

Evidence Based Intervention Network Manual

The EBI Network has been developed to provide guidance in the selection and implementation of evidence-based interventions in the classroom setting.

In this section a collection of evidence-based intervention have been collected and sorted into categories to help you select the right EBI for the job. Short intervention briefs, online modeling videos and overviews of the evidence base for the interventions are presented for each EBI. To start using this section please go to the “How to Select an EBI” page.

If you have any questions about this section please contact Dr. Chris Riley-Tillman at rileytillmant@missouri.edu or Dr. Rebecca Martinez at rsm@indiana.edu.

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What are Evidence Based Intervention?

Evidence-based interventions (EBI) are treatments that have been proven effective (to some degree) through outcome evaluations. As such, EBI are treatments that are likely to be effective in changing target behavior if implemented with integrity. The EBI movement has an extensive history across Medicine, Clinical and Counseling Psychology. In the 1990's the EBI movement was extended to Education/ School Psychology. While there has been a great deal of intervention research and general discussion, the development of an agreed upon "list" of EBI has not occurred.

Before such a list would be useful, there are several critical features of EBI that must be understood to result in effective use. We refer to those features as the "EBI Fine Print".

- EBI Fine Print I – EBI are validated for a specific purpose with a specific population. As such, EBIs are only useful for a range of problems and as such, must be paired up with the right situation. If you match an EBI with a problem it is not designed to address, there is no reason to think that it will work. A hammer is an effective tool, but not with a screw.
- EBI Fine Print II- EBI assumes that the treatment is used in the manner that it was researched. As such, changing parts of an intervention, while typical, can invalidate the EBI. There are many ways to change an intervention (frequency, materials, target, and on and on), which can alter the effectiveness of the EBI.
- EBI Fine Print III- EBI are typically validated with large group research, or a series of small group studies. While large group research is ideally suited for the documentation of interventions, which typically have a strong effect with a specific problem, it is common that within that large group there are cases where the intervention was not effective. In other words, large group research documents interventions as likely effective, not surely effective for a specific case. It is critical to remember that even the most effective interventions are often ineffective with a specific case. For an individual case, the true documentation of "evidence based" is produced only after the intervention is implemented and outcome data is produced which documents a change in the target behavior in the desired manner.

The general implication of the EBI Fine Print is that a list of EBIs is just a nice place to start. There are several additional steps that are critical for the correct use of EBI in applied settings. These steps will be discussed below.

Methods of Identifying Interventions Which are "Evidence Based".

There are a number of methods for establishing when an intervention can be deemed "evidence based". For example, several groups use a meta-analytic approach with the goal of assigning an effect size to certain interventions. This approach has some substantial advantages including providing a clear mathematical "rating" so that a number of competing educational program can be considered. The **What Works Clearinghouse** is arguably the best example of such a site. This method is most appropriate for comprehensive academic or social behavior programs. Such programs can

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be applied across large populations and their general effectiveness can be measured. As such, this should be the first level of validation considered by groups looking to adopt schoolwide, or large scale intervention programs (e.g. an academic or schoolwide social behavior curriculum). While understanding the importance of this approach, there are some critical weaknesses that require that other concepts of defining “evidence based” are considered. Specifically, intervention packages require that teachers, schools and often districts select and invest in the programs that are often quite expensive (cost of intervention package, cost of training, etc.). In addition, most intervention programs are not small endeavors, but rather large commitments for the teachers and often school administrations. While it is critical that all practices are evidence based, there are only so many comprehensive reading or social behavior programs that a teacher can do. Finally, such programs are typically validated over large groups. Effect sizes report the “typical effect” of an intervention across the participants. Using this model, it is understood that a “strong” effect demonstrated across 10,000 children, was not universally “strong” for all 10,000 children. In all likelihood, the intervention was in fact ineffective for some children, but there were other cases where there was a very strong impact that balanced out the cases with a weak or no effect. In the end, validation at the group level only means that an intervention is more likely to be effective, not that it will be effective with all children.

Recognizing that the intervention program validation method has inherent limitations, another protocol is necessary to offer educational professionals a complete array of EBI. Specifically, at the level of an individual child, or a small group of children, it is critical to shift the focus of validation from a content area (e.g. reading, mathematics or social behavior) and focus on the function of the problem behavior or academic difficulty. The EBI Network protocol was designed to examine the literature base for simple interventions that can be done in most classes with little resource commitment. These are interventions that a teacher or an intervention team can select and tryout with a target student or group of students demonstrating a common problem. **It is critical to understand that intervention selection is only the first step using this model, and that all selected interventions will be implemented with fidelity, target outcomes will be measured, and the effectiveness of the interventions will be determined by the outcome data rather than some a priori decision.** Using this model, the EBI Network protocol has the following steps.

1. Examine scholarly publications (research journals) for interventions that have one or more experimental studies reporting some level of effectiveness. Priority is given to interventions with a series of experimental studies documenting some level of effectiveness (e.g. Cover, Copy, Compare) or those based on a strongly supported theoretical orientation (e.g. positive reinforcement).
2. Sort selected interventions into categories based on what common academic or behavior problem they address. Please see the EBI Network Common Problem Framework page for an explanation of the framework used to sort interventions.

3. Develop simple protocols that teachers or other educational professionals can use to try out the intervention. These protocols all include the following elements:
 - Intervention Name
 - Brief Description
 - Overview of the common problem” the intervention is designed to address
 - Overview of the intervention procedures
 - Overview of the critical components of the intervention. These are intervention procedures that are considered essential for fidelity purposes.
 - Overview of the assumptions of the intervention. This section often includes limitations.
 - Materials needed
 - Citations
4. Develop YouTube videos modeling the interventions.
5. Develop Evidence Briefs for the interventions.

These briefs are then presented in two tables (academic and behavior interventions), which organize them based on the common problem the intervention is designed to address. It is critical to again note that this method of intervention validation assumes that users understand selection of an intervention is only the first step in a defensible problem solving process. It is essential that all selected interventions are implemented with fidelity, target outcomes be measured, and the effectiveness of the interventions be determined by the outcome data. **The true documentation that an intervention is “evidence based” for a specific case occurs only when there is outcome data indicating a change in the target behavior.**

What are the “Common Reasons” for School Problems

The Current Dilemma

Consider the current issues facing all educational professionals. First, school-wide Problem Solving Models (e.g. response to intervention (RTI) or positive behavior supports (PBS)) essentially require interventions for everyone in need. Second, educational policy (e.g. No Child Left Behind and IDEIA) mandate higher levels of accountability than have been typically demanded, resulting in the need for defensible formative outcome data to measure the effectiveness of interventions. Finally, traditional models require a great deal of time to develop recommendations about a child’s needs. For example, a comprehensive assessment orientation requires hours of assessment and report writing followed by long meetings to develop intervention plans. In addition, we have learned that regardless of the amount of upfront assessment, any interventions recommended will only be ones that are “likely to be effective”, and unfortunately not sure things. Intervention effectiveness is only known after implementation and formative assessment. A traditional consultation orientation is designed to find an effective intervention, but is unfortunately quite time consuming as it typically requires a number of consultation sessions to guide the intervention process. The combination of these factors is a concerning mix of more cases, more accountability, and a lack of models that are built to handle a massive intervention caseload.

The Solution: “Efficiency”

The logical solution to this dilemma is “efficiency”. It is critical that we select and design interventions at Tiers 1, 2 and even 3 (in a PSM/RTI model) very quickly so that most of the time allocated is devoted to actual intervention implementation. Second, we need to collect outcome data in a highly feasible manner. Finally, it is critical to have a consistent manner of data analysis that is quick and easy for most educational professionals. Considering the needed efficiently, it is only defensible to select intervention based on the “The Reasonable Hypothesis”. In most cases, the efficient and likely effective pathway is to test the most likely hypothesis explaining the academic or behavioral problem first, and then proceed to less likely and more complex explanations. This orientation is an application of Ockham’s razor – given two competing theories (or hypotheses for the problem behavior) the simplest explanation is to be preferred. If that approach fails to improve student performance, then something progressively more time-intensive can be attempted until the probable cause of failure is identified. To go about this path, we must consider functional explanations rather than look “within” the child.

Relating academic performance/student behavior to aspects of classroom instruction that both precede and follow student performance represents a functional approach to understanding academic or behavior problems. Functional explanations appeal to factors external to the child that have been shown experimentally to affect academic and social behavior performance, such as time for learning, feedback from the teacher, and reinforcement for correct responding. Because these factors are external to the child and subject to direct manipulation, functional explanations have the added advantage of

identifying simple, practical targets for intervention programming.

The 5 Common Reasons for Academic Problems

We have decided to use the model of five common reasons why students fail academically proposed by Daly and Martens (1997). This model provides a simple and quite comprehensive approach to quickly selecting functional explanations. Those interested in an in depth explanation of this framework are directed to read the original article (A model for conducting a functional analysis of academic performance problems. *School Psychology Review*, 26(4), 554-575). Specifically, the five common reasons are;

- The academic activity is too hard (Academic Acquisition Interventions).
- They have not had enough help to do it (Academic Proficiency (Accuracy) Interventions).
- They have not spent enough time doing it (Academic Proficiency (Speed) Interventions).
- The student has demonstrated the skill before, but are having difficulty applying the skill in a new manner (Academic Generalization Interventions).
- They do not want to do it (Behavioral Fluency Interventions).

The 3 Common Reasons for Behavior Problems

In relation to behavior problems, we have decided to mirror the above approach. Specifically, children acquire, become fluent, and then generalize appropriate social behaviors. Behavioral acquisition interventions are the parallel to the first in the academic framework. Behavioral Fluency intervention are the parallel to the second and third in the academic framework. Finally, generalization programming is the parallel to fourth in the academic framework. We have also added a category for classwide strategies to support appropriate behavior. Specifically, the three common reasons are;

- Classwide Interventions
- Student has not learned the behavior (Behavioral Acquisition Interventions).
- The contingencies in the environment do not support the desired child behavior (Behavioral Proficiency Interventions).
- The student has not had to do the behavior that way before (Behavioral Generalization Interventions).

Using the Framework

Using this model, a teacher or problem solving team is asked to consider what they think the most likely reasons are for the academic or behavior problems. Once selected, these hypothesized reasons are then used to select interventions. If there are more than one likely reasons selected, they should be rank ordered (from most to least likely). It is important to note that the accuracy of these reasons will only be known after interventions are implemented and outcome data is selected. While it is important for the teacher/problem solving team to be logical in the problem reasons selection stage, it is not important for the team to perseverant in order to make the perfect decision. Again, it is only after the intervention is implemented that the accuracy of the original decision

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will be known. Considering how this framework is to be utilized, it should be very clear that intervention implementation with fidelity, collection of defensible outcome data, and accurate analysis and decision making necessary components. This framework has not been developed to aid in the selection of an intervention, and then simply hoping that it will work.

History of the Evidence Based Intervention Network

The EBI Network began in 2007 with the East Carolina University Evidence Based Intervention Project. The primary initial goal of this project is to provide guidance in the selection and implementation of evidence-based interventions in the classroom setting. The ECU EBI Project was a collaborative endeavor of graduate students at East Carolina University in the School Psychology MA/CAS and Pediatric School Psychology PhD programs under the direction of Dr. Chris Riley-Tillman.

In 2009, Dr. Rebecca Martinez and students in the Indiana University School Psychology program joined the project with the specific goal of creating YouTube videos for interventions as well as adding to the other resources on the site. At that time the project was renamed the Evidence Based Interventions Network to fully represent the collaborative nature of the site.

In 2011 the site was formally moved to the University of Missouri when Dr. Riley-Tillman joined that faculty. At that time Dr. Erica Lembke and Dr. Melissa Stormont joined the project with the goal of adding a broader range of resources to teachers, problem solving teams and other educational professionals working with children in need.

How to Select an EBI

To use the site to select an EBI please think of a student in need and ask two questions. First, is this primarily an academic problem, a behavior problem or both? Second, what is the most likely reason that the child is having this problem?

Academic common reasons for problems

- The task is too hard for the student.
- They have not had enough help doing the task.
- The student has not spent enough time doing the academic activity.
- The student has not done the academic task that way before.
- The student does not want to do the academic task.

Behavioral common reasons for problems

- It is a small group or classwide problem.
- The student needs help learning the appropriate behavior.
- The student is able to avoid (e.g. academic or social task) something when they engage in the behavior.
- The student is able to gain something (e.g. attention) when they engage in the problem behavior.
- The student needs help doing the behavior in a new setting, time or manner

With those two basic questions it is possible to find evidence based interventions developed for that specific problem. After you select an intervention to try out there are some key next steps.

1. Select a time to do the intervention. Logically this should be when the child displayed the problem behavior.
2. Implement the intervention in that time period.
3. Continue to collect data for the intervention time period.
4. Compare the data collected in the intervention phase to previously collected outcomes to see if the child responds to the intervention techniques. The best manner to do this is to graph out the data.

Common Reason for Academic Failure: It is too hard
*Intervention Name: **Instructional Match***

Brief Description:

The purpose of this intervention is to improve instruction through the accurate assessment of the student's current instructional level and selection of appropriately matched curriculum and materials to the student's current level and ability. A student's prior knowledge, the difficulty of the learning task, and the pace of instruction differ, and therefore instruction must be tailored to the individual student to generate an instructional match.

What "common problems" does this address?

A mismatch between student skill and level of difficulty of academic tasks can create significant problems for the student. Through the use of instructional-based assessment, teachers can move toward enhanced instruction and student learning. The extent of the match between student ability and difficulty of instructional materials affects student productivity/performance and attention. Through adaptation of instruction, students can make significant academic progress and will be most successful when taught at their instructional level.

Procedures:

1. Gather more information about the students' abilities to clarify the problem, which will help with goal setting to increase student success.
2. Analyze the demands and learning conditions of classroom tasks and determine if the difficulty level and grade-level materials are appropriate for the student. Consider how the student relates to and approaches the learning materials/tasks.
3. To assess the degree to which there is an appropriate instructional match, you must first identify the student's current level of skill development using the appropriate curriculum-based measurement (CBM) or curriculum-based assessment (CBA) for the skill area. CBA are better for information on teaching or instructional planning (deciding what curricular level best meets a student's needs). CBA is used to identify what a student has and has not mastered. Using this information, it will be possible to match instruction to the student's current level of skills. Give the student a variety of probes with varying difficulties to define various skills that students should master, and identify a balance between instruction that is too difficult and instruction that is too easy for the student (i.e., the student's instructional level).
4. Match tasks to current student ability by matching the materials to the student's instructional, not frustrational or mastery, level.
5. Assign tasks that are relevant to educational goals, and use the instructional hierarchy (i.e., acquisition, fluency, generalization, adaptation) to link current stage of skill development with appropriate teaching techniques.
6. Ensure high student academic success by choosing a specific evidence-based intervention to implement with the student in the classroom.

7. Conduct progress monitoring to document student academic performance, and analyze the performance data at regular intervals, approximately once a week.
8. Based on the student's response to instruction, the intervention may be changed or modified as needed.

Critical components that must be implemented for intervention to be successful:

This intervention requires that you accurately assess the student's current level of ability and implement a curriculum and teaching materials that are on the student's instructional level. The educational demands/difficulty of the task and the student's skills must match to ensure high student success rates. Interventions should be delivered in any setting where the teacher is differentiating instruction.

