Training Paraeducators to Use Behavior Management Strategies: Implementation and Evaluation of a Brief Targeted Intervention

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TRAINING PARAEDUCATORS TO USE BEHAVIOR MANAGEMENT STRATEGIES:
THE IMPLEMENTATION AND EVALUATION OF A BRIEF TARGETED INSERVICE

By
Aubrey Whiting

A creative project submitted in partial fulfillment of the requirements for the degree

Of
MASTER OF EDUCATION

In
Special Education

Approved:

____________________________    _____________________________
Nancy Glomb, Ph.D.      Susan Turner, Ph.D.
Major Professor     Committee Member

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Charles Salzberg, Ph.D.
Committee Member

UTAH STATE UNIVERSITY
Logan, Utah
2014
ABSTRACT

Training Paraeducators to Use Behavior Management Strategies: The Implementation and Evaluation of a Brief Targeted Inservice

By

Aubrey Whiting, Master of Education
Utah State University, 2014

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Department: Special Education and Rehabilitation

Training paraprofessionals to be highly qualified providers of services to students with disabilities is a requirement of the Individuals with Disabilities Education Improvement Act (IDEIA), although many special education paraprofessionals still lack the skills and knowledge to work with students with special education needs – particularly those who engage in disruptive behaviors. This project evaluated the use of one module of a 10-week online paraeducator inservice training (Morgan et al., 2004) that focused on behavioral interventions. Five paraprofessionals who currently work at a public school for students with significant behavior problems in a rural school district in the Western United States participated in the training. The live face-to-face training included direct instruction on the basic principles of applied behavior analysis. A single-case pretest-posttest design was used to evaluate the effectiveness of the face-to-face training for all five participants immediately after the training had ended, and the extent to which participants maintained the information one month after the training session. Data collected on participants’ acquisition and maintenance of knowledge of behavior
management strategies based on the principles of applied behavior analysis indicate that the training was successful.
Introduction

Paraprofessionals, when trained properly, are a key component to educating students with disabilities (Breton, 2010). During the past twenty years, paraeducators are being used with increasing frequency to provide direct services to students with disabilities, and as a result there is a greater recognition of the need for more trained individuals (Carter et al., 2009).

The Individuals with Disabilities Education Improvement Act (IDEIA) requires that paraprofessionals are highly qualified, but lack of expertise within districts to develop or select training programs, lack of funding for training, low salaries for paraprofessionals, and the time it takes for special educators to adequately supervise and train their paraprofessionals are factors that often preclude effective and sufficient training for paraprofessionals (Morgan, Forbush, & Nelson, 2004). In addition, there are no national standards for paraeducator licensure as there are for special education teachers (CEC, 2012; Katsiyannis et al., 2000). There is no way to make sure all paraprofessionals have gone through the same training, and that all individuals are expected to know the same things. This makes it difficult to hold all individuals to the same standard. This would suggest that local districts and schools need to take responsibility for ensuring that the paraprofessionals in their buildings have the skills and knowledge to work with their specific populations. Supervision and training typically starts and ends with the classroom teacher, but it is ultimately the administrator’s responsibility to supervise paraprofessionals (Ashbaker & Morgan, 2006).
Since the IDEIA requirement in 2004 that paraeducators be highly qualified, all states have standards for paraeducator knowledge and skill. In Utah, the Standards for Instructional Paraeducator (http://utahparas.org/standards4paras.pdf) emphasize instructional skills in academic areas, and specific behavior management skills are not included. And yet, a majority of paraprofessionals time is spent dealing with behaviors or implementing behavior plans (Carter et al., 2009). Due to the fact that behavior is dealt with often and that “challenging student behaviors are a prominent factor in the development of teacher stress and burnout” (Gebbie et al., 2011) behavior training appears to be an area that should be addressed “up front” for paraprofessionals who are hired to work with students with challenging behaviors.

**What to Teach**

While state and national standards for paraeducators include standards such as “Implement individualized reinforcement systems and environmental modifications at levels equal to the intensity of the behavior as determined by the instructional team” and “Use strategies as determined by the instructional team in a variety of settings to assist in the development of social skills” (CEC, 2012), paraeducators rarely receive training in the basic principles of applied behavior analysis that serve as the foundation for these standards. Paraprofessionals need to understand that behavior is learned, that is shaped by the consequences of that behavior, what reinforcement and punishment really are, and that behaviors have a function (Cooper, Heron, and Heward, 2007). Given the fact that several researchers have found that the least qualified paraprofessionals were the ones in charge of educating the most challenging students (Carter et al., 2009; Breton, 2010; Giangreco & Broer, 2007), and that most paraeducators receive only information about
students’ specific behavior intervention plans and not the underlying principles guiding them, there appears to be a need to include training in the principles of applied behavior analysis for paraeducators who work with students with challenging behaviors.

**Approaches for Training Paraprofessionals**

Most of the studies on paraeducator training describe one-day, and in some cases one week at the beginning of the school year (Dowey et al. 2007; Gore & Umizawa 2011; Hall et al. 2010; Sawka et al. 2002; Tierney et al. 2007). Two of the common limitations in these studies were: 1) too much content was covered leading to overload, and 2) the lack of follow-up coaching to promote the generalization and maintenance of the skills presented during training.

Morgan, Forbush & Nelson (2004) provided a web-based training for paraprofessionals that was delivered after school during one-hour sessions for 10 weeks. While this training was effective in teaching paraeducators about basic behavior management and instructional skills, it does not address the need to quickly prepare paraprofessionals who work with students with severe behavior problems to respond to those behaviors. Another drawback to this approach is the current lack of funding for compensating paraprofessionals to work additional hours.

