORNY ISSUE

- Are DBRs a reliable and valid measure of social behavior?
  - Do they concur with measure like SDO and BRS when appropriate?
  - Are they sensitive to change?
  - What about the details?
    - Behavior
    - Duration of Observation
    - **Training**
    - Scaling
    - And on and on….

PROJECT VIABLE

- A systematic line of empirical research on DBRs continues through an IES-funded Goal 5 grant (Project VIABLE: R324B060014).
- Goals involve development of DBRs for use in progress monitoring through three phases of investigation including
  - 1) foundations of measurement
  - 2) decision making and validity
  - 3) feasibility

TODAY'S DISCUSSION

- Overview of recent training studies
- Discussion of future DBR training directions
- Implications for training teachers at your school

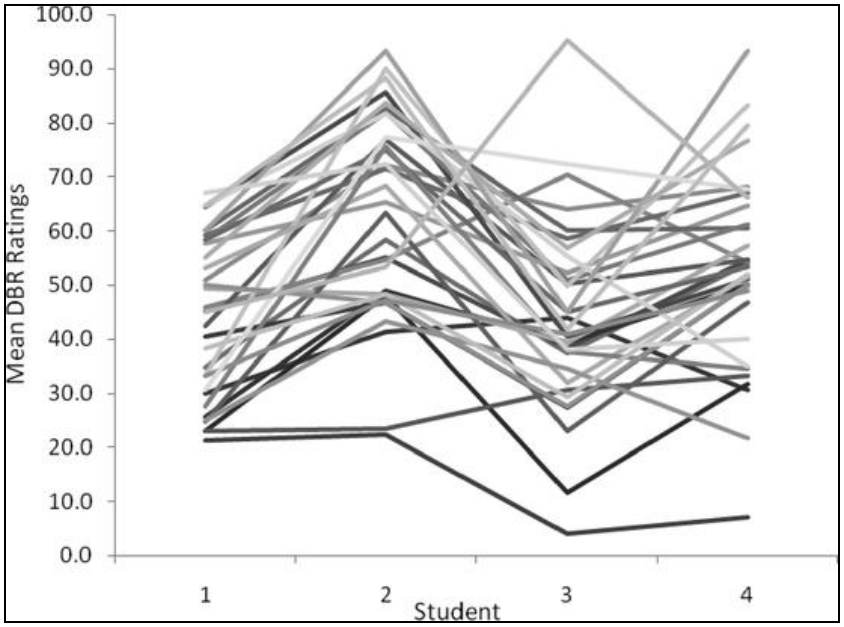
TRAINING ISSUES

- Training I: The Impact of Training on the Accuracy of Direct Behavior Ratings (DBR)
  - Schlientz, M.D., Riley-Tillman, T.C., Briesch, A.M., Walcott, C.M., & Chafouleas, S.M. (2009)

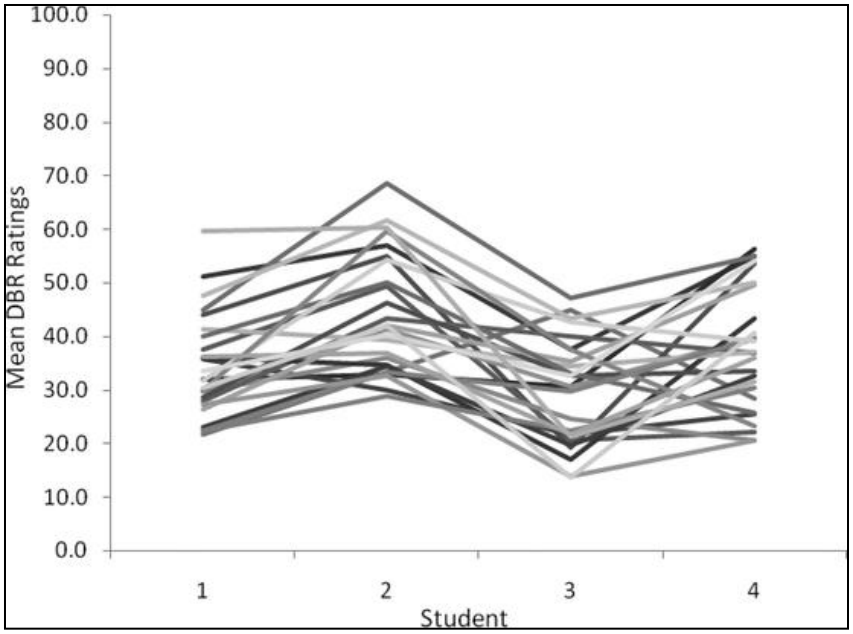
- A training session utilizing practice and feedback resulted in **greater accuracy** compared to a brief familiarization session