Critical assumptions/problem-solving questions to be asked:

Ensure that the curriculum-based probes are appropriate for the area of concern and that the student's abilities and instructional level is correctly assessed. Make sure to address any environmental factors that have an impact on the student's learning.

Materials:

- Array of appropriate CBM/CBA probes for the area of concern
- A variety of instructional materials with varying levels of difficulty
- Progress monitoring charts

References:

- Algozzine, B. & Ysseldyke, J.E., & Elliott, J.E. (1997). *Strategies and tactics for effective instruction*. Longmont, CO: Sopris West.
- Daly, E. J., III, Witt, J. C., Martens, B. K., & Dool, E. J. (1997). A model for conducting a functional analysis of academic performance problems. *School Psychology Review, 26*, 554-574.
- Braden, J. P. (2003). Psychological assessment in school settings. In I. B. Weiner (Series Ed.) & W. C. Borman, D. R., Ilgen, & R. J. Klimoski (Vol. Eds.), *Handbook of Psychology: Vol. 12*. Hoboken, NJ: John Wiley and Sons.
- Burns, M. K. (2007). Reading at the Instructional Level With Children Identified as Learning Disabled: Potential Implications for Response-to-Intervention. *School Psychology Quarterly, 22*, 297-313.
- Burns, M. K., VanDerHeyden, A. M., & Jiban, C. L. (2006). Assessing the Instructional Level or Mathematics: A Comparison of Methods. *School Psychology Review, 35*, 401-418.

Instructional Match Intervention Brief Student Lead Developer – Amanda Bostian

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Use of CBM/CBA for Identifying Appropriate Instructional Match

There are three levels of instructional match using CBM/CBA: the *frustrational level* (i.e., tasks are too difficult and student becomes frustrated, student is disengaged from task, and is lacking understanding to obtain and maintain the skill set); *instructional level* (i.e., student is engaged in tasks, the demands of the task balance task difficulty, and still requires some guidance or task may become frustrating) and *mastery level* (i.e., tasks are very easy for the student to complete independently, student is fluent in skill and makes little/no mistakes, and the skill comes "natural" to them). For example, a reading passage in which the child correctly reads 92% or fewer words is considered to be reading at the frustrational level for that reading level; a fourth-grade student completing math worksheets at a rate of 19 or less correct digits per minute is considered to be in the frustrational level.

Academic Skill

- Reading
 - Proportion of known words in a passage
 - Independent Level:
 - 0-92% (frustrational level)
 - **93-96% (instructional level)**
 - 97-100% (mastery level)
 - Supported Level:
 - 0-69% (frustrational level)
 - **70-85% (instructional level)**
 - 86-100% (mastery level)
 - Rate of oral reading (1st and 2nd grade)
 - Independent Level:
 - 0-39 words/min or more than 4 errors/min (frustrational level)
 - **40-60 words/min and 4 or fewer errors/min (instructional level)**
 - More than 60 words/min and 4 or fewer errors/min (mastery level)
 - Rate of oral reading (3rd-6th grade)
 - Independent Level:
 - 0-69 words/min or more than 6 errors/min (frustrational level)
 - **70-100 words/min and 6 or fewer errors/min (instructional level)**
 - More than 100 words/min and 6 or fewer errors/min (mastery level)
- Mathematics
 - Proportion of correct math problems
 - Supported Level:
 - 0-74% (frustrational level)
 - **75-90% (instructional level)**
 - 91-100% (mastery level)
 - Digits correct/minute (1st-3rd grade)
 - Supported Level:
 - 0-9 (frustrational level)
 - **10-19 (instructional level)**
 - 20+ (mastery level)
 - Digits correct/minute (4th and up)
 - Independent:
 - 0-19 (frustrational level)
 - **20-39 (instructional level)**
 - 40+ (mastery level)

Note: Adapted from Braden, J. P. (2003). Psychological assessment in school settings. In I. B. Weiner (Series Ed.) & W. C. Borman, D. R., Ilgen, & R. J. Klimoski (Vol. Eds.), *Handbook of Psychology: Vol. 12*. Hoboken, NJ: John Wiley and Sons.

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Common Reason for Academic Failure: It is too hard
*Intervention Name: **Cross-Age Peer Tutoring***

Brief Description:

This is a cross-age peer tutoring intervention that works by pairing students from different grades and ability levels to work on an academic skill together. The older/higher ability student will be the tutor; and the younger/lower ability student will be the tutee. The students work together to practice a skill. This is beneficial for both the tutors and the tutees.

What “common problems” does this address?

This intervention allows a child who is struggling with an academic task to get more practice with a skill that matches his ability. Additionally, the tutees also benefit and improve their academic skill levels. This works well for children of differing abilities because it allows children to learn at their own pace. It also allows children to be able to become experts at prerequisite skills before introducing new concepts that are too difficult.

Procedures:

1. Select two classes in different grades to work together (ex. 2nd and 4th grade classes).
2. Pair students together, one from each class.
3. Identify academic skills/areas that need improvement for each pair.
4. Provide activity, assignment for students to work on.
5. Each pair of students may need to have different assignments to be working on.
6. More advanced students will act as the tutor and the less advanced student will act as the tutee.
7. Teachers can walk around the room to answer any questions and provide further feedback and assistance to students.

Critical Components that must be implemented for intervention to be successful:

There must be a more experienced student and a less experienced student at the particular skill. Students must be paired appropriately. Level of activity must be matched to student’s ability.

Critical Assumptions/ Problem-Solving Questions to be Asked:

- This is a Tier 1/ Tier 2 intervention.
- Students with similar abilities need to be paired.
- Students who are acting as tutors must have materials that they can read/understand.
- This intervention can be adapted for any subject, including reading, math, science, history.

Materials:

- Coursework or assignments (i.e. books)

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References:

There is a large body of evidence on the use of reinforcement to motivate students' academic progress. This type of intervention is universal and should generalize to many situations.

Wright, J. & Cleary, K.S. (2006). Kids in the tutor seat: Building schools' capacity to help struggling readers through a cross-age peer tutoring program. *Psychology in the Schools, 43(1), 99-107.*

Cross-Age Peer Tutoring Intervention Brief Student Lead Developer – Leigh McCulloch

Common Reason for Academic Failure: It is too hard
*Intervention Name: **Guided Reading***

Brief Description:

Guided reading works by having students placed in small groups. Before reading the story, the teacher will provide the students with background information that will help them understand the story. The students then read the story out loud softly. The teacher is able to provide feedback to the students as they read the stories. Following completion of the reading, the teacher asks questions to the students to ensure their comprehension.

What “common problems” does this address?

This is a Tier 1/Tier 2 intervention which allows students in a class that are reading on different levels to learn and read at the level which matches their skill. This intervention is trying to maximize student understanding which also increases the likelihood of success.

Procedures:

1. Split students up into small groups (4-6)
2. Assign appropriate level book to each group.
3. Provide a copy of the book to each student in the group.
4. Before reading, the teacher provides information to the students about difficult vocabulary words, themes, and background knowledge of the story that might help the students understand the story.
5. The students read the story softly in their small group.
6. The teacher listens and helps correct any errors and answer any student questions.
7. After completion of the story, the teacher will ask clarifying questions about the content of the story.

Critical components that must be implemented for intervention to be successful:

Appropriate level book must be assigned to each group. Each student in the group must have their own copy of the book. The teacher should pre-teach any difficult information.

Critical Assumptions/ Problem-Solving Questions to be Asked:

The given text must match each child’s reading skill level. Each group should have a specific text reflective of their current reading level in order to group students according to their reading skills. The lower the reading functioning of the students, the less likely that a group dynamic will work. In these situations, try to make the group smaller. When working with students who have behavior problems, group work may be troublesome. In these situations, very small groups will work best. It is possible to implement this intervention in a one-on-one, student–teacher format.

Materials:

- Multiple copies of books.
- Books at a variety of reading levels.

References:

There is a large body of evidence on the use of reinforcement to motivate students' academic progress. This type of intervention is universal and should generalize to many situations.

Laquinta, A. (2006). Guided reading: A research-based response to the challenges of early reading instruction. *Early Childhood Education Journal*, 33(6), 413-418.

Common Reason for Academic Failure: They have not had enough help
Intervention Name: **Cover, Copy, and Compare**

Brief Description:

Students have access to the answers to many academic tasks and use this to compare the accuracy of their work. Students view the answers to problems, cover the answers, and attempt the problem.

What “common problems” does this address?

Cover, Copy, and Compare aids students in self-checking the accuracy of their work immediately upon completion of the task. This intervention may also overlap with acquisition of skills.

Procedures:

1. Provide students with a piece of paper divided into two-three sections (depending on task and developmental level)
 - a. First Section: The target word or problem and answer
 - b. Second Section: Empty space
2. Students first examine the word or problem and answer on the left side
3. The first section is then covered
4. Student copies the word or problem with answer in the second section
5. Student then uncovers the first section and compares their work for accuracy

Critical Components that must be implemented for intervention to be successful:

First section includes the target word/problem as well as the answer/definition. Second section includes an empty space for student to work in. First section is covered when student is copying the correct answer.

Critical Assumptions/Problem-Solving Questions to be Asked:

It is assumed that the intervention is used in the regular education classroom and that the student has only a basic level of acquisition of the target skill. Because they have achieved only basic acquisition of the skill, it is assumed that the student lacks consistent accuracy and fluency. After implementing CCC, if student continues to struggle with accuracy, return to direct instruction of the target skill.

Materials:

- Paper or Target Skill Worksheet
- Pencil
- Index or other paper to cover the first section

References

Cover, Copy, and Compare has an extensive research base including the following studies.

Conley, C.M., Derby, K.M., Roberts-Gwinn, M., Weber, K.P., & McLaughlin, T.F. (2004). An analysis of initial acquisition and maintenance of sight words following picture matching and copy, cover, and compare teaching methods. *Journal of Applied Behavior Analysis, 37*, 339-350.

Skinner, C.H., McLaughlin, T.F., & Logan, P. (1997). Cover, Copy, and Compare: A self managed academic intervention effective across skills, students, and settings. *Journal of Behavioral Education, 7*, 295-306.

Cover, Copy and Compare Intervention Brief Student Lead Developer – Hillary Tunstall

Common Reason for Academic Failure: They Have Not Had Enough Help
*Intervention Name: **Response Cards***

Brief Description:

Students receive immediate corrective feedback after the information has been provided during whole group instruction. Students respond to questions by holding up cards, rather than waiting to be called on individually.

What “common problems” does this address?

Response cards aid in improving students’ accuracy by increasing the amount of immediate corrective feedback they receive. Response cards also increase students’ opportunities to actively respond during instruction. May also be used as a behavioral intervention when an appropriate behavior results in a loss of reinforcement.

Procedures:

1. Train students in the use of their response cards.
 - a. “Jot Down Your Answers” – Students write their answers.
 - b. “Cards Up” – Students raise response cards above their heads, facing teacher.
 - c. “Cards Down” – Students place response cards face down.
2. After new material has been introduced in instruction, ask questions related to the material and prompt students to write their responses on their cards.
3. When all responses have been recorded on a response card, prompt students as a class to hold their response cards above their heads.
4. Provide praise and/or corrective feedback for student responses.
 - a. Use Positive Responding – If all answers are correct, provide praise to the class. If some answers are correct, praise the correct response.
5. Interchange questions that are review with questions that relate to new material.

Critical Components that must be implemented for intervention to be successful:

Train students in the use of response cards. Response cards should not be displayed for the entire class (cards face teacher and are placed face down). Use this approach after new material has been introduced. Provide praise of the correct response, not individual students

Critical Assumptions/Problem-Solving Questions to be Asked:

It is assumed that the intervention is used in the regular education classroom and that the student has a basic level of acquisition of the skill. The student, therefore, lacks consistent accuracy and fluency with the target skill. Poor performance may be due to an academic or behavioral deficit.

Materials:

- Laminated File Folder Halves
- Dry Erase Markers
- Felt Material Squares (Erasers)
- Cards with Pre-Printed Responses (depending on task and instructional level)

References

Christie, C.A., & Schuster, J.W. (2003). The effects of using response cards on student participation, academic achievement, and on-task behavior during whole-class, math instruction. *Journal of Behavioral Education, 12*, 147-165.

Gardner, R., Heward, W. & Grosi, T. (1994). Effects of response cards on student participation and academic achievement: A systematic replication with inner-city students during whole-class science instruction. *Journal of Applied Behavioral Analysis, 27*, 63-71.

Response Cards Intervention Brief Student Lead Developer – Jessica Nimocks

Common Reason for Academic Failure: They have not had enough help to do it
Intervention Name: **Error Monitoring Strategies**

Brief Description:

A student creates a written passage (or is given one) and is asked to use an error monitoring strategy to practice fluency (production) and accuracy (editing skills). Error monitoring strategies enable learners to attempt increase accuracy during independent work without the need for one-on-one instruction. Error monitoring strategies can be generalized to other subject areas, like math (e.g. PEMDAS) or reading comprehension (e.g. CROP-QVS).

What “common problems” does this address?

Creating written expression can increase fluency while applying editing strategies improves accuracy.

Procedures (as it applies to written expression):

1. Teacher instructs student on how to use the COPS strategy
2. Display a story starter or place a written passage in front of the student.
3. Instruct the student to write COPS on top of the page.
4. Read through the passage one time for each letter of the acronym while looking for errors in Capitalization, Overall appearance, Punctuation, and Spelling.
5. Partner check or teacher corrective feedback. (More essential with low accuracy students)
6. Look up spelling words.
7. Recopy the written passage.
8. Reread and proofread.

Procedures (as it applies to mathematics):

1. Teacher instructs student on how to use the PEMDAS strategy by saying, “It stands for “Parentheses, Exponents, Multiplication and Division, and Addition and Subtraction”. This tells you the ranks of the operations: Parentheses outrank exponents, which outrank multiplication and division (but multiplication and division are at the *same* rank), and these two outrank addition and subtraction (which are together on the bottom rank). When you have a bunch of operations of the same rank, you just operate from left to right.”
2. Display a multi-step math problem, such as $2 - (8+4)^2$
3. Instruct the student to write PEMDAS on the top of the page.
4. Solve the problem by completing the operations in the correct order: Parentheses, Exponents, Multiplication and Division, and Addition and Subtraction.
5. Partner check or teacher corrective feedback. (More essential with low accuracy students)
6. Use calculator or back of book to check final answer.

Critical Components that must be implemented for the intervention to be successful:

Student understands the error monitoring strategy (e.g. COPS) and is able to apply it within a learning context. Teacher corrective feedback is imperative throughout

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this process to ensure that the student understands how to correctly use the error monitoring strategy. *Critical Assumptions/Problem Solving Questions to be Asked:* This intervention is particularly designed for a student who can already produce written passages but is slow to pick up on grammatical and syntactical errors.

CROP –QVS – reading comprehension strategy

Connections - What does the text remind you of?

Reactions - How does it make you feel?

Opinion - Well, I think...

Prediction - I bet...

Questions - I wonder...

Visualize - I can imagine...

Summarize - What is all about?

Materials:

- Written passage, one per student
- Written explanation of error monitoring strategy

References

Mather, N., & Jaffe, L. (2002). *Woodcock-Johnson III: Reports, Recommendations, and Strategies*. New York: John Wiley & Sons.