Gebbie et al. 2011, provided face-to-face training via broadcast technology and included online discussion formats so that teachers located at different buildings within the district could communicate with one another. As with the Morgan, Forbush, and
Nelson (2004) study, this training covered a very broad range of knowledge and skills and although online follow up support was available, on site coaching was not provided.

**Purpose Statement/Evaluation Questions**

Paraprofessionals who work with students with significant behavior problems need specific, targeted training in the basic principles of applied behavior analysis prior to entering the classroom. Furthermore, paraeducators need on-site, follow-up coaching to support the generalization and maintenance of those skills once the in-service training has ended. The purpose of this project was to evaluate the efficacy of a brief targeted inservice training for paraeducators who work with students with significant behavior problems. The inservice used two of the ten modules created by Morgan, Forbush & Nelson (2004), namely: Module #1: Overview of Special Education, and Module #4: Principles of Behavior Management. The specific evaluation questions were:

1. Will participants’ knowledge of applied behavior analysis improve after participating in the in-service training?
2. Will participants’ knowledge of applied behavior analysis maintain one month after training has ended?

**Method**

**Setting**

Training took place at Con Amore School, a school for students ages 3 to 22 with severe cognitive disabilities. It took place in the conference room where there is a big table and a projector.
Participants

Five paraeducators participated in this project. All participants began their employment at the beginning of the 2014-2015 school year. One participant had taken an undergraduate special education course, one is a parent of a student with an IEP and had familiarity with behavior management terminology, one has had some prior training in behavior management from a previous employer, and two had no prior knowledge or experience with behavior management strategies or terminology. All of the participants work at Con Amore School - one in the preschool, one in the K-2\textsuperscript{nd} grade classroom, one in the 3\textsuperscript{rd}-5\textsuperscript{th} grade classroom, one in the 6\textsuperscript{th}-8\textsuperscript{th} grade classroom, and one in the 9\textsuperscript{th} grade-age 22 classroom. Before the first inservice training day, all participants signed a consent to participate in the project (Appendix A).

Preparation of Training Materials

Because the training for this project was conducted during a live training sessions, as opposed to online as in the Morgan et.al. (2004) study, the lessons and activities from the behavior strategies module were typed into a power point presentation, and hard copies of the end-of-module test that was used as the pretest/posttest measure were also produced. The school principal reviewed the original video modules and power point and print-based materials created for this training to ensure that the content was identical.

A Thursday afternoon was identified by the administration as a good day to conduct the training, and substitutes were arranged for the paraeducator participants.

Procedures

Training Day: The training session included all of the content and activities included in the fourth module in the Morgan et.al. (2004) 10-week training. This module
provides information and activities related to the principles of applied behavior analysis. The training began with a pretest, which consisted of 20 fill in the blank questions about the principles of applied behavior analysis (Appendix B). After the pretest, I went through the power point presentation (Appendix C) including the whole-group discussion during mini assignments, video examples and discussions and progress checks. Participants gave ideas and examples, and asked questions to clarify instruction or to tie content to their working environment. The participants ended the training by completing the post-test measure (Appendix B). A district administrator attended the training session and checked each section of the lesson as a fidelity of implementation measure. The lesson was implemented with 100% fidelity.

**Maintenance Probe:** The five participants in this project were observed once a week for four weeks following the training, and coaching on behavioral strategies was available if necessary. Three of the five participants implemented the behavioral strategies necessary for the students in their classrooms with 100% fidelity, and two of the participants required coaching to implement behavioral strategies such as delivering reinforcement for appropriate behaviors and delivering consequences for inappropriate behaviors. The focus of those weekly coaching sessions in included in Appendix D. Four weeks after the second training session was conducted, I administered the post-test again to the five participants.

**Dependent Measures**

The dependent variable for this project was paraeducator knowledge of the principles of applied behavior analysis. The dependent measure was the pretest/posttest measure that was administered before and after the second training session, and one
month after the training. The pre-test/post-test consisted of twenty fill in the blank questions.

**Evaluation Design**

An AB single subject design was used to determine the extent to which the training was associated with improvements in and maintenance of participants’ knowledge of applied behavior analysis.

**Results**

The number of correct responses per item on the pre-test, post-test immediately after the training and the post-test that was administered one month after the training were graphed to allow for an item analysis. Figure 1 presents the results of that analysis. Questions 3, 6, 9, 10, 11, 14, 15, 16, 17, 18, and 20 were answered incorrectly on the pretest by all participants. The post-test that was administered immediately after the second training session resulted in improvements in responses to all of the questions included in the assessment, although maintenance of the information covered in the training on applied behavior analysis was highly variable one month after the second training. Only seven of the 20 questions included in the assessment showed either the same or increased rates of correct responding on the one month follow up. It is interesting to note that participants 1 and 5 (Figure 2) were the paraeducators who received coaching during the one month follow up based on classroom observations of their implementation of the behavior plans, but the coaching did not appear to be associated with improved responding relative to two of the three paraeducators who did not receive coaching.
Discussion

Participants 2 and 4 (Figure 2) had some prior knowledge of special education procedures – more so than the other three participants, and this may have affected their performance on the pre-and post-tests. Another variable that may have differentially affected the participant’s responses was the fact that each paraeducator was assigned to a different classroom, and some classrooms have more significant behavior problems and more structured behavior plans than others. The participant who scored higher on the immediate post-test and one month follow up posttest (participant 4) had more opportunities to practice the strategies included in the training and probably scored better because there were more practice opportunities.