TRAINING STUDY 1

Mean DBR ratings for “visually distracted” behavior for 4 students, engaged in a Lego building task designed to elicit frustration.



Briefly Familiarized Participants



Formally Trained Participants

TRAINING STUDY 2

Research Questions:

1. Will training which includes practice with feedback improve systematic accuracy of DBR ratings for academic engagement, disruptive behavior, and compliance?
2. Does rater accuracy vary at low, medium, and high levels of these target behaviors?

TRAINING STUDY 2

Method:

- Participants (*N* = 67) were randomly assigned to either:
  - brief training control group
  - brief training with practice and feedback
  - extensive training with practice and feedback

TRAINING STUDY 2

Method:

Participants then watched video recordings of elementary-aged students engaged in typical classroom activities and rated their behaviors using DBRs.

One-week later participants returned to complete a second round of ratings.

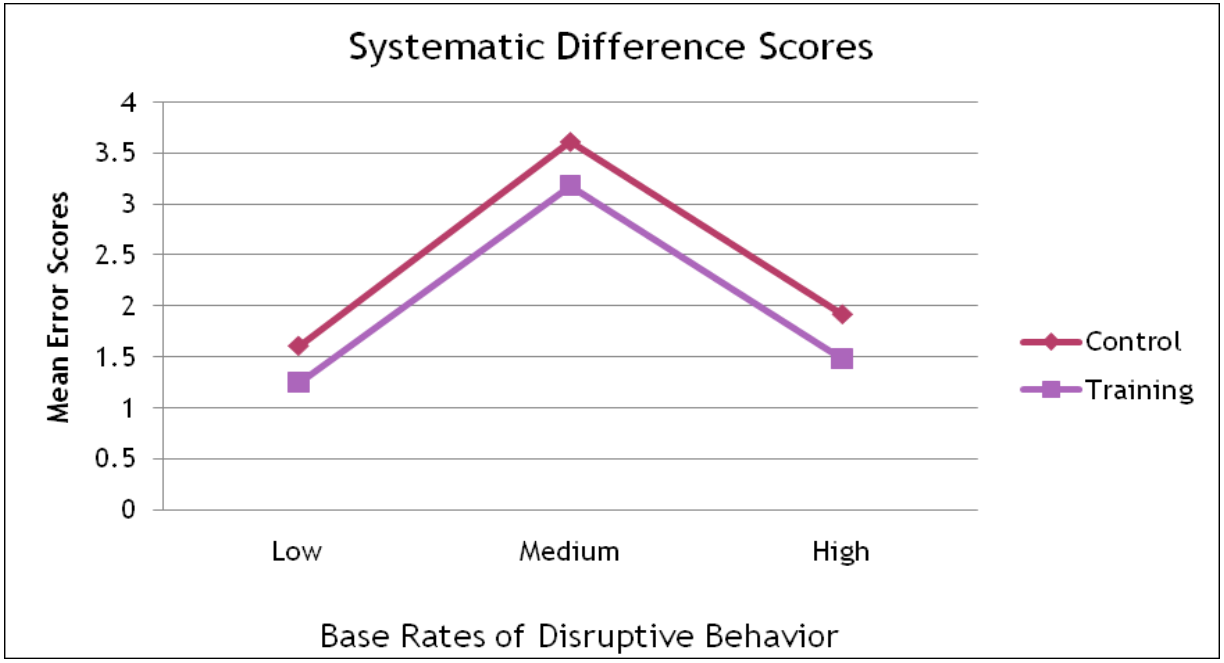
TRAINING STUDY 2

Results:

- No significant differences between first and second week ratings. thus ratings were collapsed.
- No significant differences were found between brief and extensive trainings; thus training conditions were also collapsed.