Schumaker, J.B., Deshler, D.D., Nolan, S., Clark, F.L., Alley, G.R., & Warner, M.M. (1983). Error monitoring: A learning strategy for improving LD adolescent academic performance. In W.M. Cruickshank & J.W. Lerner (Eds.), *Coming of age: The best of ACLD* (Vol. 3, pp. 170-183) Syracuse, NY: Syracuse University Press.

Uberti, H. Z., Mastropieri, M. A., & Scruggs, T. E. (2004). Check it off: Individualizing a math algorithm for students with disabilities via self-monitoring checklists. *Intervention in School and Clinic, 39*, 269-275.

Error Monitoring Strategy Intervention Brief Student Lead Developer – Jessica Tomasula

Common Reason for Academic Failure: They have not spent enough time doing it
Intervention Name: **Repeated Readings**

Brief Description:

A student is given a reading passage and is asked to read the passage three or four times.

What “common problems” does this address?

Repeated readings increases fluency.

Procedures:

1. Place reading material in front of student.
2. Explain to the student that you want him/her to practice reading a passage.
3. Ask the student to read the passage aloud three or four times or have the student read the passage aloud for a preset amount of time three or four times.

Critical Components that must be implemented for the intervention to be successful:

Student reads the given material aloud over and over.

Critical Assumptions/Problem Solving Questions to be Asked:

This intervention is particularly designed for a student who has already acquired reading skills but is slow in their rate of reading. There is no error correction procedure included in this intervention, so a student who has not acquired reading skills may practice errors repeatedly. However, an error correction procedure can be added to this intervention.

Materials:

- Reading materials, one per student.
- Stopwatch or timer (optional)

References

There is a substantial literature base supporting its effectiveness for enhancing fluency in students with or without disabilities. It is also a great intervention to use with an entire class to build reading fluency.

Daly, E. J., Chafouleas, S., & Skinner, H. (2005). Producing measurable increases in reading fluency. *Interventions for Reading Problems: Designing and Evaluating Effective Strategies*. (p. 89-94). New York: Guilford Press.

Dowhower, S. L. (1987). Effects of repeated reading on second-grade transitional readers' fluency and comprehension. *Reading Research Quarterly*, 22, 389-406.

Sindelar, P. T., Monda, L. E., & O'Shea, L. J. (1990). Effects of repeated readings on instructional- and mastery-level readers. *Journal of Educational Research*, 83, 220-226.

Repeated Readings Intervention Brief Student Lead Developer – Katharine McDuffy

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Common Reason for Academic Failure: They have not spent enough time doing it
Intervention Name: **Incremental Rehearsal**

Brief Description:

A student is presented with flashcards containing unknown items added in to a group of known items. Presenting known information along with unknown allows for high rates of success and can increase retention of the newly learned items, behavioral momentum and resulting time on task. Research shows that this technique can be used with sight/vocabulary words, simple math facts, letter names, and survival words/signs. In addition, this technique could be used for other facts, such as state capitals or the meanings of prefixes or suffixes, etc.

What “common problems” does this address?

Incremental Rehearsal increases fluency

Procedures:*

1. Introduce a series of words or math facts on instructional level.
2. From these, identify at least 9 words or math facts that the child can read or answer correctly within 2 seconds. These are “knowns” and go into a stack.
3. Also, identify 10 words or math facts that the child cannot read or answer correctly within 2 seconds. These are “unknowns” and go into a different stack.
4. Take 9 cards from the known stack and 1 from the unknown stack.
5. Present the first unknown card and have the student attempt to read or answer aloud. If incorrect (as expected), provide the correct answer.
6. Present the first known and have the child read or answer aloud.
7. Present the original unknown from step 5 and again have the child attempt to read or answer it aloud.
 - a. If the child reads or answers the unknown correctly, it now becomes known. Begin the procedure again at number 4 using a different unknown.
 - b. If the child answers incorrectly, then continue the process by presenting two knowns before requesting that the child reattempt the unknown. The next step would be the unknown with three knowns, then the unknown with four knowns and so on.
8. Repeat until all unknowns become knowns.

*A complete sequence of flashcard presentation is provided in the Supplements section.

Critical Components that must be implemented for the intervention to be successful:

- There must be a clear understanding of the student’s skill level. (Does the student have the skills necessary to use the flashcards?)
- Student is presented with material on a 90% known to 10% unknown ratio during trials. This ratio helps to produce *behavioral momentum*, which occurs

when high rates of initial reinforcement ‘get the ball rolling’ so that when the student is presented with challenging material they are more likely to persevere. Allowing the student to produce high rates of success increases motivation to work through material that is unknown.

- Student is provided with the answer to unknown material during trials. The manner in which this is done can be customized to the student’s needs.

Critical assumptions/Problem Solving Questions to be Asked:

It assumes that the child has acquired the skill and needs to use the skill more quickly. If the child has not yet acquired the skill, then more remedial instruction will be required

Materials:

Instructional materials, including words or math facts that child is expected to know

Flashcards with subject content

References:

This intervention has a substantial literature base supporting its effectiveness for enhancing fluency.

Burns, M. K. (2005). Using incremental rehearsal to increase fluency of single-digit multiplication facts with children identified as learning disabled in mathematics computation. *Education and Treatment of Children, 28*, 237-249.

Joseph, L.M. (2006). Incremental rehearsal: A flashcard drill technique for increasing retention of reading words. *The Reading Teacher, 59*, 803-807.

Tucker, J. A. (1989). *Basic flashcard technique when vocabulary is the goal*. Unpublished teaching materials. University of Tennessee at Chattanooga. Chattanooga, TN: Author.

Incremental Rehearsal Intervention Brief Student Lead Developer – Ashley Bouknight Wingard

Supplements

Flashcard Sequence (adapted from Burns 2005).

first unknown, known
first unknown, known, known
first unknown, known, known, known
first unknown, known, known, known, known
first unknown, known, known, known, known, known
first unknown, known, known, known, known, known, known
first unknown, known, known, known, known, known, known, known
first unknown, known, known, known, known, known, known, known, known
first unknown, known, known, known, known, known, known, known, known, known

Note – Continue process till the unknown is answered correctly and then it becomes a known, and a second unknown is selected and the process is repeated

second unknown , known
second unknown , known, known
second unknown, known, known, known
second unknown, known, known, known, known
second unknown, known, known, known, known, known
second unknown, known, known, known, known, known, known
second unknown, known, known, known, known, known, known, known
second unknown, known, known, known, known, known, known, known, known
second unknown, known, known, known, known, known, known, known, known, known

Note – Continue with third, fourth and all sub

Common Reason for Academic Failure: They do not want to do it
*Intervention Name: **Interspersing Easier Problems in Drill Practices***

Brief Description:

Research indicates that problem completion within an activity is in itself a reinforcing event. Interspersing easier problems during drill activities increases completion rates and enjoyment of activity.

What “common problems” does this address?

Many students become frustrated when they begin to learn a new task. They are in the acquisition and fluency building stages of learning a new task and thus a slower pace and more thought need to be used. This frustration may lead to “giving up” on the part of the student. This happens during independent seatwork, homework, and in a variety of tasks. Teachers may use recently mastered skill problems interspersed throughout an assignment in order to promote more confidence and motivation to finish the activity. While the original research on this intervention involved math, interspersed reinforcement is done in a variety of settings across multiple contexts. The success behind reinforcement is well-documented in research.

Procedures:

1. Construct drill worksheet with problems aimed at the current skill needing practice.
2. Intersperse already mastered items in a 1:3 ratio between more difficult problems.
3. Slowly fade mastered items by decreasing the amount.
 - a. For example: Begin with a 1:3 easy to hard ratio and move to 1:8 easy to hard ratio the next time.
4. Eventually dissipate the already mastered problems

Critical Components that must be implemented for intervention to be successful:

- Reinforcement problems must be acquired at the mastery level before they can be assumed to be reinforcing.
- Intersperse problems should occur between every 3 or 4 problems in the beginning.
- Careful attention should be made to a slow removal of the prompt.

Critical Assumptions/Problem-Solving Questions to be Asked:

Problems assigned in this type of task need to be in the acquisition and fluency stages, whereas problems selected as reinforcers need to be skills acquired at the mastery level so they can be done quickly and efficiently. If problems are not carefully selected, students may become even more frustrated with the assignment. Assumptions should not be made about mastery level until the student has proven that the particular skill is mastered.

Materials:

- Activity sheets

References

There is a large body of evidence on the use of reinforcement to motivate students' academic progress. This type of intervention is universal and should generalize in many situations.

Logan, P., & Skinner, C. H. (2003). Improving students' perceptions of a mathematics assignment by increasing problem completion rates: Is problem completion a reinforcing event? *School Psychology Quarterly, 13*(4), 322-331.

Common Reason for Academic Failure: They have not spent enough time doing it
Intervention Name: **Partner Reading**

Brief Description:

A fluent reader (Partner 1) is paired with a less fluent reader (Partner 2). Partner 1 reads the material to model fluent reading. Then, Partner 2 reads the material and Partner 1 corrects any errors made. This should be conducted for about 30-35 minutes 3 times per week.

What “common problems” does this address?

Partner Reading increases fluency as well as accuracy by providing reading practice along with an error correction procedure.

Procedures

1. Order students from strongest to weakest based on their reading ability. After developing the list, divide students into two groups (A & B) so that the strongest readers are in Group A, and the weakest readers are in Group B. Create pairs of students by pairing the first student in Group A with the first student in Group B. This will create a pair with the strongest and weakest readers coupled. Continue down the list until all students have been paired.
2. Partner 1 reads the material out loud for 3 to 5 minutes (3 minutes for younger students) while Partner 2 follows along and keeps time.
3. Partner 2 then reads the same material as Partner 1 while Partner 1 follows along and keeps time.
4. In the event of a reading error (misread or skipped word, or hesitation for 4 seconds), the partner should prompt using a script. For example, they could say, “*Stop. You read that word incorrectly, try again*” in a positive manner. If the reader correctly reads the missed word, they are directed to reread the sentence. If the reader cannot pronounce the word within 4 seconds, the tutor reads it correctly. The reader is then directed to read the word, and then continues reading.
5. Reading errors such as adding a word or skipping a whole line should be addressed in a similar manner.

Critical components that must be implemented for intervention to be successful:

- Fluent readers are paired with less fluent readers.
- Fluent reader first reads aloud in order to model fluent reading.
- Less fluent reader then reads aloud.
- A predetermined error correction procedure is used.

Critical Assumptions/Problem Solving Questions to be Asked:

It assumes that the child has acquired appropriate reading skills. If the child has not acquired the appropriate reading skills, direct instruction in reading may be needed or you may look to acquisition interventions provided in this manual.

Materials:

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- Stopwatch or timer.
- Reading materials for each student.

Partner Reading Intervention Brief Student Lead Developer – Katharine McDuffy

References

This intervention has a substantial literature base supporting its effectiveness with children of various ages and abilities.

Mathes, P. G., Fuchs, D., Fuchs, L. S., Henley, A. M., & Sanders, A. (1994). Increasing strategic reading practice with Peabody Classwide Peer Tutoring. *Learning Disabilities Research and Practice*, 9, 44-48.

Rathvon, N. (2008). Partner reading. *Effective School Interventions (2nd Ed.): Evidence-Based Strategies for Improving Student Outcomes*. (p. 198-200). New York: Guilford Press.

Vaughn, S., Chard, D. J., Bryant, D. P., Coleman, M., Tyler, B., Linan-Thompson, S., et al. (2000). Fluency and comprehension interventions for third-grade students. *Remedial and Special Education*, 21, 325-335.

Common Reason for Academic Failure: They do not want to do it

Intervention Name: Mystery Motivator

Function of Intervention:

This intervention was developed to increase fluency through the application of positive reinforcement. There have been a number of empirical demonstrations of the effectiveness of the Mystery Motivator interventions (e.g. Madus, Kehle Madus, & Bray, 2003; Moore, Waguespack, Wickstrom, Witt & Gaydos, 1994).

Brief Description:

While many students will engage in appropriate academic and behavior task demands without systematic reinforcement plans, others will need additional behavioral supports. The Mystery Motivator intervention was designed to increase the proficiency of any academic or behavioral task demand by providing a “mystery” reinforcement using a random schedule (Jenson, Rhode & Reavis, 1994. Assuming that the reinforcer pool has some reinforcing value, the lure of a mystery reinforcer should additionally motivate students to engage in the academic task, even when the task is difficult. It can be difficult for teachers to develop a deep enough pool of interventions which retain value for the whole school years. Adding a surprise component to the reinforcer pool helps keep the process fun and exciting. Mystery Motivators can be used in a variety of content areas including reading, math, social studies, science, writing, and homework completion as well as social behavior compliance. They can also be contingent on a variety of outcome-based criteria (e.g. high-test averages, classroom participation, rule adherence). This intervention can be used to shape the behavior of an entire class or tailored to work for one individual.

Procedures:

1. Make reinforcement chart.
2. Construct a Motivation Chart for the entire class with all the student names and days of the week.
 - a. Randomly place some letter on a few days of the week beside each student’s name. For example Jenson (1994) and colleagues suggest using an “M” to designate a mystery motivator day. Be sure to place more motivators on the calendar during the initial stages of the intervention so that children are more likely to earn a mystery motivator. Each child should have different placement of the mystery “M.”
 - b. Cover up all of the days using a note card.
 - c. For each note card placed over the “M,” place the name of the motivator on the back.
3. Define goal (e.g. 100% homework completion in all subject areas, 80% accuracy on test grades in math).
4. If criterion is met, have the child remove the note card on that particular day. It is important to make this activity exciting. If the “M” is located on that day, the reinforcer should be given as soon as possible.

5. When there is not an “M” behind the note card, be sure to encourage students that there will be other opportunities to earn the Mystery Motivator.

Critical components that must be implemented for intervention to be successful:

- Place many “M’s” on the calendar during the teaching (initial) phase of the intervention.
- After the initial intervention phase of the intervention, place reinforcements randomly. A child should not be able to determine a pattern of when it is more likely that there will be a “M”.
- All goals should be clearly noted in a manner that students fully understand. Students must know what they are expected to do in order to earn the chance to receive a mystery reinforcer for this intervention to be successful.
- Select a goal that is easy to attain during the initial stages of the intervention. This will increase the likelihood that the initial intervention implementation will be a success.
- Reinforcers should be given as soon as possible.

Critical assumptions/problem-solving questions to be asked:

- It is important to know whether or not the students are performing their academic tasks at grade level and whether or not they are capable of performing the assigned tasks successfully. If not, a skill-based acquisition-level intervention should be selected in order to teach the academic/behavioral skill first.
- Students have to desire the mystery motivators; otherwise the intervention will be unsuccessful.
- Students in lower grades or with lower cognitive functioning may need more consistent reinforcement in order for them to understand the connection between the demonstration of an appropriate behavior and receipt of the Mystery Motivator. In such cases each day can have an “M” but with a different reinforcer on each day. In this case, the type of reinforcer is the surprise.
- Tangible motivators may be more enticing for younger students or students who are functioning at a lower cognitive level.

Materials:

- Preferred reinforcing stimuli list
- Reinforcers
- Mystery motivator chart
- Note cards

References

Jenson, W.R., Rhode, G., Revis, H.K., (1994). *The Tough Kid Tool Box*. Longmont, CO: Sopris West.