Additionally, participant 3 was resistant to the training throughout the project and did not like the posttests, even though she had consented to participate in all aspects of the project. She refused to complete the immediate posttest because she reported feeling overwhelmed with too much information and took it at a later time. It may be beneficial in future inservice trainings for paraeducators to offer incentives for fully participating.

Finally, conducting live role plays beyond just discussing the examples included in the videos may have helped to reinforce learning and make the training more engaging.

Conclusion

Despite the limitations discussed above, all participants showed improvements in their overall knowledge of applied behavior analysis principles, indicating the use of individual modules in the 10-week training package can be used to improve
paraeducator’s knowledge of special education practices – specifically in this case the principles of applied behavior analysis. If I were going to conduct this training in the future, I would include additional practice activities for the items that resulted in low to no maintenance after one month, include live role play activities, use real examples from the paraeducator’s classrooms to make the training more meaningful, and include incentives for participation.
References


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http://eric.ed.gov/?id=EJ890564


http://rse.sagepub.com/content/30/6/344


http://web.ebscohost.com.dist.lib.usu.edu/ehost/pdfviewer/pdfviewer?sid=c79c8d a3-6c0d 4e 12-97bb-d23ee3d7d c44%40sessionmgr4&vid=7&hid=24

Appendix A:

Consent Form
Consent Form for Participation in a Research Study

Utah State University

TRAINING AIDES WHO WORK WITH SEVERE BEHAVIORS TO RESPOND SAFELY AND
EFFECTIVELY

Description of the research and your participation

You are invited to participate in a research study conducted by Aubrey Whiting. The purpose of this research is to ensure quality training on behavior for aides teaching students with severe behaviors.

Your participation will involve taking a pre and post-test, participating in an hour long in-service on behavior, and being observed a month after to see how the knowledge learned is being utilized in the classroom.

Protection of confidentiality

Confidentiality will be maintained with regards to your pre-test, post-test, and evaluation. No individual names will be used in any publication that has to do with this study, only scores and numbers will be utilized.

Voluntary participation

Your participation in this research study is voluntary. You may choose not to participate and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study.

Contact information

If you have any questions or concerns about this study, or if any problems arise, please contact Aubrey Whiting at (801) 473-3613.

Consent

I have read this consent form and have been given the opportunity to ask questions. I give my consent to participate in this study.

Participant’s signature_______________________________ Date: __________________

A copy of this consent form should be given to you.
Appendix B:

Pretest Posttest Measure
Unit 4 Test

NOTE TO THE READER: Respond to each of the items below. Each test item appeared in a Lesson Progress Check.

1. Identify the antecedent, behavior, and consequence in the following examples.

   Mrs. Watson told Gabrielle, a second grade student, to clean the paint from her table after an art project. Gabrielle cleaned up all of the paint. Mrs. Watson praised her after she completed the task.
   
   A =
   B =
   C =

   The A-B-C sequence also applies to harmful or disruptive behavior. That is, harmful or disruptive behavior is surrounded by its own antecedents and consequences. For example, Alice and Melinda argue over whose turn it is to use the colored markers. Alice pushes Melinda to the floor. The teacher reprimands Alice. Identify the antecedent, behavior, and consequence in this example:
   
   A =
   B =
   C =

2. In the following example, identify the consequence. Is it a positive reinforcer, neutral consequence, or punisher? Explain your answer.

   David was slow to dress for P. E. class. Mr. Andrews, the P.E. instructor, found that David was on time for calisthenics (the first P.E. activity) in only 3 of 10 class periods. Mr. Andrews met with David. They agreed that he could lead the class in calisthenics if he were on time for at least 8 out of 10 P. E. classes. After that, David was on time in 5 of the next 10 class periods.

   C =

   Positive, neutral, or punishing consequence?

   How do you know?

3. Write a definition for each behavior below.

   Accepting correction from the instructor who assists on an assignment:

   Accurately completing homework assignments:
4. When a behavior is to be weakened, we should specify ________

5. Identify an appropriate, alternative behavior to the one listed below and write a definition for it.
   Complaining to the instructor about assignments:
   Alternative Behavior:
   Definition:

6. Name three of the five reasons to assess behavior.

7. Describe the three ways to observe and record behavior presented in this lesson:
   Frequency Counting:
   Time Sampling:
   Per Opportunity Recording:

8. Troy is an eleven-year-old student with behavioral problems. He is participating in an intervention to improve his responses to the instructor’s corrections. Using per opportunity recording, his instructor first collected baseline data for four sessions.

<table>
<thead>
<tr>
<th>Appropriate Responses</th>
<th>Opportunities</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>Session 2</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Session 3</td>
<td>2</td>
<td>33%</td>
</tr>
<tr>
<td>Session 4</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>
Then, Troy and his instructor started the intervention (social skills training and a daily certificate to send home to parents for accepting correction appropriately). The intervention has been used in 6 sessions so far (Sessions 6 through 10). See graph:

<table>
<thead>
<tr>
<th>Session</th>
<th>Appropriate Responses</th>
<th>Opportunities</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>6</td>
<td>67%</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>4</td>
<td>75%</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>5</td>
<td>80%</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>6</td>
<td>50%</td>
</tr>
<tr>
<td>10</td>
<td>7</td>
<td>8</td>
<td>87%</td>
</tr>
</tbody>
</table>

![Graph showing baseline and intervention data]

a) Given this information on Troy, graph the data below.

b) Is Troy’s intervention effective? How do you know?

