DIRECT BEHAVIOR RATING (DBR) IN INTERVENTIONS TO TEACH STUDENTS HOW TO SELF-MONITOR AND EARN TEAM-BASED REWARDS

By Rose Jaffery and Sandra M. Chafouleas

Direct Behavior Rating (DBR) is described as offering an efficient, defensible, repeatable, and flexible tool for linking assessment, communication, and intervention purposes. In this handout, we focus on demonstrations of the *flexibility* of DBR in relation to how it can be used in an evidence-based intervention package. Specifically, the intervention package consists of student self-monitoring and an interdependent group contingency reward system. Flexibility of DBR is demonstrated in that the format of the DBR scales used for self-monitoring is varied based on teacher preference.

What are the intervention components discussed in this handout?

- Students evaluate and record their own behavior (*self-monitoring*) and work in teams (*interdependent group contingency)* to gain points for good behavior in order to earn reward*s (incentives).*

Information offered through this handout and associated materials include:

- Procedural information about interventions using DBR, self-monitoring, and interdependent group contingency
- Materials for teaching students how to (a) self-monitor their behavior using DBR forms and (b) use teacher feedback and an interdependent

  group contingency incentive system to earn rewards for good behavior.

Why might this intervention package be useful?

- The self-monitoring component can help students learn self-awareness of their own behavior. In order to increase the likelihood that the students will rate their behavior accurately and engage in appropriate behavior, the students earn points for good behavior and can earn bonus points for being accurate self-raters (e.g., coming within 1 point of a teacher's rating).
- If a team's total points meet or exceed a pre-determined weekly goal, each student receives a reward. When rewards are only offered contingent upon a student's entire team engaging in appropriate behavior, students are often encouraged by their peers to act appropriately. This interdependent-group contingency reward system relies on peer influence to shape student behavior.
- The format of the self-monitoring forms allows for daily data collection in order to monitor student progress efficiently over time.

Potential Benefits of Using Interventions with Self-Monitoring and Group Contingencies:

➢ Provides immediate and consistent feedback about student behavior
➢ Promotes student awareness of behavior
➢ Encourages student to take responsibility
➢ Increases communication between student and adult about student performance
➢ Helps student develop a sense of independence and self competence

<u>*Definitions of key terms:*</u>

- **Direct Behavior Rating (DBR)** – A method of behavioral assessment that involves a brief rating of behavior immediately following a specified observation period (Chafouleas, Riley-Tillman, & Christ, 2009).

  - **DBR-SIS** – A form of DBR using single-item scales, in which only one target behavior is rated per scale. Typically a single broad behavior (e.g., disruptive) is used to represent a class of behaviors in general (e.g., out of seat, talking out, playing with objects; Chafouleas, Riley-Tillman, & Christ, 2009).

  - **DBR-MIS** – A form of DBR using a multi-item scale, in which several target behaviors are rated on the same scale. Typically the rater rates several specific behaviors (e.g., writing, reading, attending to the teacher) within a class of behaviors (e.g., academically engaged). Ratings are summed across behaviors and interpreted as a total score (Chafouleas, Riley-Tillman, & Christ, 2009).

- **Interdependent group contingency** – Each individual's behavior contributes to meeting a pre-specified level of performance for the group, so that the entire group can receive a reinforcer (Litow & Pumroy, 1975; Theodore, Bray, & Kehle, 2004; www.interventioncentral.org).

- **Self-monitoring** – The act of observing and recording one's own behavior (Shapiro & Cole, 1994; www.interventioncentral.org).

- **Treatment integrity** (also known as treatment or implementation fidelity) – The degree to which a treatment or intervention is implemented as planned (Gresham, 1989).

<u>*What are the procedures and materials utilized in each intervention study?*</u>

Although the examples we provide here were specifically directed toward middle school populations, the intervention package and associated materials can be modified for use with other age groups such as high school or upper elementary. The materials also may be adapted to target the behavior of younger students, and may be useful in non-classroom settings (e.g., home, extracurricular activity). Below, we provide a brief overview of each of the studies. In addition, links to materials (DBR forms, student training presentations) are offered.

Intervention Package 1

This package was used with 8th grade students to improve (a) preparedness, (b) academic engagement, and (c) homework completion (Chafouleas, Sanetti, Jaffery, & Fallon, 2010; Sanetti, Chafouleas, Fallon, & Jaffery, 2010). Students gathered their own behavioral data using a Direct Behavior Rating Single-Item Scales (DBR-SIS) format that included a scale to rate each behavior targeted. Each scale had 0-10 gradients to indicate the extent to which the student estimated that he/she was engaged in each target behavior (self-monitoring). In other words, students rated their behavior by making one mark on each of the three scales at the end of the pre-selected class period.

Procedures:

- The Daily DBR Self-Monitoring form was completed by students each day at the end of one class period. Using the DBR-SIS format described above, they estimated on a 0-10 scale the extent to which they met each behavioral goal during the class period.
- Following self-rating, the classroom teacher also checked and corrected the students' ratings if necessary, allowing for immediate feedback.
- Points were tallied across pre-assigned student groups and recorded on the Weekly Team Tally Sheet.
- Rewards were earned at the end of the week based on whether teams had accumulated the total number of points necessary to reach that week's goal (interdependent group contingency).
- Teachers completed a Daily DBR Intervention Implementation Form in order to monitor their own treatment integrity. Researchers completed the Daily Treatment Integrity Checklist to further evaluate treatment integrity, however this can be completed by the teacher or another educator.
- Student data were tracked in order to monitor progress and evaluate effectiveness of the intervention. A DBR-SIS format was selected because the ability to independently interpret data for each behavior was desired. That is, although total points across the 3 behaviors were aggregated in determining whether a reward was earned, it was possible to easily disaggregate and individually graph each outcome in order to evaluate intervention effects on each behavior.