Madaus, M. M. R., Kehle, T. J., Madaus, J., & Bray, M. A. (2003). Mystery motivator as

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an intervention to promote homework completion and accuracy. *School Psychology International*, 24, 369-377.

Moore, L. A., Waguespack, A. M., Wickstrom, K. F., Witt, J. C., & Gaydos G. R. (1994). Mystery motivator: An effective and time-efficient intervention. *School Psychology Review*, 23, 106-118.

Classwide Antecedent Modifications Behavior Classwide Intervention

Function of Intervention:

Reduces inappropriate behavior (and increases appropriate behavior) by altering antecedents. This intervention can have a behavioral or academic focus depending on the modifications made. Developing and teaching a child explicit classroom rules will address problem behaviors were the function is that the child has not learned the desired behavior. Setting appropriate task demands and structuring the class to increase interest should help when the function is that the child does not want to do the task or the task is too hard.

Brief Description:

The context of the environment in which behaviors occur is not usually considered when analyzing a child's behavior. Instead, more attention is typically given to the consequences following that particular behavior (especially when it is a disruptive behavior being analyzed). While consequences of behaviors matter, what occurred BEFORE the problem behavior should also be considered when creating an intervention. Altering the antecedent of the target behavior has the substantial advantage of being proactive. As such, with appropriate modifications of the antecedents, a problem behavior (e.g. disruptive behavior or task demand refusal) can be avoided. This brief presents a series of classwide antecedent alterations that will change typical antecedents of problem behaviors to antecedents that prompt appropriate behaviors. See Kern and Clemens (2007) for an excellent thorough review of this class of intervention.

What "Common Problems" Does This Address?

This classwide intervention is appropriate for settings where there are classwide behavior problems (e.g. disruptive behavior or task refusal). In such settings, antecedents that typically produce problem behavior (e.g. academic task demands too difficult results in students "acting out" and refusing to do academic activities) are altered and transformed into antecedents that produce appropriate behavior (e.g. appropriate academic task demands or choice of task sequence = increase of time on task) will greatly reduce problem behavior and increase academic engagement.

Procedures for Classwide Antecedent Strategies (Kern & Clemens, 2007):

1. Set classroom rules.
 - a. Develop, model and post clear classroom rules
 - i. If some children don't have the skill to follow a rule, try using direct instruction to teach the skill.
 - b. Reinforce (e.g. praise or token) appropriate behavior as quickly as possible; minimize reinforcement (e.g. remove attention) for inappropriate behavior.
 - c. Have a consistent classroom schedule.

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2. Appropriate task-demands.
 - a. All instructional material should be appropriate for the student's current level.
3. Structure the class to increase interest.
 - a. Use a brisk pace with ample opportunity for student response.
 - i. Consider classwide response system such a choral responding or response cards to increases classwide response opportunities.
 - b. Include easy tasks among more difficult tasks.
 - c. Allow for student choice.
 - d. Use high interest materials/topics.

Critical Components that must be implemented for intervention to be successful:

- Clear development of classroom rules
- Identification of student instructional level
- Appropriate task demands
- Accurate selection of reinforcer/s, and high interest material

Materials

- Reinforcers as necessary

References

- Kern, L, & Clemens, N. H. (2007). Antecedent Strategies to Promote Appropriate Classroom Behavior. *Psychology in the Schools*, 44, 65-75.

**Intervention Name: The Response Cost Raffle
Behavior Classwide Intervention**

Function of Intervention:

This intervention is intended to reduce the instances of classwide disruptive behavior.

Brief Description:

The Response Cost Raffle is an evidence-based intervention with a number of empirical demonstrations of effectiveness from which this brief was developed (e.g. Witt & Elliott, 1982; Proctor & Daniel, 1991). This behavioral intervention was designed to decrease the frequency of classwide inappropriate behavior. This intervention works because it motivates students to reduce their instances of inappropriate behavior through the use of negative punishment (taking away reward opportunities for students who misbehave). This intervention involves giving an entire class of students raffle tickets at the beginning of a predetermined instruction time. If a student engages in inappropriate behavior during the predetermined time, the teacher must remove one raffle ticket for each inappropriate behavior that occurred. When the teacher removes the raffle ticket(s), the teacher also removes opportunities for students to earn prizes by taking away their reward-winning opportunity (ex: raffle ticket) when they engage in inappropriate behavior.

What "Common Problems" Does This Address?

Problems that arise from students engaging in inappropriate behavior during instructional time. It is intended to reduce behaviors including (but not limited to) the ones that follow: off-task behavior, inappropriate vocalizations, out-of-area movement (being out of seat while engaging in disruptive behavior), noncompliance, and failure to complete class assignments.

Procedures:

1. Create and explain classroom rules. Make sure they are displayed clearly and focuses on what the desired behavior is (vs. what *not* to do).
2. Make list of potential reinforcers for the class and have the class create their own list of reinforcers. When feasible and reasonable, include students' requests for reinforcers in the teacher list of reinforcers. Don't forget that reinforcers can be non-tangible items like a pass to read to Kindergarteners, a pass for a computer lab instructional experience during typical lecture-learning time, bring a soda to class day, or a group-wide "get out of quiz" pass (with an alternative, fun back-up assessment of the same skills that would be assessed in the quiz).
3. Explain to the class which behaviors are considered disruptive.
4. Provide examples of disruptive behavior (demonstrations of what NOT to do) and non-examples (demonstrations of appropriate behavior).

5. Explain the rules:
 - a. Every student in the class will receive 5 cards/raffle tickets with the students' names on them.
 - b. All students must keep their cards on their desks.
 - c. Each time one student engages in a disruptive behavior the teacher will remove their card from the desk.
 - d. This game will last for x number of minutes (periods, subjects, etc.)
 - e. The students who still have cards/raffle tickets at the end of the instructional period will be entered into a raffle for a prize.
6. The teacher will randomly draw a raffle card and immediately reward the student whose name is listed on the card.

Critical components that must be implemented in order to be successful:

A list of rules that inform students about what they are supposed to be doing must be posted so that everyone has quick access to the behavior guidelines that exist within the classroom. There must be access powerful reinforcers (things that the students will CLEARLY work for). All of the rules and the counter rules (non-examples) must be modeled to the students before the start of the intervention. Finally, students should have an opportunity to demonstrate the target behaviors and with immediate, specific, and accurate feedback. Other important considerations include:

- Earned rewards must be delivered immediately.
- Students must have demonstrated their ability to demonstrate the desired classroom behavior.
- If a student has not demonstrated that he/she is able to successfully exhibit the desired classroom behavior, teach the student how to demonstrate the appropriate behavior BEFORE implementing this intervention.

Materials Needed:

- Classroom rules chart
- Index cards
- Raffle prize list
- Large envelope/Shoe box

Reference

Proctor, M. A., & Morgan, D. (1991). Effectiveness of a response cost raffle procedure on the disruptive classroom behavior of adolescents with behavior problems. *School Psychology Review, 20*, 97-109.

Witt, J. C., & Elliott, S. N. (1982). The response cost lottery: A time efficient and effective classroom Intervention. *Journal of School Psychology, 20* (2), 155-161.

The Response Cost Student Developer – Shannon Brooks

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Intervention Name: Good Behavior Game Behavior Classwide Intervention

Function of Intervention:

This classic intervention was developed by Barrish, Saunders & Wolf (1969) to reduce inappropriate behavior without the use of positive social reinforcement and contrived reinforcers (such as candy, pencils, etc).

Brief Description:

The name may be a little misleading because this intervention is focused on the reduction of inappropriate behavior using reinforcers already found within the classroom environment. It is best used for the population of teachers who aren't comfortable providing positive social praise. This intervention is designed as a competition for two opposing groups of students. The teacher gives a list of "do not" rules and criteria for a reward. The teacher counts every time each team violates one of the rules. The team with the least amount of violations wins.

What "Common Problems" Does This Address?

A high frequency of inappropriate behavior regularly exhibited by a group of students. It is assumed that this behavior is being positively reinforced.

Procedure:

1. Create a list of "do not" rules that will prompt the students to engage in positive behavior.
 - a. Examples (the reciprocal positive behaviors are listed in parentheses)
 - i. Do not speak without permission from the teacher (raise your hand and wait for the teacher to call on you before you speak)
 - ii. Do not talk to your friends during class (listen to the teacher and work quietly)
 - iii. Do not sit on top of desks or in the floor (sit on your chair)
 - iv. Do not use a loud voice (use a quiet voice at all times)
2. Divide group of students into two competing groups and assign them a team name/number. Write their team names on the board – it is where you will be tallying each team's violation of the rules.
3. Explain the "do not" rules.
4. Explain the criteria for winning
 - a. Ex of criteria:
 - i. The team with the least amount of violations wins, if each team has less than 5 violations both teams will win, if one or both teams have less than 20 violations for the week they will win an additional privileges.
 - b. Ex of privileges (you can offer more than 1 for winning):
 - i. Team victory pendants
 - ii. Go to the front of the lunch line (one team) or go to lunch early (two teams)

- iii. Choose which activity will be completed during an enrichment period
- iv. Free time during one of the enrichment periods
- v. Go to playground a few minutes early
- vi. Sit at the front of the class
- vii. Eat lunch with the teacher (or with their favorite friends)
- viii. Not have to sit in assigned seats
- c. Tell the students how long they are playing the game (math class, whole day, etc.)
- d. Keep track of the number of rule violations the students engage in by tallying them on the board where everyone can see
- e. Reward the team with the least amount of points

Critical Components that must be implemented for intervention to be successful:

A powerful incentive needs to be chosen so that it will motivate all students to play the game. The “do not” rules need to be written so that they exactly reflect the opposite of the appropriate behavior that the teacher would like to have exhibited (i.e. ‘sit in your seat’ would translate into ‘do not stand up or get out of your desk without permission’). Also, the team that did not win must not be allowed to partake in the activities (i.e. instead of having free time they have to complete worksheets).

Critical Assumptions/Problem-Solving Questions to be Asked:

While the intervention is used to reduce the occurrence of inappropriate behavior, the teaching of an alternative appropriate behavior is not naturally embedded in this intervention. This game was originally designed to be carried out for one teaching period (math, English, etc.). Because of the nature of the game the behaviors that change in this environment may not generalize into other environments naturally.

References

- Barrish, H. H., Saunders, M., & Wolf, M. M. (1969). Good behavior game: effects of individual contingencies for group consequences on disruptive behavior in a classroom. *Journal of Applied Behavior Analysis*, (2), pp 119-124.

Good Behavior Game Lead Developer – Shannon Brooks

**Intervention Name: Improving Group Behavior with Randomized Group Contingencies
Behavior Classwide Intervention**

Function of Intervention:

The primary purpose of this intervention is to increase the likelihood that a group of students (or one target student within a group) continues to act appropriately. This package can be used for a small group of students or an entire class. This intervention is appropriate after all of the target behaviors (appropriate behaviors - - ex: capacity to sit in seat for at least 30 minutes, raise hand, etc.)

for the classroom have been learned and demonstrated by each member of the group or it can be used to teach appropriate or disruptive behavior rules to a population of students (this intervention incorporates teaching rules of behavior). It provides an effective and feasible way to teach and maintain appropriate group behavior.

Brief Description:

Randomized group contingencies is a classic evidence based intervention with articles reaching back to the early 1970 (e.g. Axelrod, 1973). This intervention employs a contingency-based reward system designed to alter a group of students' behavior. The special component of this intervention is that it relies on students working together as one group in order to earn a reward. By working together, it is implied that students rely on each other. This interdependence takes place when students learn how to self-monitor their own behavior, peer monitor each others' behavior, and learn how to motivate one another. When using an interdependent group reinforcer, students have to rely on one another to gain access to the reward.

This intervention brief (based on Kelshaw-Levering, Sterling-Turner, Henry and Skinner, 2000) has suggestions and guidelines for two different types of intervention: a reinforcement intervention (increasing appropriate behavior by rewarding it) and a punishment intervention (reducing inappropriate behavior through removal of potential reward). Standard practice is to try a reinforcement intervention first. A reinforcement intervention like this one increases the likelihood of positive behavior change because it teaches students how to behave like you want for them to by placing emphasis on their appropriate choices. A punishment intervention, on the other hand, teaches students what a teacher does not want for them to do. It is possible to teach students appropriate classroom behavior while simultaneously punishing inappropriate behavior, but it is not recommended. Choosing a group-wide intervention to reduce inappropriate behavior naturally places the students' focus on what not to do (inappropriate behavior) instead of practicing what to do (appropriate behavior). In short, although a punishment intervention is presented it is not recommended as a first attempt at a group-wide behavioral intervention.

What "Common Problems" Does This Address?

Provides motivation for students who engage in inappropriate classroom behavior and who are otherwise unmotivated to behave appropriately. It may also create classwide accountability for behavior that results in peers support one another instead of tattling/picking on each other. It can reduce disruptive classroom behavior.

Procedures:

1. Create proactive classroom rules that describe the behavior the teacher desires for the students to engage in. In other words, make a chart that tells them what to do instead of what *not* to do in the classroom.
2. Display the chart with the proactive classroom rules on it.
3. Remove any other behavior-related charts that do not directly reflect upon/reinforce the proactive classroom rules chart.
4. Make list of potential reinforcers for the class and have the class create their own list of reinforcers. When feasible and reasonable, include students' requests for reinforcers in the teacher list of reinforcers. Don't forget that reinforcers can be non-tangible items like a pass to read to Kindergarteners, a pass for a computer lab instructional experience during typical lecture-learning time, bring a soda to class day, or a group-wide "get out of quiz" pass (with an alternative, fun back-up assessment of the same skills that would be assessed in the quiz).
5. Create a contract that includes the specific expectations for group behavior in order to earn the rewards. This includes any "warnings" they may receive and any consequences for inappropriate behavior. Also include the schedule of reinforcement (how often (i.e. what times) they will have a chance to earn a reward for good behavior and what they can do to "start over" if their reward goal is not reached (reinforcement schedule). Have the students read and sign the contract. Display the contracts or store the contracts where they can be referenced at any time.
6. Demonstrate (teacher or student model) the desired classroom behavior and its opposite (undesired classroom behavior) so that students can be very clear about what the expectations for behavior are. Assess the students to make sure that ALL of them are capable of demonstrating the appropriate behavior or NOT engaging in undesired behavior (i.e. accommodate for maturity level or level of disability).

Option #1: Reinforce appropriate behavior

1. Locate the reinforcers list for students (see *procedures* for instructions on how to do this)
2. Place the reinforcers on small pieces of paper, fold them, and place them in a jar or hat.
3. Create an ending number of points (behavior goal) that represent the number of appropriate behaviors the class is expected to engage in (i.e.: Class must

have at least 60 or more appropriate behaviors = class must receive 60 or more points).

4. Display the behavior goal clearly in the classroom.
5. Explain to the class which behaviors are considered appropriate.
6. Provide examples of appropriate behavior (demonstrations of what to do) and non-examples (demonstrations of disruptive behavior).
7. Explain the rules:
 - a. Each time every student in the group engages in an appropriate behavior the teacher will put a point on the board.
 - b. This game will last for x number of minutes (periods, subjects, etc.)
 - c. The class will earn a mystery reward at the end of the game time if they earn at least the goal number of points posted clearly in the classroom.
8. At the end of the game period, teacher tallies all of the points.
9. If goal is met, teacher allows a student who has behaved appropriately during the allotted game time to draw a mystery reward from the hat.
10. Teacher immediately distributes the mystery reward to the entire group of students.