9. Name the six components of effective praise.
10. Describe one limitation of activity reinforcers:

11. Describe one limitation of material reinforcers:

12. Describe two ways to select positive reinforcers:

13. In Lesson 3, we watched Derek, a high school aged student who was disruptive during independent seatwork. As Derek’s instructor, let’s say that you would like him to participate in an intervention to increase time spent working quietly. Derek reports that he enjoys computer games and listening to music. Describe how you would make these potential reinforcers contingent on Derek’s quiet work behavior, given the instructor’s permission. Your answers should include a description of praise and activity reinforcers that can be made contingent on Derek’s appropriate behavior, i.e., working quietly.

14. List and describe the 3 steps in preparing an intervention:

15. Describe four steps used to implement the intervention for increasing alternative communication.
16. Describe four steps used to implement the intervention for increasing alternative way to get attention.

17. Describe four steps used to implement the intervention for delivering positive consequences for the absence of disruptive behavior.

18. Describe four steps used to implement the intervention for mixing easy and hard tasks.

19. What types of behaviors should not be ignored?

20. Camillia frequently lost her temper. Her instructor counted her tantrums and found out that Camillia had averaged five tantrums per day. Camillia and her instructor met to discuss the problem. They decided that if Camillia had no tantrums for a week, she could earn the “student of the week” award. In the first week of the intervention, Camillia’s tantrums increased to 12 per week. Describe the guideline that was not followed?
Appendix C:

Power Point Presentation for Training
Lesson 1: Principles of Behavior

Principles of Behavior

Three principles described below are drawn from a large body of scientific research conducted in school environments (Koos: Haron, S. Hewitt; 1967, Laflon, Illora, & Young, 1988). These principles have provided considerable guidance to teachers and instructors.

Principle 1: Behavior occurs because of events which surround it.

- That is, behavior is influenced by events that occur before and after it. Events in the school environment may include a teacher's verbal directions, books, assignments, and so forth. They may also include behaviors of others, such as peers, instructors, parents and so forth.

Practice:

- Mrs. Hodges, a 5th grade teacher, asked Amy to lead the Pledge of Allegiance. Amy repeated the words along with her class, and Mrs. Hodges said "Thank you".
- A =
- B =
- C =
Principle 1: Behavior occurs because of events which surround it.

- Practice:
  - Jony, a 5-year-old kindergartner, was having difficulty adjusting to the new school environment. He screamed and threw toys on the floor for 30 minutes. His instructor reacted by withdrawing attention (other than observing him to ensure his safety) and waiting until he calmed down so they could reestablish him.
  - A =
  - B =
  - C =

Principle 2: Behavior is influenced by its antecedents and consequences.

- Environmental events which serve as antecedents to student behavior may include an instructor’s directions, the final bell for being in class, an announcement of an assignment, or a smile from a student’s friend seated in the next row. These and other events may have impinged on a student’s behavior. An instructor who skillfully and systematically changes antecedent events can influence student behavior in positive ways. Some authors refer to this as “environmental engineering” or “debugging” the classroom environment (Carr, Levin, McCandless, Carson, Kemp, & Smith, 1994; Morgan & Johnson, 1980).

Principle 2: Behavior is influenced by its antecedents and consequences.

- Use of some consequences will strengthen, or increase, the behaviors that they follow. This is called reinforcement. Positive reinforcers are events that a student will work to get. An example of this is when a “thank you” was a positive reinforcer for reciting the Pledge of Allegiance.

Principle 2: Behavior is influenced by its antecedents and consequences.

- A second type of consequence is called punishment. Punishment decreases or weakens behavior. Examples of punishers may include verbal reproaches, timeout from positive reinforcement (i.e., temporary withdrawal of positive reinforcers or attention from others), such as in Jony’s case above, and response cost (i.e., taking away a privilege).

Principle 2: Behavior is influenced by its antecedents and consequences.

- This program will not focus on punishment for these reasons:
  - Punishment is often neglected.
  - Specific training is required to use punishment procedures.
  - Many districts and states have regulations that limit or prohibit the use of punishment procedures. Check your district or state regulations about use of punishment procedures. The program will focus on positive reinforcement to strengthen student behaviors.

Some consequences have no effect on the behaviors they follow. These “neutral consequences” neither increase nor decrease the chance that a behavior will occur in the future.

Principle 2: Behavior is influenced by its antecedents and consequences.

- Practice: Identify the consequence.
  - Jill worked on her math assignment during independent seat work about 60% of the time. The rest of the time, she stood out the window until Mrs. Kain, her instructor, prompted her back to the assignment. Mrs. Kain told Jill that if she stayed on task at least 80% of the time and finished her assignment, she could play with her favorite video game at the end of the period. Jill increased her time on task from 60% to 80%.
  - C =
  - Positive, neutral, or punishing consequence?
Principle 2: Behavior is influenced by its antecedents and consequences.

Practice:
Justin was frequently disruptive during the reading period in Mr. Brookes class. In one week, Mr. Brookes counted a total of 36 disruptive comments during 6 reading periods. Mr. Brookes met with Justin and they agreed that, for each time Justin was disruptive, he would have to remain after school 30 minutes. Using this intervention for 1 week, Mr. Brookes counted 2 disruptions in a total of 6 reading periods.

C:
- positive, neutral, or punishing consequence?

---

Principle 3: All students can learn in a positive, carefully managed environment.

All students, regardless of their abilities or disabilities, can learn if instructors strive to establish and improve a positive school environment. This may include setting achievable goals, providing frequent opportunities for instruction and student response, implementing the instructional process, and motivating students through positive consequences. As much as possible, instructors need to anticipate problems and prevent them before they occur. Also, they must continuously strive to create a positive school climate where students remain actively engaged as participants.

---

Principle 3: All students can learn in a positive, carefully managed environment.