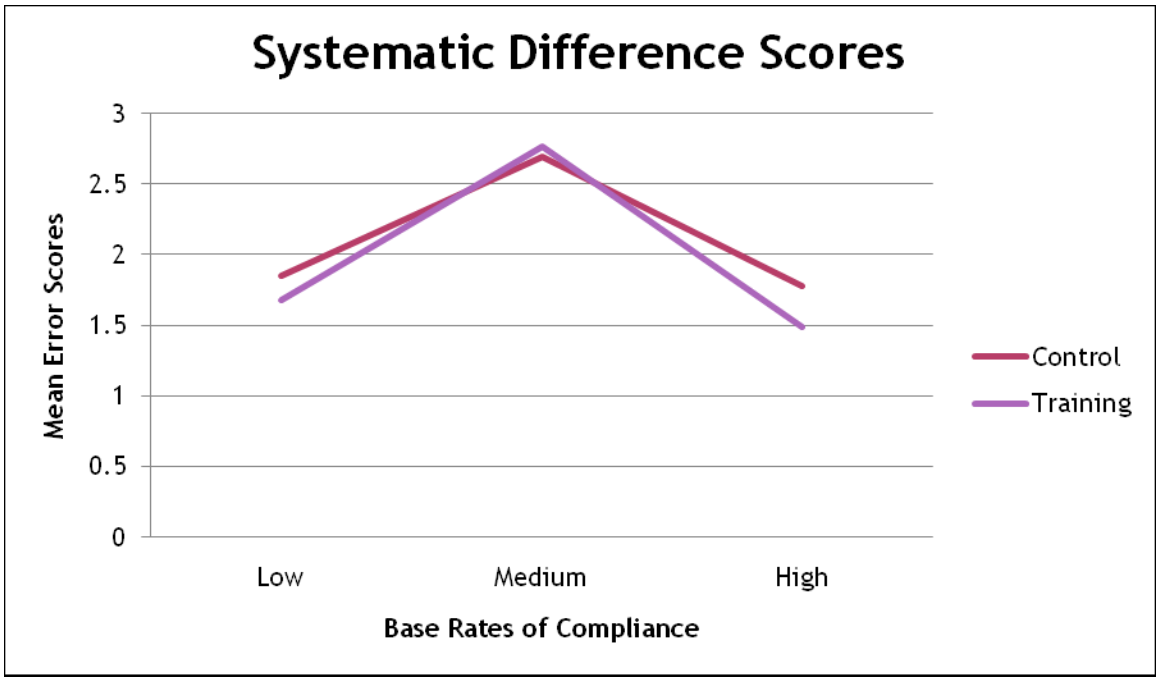
DISRUPTIVE BEHAVIOR

- Training significantly improved participants' ability to accurately rate disruptive behavior.
  - Main effect of condition was significant, $F(1, 2144) = 12.393$, $p < .001$
- Participants rated disruptive behavior most accurately when base rates of behavior were low or high.
  - The main effect of base rate of behavior was also significant, $F(2, 2144) = 154.070$, $p < .001$