Option #2: Design contingencies (behavior requirements) for the reduction of inappropriate behavior (punishment of inappropriate behavior)

1. Locate the reinforcers list for students (see *procedures* for instructions on how to do this)
2. Place the reinforcers on small pieces of paper, fold them, and place them in a jar or hat.
3. Create a starting number of points (behavior goal) that represent the number of disruptions the class is allowed to engage in (i.e.: Class must have 36 or fewer disruptive behavior episodes = class must receive 36 or less points).
4. Display the behavior goal clearly in the classroom.
5. Explain to the class which behaviors are considered disruptive.
6. Provide examples of disruptive behavior (demonstrations of what NOT to do) and non-examples (demonstrations of appropriate behavior).
7. Explain the rules:
 - a. Each time one student in the group engages in a disruptive behavior the teacher will put a point on the board.
 - b. This game will last for x number of minutes (periods, subjects, etc.)
 - c. The class will earn a mystery reward at the end of the game time if they do not exceed the goal number of points posted clearly in the classroom.
8. Every time a student exhibits inappropriate behavior (disruptive behavior), teacher places a point on the board.
9. At the end of the game period, teacher tallies all of the points.
10. Teacher allows a student who has behaved appropriately during the allotted game time to draw a mystery reward from the hat.
11. If goal is met, teacher immediately distributes the mystery reward to the entire group of students.

Alternative method of tallying points:

1. *For the reduction of disruptive behavior*, have 2 clear jars prepared: one with as many marbles or tokens as the goal number of disruptions in it, the other an empty jar. Each time a student engages in an inappropriate behavior, have that student transfer a marble or a token from the goal jar to the other jar. If there are still marbles at the end of the game, the group wins their mystery reinforcer.
2. *For the increase of appropriate behavior*, have the same jars set up, except for the empty jar, which should be labeled as the goal jar. The other jar should have the goal number of marbles/tokens in it as well as “bonus tokens” in case the students behave in a consistently appropriate way (beyond the set goal). When the students all behave appropriately, the teacher (or a randomly selected student) should transfer a marble from the marble jar to the goal jar. Once all of the marbles are transferred, class has earned their mystery reinforcer.

Critical Components that must be implemented for intervention to be successful:

A list of rules that inform students about what they are supposed to be doing must be posted so that everyone has quick access to the behavior guidelines that exist within the classroom. There must be access powerful reinforcers (things that the students will CLEARLY work for). All of the rules and the counter rules (non-examples) must be modeled to the students before the start of the intervention.

Critical Assumptions/Problem-Solving Questions to be Asked:

This intervention has the following assumptions:

- The class has been systematically observed and disruptive behaviors specifically identified prior to implementing the intervention.
- The percentage of students engaging in disruptive behavior must not represent more than 33% of the targeted classroom population.
- Rewards/Reinforcers must motivate at least 90% of the entire class to change their behavior (they must be powerful). One really great way to help resolve this is to have students draw 3 different rewards from the hat/jar and let the student who drew it select the reinforcer.
- The class is capable of working together in order to achieve the rewards (they have the skills needed to cooperate with each other).
- Reinforcement schedule is consistent (The teacher always reinforces the students immediately and often enough that the demand does not outweigh the reward).
- Teachers need to ask themselves: Are all of my students capable of successfully engaging in the appropriate/desired/required behavior?
 - If yes, continue with intervention as described
 - If no, implement an intervention that targets skill building for students *before* implementing this intervention. Otherwise it will fail as a classwide intervention. Some interventions for skill

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building can be found under the “Student has not learned behavior/skill” section of the website.

Materials

- Classroom rules chart
- Classroom rules contract
- Reinforcers list
- Jar (*Opaque*) or hat
- Small pieces of paper

References:

Axelrod, S. (1973). Comparison of individual and group contingencies in two special classes. *Behavior Therapy*, 4, 83–90.

Kelshaw-Levering, K., Sterling-Turner, H.E., Henry, J.R., & Skinner, C.H. (2000). Randomized interdependent group contingencies: Group reinforcement with a twist. *Psychology in the Schools*, 37, 523-533.

Improving Group Behavior Intervention Brief Lead Developers – Shannon Brooks

**Intervention Name: Active Teaching of Classroom Rules
Behavior Acquisition Intervention**

Function of Intervention:

This intervention has been developed to help children learn classroom behavioral expectations.

Brief Description:

This intervention provides a framework to assist teaching in the use of modeling practice and feedback to instruction classroom behavioral expectations. The intervention starts with the explicit display of rules in each classroom environment followed by a review and discussion of the rules with the students. This is then followed by having individual students model the appropriate behavior focused upon in the rule. Finally, when children subsequently exhibit the desired behavior they are immediately praised. This intervention can be followed up with a contingent observation procedure (sit and watch) for children who exhibit misbehavior afterwards.

Procedures:

1. Display chart with list of classroom rules and provide each student with a copy.
2. Early in the year, set aside a block of time to discuss each rule. It is important to discuss the purpose as well as provide examples of appropriate behavior using specific examples. In this discussion, students should be encouraged to provide their own examples of both appropriate and inappropriate behavior.
3. At the end of this discussion, explicitly note to the students that they will be observed and students who follow rule will be identified and praised.
4. After the discussion, it is critical to identify students who are observing a rule and provide immediate, specific, and positive feedback. For example "I am so excited that Albert is working on his seatwork quietly!" The purpose of this feedback is to both positively reinforce the student, but also provide a model for other children.

Critical Components that must be implemented for intervention to be successful:

- A defined set of rules posted in classroom.
- A specific discussion period in which the rules are fully reviewed using specific examples.
- Immediate and overt and specific and positive feedback for students following rules.

Critical Assumptions/Problem-Solving Questions to be Asked:

Assumptions: Students are able to understand and demonstrate desired behaviors based on clear expectations. If this assumption is not met it is critical to revise the rules and procedures.

Materials

- A chart with the list of classroom rules.

References

Johnson, T. C., Stoner, G., & Green, S. K. (1996). Demonstrating the experimenting society model with classwide behavior management interventions. *School Psychology Review*, 25, 199- 214.

Say-it, Show-it, Check-it: Teaching Classroom Procedures Behavior Acquisition Intervention

Function of Intervention

This intervention has been developed to help children who have not learned the appropriate behavior and are therefore unable to demonstrate it. The current brief was based on the presentation of Rathvon (2008)

Brief Description:

Using this intervention, each classroom rule is presented to students using a three step process to maximize the likelihood of acquisition. First, the rule is presented to the students. Next, behavioral adherence as well as non-adherence is modeled for each rule. In this phase students have the opportunity to watch and scrutinize each example of adherence and non adherence. Finally, students have the opportunity to try each behavior and are praised for successful demonstration of adherence behaviors. This intervention is consistent with the Positive Behavioral Interventions & Supports (PBIS) Model, and offers an example of how such a model would work in a single classroom.

Procedures:

1. "Say":
 - a. Present each rule, one at a time to the students. It is important to and explains why it is important for the class to follow that rule.
 - "Our first rule is to come to class on time and sitting down in your desk so you are prepared to start the lesson. It is important to come to class on time so that you have the opportunity to learn from the lesson and you don't distract your classmate while they are trying to learn.
 - b. Discuss what example and non-example of adherence. Students should understand what it would look like if they are following the rule.
 - "When you are in your desk on time and prepared, working on the assigned lesson when bell rings your following this rule. Running to your desk as the bell rings is an example of "not" being ready for class on time.
2. Show:
 - a. Demonstrate how to follow the rule. It is also acceptable to have a student model the rule.
 - "Watch what I would look like if I were to come to class on time and prepared to learn." Walk into the classroom, put all necessary materials for the day inside your desk, hang up your book bag, and sit quietly at your desk working on appropriate materials. "This is what coming to class on time and prepared looks like."

3. Check:
 - a. Ask students to watch your next demonstration and to see if there is anything wrong with what they watched. This will determine if students grasp the rule and how to appropriately follow it.
 - “Watch me now and see you if can find anything wrong with what I am doing.” Run into the classroom, throw your book bag on the floor and go over to another student’s desk and ask if you can borrow some paper and pencils. Then say, “Did I come on time to class and come prepared to learn?”
 - b. Model again how to appropriately follow the rule (or have a student do it). Then ask the students what you did right that showed that you were following the rule.
 - “Watch what I would look like if I were to come to class on time and prepared to learn.” Walk into the classroom, put all necessary materials for the day inside your desk, hang up your book bag, and sit quietly at your desk working on appropriate materials. “Is this is what coming to class on time and prepared looks like?”
 - c. If a student demonstrated appropriate rule following to the class, reward them for doing so. Also, reward the class for being able to determine what appropriate rule following and inappropriate behaviors look like.

Critical Components That Must Be Implemented For Intervention To Be Successful:

- This intervention is a wonderful precursor to subsequent behavior management strategies. Applying this intervention alone will not promote rule adherence. Therefore, practice behavior management strategies consistently after implementation of this intervention (i.e. praising rule adherence, explicit consequences for not adhering to the rules).
 - This intervention works best when implemented and practiced intensely at the beginning of the school year. However, frequent refresher sessions will be necessary to re-teach the students how to properly adhere to classroom rules (i.e. following holiday breaks or other abrupt changes in the school day).
 - Minimize the number of rules in the classroom (i.e. 3-5) and keep rules and explanations developmentally appropriate.
 - Verbally present each rule to the class and what the rule would look like in the classroom
 - Explain why each rule is important in the classroom
 - Demonstrate how to adhere to each rule
 - Demonstrate what non-adherence looks like
 - Re-demonstrate what proper adherence to the rule looks like and discuss why the demonstration was correct

- Acknowledge the class for determining what appropriate rule following looks like

Additional Information:

Display the rules in the classroom where they can easily be spotted and referenced. Use caution when carrying out the inappropriate display of the rule portion of this intervention with students who are likely to increase negative behaviors in order gain peer attention. This intervention also assumes that each student can demonstrate the ability to perform the desired behavior.

References:

- Rathvon, N. (2008). Say show check: Teaching classroom procedures. *Effective school interventions: Evidence-based strategies for improving student outcomes* (pp. 81-83). New York, NY: The Guilford Press.
- Sugai, G., Horner, R., & Lewis, T. (2009). *OSEP Technical Assistance Center on Effective Schoolwide Interventions: Positive Behavioral Interventions & Supports*. Retrieved Nov. 3, 2009, from U.S. Department of Education, Office of Special Education Programs, Eugene, OR. Web site: <http://www.pbis.org>.
- Wolfgang, C.H., & Wolfgang, M.E. (1995). *The three faces of discipline for early childhood: Empowering teachers and students* (pp. 223-225). Boston, MA: Allyn & Bacon.

Author's Note. The lead student developer on the brief was Sarah Raab a graduate of the MA/CAS School Psychology Program at East Carolina University in Greenville, NC. Included with permission.

**Intervention Name: Sit and Watch (Contingent Observation)
Behavior Acquisition Intervention**

Function of Intervention:

The goal of the intervention is to assist a child acquire a desired behavior.

Brief Description:

This classic intervention was designed to provide a simple method to aid a child in the acquisition of desired behavior through observing other children behave appropriately. Specifically, using a modified time-out procedure, the student is removed from an activity and instructed both why they were removed and what the appropriate behavior would have been. Then the child is instructed to observe appropriate behavior for a short time prior to reengaging in the activity. Finally, when the child behaves appropriately, they are immediately praised. This intervention can be used as a follow-up to the “Active teaching of classroom rules” intervention, also found in this book.

Procedures

1. When a child displays an inappropriate behavior, describe it to him/her: “Josh, do not push other children when you want to take a turn at the computer.” In addition, describe the appropriate behavior: “Josh, when you want a turn you need to ask the other children and then wait for them to finish up. Remember to keep your hands in your personal space.”
2. Next, direct the child to go to the periphery of the activity and instruct them to observe other children behaving appropriately, “Josh, please take a turn in the Sit and Watch chair and see how Luke asks Steve to take a turn at the computer and then waits nicely for Steve to finish up.”
3. After a brief amount of time (approximately 1-3 minutes) ask if he/she is ready to rejoin the group. “Josh, are you ready to try to ask to take a turn at the computers? Remember how Luke asked and then waited nicely for Steve to finish up. Remember to keep your hands in your personal space.” If the student indicates that he/she is ready to return and behave appropriately, allow him/her to do so. If the student does not respond, or says they are not ready allow them to continue to observe. For example, “Josh, sit here and watch until you think that you can ask for a turn properly while keeping your hands in your personal space.”
4. When the student returns to the group and displays the appropriate behavior, give praise or some other positive reinforcement as soon as possible “Josh, I like how you asked to use the computer while keeping your hands to yourself.”

Critical Components that must be implemented for intervention to be successful:

- A clear set of rules and desired behaviors must be established prior to implementing this intervention.

- Students should be explicitly taught the purpose of the Sit and Watch procedure. Role playing a situation where use of the Sit and Watch occurs would be helpful. Each of the procedures should be implemented in order for this intervention to be successful.
- A child or children who can demonstrate the appropriate behavior.

Additional Procedures:

If the child cries for an extended period of time or continues to disrupt the group, while in the Sit and Watch space, move him/her to a designated “Quiet Place.” This can be in the same room or elsewhere, as long as the child is unable to make contact with the group. Allow the child to remain in the “Quiet Place” until he/she calms down and is able to return to the group. “Josh, since you are not sitting and watching, you are going to the Quiet Place to practice sitting quietly.” When he/she is calm, return the child to the Sit and Watch space and proceed through the steps described above.

Critical Assumptions/Problem-Solving Questions to be Asked:

Assumptions: The student is able to demonstrate the ability to perform the desired behavior. Other students are modeling the desired behavior.

Limitations: Children who are unable to recognize desired social behaviors in others may not benefit from this intervention.

Materials:

1. A “Sit and Watch” space placed within view of group activities.
2. A “Quiet Place” within the classroom (or elsewhere), but as far away from the group as possible.
3. A classroom rules chart clearly displayed.

References:

- Porterfield, J. K., Herbert-Jackson, E., & Risley, T. R. (1976). Contingent observation: an effective and acceptable procedure for reducing disruptive behavior of young children in a group setting. *Journal of Applied Behavior Analysis*, 9, 55-64.
- White, A. G., & Bailey, J. S. (1990). Reducing disruptive behaviors of elementary physical education students with sit and watch. *Journal of Applied Behavior Analysis*, 23, 353-359.

**Intervention Name: Noncontingent Reinforcement
Behavior Interventions - Proficiency (Gets Something) Interventions**

Function of Intervention:

Noncontingent reinforcement (NCR) is a powerful method to reduce problematic behavior. NCR involves giving the student access to a reinforcer frequently enough that they are no longer motivated to exhibit disruptive behavior to obtain that same reinforcer. A classic example of NCR is a teacher placing a child on his or her lap during group instruction such that the child has no motivation to seek the teacher's attention while the teacher is conducting story time with the class. There have been many empirical demonstrations of the effectiveness of the NCR interventions with a comprehensive demonstration of the evidence base by Carr, Severtson, and Lepper in 2008. In addition to being demonstrated effective in reducing problem behavior, NCR interventions have the distinct advantage of reducing problem behavior with less of a chance of an extinction burst period. Because the child is already receiving as much of the reinforcer as he or she could want, there is no brief increase in disruption that commonly follows treatments that involve withholding reinforcement from a child. There is a rich literature base on use of NCR. Two cautions are worth noting. When thinning the NCR schedule (i.e., reducing the amount of reinforcement the student gets), disruptive behavior may re-occur necessitating the use of extinction procedures. Second, reinforcer substitution may occur meaning the student may continue to exhibit disruptive behavior to obtain other reinforcers.