- Respect the right of the student to be treated as an individual. Each student has unique learning characteristics, experiences, and interests. The instructor must be aware of these differences and not expect all students to respond in the same way. This means understanding that students learn at different rates, require instruction at different paces, and require different incentives. It also means understanding that a student may not respond the same way from one time to the next.

---

Principle 2: Behavior is influenced by its antecedents and consequences.

Practice:
Calvin was on time to his first hour class on average of only 3 days each week. His first hour instructor, Mrs. Green, and Calvin decided he could earn 5 minutes of free time in the gym for each day that he was on time. After 2 weeks, Calvin was on time to his first hour class an average of 3 days per week.

C:
- Positive, neutral, or punishing consequence?
Lesson 1 Progress Check

Reasons for Specifying Behavior

1. To identify and communicate specific behaviors. When we specify behaviors, we communicate our expectations to students in precise, unambiguous terms. Clearly communicating expectations can help instructors avoid conflicts with students. For example, if a teacher says, “Do your homework,” students know exactly what is expected of them. If the teacher specifies, “Do your homework and hand it in by tomorrow,” students have a clear understanding of the requirement.

2. To set clear expectations. When we specify behaviors, we communicate our expectations to students in precise, unambiguous terms. Clearly communicating expectations can help instructors avoid conflicts with students. For example, if a teacher says, “Do your homework,” students know exactly what is expected of them. If the teacher specifies, “Do your homework and hand it in by tomorrow,” students have a clear understanding of the requirement.

3. To assess progress and communicate with others. Using specific language allows instructors to pinpoint behavior and assess it with precision. Assessment of behavior will be described in Lesson 3. Specific language also means that instructors can clearly communicate what a student is doing in a classroom and what the expectations are. Parents and other IEP team members are more likely to understand when we use specific language in describing student behaviors.
How to Specify Behavior

There are 5 steps that instructors should follow when specifying behavior:

- **Step 1:** Define the behavior
- **Step 2:** When behavior is to be weakened, specify an appropriate, alternative behavior to strengthen.
- **Step 3:** Identify the antecedents and consequences of the behavior.
- **Step 4:** Consider other factors that might be affecting the behavior.
- **Step 5:** Determine the behavior's history.

---

Step 1: Define the behavior

- Poor Example: Rebeca will develop a better attitude.
- Good Example: Rebeca will raise her hand to ask for help.
- Poor Example: Kim will work diligently.
- Good Example: Kim will look at his workbook, hold his pencil, and write answers to all of the questions in his workbook.
- Describe when and where these should occur.
- Examples: Rebeca will raise her hand to ask for help in algebra class. Kim will look at his workbook, hold his pencil, and write answers to all of the questions in the social studies workbook during Mrs. England's class.

---

Step 2: When behavior is to be weakened, specify an appropriate, alternative behavior to strengthen.

- Many times, we want to eliminate students' behaviors. Behaviors we want to eliminate seem to stand out. We will refer to them as harmful or disruptive behaviors. HARMFUL BEHAVIORS include behaviors such as physical aggression against others, threatening to do harm, property destruction, cruelty, etc. DISRUPTIVE BEHAVIORS are less destructive ones, but still jeopardize one's involvement in a school classroom, and include noncompliance with instructions, arguing, tantrums, complaining, etc.

---

Practice:

**Poor**
- Many times, we want to eliminate students' behaviors. Behaviors we want to eliminate seem to stand out. We will refer to them as harmful or disruptive behaviors. HARMFUL BEHAVIORS include behaviors such as physical aggression against others, threatening to do harm, property destruction, cruelty, etc. DISRUPTIVE BEHAVIORS are less destructive ones, but still jeopardize one's involvement in a school classroom, and include noncompliance with instructions, arguing, tantrums, complaining, etc.

**Better**
- Many times, we want to eliminate students' behaviors. Behaviors we want to eliminate seem to stand out. We will refer to them as harmful or disruptive behaviors. HARMFUL BEHAVIORS include behaviors such as physical aggression against others, threatening to do harm, property destruction, cruelty, etc. DISRUPTIVE BEHAVIORS are less destructive ones, but still jeopardize one's involvement in a school classroom, and include noncompliance with instructions, arguing, tantrums, complaining, etc.
Step 2: When behavior is to be weakened, specify an appropriate, alternative behavior to strengthen.

- ALTERNATIVE BEHAVIOURS are socially accepted behaviors that accomplish the same purpose, or "function," for a student as the harmful/disruptive behavior. Always identify an alternative behavior to be strengthened, or increased, when the concern is about a behavior that must be weakened, or decreased.

Examples:

<table>
<thead>
<tr>
<th>Behaviors to be weakened</th>
<th>Alternative behaviors to be strengthened</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not working on a task</td>
<td>Working on the task</td>
</tr>
<tr>
<td>Verbally threatening a student</td>
<td>Talking appropriately about school events</td>
</tr>
<tr>
<td>Screaming and yelling</td>
<td>Saying &quot;I don't like that because...&quot;)</td>
</tr>
<tr>
<td>Tantrums</td>
<td>Communicating frustration by asking for a break</td>
</tr>
</tbody>
</table>

Here is an example of a clearly defined disruptive behavior and an alternative behavior:

- Disruptive behavior: Yelling at the teacher—A student uses a loud tone of voice (above conversational volume) directed towards the teacher after she gives him an assignment.
- Alternative behavior: Communicating frustration in an appropriate way. The student uses a normal tone of voice to ask the teacher for help on the assignment.