Materials: Download at https://dbr.education.uconn.edu/library/information-for-parents-and-professionals/

- <u>Steps to Intervention Implementation form</u> (intervention procedures)
- <u>Intervention Training Lessons:</u>
  - *Lesson 1* (slides 1d 16) includes information on training students to selfd monitor behavior using a DBR form. In this study, three behaviors deemed as relevant targets by the teachers were selected for monitoring (i.e., class preparedness, academic engagement, and homework completion), however, these can be revised to suit another situation.
  - *Lesson 2* (slides 16d 28) includes information on teaching the students about the rules of an interdependent group contingency game. This intervention strategy involves breaking the students into smaller teams, with teams working together toward reaching a pred set goal (total points earned across the group on the DBR form). If the goal was met, all students in the group were provided with a reward (i.e., leveled tangibles such as a pizza party or gift card).
  - *Lesson 3* (slides 29d 33) includes information about how the goal change will be implemented. After several weeks of implementing the intervention, the team decided that a phase change was in order as the student teams were often achieving the pred determined weekly point goal. In order to challenge the students to further improve their behavior, a phase change (modification to goal) was implemented which required the teams to achieve a higher weekly goal in order to receive a reward.
- <u>Daily DBR Self-Monitoring Form</u> (student completes and teacher provides corrective feedback to promote selfd awareness and to monitor progress)
- <u>Daily DBR Intervention Implementation Form</u> (teacher completes to track treatment integrity)
- <u>Daily Treatment Integrity Checklist</u> (teacher or other educator completes by reviewing selfd monitoring and team tally sheets to track treatment integrity tied to specific steps of the intervention)
- <u>Weekly Team Tally Sheet</u> (student completes)

Intervention Package 2

This is a variation of the previous intervention package involving self-monitoring and interdependent group contingency that was used with a different set of 8th grade students to improve their (a) preparedness, (b) engagement, and (c) respect (Sanetti, Fallon, & Collier Meek, 2010). A Direct Behavior Rating Multi-Item Scale (DBR-MIS) format was selected. In this option, a dichotomous scale (yes/no) was used to rate behavior, and the points (Yes = 1, No = 0) are aggregated across targets and interpreted as a total score.

Procedures:
- In this example, the self-monitoring form consisted of a DBR format in which Yes's and No's were tallied by the students daily. That is, instead of a 0-10 point scale, the DBR scale format involved dichotomous rating (0, 1), with summed points interpreted across all behaviors rather than allowing for interpretation of single scales.
- As in the previous package, the teachers checked and corrected the students' ratings if necessary, allowing for immediate feedback for the student as well as a continuous stream of data for progress monitoring purposes.

Materials: can be downloaded at https://dbr.education.uconn.edu/library/information-for-parents-and-professionals/

Where can I get more information?

Direct Behavior Rating:
Chafouleas, S.M., Riley-Tillman, T.C., & Christ, T.J. (2009). Direct Behavior Rating (DBR): An emerging method for assessing social behavior within a tiered intervention system. *Assessment for Effective Intervention, 34,* 201-213.
Christ, T.J., Riley-Tillman, T.C., & Chafouleas, S.M. (2009). Foundation for the development and use of Direct Behavior Rating (DBR) to assess and evaluate student behavior. *Assessment for Effective Intervention, 34,* 201-213.

Interdependent Group Contingency:
Litow, L., & Pumroy, D. K. (1975). A brief review of classroom group-oriented contingencies. *Journal of Applied Behavior Analysis, 8,* 341-347.
Theodore, L.A., Bray, M.A., & Kehle, T.J. (2004). A comparative study of group contingencies and randomized reinforcers to reduce disruptive classroom behavior. *School Psychology Quarterly, 19*, 253-271. www.interventioncentral.org/index.php/classroom-mangement/131-good-behavior-game

Intervention Package 1:
Chafouleas, S. M., Sanetti, L.M. H., Jaffery, R., & Fallon, L. (2010). *Incorporating Direct Behavior Rating in an intervention package involving self-monitoring and group contingency to improve classroom behavior of middle school students.* Manuscript in preparation.
Sanetti, L.M.H., Chafouleas, S.M., Fallon, L.M. & Jaffery, R. (2010). *Increasing teachers' treatment integrity when implementing a class-wide intervention through performance feedback provided by a school-based consultant: A case study.* Manuscript submitted for publication.

Intervention Package 2:
Sanetti, L. M. H., Fallon, L. M., & Collier Meek, M. A. (2010). *Building capacity: Treatment integrity assessment and intervention by school-based consultants.* Manuscript in preparation.

Self-Monitoring:
Shapiro, E.S., & Cole, C.L. (1994). *Behavior change in the classroom: Self-management interventions.* New York: Guilford Press.
www.interventioncentral.org/index.php/classroom-mangement/129-respectful-classroom

Treatment Integrity:
Gresham, F. M. (1989). Assessment of treatment integrity in school consultation and prereferral intervention. *School Psychology Review*, *18*, 37–50.