Brief Description:

Understanding that children will engage in problem behaviors if they are reinforced, one strategy to minimize the utility of the behavior is to saturate the environment with the reinforcer **prior** to the demonstration of the disruptive behavior. To understand why this intervention would be effective, think about a child who desires teacher attention who has found that calling out in class consistently results in the teacher focusing attention on him (albeit, not in a positive manner). A NCR intervention directs the teacher to provide him attention (in this case a more positive version) prior to the child "asking" with the problem behavior. As such, the child has no need to be disruptive, and will hopefully, in time, prefer positive attention on a leaner schedule than negative attention on a more consistent schedule. This brief has been developed to present a fixed time NCR delivery with extinction and schedule thinning as this version of NCR was found to have a well established evidence base by Carr and colleagues (2008).

Procedures:

1. Identify the reinforcer for the inappropriate behavior (e.g. verbal praise, escape).
2. Develop a fixed schedule to apply the NCR for the target child. The goal of this step is to develop an initial schedule that is likely to catch the child before he or

she engages in the problem behavior thereby making the disruptive behavior unnecessary.

- a. Adapt the schedule based on the age, developmental level, and severity of the behavior problem. For young children, or those with severe behavior problems, the initial NCR schedule will need to be very dense (e.g., once every 30 seconds). For higher functioning children with more mainstream behavior difficulties the NCR schedule can be initially less ambitious (e.g., once every 15 minutes). Implementers can easily determine how dense it should be by examining the frequency of disruptive behavior that is followed by reinforcement in the classroom at baseline and ensuring that their schedule is more frequent at first. So, for example, if talking out occurs once every 5 minutes on average in the classroom, then NCR should be delivered in less than 5-minute intervals.
3. When initially applying the NCR, do not refer to the problem behavior or note that the child is behaving appropriately.
4. Once the NCR schedule has been initiated, do not respond to the target problem behavior if and when it occurs.
5. After a number of intervention days or sessions (for more severe cases), applying the NCR (e.g., 5 days or 20-25 sessions) showing a marked reduction in the problem behavior, start to thin out the reinforcement schedule. Thinning the schedule means reducing the frequency with which the child is provided reinforcement when NCR is in effect. It is important to make gradual adjustments to the schedule to minimize the chances of a burst in disruptive behavior. When thinning the schedule, the problem behavior will likely re-occur. When it does, research suggests that withholding reinforcement (i.e., extinction) or delivering a mild consequence like response cost can effectively mitigate the reoccurrence. The value of NCR is that the extinction period is often less pronounced because the disruption has been reduced to zero levels.

Critical components that must be implemented for intervention to be successful:

- Successful identification of the reinforcer for the problem behavior. This step is essential. NCR will not work if the function of disruption is unknown. This strategy is not the same as simply providing rewards on a very dense schedule.
- An initial schedule of NCR that minimizes the likelihood that the child will need to engage in the problem behavior to get the desired reinforcement.
- That problem behavior is ignored once the NCR schedule is initiated.
- A fading process that is gradual enough to minimize the degree to which the child reengages in the problem behavior.

References

- Carr, J. E., Severtson, J.M., & Lepper, T. L. (2008). Noncontingent reinforcement is an empirically supported treatment for problem behavior exhibited by individuals with developmental disabilities. *Research in Developmental Disabilities, 30*, 44-57.

Intervention Name: Behavior Contracts
Behavior Interventions - Proficiency (Gets Something) Interventions

Function of Intervention:

This intervention is intended to increase appropriate behavior and/or decrease inappropriate behavior. It may also be used as an intervention to increase teacher and student treatment integrity (by creating motivation for each party to follow-through and be accountable).

Brief Description:

Behavior contracts are a formal method for a student and teacher to discuss and agree on the definitions of the incidences of behavior that needs to be changed. In this process, they write a “contract” together that clearly states the definitions of the behaviors that are targeted for change along with the antecedents, behaviors, and consequences (reinforcers or punishers) both parties will be responsible for during the intervention. This intervention can also be used to create contracts for small groups, entire classrooms, or between peers.

What “Common Problems” Does This Address?

A short list of common behaviors addressed by this intervention includes decreasing the amount of time a student spends out of their seat, increasing a student’s academic engagement, decreasing the number of times a student speaks out of turn, increasing prosocial behavior, decreasing frustration due to miscommunication, and almost any other behavior problem that occurs within an educational environment.

Procedures:

1. Select 2 or less target behaviors for change.
2. Before starting the intervention tally of the number of times the student is demonstrating each target behavior on a typical day in different settings.
3. Meet with the student and agree on a mutual definition (including examples and nonexamples) of the target behavior(s). Write the description of the target behavior into the contract. When trying to reduce instances of inappropriate behavior, try to focus on what you *WANT* for the student to do instead of what you don’t want for them to do.
4. Meet with the student to discuss what reinforcers or punishers you the student will expect when the target behaviors have been demonstrated.
5. Create a reinforcement schedule. Discuss the number of times (minutes, etc.) the student will have to demonstrate or refrain from the target behavior in order to earn his reward (there may be several opportunities for rewards throughout the day). Be sure to set the goal at an attainable level (do not expect a increase or decrease in behavior equal to more than 10% of the number of times collected in step 2.)
6. Include the reinforcer schedule in the contract as well as the criteria for earning/losing each reinforcer.

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7. Have teacher, student, and parent (if possible) sign the contract. Make a copy of the contract for both the student and the teacher. Have it stored in an easy to reach place for both the student and the teacher.
8. Deliver the reward to the student *immediately* after he has earned it.
9. 5 days into the intervention tally the number of times the child engages in the target behavior in order to determine whether or not to adjust the intervention (i.e. frequency of receiving reinforcement, etc.) Remember, do not increase or decrease goals by more than 10%.

Critical Components that must be implemented for intervention to be successful:

- Make sure that the student has the capability of producing the appropriate behavior in every setting where there are behavioral expectations outlined in the contract. Setting an impossible goal for a student to reach is the fastest way to sabotage the effectiveness of an intervention.
- It is also essential that you involve the student in the creation of the behavioral contract. Involving the student will create a collaborate relationship between both parties and empower the student to participate in a plan to change his or her own behavior.
- Be certain that the behavioral expectations are clear and concise. Clarify expectations vividly when writing them. Ask yourself: If a stranger read these expectations would she be able to pick out the students who are doing what I expect in my class?
- Give the student multiple opportunities to be successful.

Critical Assumptions/Problem-Solving Questions to be Asked:

- Again, make sure the student is capable of demonstrating the desired behavior.
- Also, always evaluate the types of reinforcers being offered. It is typical and expected for students' desires to change over time. Always make sure that the reinforcers available for the student are also motivating to the student.

References:

- Carns, A. W. & Carns, M. R. (1994). Making behavioral contracts successful. *School Counselor*, 42, 155-160.

Sample behavior contract and reinforcement schedule for 4th grade student (pseudonyms used)

I, **Alicia Wall**, agree to raise my hand and wait to be called upon before I talk. I agree to accept an answer to a question that I don't like rather than talk back. I agree to respect my teacher. That means that if I get mad I will let her know by writing "mad" on a piece of paper and I will hold it up for Ms. Fabulous to read it. I know that she will come help me when she can. If I have to wait, I agree to ball up paper in order to release my anger and calm down while I'm waiting. I also agree to sit in my seat.

I, **Ms. Winchester**, agree to call on Alicia when she raises her hand before she talks at least two out of four times. I agree to allow Alicia to express her dislike with an answer/demand as long as she expresses it **one time** while using an appropriate voice. I understand that Alicia is entitled to her feelings, but that her feelings need to be expressed in an appropriate way. If she does not express herself using an appropriate voice or writing, I reserve the right to ignore her. I agree to respect Alicia and help her when I can. I care about Alicia and want what's best for her. I agree to address Alicia's need for help when she writes a note saying that she's angry. I agree to reward her points for appropriate behavior during class and follow the attached reinforcement schedule. I am available to listen to Alicia because I care about her.

Alicia Wall

Ms. Winchester

Date _____

Date _____

Alicia's Behavioral Intervention Reinforcement Schedule

1. Alicia will receive a daily points sheet each morning and afternoon. She will write her goal number of points for the day on the top of her points sheet. At the end of the day these sheets will be given back to Ms. Winchester.
2. Alicia will read through her expectations before the beginning of every class.
3. Alicia will keep her daily point sheet taped to her desk so that she and Ms. Winchester can see it and remind themselves of their agreement.
4. At the end of each activity, Alicia will earn one point from Ms. Winchester for each goal she completed according to the daily points sheet goals.
5. Once Alicia earns points those points cannot be removed by anyone.
6. If Alicia has an activity period during which she does not earn as many points as she would like, she will start a *new activity period* and try to earn all of her points for the next activity. If she becomes upset or refuses to do work during one activity period, allowing for her to "start over" will improve her chances to engage in more appropriate behavior for the rest of the day.

7. If Alicia earns her goal points for each half of the day or her goal points for the entire day, Alicia will be able to choose from a list of rewards at the end of the day. If her reward is not available on the day that it is chosen, it will be carried over into the following day and be given to her as soon as Ms. Winchester deems it appropriate for her to have it (the sooner, the better!)
8. If Alicia does not earn her points, she and Ms. Winchester will say “ it is ok, everyone has a bad day, we will start a new day tomorrow!”
9. Target number of points:

Dec 13-17	Jan 3-7	Jan 10-14	Jan 17-21	Jan 24-28
AM: 18	AM: 20	AM: 22	AM: 25	AM: 25
PM: 12	PM: 14	PM: 16	PM: 20	PM: 20
Daily: 25	Daily: 27	Daily: 30	Daily: 35	Daily: 35

I agree to abide by these instructions!

_____ (AY)

_____ (Ms. F)

Date: _____

Date: _____

The Behavior Contracts Student Developer – Shannon Brooks

Differential Reinforcement of an Incompatible or Alternative Behavior Behavior Interventions - Proficiency (Gets Something) Interventions

Function of Intervention:

This intervention was designed to increase rates of appropriate behavior and decrease rates of problem behavior by selectively providing reinforcement only to the desired behavior. There have been many empirical demonstrations of the effectiveness of differential reinforcement (DR) interventions (Cooper, Heron, & Heward, 2008).

Brief Description:

Children will continue to engage in problem behaviors that are reinforced. Therefore, it is important to minimize reinforcement for disruptive behavior to reduce disruptive behavior. Unfortunately, simply removing reinforcement often results in an “extinction burst”. Data tell us that about 40% of the time, when an adult makes adjustments to the environment to stop reinforcement for a problem behavior (e.g., ignoring disruptive behavior that the child has been exhibiting to obtain adult attention), the child will escalate disruptive behavior in an attempt to bring back the reinforcement. This escalated frequency, magnitude, and duration of the disruptive behavior is called an “extinction burst.” Extinction bursts are very problematic in classroom environments. As such, DR interventions have been developed to concurrently remove or reduce reinforcement for the problem behavior while reinforcing a functionally similar replacement behavior. Thus, the problem behavior diminishes while the child is provided with an alternative (more acceptable) means to access the desired reinforcement. To understand DR interventions, consider a child who calls out inappropriately in class for teacher attention. It is understood that the calling out behavior is maintained by the resulting teacher attention. Using DR procedures, the teacher would ignore the calling out behavior and only call on the child when she raises her hand (an alternative behavior). Over time the DR procedures will result in higher rates of hand raising and lower rates of calling out. In the end, the child is trained to exhibit the desired behavior when he or she wants teacher attention. This brief was designed to provide a simple guide to DR procedures focusing on DR of incompatible or alternative behaviors (DRI and DRA respectively). A DRA example involves providing reinforcement for an alternative behavior (hand raising in the above example). DRI is a version of DR that selects an incompatible behavior as the replacement behavior. For example, in-seat behavior is incompatible with out-of-seat behavior. Selecting an incompatible behavior as the replacement behavior minimizes the risk of inadvertently reinforcing the problematic behavior. For example, it is possible that the child may raise his or her hand while also calling out. Because hand raising is reinforced with teacher attention, the reinforcer is provided even though the problematic behavior also occurred and is similarly reinforced. If an incompatible behavior cannot be identified, then an alternative behavior will suffice (see 4a below).

Procedures:

6. Identify the consequence that is reinforcing the inappropriate behavior (e.g., verbal praise, escape).
7. Identify an incompatible or alternative behavior that can access the same consequence. Note, identification of an incompatible appropriate behavior is preferred.
8. Begin with a continuous fixed ratio (CFR) DR schedule. The goal of this step is to ensure the child is reinforced for the alternative behavior in the initial stages of the DR intervention.
9. Once the DR schedule has been initiated, the teacher is instructed not to respond to the target problem behavior if it is presented.
 - a. If using a DRA procedure and the child exhibits both the problem and alternative behaviors concurrently, the teacher is suggested to reinforce the child but note that the reinforcement it is due to the alternative behavior.
10. After a number of intervention days or sessions (for more severe cases) applying the DR (e.g. 5 days or 20-25 sessions) showing a marked reduction in the problem behavior, start to fade in reinforcement schedule. Note that after the intervention period is complete the desired behavior should continue to be reinforced at an appropriate level for the child and environment. If the desired behavior is not reinforced the child will return to the problem behavior (or some new behavior) to access the desired reinforcement.

Critical components that must be implemented for intervention to be successful:

- Successful identification of the reinforcer for the problematic behavior.
- Identification an appropriate incompatible/alternative behavior that the child is capable of doing.
- An initial schedule of DR that ensures that the child will be reinforced when they exhibit the desired behavior. A continuous fixed-ratio schedule is preferred whereby the student receives reinforcement each time the alternative behavior occurs.
- The problem behavior should be ignored once the DR schedule is initiated.
- A fading process of the DR schedule that is gradual enough to not result in the child reengaging in the problem behavior. One way to accomplish this is to make the reinforcement intermittent (so every so many occurrences of the desired behavior are reinforced) and unpredictable or variable such that the child knows that the alternative behavior will be reinforced periodically but is not sure exactly which instance of the desirable behavior will occasion reinforcement.

Critical considerations:

- DR interventions have a number of known limitations as outlined by Vollmer and colleagues (1993).
 - DR interventions are not considered the most effective approach for very severe behavior cases. Noncontingent reinforcement (NCR) procedure should be considered for such cases.
 - DR interventions can result in an extinction burst with associated issues.
 - DR interventions can be cumbersome for teachers. Care should be taken when designing the intervention to consider feasibility issues.

References

Cooper, J. O., Heron, T.E. & Heward, W.L. (2007). *Applied Behavior Analysis, Second Ed.* Prentice Hall: Columbus, OH.