Step 3: Identify the antecedents and consequences of the behavior

- Antecedents and consequences were defined earlier. Words for antecedents that seem to "trigger" the behavior. Note whether they occur in a consistent way. These events may be "set the occasion" for a behavior. Let's take a closer look at an information that can be obtained by examining antecedents and consequences. For example, let's meet Stephanie and Tara:

- Stephanie: Stephanie was third grader. She, her teacher, and her group of students, including Stephanie, worked on a math lesson. According to the teacher, Stephanie was one of 20 students in the class. Stephanie would often work on problems that were more difficult than those assigned. The teacher noticed that Stephanie seemed to be doing better than before in her math class. The teacher asked Stephanie what she was doing differently. Stephanie explained that she had been working on the math problems in her homework. She also explained that she had been working on problems that were more difficult than those assigned.

Step 3: Identify the antecedents and consequences of the behavior

- Often, antecedents do not precede each occurrence of a behavior. Therefore, several observations should be done to clearly identify antecedents and more "remote" factors that affect behavior. For example, let's meet Janel and Rachel:
Step 3: Identify the antecedents and consequences of the behavior

Jasmin was a 15-year-old involved in an employment transition program. His and his mentor’s relationship was strained due to Jasmin’s noncompliance with program rules. Jasmin was expected to participate in job-specific training; however, he consistently refused to attend. His mentor, Keith, noticed that Jasmin seemed increasingly unresponsive. He would refuse to participate in community-based activities, saying, “I’m not interested.” When Keith asked Jasmin if he wanted to discontinue the sessions, he would say, “No, I want to be at home.” Keith realized that Jasmin read five, then received a score. He remained unresponsive. After several discussions with Jasmin’s mother, who identified the antecedent to the behavior, Keith learned that Jasmin was tired by mid-afternoon because he stayed up too late at night.

Step 4: Consider other factors that may be affecting the behavior

Here are a few of the many factors that instructors should consider:

1. Time of day: Many behaviors consistently occur at the same time of day due to scheduling, presence of certain people, eating patterns, etc.
2. Illness or health problems: Certain behaviors are affected by illnesses, infections, and internal pain (e.g., headaches, toothache, stomach ache, constipation, etc.).
3. Medications: Students may take prescription medications for hyperactivity, depression, or anxiety disorders. If not, it is important that students be aware of their medications and their possible side effects.

Step 4: Consider other factors that may be affecting the behavior

- Diet: Many health experts believe that diet has a profound effect on behaviors and therefore is a prime factor to consider when attempting to change it.
- Specific People: Some behaviors are triggered by the presence of certain individuals with whom students are in contact.
- Level and type of stimulation: Many people are sensitive to light, noise, or external environments. Others may become bored and show inappropriate behaviors when no one is around. Careful observation will help determine what a student may be reacting to and provide the instructor with the information necessary to “modify” the environment.

Step 4: Consider other factors that may be affecting the behavior

- Sleep patterns: As many of us know, sleep patterns affect our moods and behaviors such as irritability and academic performance. Many students prone to problem behaviors have inconsistent sleep patterns or short sleep periods.
- Allergies: Some professionals believe that certain behaviors might be allergic reactions or side effects of allergies (Peterson, 1999). Observe the eating habits of students and any behavioral or physical changes that occur. In addition to potential food allergies, be aware of other types of allergies as well. For example, if a student is not eating well, our effects on their energy level, irritability, and attentiveness.

Step 4: Consider other factors that may be affecting the behavior

- Misjudgment of a behavior by the student: Sometimes, students behave in a certain way because they misjudge the effects of their behavior on others. They may believe they are “within the social rules” but misinterpret them. For example, let’s meet Jasmine.
Step 4: Consider other factors that may be affecting the behavior.

Janesen enjoyed social interaction with her peers and teachers at school. She carried on conversations, asked appropriate questions, and described her experiences to others. However, she always seemed to be right in others’ faces when she talked. It was common for Janesen to stand no more than a few inches from others. Some of her friends took offense and tried to step away from Janesen, but she would keep moving toward them. Friends would ask Janesen to “Stand back” but she didn’t understand.

Step 4: Consider other factors that may be affecting the behavior.

In Janesen’s case, the instructor had to describe and remind Janesen of the “social rule” about maintaining an arm’s length distance from other people. Effective instructors identify the important social rules and review them with students on a regular basis. Sometimes students’ behaviors may be acceptable to some settings, but not others. They misjudge their behavior in relation to the situation. For example, let’s meet Amelia.

Step 4: Consider other factors that may be affecting the behavior.

Amelia was friendly and polite. However, he frequently picked his nose. Naturally, everyone found his behavior disgusting! Not only was nose picking a hygiene problem, it was a disruptive behavior and one that prevented him from making and maintaining friends.

Effective instructors understand that “some behaviors have their place.” In Amelia’s case, the instructor directed him to the restroom, where he could tend to nasal hygiene, then wash his hands thoroughly before returning to the classroom. Can you think of other examples?

Step 5: Determine the behavior’s history

- When changing a harmful/disruptive behavior, it is important to understand how it developed (O’Neill et al., 1997). Try to find out answers to questions like:
  - How long has the behavior occurred?
  - How the behavior increased or decreased in the past month?
  - What has been done to try to change this behavior?
  - What have others found successful to decrease/increase the behavior?
  - Answers to these questions are helpful in providing clues on what antecedents or consequences to consider in a behavioral intervention.

Video

Lesson 2 Progress Check
Assessing Behavior

After we specify a behavior, we use procedures to assess it. By systematically assessing behavior, we can learn more about it and how to change it (Aram 2001). For example, we can determine how often it occurs, when it occurs, and what happens before and after it occurs (i.e., what the antecedents and consequences are). Assessment is necessary before we can start a behavioral intervention.