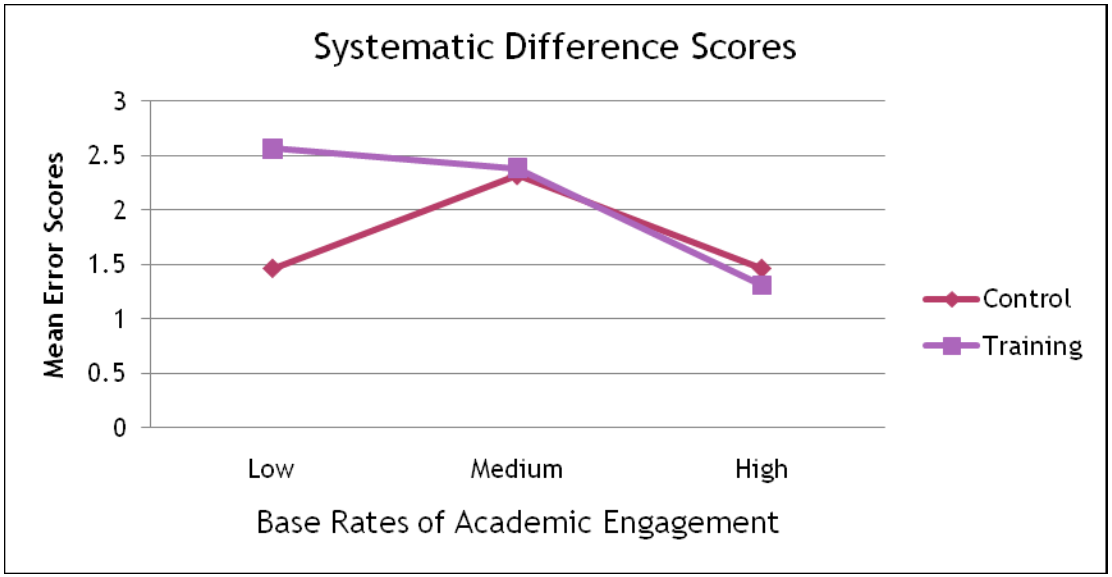
COMPLIANCE

- Training did not improve overall ability to rate compliance
  - Main effect of condition was not significant, $F(1, 2144) = .583$, $p = .445$
- Participants rated compliance most accurately when base rates of behavior were low or high.
  - Main effect of behavioral level was significant, $F(2, 2144) = 21.550$, $p<.001$



ACADEMIC ENGAGEMENT

- Training did not improve overall ability to rate academic engagement.
  - Main effect of condition not significant, $F(1, 2144) = 1.267$, $p = .260$
- Participants rated AE more accurately when base rates were high ($M = 1.35$), as compared to medium ($M = 2.36$) or low ($M = 2.44$).
  - Main effect of base rate of behavior was significant, $F(2, 2144) = 69.252$, $p < .001$



TRAINING STUDY 2 SUMMARY

- Analysis indicated that training which included **practice with feedback** resulted in improved systematic accuracy for rating disruptive behavior.

- Participants rated disruptive behavior and compliance most accurately when base rates of behavior were low or high.

TRAINING STUDY 3

- Research Question
  - The purpose of this study was to examine the impact of adding Frame of Reference (FOR) and Rater Error Training (RET) to standard DBR training involving practice and feedback (STANDARD). In addition, the amount of exposure to practice with feedback was evaluated.

TRAINING STUDY 3

- Methods
  - Participants were 177 undergraduate students recruited from a university in the southeast.
  - Participants were assigned to one of six conditions a priori. Each condition was comprised of one of three *types of training* (Standard, FOR, and FOR+RET) and one of two *levels of exposure* (3 or 6 clips).
  - Pretest-Posttest design was used to estimate the effect of each training conditon

TRAINING STUDY 3

- Results
  - Most groups were not significantly more accurate.
  - BUT… “exposure” mattered for some clips
    - Thus, “Standard Training” should suffice as long as sufficient opportunities for practice and feedback are provided.
- **Taken together, it was recommended that future DBR-related work focus on the development of a standard DBR training package.**

CURRENT DIRECTIONS: DBR TRAINING SITE

SUMMARY: STRATEGIES FOR TRAINING TEACHERS

- Use global behavior descriptions
- Focus on positive academic behaviors (e.g., academic engagement, on-task)
- Practice with feedback may be a helpful strategy for training teachers
- There may be no benefit to lengthy (e.g., >15 min) trainings on how to complete DBRs
- DBR-BASIS

QUESTIONS?

Contact:

Dr. Chris Riley-Tillman – rileytillmant@ecu.edu

Dr. Sandra Chafouleas – sandra.chafouleas@uconn.edu