Vollmer, T.R., Iwata, B.A., Zarcone, J.R., Smith, R.G., & Mazaleki, J.L. (1993). The role of attention in the treatment of attention-maintained self-injurious behavior: Noncontingent reinforcement and differential reinforcement of other behavior. *Journal of Applied Behavior Analysis*, 26, 9-21.

**Intervention Name: Mystery Motivator
Behavior Interventions - Proficiency (Gets Something) Interventions**

Function of Intervention:

This intervention was developed to increase fluency through the application of positive reinforcement. There have been a number of empirical demonstrations of the effectiveness of the Mystery Motivator interventions (e.g. Madus, Kehle Madus, & Bray, 2003; Moore, Waguespack, Wickstrom, Witt & Gaydos, 1994).

Brief Description:

While many students will engage in appropriate academic and behavior task demands without systematic reinforcement plans, others will need additional behavioral supports. The Mystery Motivator intervention was designed to increase the proficiency of any academic or behavioral task demand by providing a “mystery” reinforcement using a random schedule (Jenson, Rhode & Reavis, 1994). Assuming that the reinforcer pool has some reinforcing value, the lure of a mystery reinforcer should additionally motivate students to engage in the academic task, even when the task is difficult. It can be difficult for teachers to develop a deep enough pool of interventions which retain value for the whole school years. Adding a surprise component to the reinforcer pool helps keep the process fun and exciting. Mystery Motivators can be used in a variety of content areas including reading, math, social studies, science, writing, and homework completion as well as social behavior compliance. They can also be contingent on a variety of outcome-based criteria (e.g. high-test averages, classroom participation, rule adherence). This intervention can be used to shape the behavior of an entire class or tailored to work for one individual.

Procedures:

1. Make reinforcement chart.
2. Construct a Motivation Chart for the entire class with all the student names and days of the week.
 - a. Randomly place some letter on a few days of the week beside each student’s name. For example Jenson (1994) and colleagues suggest using an “M” to designate a mystery motivator day. Be sure to place more motivators on the calendar during the initial stages of the intervention so that children are more likely to earn a mystery motivator. Each child should have different placement of the mystery “M.”
 - b. Cover up all of the days using a note card.
 - c. For each note card placed over the “M,” place the name of the motivator on the back.
3. Define goal (e.g. 100% homework completion in all subject areas, 80% accuracy on test grades in math).
4. If criterion is met, have the child remove the note card on that particular day. It is important to make this activity exciting. If the “M” is located on that day, the reinforcer should be given as soon as possible.

5. When there is not an “M” behind the note card, be sure to encourage students that there will be other opportunities to earn the Mystery Motivator.

Critical components that must be implemented for intervention to be successful:

- Place many “M’s” on the calendar during the teaching (initial) phase of the intervention.
- After the initial intervention phase of the intervention, place reinforcements randomly. A child should not be able to determine a pattern of when it is more likely that there will be a “M”.
- All goals should be clearly noted in a manner that students fully understand. Students must know what they are expected to do in order to earn the chance to receive a mystery reinforcer for this intervention to be successful.
- Select a goal that is easy to attain during the initial stages of the intervention. This will increase the likelihood that the initial intervention implementation will be a success.
- Reinforcers should be given as soon as possible.

Critical assumptions/problem-solving questions to be asked:

- It is important to know whether or not the students are performing their academic tasks at grade level and whether or not they are capable of performing the assigned tasks successfully. If not, a skill-based acquisition-level intervention should be selected in order to teach the academic/behavioral skill first.
- Students have to desire the mystery motivators; otherwise the intervention will be unsuccessful.
- Students in lower grades or with lower cognitive functioning may need more consistent reinforcement in order for them to understand the connection between the demonstration of an appropriate behavior and receipt of the Mystery Motivator. In such cases each day can have an “M” but with a different reinforcer on each day. In this case, the type of reinforcer is the surprise.
- Tangible motivators may be more enticing for younger students or students who are functioning at a lower cognitive level.

Materials:

- Preferred reinforcing stimuli list
- Reinforcers
- Mystery motivator chart
- Note cards

References

Jenson, W.R., Rhode, G., Revis, H.K., (1994). *The Tough Kid Tool Box*. Longmont, CO: Sopris West.

Madaus, M. M. R., Kehle, T. J., Madaus, J., & Bray, M. A. (2003). Mystery motivator as

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an intervention to promote homework completion and accuracy. *School Psychology International*, 24, 369-377.

Moore, L. A., Waguespack, A. M., Wickstrom, K. F., Witt, J. C., & Gaydos G. R. (1994). Mystery motivator: An effective and time-efficient intervention. *School Psychology Review*, 23, 106-118.

Intervention Name: Positive Peer Reporting
Behavior Interventions - Proficiency (Gets Something) Interventions

Brief Description

Positive Peer Reporting (PPR) is a classwide intervention designed to increase the social involvement of socially withdrawn children. The primary component of PPR is that children are provided with structured peer praise for engaging in appropriate social behaviors. Children who are severely socially withdrawn, neglected, socially aggressive, or socially isolated can benefit from this intervention.

What "Common Problems" Does This Address?

PPR is designed to increase peer attention (conceptualized as a reinforcer) for appropriate social behavior while reducing peer attention for inappropriate behaviors. As such, PPP is designed to differentially reinforce children who are being ignored for appropriate behaviors, and rewarded for inappropriate behavior.

Procedures

1. The teacher informs the class that they will be working on peer relations.
2. Each day the teacher will choose a student, or a small group of student to be the focus for the day.
3. On that day the students will have a chance to praise the target student's/students' good behavior.
4. The teacher goes over the steps for delivering suitable praise statements:
 - a. Look directly at the person who you want to compliment.
 - b. Smile at the person who you want to compliment.
 - c. Describe what they said or did.
 - d. Say "good job" or some other similar positive statement.
5. The teacher repeats the steps and gives examples of appropriate praise statements: "Susan helped me solve a math problem."
6. The PPR session should last between 7 and 10 minutes each day.
7. Statements should be encouraged with group prompts during the intervention.
8. Teacher praise and reward should follow each praise statement:
 - a. Place a cotton ball in a jar for each appropriate praise statement.
 - b. When the jar is full, deliver a classwide reward (popcorn, early recess, etc.)

Critical Components that must be implemented for intervention to be successful:

In order for this intervention to work, teachers must minimize reinforcement for inappropriate behaviors and reinforce appropriate behaviors consistently.

Materials

- Token (e.g. cotton balls or chips) and place to put/display the tokens
- Group reward (e.g. popcorn, early recess, etc.)

References

- Moroz, K. & Jones, K. (2002). The effects of positive peer reporting on Children's social involvement. *School Psychology Review*, 31, 235-245.
- Rathvon, N. (1999). *Effective School Interventions: Strategies for Enhancing Academic Achievement and Social Competence*. New York: Guilford Press.

Positive Peer Reporting Intervention Brief Student Lead Developer – Jessica Nimocks

*Intervention Name: **Response Cards***
Behavior Interventions - Proficiency (Gets Something) Interventions

Brief Description:

Students receive immediate corrective feedback after the information has been provided during whole group instruction. Students respond to questions by holding up cards, rather than waiting to be called on individually.

What “common problems” does this address?

Response cards aid in improving students’ accuracy by increasing the amount of immediate corrective feedback they receive. Response cards also increase students’ opportunities to actively respond during instruction. May also be used as a behavioral intervention when an appropriate behavior results in a loss of reinforcement.

Procedures:

6. Train students in the use of their response cards.
 - a. “Jot Down Your Answers” – Students write their answers.
 - b. “Cards Up” – Students raise response cards above their heads, facing teacher.
 - c. “Cards Down” – Students place response cards face down.
7. After new material has been introduced in instruction, ask questions related to the material and prompt students to write their responses on their cards.
8. When all responses have been recorded on a response card, prompt students as a class to hold their response cards above their heads.
9. Provide praise and/or corrective feedback for student responses.
 - a. Use Positive Responding – If all answers are correct, provide praise to the class. If some answers are correct, praise the correct response.
10. Interchange questions that are review with questions that relate to new material.

Critical Components that must be implemented for intervention to be successful:

Train students in the use of response cards. Response cards should not be displayed for the entire class (cards face teacher and are placed face down). Use this approach after new material has been introduced. Provide praise of the correct response, not individual students

Critical Assumptions/Problem-Solving Questions to be Asked:

It is assumed that the intervention is used in the regular education classroom and that the student has a basic level of acquisition of the skill. The student, therefore, lacks consistent accuracy and fluency with the target skill. Poor performance may be due to an academic or behavioral deficit.

Materials:

- Laminated File Folder Halves
- Dry Erase Markers

- Felt Material Squares (Erasers)
- Cards with Pre-Printed Responses (depending on task and instructional level)

References

Christie, C.A., & Schuster, J.W. (2003). The effects of using response cards on student participation, academic achievement, and on-task behavior during whole-class, math instruction. *Journal of Behavioral Education, 12*, 147-165.

Gardner, R., Heward, W. & Grosi, T. (1994). Effects of response cards on student participation and academic achievement: A systematic replication with inner-city students during whole-class science instruction. *Journal of Applied Behavioral Analysis, 27*, 63-71.

Positive Peer Reporting Intervention Brief Student Lead Developer – Jessica Nimocks

Intervention Name: Choice of Task Sequence
Behavior Interventions - Proficiency (Escape Something) Interventions

Brief Description:

To lower incidences of inappropriate behavior, child will engage in choice. Research has found that just making a choice is reinforcing.

What "Common Problems" Does This Address?

Students who engage in inappropriate behaviors to escape from tasks either because the tasks are too difficult, student just does not want to do it, or student has not learned how to do task.

Procedures

1. The teacher identifies 3 tasks that were observed to be connected to noncompliance or problem behaviors.
2. The teacher decides on whether student gets reinforced for engaging in the task or completing all three tasks.
3. The teacher presents all 3 tasks to student (e.g., "What would you like to do first today?", then "What would you like to do next?")
4. The student chooses the order he/she wants to complete the task.
5. The teacher gives praise when child engages or when child complies.
6. The teacher ignores problem behaviors.
7. The teacher reissues prompts every 10 seconds until the child engages or completes all three tasks. The teacher provides reinforcement (verbal praise, attention, or tangible reinforcement) when child engages or completes tasks.

Critical Components that must be implemented for intervention to be successful:

Child needs to have a set time limit or task limit, which can be decided based on the teacher's preference. Once the child receives a time/task limit, such as a fixed interval for 15 minutes, reinforcement needs to be contingent based on whether student completed the given task. Teacher must present choices to the student verbally, visually, or pictorially (e.g., picture of someone reading or sitting quietly). Teacher must reissue prompts in a consistent manner. Teacher can decide what contingency she prefers -- time can be altered to reissue prompts

Critical Assumptions/Problem-Solving Questions to be Asked:

Assumptions: There is the assumption that verbal praise is a strong enough reinforcement for the student to complete or engage in assigned tasks, and that the child can actually perform and complete all of the tasks.

Limitations: There is the limitation that the original study was done in an inpatient hospital setting, which may not be generalizable to a classroom setting. There are also limitations, such as the student's inability to complete assigned tasks. Before using this intervention, ask yourself: "Can the student successfully complete these tasks?"

- If yes, then reinforce appropriate behavior and punish inappropriate behavior.

- If no, then teach student the task.

Does the student engage in inappropriate behaviors to escape from the task because task is too difficult?

- If yes, then make the academic task more reinforcing by giving them a choice of how to complete task.
- If no, then have child complete the task.

Does the student engage in an inappropriate behavior in order to escape from discomfort?

- If yes, then give access to that activity contingent upon appropriate behavior.
- If no, then have child complete the task.

Materials

- Photographs or visual prompts of the three chosen tasks

References

Kern, L., Mantagna, M.E., Vorndran, C.M., Bailin, D., & Hilt, A. (2001). Choice of task sequence to increase engagement and reduce problem behaviors. *Journal of Positive Behavior Interventions*, 3, 3-10.

Intervention: Guided Notes
Behavior Interventions - Proficiency (Escape Something) Interventions

Function of Intervention:

Guided notes are in evidence based intervention strategy in relation to increasing academic performance and on task behavior (Konrad, Joseph, & Eveleigh, 2009).

Description:

Guided Notes provide pre-made notes that include blank spaces for writing down components from the lesson of the day. Using guided notes allows for the student to have opportunities to demonstrate their ability to actively engage and increase their time-on-task while a lesson is being taught. After the lesson has been completed notes are reviewed by the teacher. In order to reinforce the student, the teacher should review the notes with excitement, praise, and other forms of positive reinforcement for each blank completed correctly. This intervention can be used with students in regular education settings (especially with those in grades four through twelve) or with students receiving additional educational services. Guided notes is a flexible intervention that can be adapted for any instructional level and altered for students with specific skill deficits. Guided Notes are inexpensive, efficient, allow teachers to exhibit their own style, and are often preferred over “regular” notes by both teachers and students. In addition, the sheets provide prompts for students to actively listen and engage in the learning process.

What “Common Problems” Does This Address?

Guided Notes can provide appropriate attending prompts for students so that they may engage in on-task academic behavior and will allow for the student to be rewarded for listening to instruction (Ex: listening to the teacher instead of counting the number of times on the ceiling). Having the student engage in the appropriate attending behaviors will reduce the likelihood that they will engage in inappropriate behaviors (ex: talking without permission, walking around the room). Guided notes, if implemented with integrity, will allow for students to receive positive reinforcement for their appropriate attending behavior.

Procedure:

1. Make a lesson outline using a form of presentation software or overheads, concentrating on major concepts and facts to be learned.
2. Make a student handout from the lesson outline. Leave blank spaces for the student to fill-in that corresponds to the most important concepts in the lesson plan. Blank spaces may be short (one to three words) or long (four to eight words) depending on the students’ instructional level.
3. Lead a training activity to teach the student how to use Guided Notes while listening to instructions and looking at presentation materials (e.g. PowerPoints, transparencies). First, explain to the student the way in which the notes work. Next, provide an example and model the way in which the student needs to fill out the notes. Finally, hold a practice session with

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feedback so that the student will know whether or not she is filling them out correctly.

4. Teach the planned lesson utilizing the presentation software/overheads that go along with students' Guided Notes. Include prompts and/or questions while teaching the lesson if it seems necessary or it will aid in student learning.
5. Review the students' notes in order to provide positive reinforcement. This can be done by collecting, grading, and returning the notes to the student or, more preferably, by checking the notes in front of the student so that you can provide positive praise and specific feedback.
6. Supplemental strategies may be added to the Guided Notes intervention to further promote student success and responding (see below).

Supplemental Strategies:

- Use Guided Notes as an intervention for the entire class.
- Combine Guided Notes with unison responding, a lottery incentive, or response cards.
- Quiz students on the material from the Guided Notes after a lesson.
- Offer extra credit to those who accurately fill out Guided Notes.
- Use with an entire class, a small group of students, or an individual student.

Critical Components that must be implemented for intervention to be successful:

- The Guided Notes instruction and lesson plans/materials must match each students' instructional level.
- Students must have demonstrated that they are capable of completing Guided Notes.
- Training the students on how to use guided notes is necessary. Otherwise the intervention will likely fail.
- Guided Notes should be reviewed by the teacher and/or turned in and handed back as soon as possible so that students may receive specific feedback about their performance along with positive reinforcement.
- Guided Notes must contain enough blank spaces to give students an adequate amount of opportunities to respond.
- If Guided Notes is used as a class-wide intervention, make sure that the criteria for earning a reinforcer is set at a level at which all students will be capable (intellectually, physically, etc.) of earning their reward.