Why Assess Behavior?

Here are some reasons to assess behavior:
1. Teachers can compare one student’s behavior to other students’ behaviors to verify that it is a problem.
2. Teachers can determine how much of a problem the behavior is.
3. Teachers can determine the level of the behavior before intervention begins, and during intervention to decide whether the intervention works for what it is trying to achieve.
4. Assessment can determine who the behavior is used to assist him or her before and after that.
5. Teachers can determine the standards for accountability on a student’s plan.

Formal Assessments

FORMAL ASSESSMENTS are structured tests requiring rigorous, “standardized” examination procedures (McLaughlin & Leva, 2001). These assessments include psychological or achievement tests that measure academic development, learning abilities, or motor or vocational skills. Formal assessments are often given by psychologists, teachers, and other trained personnel, and are used to determine diagnosis, classification, or eligibility for special education services. These types of assessment are typically not used to gather information about a student’s behavior.

Informal Assessment

We use INFORMAL ASSESSMENTS to gather specific information about a student’s behavior or classroom performance (McLaughlin & Leva, 2001). There are six types of informal assessment: behavioral assessment, note taking, classroom observation, curriculum-based assessment, task analysis, and portfolio assessment. Behavioral note taking, and classroom observation are described below. Curriculum-based assessment, task analysis, and portfolio assessment will be described in Unit 8.

Informal Assessments

BEHAVIORAL ASSESSMENTS are used to identify harmful or disruptive behaviors. Behavioral assessment allows instructors to compare one student’s behavior to other students’ behaviors to verify that it is a problem (Zipoli & Harkavy, 2001). A trained professional may conduct behavioral assessment in school, with the supervision of the classroom teacher or other professional. We will discuss four types of behavioral assessment: checklists, rating scales, questionnaires, and functional assessment. Specific examples of published behavior assessments will be described here because there are many different ways to measure behavior, talk to your facilitator or classroom teacher.

Behavior Checklists

BEHAVIOR CHECKLISTS are lists of behaviors that require an observer to assess harmful actions or disruptions in classrooms or other settings. A trained observer identifies which specific behavior from the list represents problems by checking “yes” or “no.” For example:
### Behavior Checklists

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student frequently goes unnoticed at mealtime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student frequently does not participate in arts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student frequently does not participate in music</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student frequently does not participate in physical education</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Frequent absence indicates early behavior. These behaviors indicate a need for observation. When a student frequently doesn't participate in arts, music, physical education, or mealtime, it suggests a possible lack of interest or difficulty in those areas. These observations should be noted for further discussion with the student or guardians.

### Behavior Rating Scales

BEHAVIOR RATING SCALES are published lists that require an observer to mark a scale according to a behavior's severity (how harmful or dangerous) or frequency (how often it occurs). The observer marks one point on a scale that ranges from mild to severe. For example:

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Security Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>The student yields to his ends</td>
<td>Mild</td>
</tr>
<tr>
<td>The student yields to his ends</td>
<td>Moderate</td>
</tr>
<tr>
<td>The student yields to his ends</td>
<td>Severe</td>
</tr>
</tbody>
</table>

The observer marks on a scale that ranges from least frequent to most frequent. For example:

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Frequency Rating (Habitual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The student is socially aggressive</td>
<td>Daily</td>
</tr>
<tr>
<td>The student is socially aggressive</td>
<td>Weekly</td>
</tr>
<tr>
<td>The student is socially aggressive</td>
<td>Rarely</td>
</tr>
</tbody>
</table>

### QUESTIONNAIRES

QUESTIONNAIRES are lists of questions about a student's behavior or academic concerns which may be answered by the student, a parent, or a teacher. These questions may be similar to those on behavior checklists or rating scales, but they are designed to encourage the questions to be more open-ended. For example, a parent may ask, "Tell me how your child reacts when you withhold a privilege." Or, a general education teacher may ask, "Describe how the student reacts when she has to take a break during a group activity." The interviewee's questions and encourages subjective, detailed information from the respondent. Obviously, the interviewee needs to inform and guide the respondent on how to manage behavior.

### FUNCTIONAL ASSESSMENT

FUNCTIONAL ASSESSMENT is the process of identifying events in the environment that influence behavior (O'Neill et al., 1997). This type of assessment may involve checklists, rating scales, interviews, and direct observation. It is a comprehensive method designed to clarify and confirm the antecedents and consequences that surround behavior, and to identify alternative behaviors to strengthen (Carr & Durand, 1985). The legislation described in Unit 1 called IDEA (1997) requires that schools conduct functional assessments. The purpose of determining the purpose of a behavior is to identify alternative behaviors to replace the targeted behavior. The functional assessment is essential for guiding instructors to implement effective behavioral interventions.

### Note taking

Note taking involves gathering important information by writing notes about a student's performance or behavior. Notes are useful for summarizing observations and data. They may convey information about students' progress, how students approach a task, observations that need to be made in the instructional program, etc. Two guidelines are critical:

- All notes must be dated and signed.
- Notes must be objective and should avoid judgment, because notes may be read by (or to) the student, parent, guardian, teacher, or others. Describe what you see and hear. Don't judge it.
Note Taking
To illustrate the importance of nonjudgmental note-taking, describe how the first statement is objective but avoids judgment.

Raphael went to the supermarket today to work on finishing groceries and to purchase items. He performed poorly on both programs, because he was consistently talking with customers and walking with girls in the store.

Raphael went to the supermarket today to work on finishing groceries and to purchase items. He performed at 15% greater on the first program and at 75% on the second program. Raphael initiated conversation with customers each time.

The second statement above, non-objective and avoids judgment.