Materials:

- Guided Notes (sample below)
- Presentation software/overheads
- Response cards (if utilizing a supplemental strategy)
- Reinforcers valuable to students (if utilizing a lottery incentive)

Examples:

Guided Notes—2nd Grade Social Studies

1. We elect a new president every _____ years.
2. Presidential candidates must be citizens of the _____.
3. Presidential candidates must be at least _____ years old.
4. They must have lived in the USA for at least _____ years.
5. Candidates campaign by traveling all over the USA and _____ as many people as they can.

Guided Notes—5th Grade Writing

1. A _____ is a group of _____ that tell about one _____.
2. The _____ in a paragraph usually comes _____ and tells the main idea of the paragraph.
3. Sometimes, though, the topic sentence can come at the _____ or in the _____ of a paragraph.
4. When looking for a _____ sentence, try to find the one that tells the _____ of the paragraph.
5. _____ follow the topic sentence and provide details about the topic.

Guided Notes—8th Grade Math

1. When two figures are _____, you can slide, flip, or _____ one so it fits exactly on the other one.
2. The _____ of the angles of any triangle is _____. The _____ of the angles of any quadrilateral is _____.
3. In the expression 6^3 , six is the _____ and three is the _____. The problem would be solved by multiplying (_____) (_____) (_____) = _____.
4. To divide numbers or _____ with the same base, _____.
5. Whatever you do to one side of an equation, you must do to the other side of the equation in order to keep it _____ or _____.

Note: Example were produced with the Guided-Notes Maker on the Intervention Central

Website (http://rti2.org/rti2/guided_notes)

References:

Konrad, M., Joseph, L. M., & Eveleigh, E. (2009). A meta-analytic review of guided notes. *Education and Treatment of Children*, 32, 421-444.

Guided Notes Intervention Brief Student Lead Developer – Lindsey Long

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Intervention Name: Removal of Punishment
Behavior Interventions - Proficiency (Escape Something) Interventions

Brief Description

Positive punishment occurs when an aversive stimulus as a consequence is applied in response to appropriate behavior (see below). The presentation of an aversive stimulus causes a decrease in appropriate behavior and has long-term behavior effects. The removal of the positive punishment involves the elimination of this punishment so that it is more likely that appropriate behavior will occur in the future.

What “Common Problems” Does This Address?

Removal of punishment addresses the problem of appropriate behavior being positively punished. By removing the positive punishment it is more likely that appropriate behavior will continue.

Procedures

1. The teacher must first identify the appropriate behavior and the punishment of that behavior.
2. The teacher then brainstorms a method for removing the positive punishment.
3. When the appropriate behavior occurs again, the teacher uses their method for removing the positive punishment.
4. Steps 1-3 are repeated until the child no longer associates their appropriate behavior with the positive punishment.

Critical Components that must be implemented for intervention to be successful:

Teacher or administrator must be able to identify the aversive stimulus or punishment that is causing a decrease in appropriate behavior.

Types of Aversive Stimuli

There are two types of aversive stimuli: unconditioned aversive stimuli and conditioned aversive stimuli. An unconditioned aversive stimulus results in pain or discomfort for the child. They produce a behavior without need for a previous experience. Examples of unconditioned aversive stimuli are punching, hitting, or pinching. A conditioned stimulus results from the pairing of an unconditioned aversive stimulus with certain experience. For example, a child may have experienced telling on a classmate to the teacher with being punched on the playground.

References

Alberto, P.A., & Troutman, A.C. (2003). Applied behavior analysis for teachers (6th ed.). Upper Saddle River, NJ: Carlisle Publishers Services, Ltd.

Removal of Punishment Intervention Brief Student Lead Developer – Megan Fox

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Generalization Programming Brief - Exploit Functional Contingencies

Function of the Generalization Programming Category:

Adapt consequences found naturally within the environment to increase the likelihood that the student will generalize the target behavior. This generalization programming brief was based on Stokes & Osnes (1989).

Brief Description:

This generalization technique utilizes consequences found naturally in or artificially added to the environment in order to promote generalization of behavior. There are four ways to exploit natural functional contingencies: identify natural consequences, recruit natural consequences, modify maladaptive consequences, and reinforce occurrences of generalization.

What “Common Problems” Does This Address?

Student does not know how or when to exhibit the desired behavior in environments other than the one in which he was taught.

Method 1 with Sample Procedures: Contact natural consequences

Figure out which reinforcers are found naturally in the environment.

- Step 1. Identify the environment(s) in which you would like for the desired behavior to be exhibited. Ex: Student will raise his hand in order to obtain teacher attention in the classroom and library.
- Step 2. Figure out why the student is responding inappropriately within those environments. Ex: Student calls out the answer and the teacher sporadically acknowledges him by nodding her head. After looking at the antecedents and consequences of calling out, you figure out that he wants the teacher’s attention.
- Step 3. When implementing an intervention try to find reinforcers that exist naturally within the environments. Ex: We know that most teachers will acknowledge a student when they raise their hands appropriately so acknowledgement (attention) will be the natural consequence that we try. When student raises his hand quietly the teacher looks at him, listens to his answer, and nods. This should increase the frequency at which he raises his hand in class.

Method 2 with sample procedures: Recruit natural consequences.

Employ natural reinforcers at a higher frequency when the student is learning a new behavior.

- Step 1. Identify the student’s natural reinforcers. Ex: The student likes to acquire the teacher’s attention.
- Step 2. Deliver the identified frequency at a high rate when the student is first starting to learn an appropriate response. Ex: Step 1 of student’s intervention - teacher calls on student every time she raises his hand with a quiet voice. Step 2 – Once student has learned the appropriate

behavior, teacher calls on student every 2 times the student raises her hand appropriately.

- Step 3. If student is still exhibiting target behavior at a high frequency teacher will call on student at the same rate as the other students.

Method 3: Modify maladaptive consequences

Make sure that the desired behavior is not accidentally being punished.

- Step 1. When the frequency of the desired behavior decreases analyze the antecedents and consequences of the behavior in order to determine the connections that exist between the desired behavior and the environment. (Ex: Student raises hand quietly but teacher does not acknowledge her.)
- Step 2. After paying attention to antecedents and consequences, determine if consequence is the reason why behavior is decreasing. (Ex: Student raises hand less and calls out more if teacher does not acknowledge his raised hand.)
- Step 3. When punishment is figured out, replace punishment with a consequence that is reinforcing to the child. (Ex: Student raises hand quietly and teacher calls on him. Student raises his hand 3 more times.)

Method 4: Reinforce occurrences of generalization

Noticing when generalization occurs and providing reinforcement.

- Step 1. Observe student in new environment.
- Step 2. Immediately reinforce your student when she engages in desired behavior.

Critical components that must be implemented in order to ensure a successful intervention:

- Must accurately identify the antecedent, behavior, and consequence.
- Must know the function of the behavior (why does the child engage or not engage in the behavior? Hint: Study the antecedents and consequences of the target behavior)
- Must alter contingencies so that target behavior is being reinforced
- Must strictly follow set schedule of reinforcement
- Must heavily reinforce first few occurrences of generalization

References

- Burns, M. K., Riley-Tillman, T.C. & VanDerHeyden, A. (In Press). *Response To Intervention Applications Volume 1: Academic and Behavioral Interventions*. New York, NY: The Guilford Press.
- Stokes, T. F., & Baer, D. M. (1977). An implicit technology of generalization. *Journal of Applied Behavior Analysis, 10*, 349-367.
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Brief Developer (using text from Burns, Riley-Tillman & VanDerHeyden, In Press) –
Shannon Brooks

Generalization Programming: Incorporate functional mediators

Function of the Generalization Programming Category:

Add additional stimuli to the target behavior's teaching environment in order to transfer the new stimuli into a natural environment where it may be generalized. This generalization programming brief was based on Stokes & Osnes (1989).

Brief Description:

This method incorporates teaching with artificial cues (cues that are not naturally used in generalizing environment) which include using physical object cues, social cues, self-regulated physical object cues, and self-regulated verbal cues.

What "Common Problems" Does This Address?

The student will not perform target behavior in another environment.

Method 1: Incorporate common salient physical stimuli in both the training and the natural environment (the environment in which you would like for the target behavior to generalize)

- Step 1: Choose a significant (salient) physical stimulus that can be found in both the training environment and the natural environment. Ex: Clearly written rules written in the cafeteria and in the library. The target behavior is using quiet voices which are included in both places' rules.
- Step 2: Use the significant physical stimuli (objects) when teaching the target behavior in the training environment. Ex: Have student look at rules every time he comes into the cafeteria. You may have to reinforce him for both attending to the new physical stimuli AND being quiet if you have verbally reminded him of the rules in the past.
- Step 3: Introduce your student to the new environment and reinforce the student IMMEDIATELY if they engage in the target behavior. Ex: When he walked into the library he immediately looked at the rules and sat down quietly. He received 2 extra minutes of PE time.

Method 2: Incorporate common salient social stimuli

Train an outstanding mediator as a stimuli in both the training environment and in the natural environment.

- Step 1: Choose a mediator that will exist in both the training environment and the natural environment (the environment in which you would like to generalize). Ex: Choose a peer that shares the same schedule as your target student.
- Step 2: Train the mediator to model appropriate behavior for the target student and prompt the target student's behavior change if the student is behaving inappropriately. Ex: Train a peer to sit beside target student in all classes and elbow target student when the student needs to lower his voice.

Step 3: Reinforce the target student and the peer if target behavior occurs in the natural (not training) environment.

Method 3: Incorporate salient self-mediated physical stimuli

Use self-mediated stimuli such as a token board, a rule sheet, or a self monitoring sheet that the student can carry around with them from setting to setting (i.e. from class to cafeteria).

- Step 1: Choose a stimuli (such as a clipboard or index card) that is transportable and write the rules for proper behavior.
- Step 2: Model and discuss the rules for appropriate behavior with the target student.
- Step 3: Teach target student how to check off the behavior that he is exhibiting (ex: put a check beside quiet voice if your voice is quiet).
- Step 4: Make sure that all of the teachers know why student is carrying around stimuli.
- Step 5: Reinforce the student IMMEDIATELY when they engage in a target behavior when that is generalized to a new environment.

Method 4: Incorporate salient self-mediated verbal stimuli.

Use verbal communication (can be the student talking to herself or you verbally talking to her) to set goals and remind the student of how and when to engage in appropriate behavior.

- Step 1: Decide what the goal and verbal prompts are that go with target behavior (i.e. When I walk into music class I will sit quietly and put my hands in my lap. If I talk I will lose a card.)
- Step 2: Teach the child to use the verbal prompt in order to engage in target behavior.
- Step 3: Reinforce the child when they engage in generalized target behavior.

Critical Components that must be implemented for intervention to be successful:

All stimuli must be transportable so that they can be taken and used in every environment in which you want for the behavior to generalize. The transportable stimuli must be easily located and used in every environment for which you want for the behavior to generalize. Choose a reward that will be reinforcing to target student. Reward student IMMEDIATELY when they generalize a new behavior. Also, be meticulous when choosing a transportable stimulus to make sure that it is relevant to the target behavior occurring in new environment.

Critical Assumptions/Problem-Solving Questions to be Asked:

The child will be able to recognize the transportable stimuli in the new environments. The portable stimuli are relevant enough to be related to target behavior. The trainer will be near the target child enough to catch the first generalization of the behavior and reinforce it immediately. The mediator will be capable to prompt and model appropriate behavior.

References

- Burns, M. K., Riley-Tillman, T.C. & VanDerHeyden, A. (In Press). *Response To Intervention Applications Volume 1: Academic and Behavioral Interventions*. New York, NY: The Guilford Press.
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Brief Developer (using text from Burns, Riley-Tillman & VanDerHeyden, In Press) – Shannon Brooks

Generalization Programming Brief - Train Diversely

Function of Generalization Programming Category:

Train the student diversely (using different environments) in order to increase the chances that the student will generalize the target behavior. This generalization programming brief was based on Stokes & Osnes (1989).

Brief Description:

Training and instruction can be adjusted to maximize potential for generalization. Trainers need to cautiously keep the balance between behavior acquisition (learning the behavior) and behavior robustness (how many environments can the trained behavior be used in?) Four ways to alter training in order to facilitate generalization: use sufficient stimulus exemplars, use sufficient response exemplars, make antecedents less discriminable, and make consequences less discriminable.

What “Common Problems” does this address?

Student in new environment does not engage in target behavior.

Method 1: Use sufficient stimulus exemplars

Change components of the teaching environment in order to increase likelihood that target behavior will generalize.

- Step 1. Identify the setting in which the target behavior is being taught.
- Step 2. Alter aspects of the environment while teaching the behavior (could include moving to a different place in the room, using different paper, performing behavior in another classroom or outside, etc.)

Method 2: Use sufficient response stimulators

Respond and teach in varied ways in order to promote generalization.

- Step 1. Identify current teaching and response methods.
- Step 2. Change components of teaching (modeling, prompting: visual, verbal, auditory) and/or components of responding (verbal praise, high fives, applause, etc.) when teaching the target behavior. You want to choose teaching methods and responses that will easily be applicable to or naturally occur in other environments.

Method 3: Make antecedents less discriminable

Make antecedents blend into the natural environment.

- Step 1. Identify the target behavior's antecedent.
- Step 2. When teaching the target behavior, choose an antecedent that blends in with the natural environment as much as possible. (Ex: For example, rather than teaching a child to put away his books when he sees a cue card, you can teach the target student to put away his books when he sees that other students have closed their books and begun to put them away.)

- Step 3. Reinforce target behavior (Ex: Verbally recognize the student's behavior: "I see that you put your books away like everyone else! I'm so proud of you!")

Method 4: Make consequences less discriminable

- Step 1. Identify the consequence of the target behavior.
- Step 2. When developing a new consequence to promote behavior change, teach the new behavior using a consequence that will most likely be found in the natural environment.
- Step 3. Reinforce target behavior (Ex: Verbally recognize the student's behavior: "I see that you put your books away like everyone else! I'm so proud of you!") Remember – in order to decide whether or not your consequence is reinforcing you must observe the behavior to see if it increases (not decreases).

Critical Components that must be implemented for intervention to be successful:

Reinforce the target behavior as soon as it occurs in the natural setting. Figure out which naturally occurring antecedents and consequences reinforce (increase) or punish (decrease) the desired behavior. Use the natural antecedents and consequences first before introducing consequences that are do not occur naturally within the environment. Reinforcers and punishers must be embedded within the natural environment.

Critical Assumptions/Problem-Solving Questions to be Asked:

- This intervention assumes that naturally occurring antecedents and consequences can be found in the teaching environment.
- It also assumes that both the naturally occurring antecedent and the naturally occurring consequence will serve as a reminder and reward/punisher that will be effective for the child.
- In addition, this procedure assumes that the child can fluently and accurately perform the target behavior for which generalization is programmed.

References

- Burns, M. K., Riley-Tillman, T.C. & VanDerHeyden, A. (In Press). *Response To Intervention Applications Volume 1: Academic and Behavioral Interventions*. New York, NY: The Guilford Press.
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