Classroom Observations

Inclassroom Observation involves systematically watching a student and recording information about behavior during a school activity. In the United States, we define OBSERVATION assessment of the level of a behavior 10 before starting on intervention. We define INTERVENTION as a systematic set of procedures to improve student behavior or skills. When we observe and record a behavior during baseline, then continue to observe and record it after starting an intervention, we find out:
- Whether the behavior is changing
- How much progress is being made, and
- How close we are to meeting our goal or objective.

Classroom Observations
Inclassroom observations can be broken down into three observations: Frequency, rate assessment, and time intervals.

Classroom Observations

Graphs that track student behaviors. The better student behaviors are displayed using a graph. For example, the graph shows the week's progress in the classroom. The graph shows the student's behavior on Monday, Tuesday, Wednesday, and Thursday.

Frequency Counting

Frequency Counting, where do a tally of the number of times a specific behavior occurs. To observe and record using frequency counting, the behavior:
- Must be identified and defined,
- Must be steady and consistent, i.e., the behavior must occur at least once every minute,
- Must be able to be easily observed, and
- Occurrence must not occur the same length of time.

Examples of behaviors observed in the classroom:
- Number of times the student goes out during independent work
- Number of times the student goes out during independent work
- Incidents of physical aggression

Converting frequency data to rate

We can compare frequency data collected in one session to data collected in another session only if the sessions are the same length. However, sessions may vary in length. Let's say we only observed the student's behavior 2 times during a 20 minute class period on Monday, then we observed the student's behavior 3 times during a 15 minute class period on Tuesday. We cannot compare the frequency of behaviors for the two sessions because the periods of time were the same.
Converting frequency data to rate

However, if daily sessions are of different lengths, the data cannot be directly compared. What if school was dismissed on Tuesday after 20 minutes due to a snowstorm? Can the frequencies from Monday and Tuesday still be compared? No, because the data were collected in sessions of different lengths.

When sessions are of different lengths, we convert frequency data to rate so we can compare observations of different lengths of time. Rate data are usually expressed as number of occurrences per minute or hour. RATE PER MINUTE is the total frequency of behavior in a session divided by the total time.

Converting frequency data to rate

For example, if Jason is disruptive 15 times in 30 minutes, the rate of his behavior is 15 divided by 30 (15/30) = 0.50 disruptions per minute. If during the next period, he is disruptive 8 times in 26 minutes, the rate is 8/26 = 0.32 disruptions per minute. By converting to rate, 0.50 and 0.32 can be compared. Jason was more disruptive when his rate was 0.50 per minute than when it was 0.32 per minute. We can plot the data on the same graph.

Mini assignment

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Length of Time</th>
<th>Rate per minute</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>5 minutes</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>30 minutes</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>42 minutes</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>60 minutes</td>
<td></td>
</tr>
</tbody>
</table>

Time Sampling

Time sampling is a method of intermittent observation or sample points in time. To observe and record using time sampling, the behavior

- Must be specified and defined
- May have to describe beginning or ending (i.e., it may not start and stop like some behaviors, but appear more continuous), and
- May occur at such a high frequency that it is easier to record as a time sample than as a frequency.

Recorded behaviors observed in time sampling:

- Not observational
- Recording with a stopwatch
- Sitting with peers in conversation
- Excessive turns that have no clear beginning or ending

Time Sampling

This section in conducting time sampling includes the following:

1. Decide when to observe the behavior (example: during meal work).
2. Observe the behavior at selected points in time. Many instructors use devices such as a kitchen timer or stopwatch, with recorded tones to signal when to observe and record behavior (example: observe a student during meal work when the timer goes off).
3. Record either “+” (meaning the behavior occurred), or “-” (meaning the behavior did not occur). Do not record both every time the behavior occurs; record only if it occurred at a specific point in time.
Time Sampling

Let's say Lindsey played appropriately with other students (+) in 6 out of 14 total observations. What is the percentage of total observations in which we observed her playing? \( \frac{6}{14} = 0.43 \times 100 = 43\% \)

Per Opportunity

In PER OPPORTUNITY RECORDING, an observer determines whether a behavior occurs when a student has the opportunity to respond. Opportunities are events such as an instructor's question, a verbal instruction, a turn in a game, or 20 math problems. To observe and record, we must consider the following conditions:
1. The behavior must be specified and defined.
2. The instructor must set the opportunity for the student to respond.
3. When the opportunity is set, the observer determines whether the student's response was correct (+) or incorrect (-).

Some time, no response may occur at all. When this happens, record a "0".

PER OPPORTUNITY RECORDING

Examples of behaviors recorded per opportunity:
- Following instructions
- Responding to the instructor's question
- Responding to math problems
- Opening a book

The steps in per opportunity recording include the following:
1. Identify the opportunity.
2. Record a correct/incorrect response (or inappropriate/incorrect response), if applicable, record "0" for no response.
3. Calculate the ratio of correct responses to total opportunities x 100.

Lesson 3 Progress Check

Video:

Types of Positive Reinforcers

Now that we have described ways to observe and record behavior, it is time to consider positively reinforcing consequences (+) for behaviors. We will describe four types of positive reinforcers: praise, activities, materials, and tokens.
Praise

Praise is a naturally reinforcing consequence for most students. It is commonly used as a reinforcer in and out of the school setting. Occasionally, some students, especially those with behavior disorders, emotional disturbance, or autism, may not respond to praise. For them, praise may not be a positive reinforcer, praise may eventually become a negative reinforcer.

Components of effective praise:

Praise must be contingent, that is, it must immediately follow and be dependent upon, the occurrence of the behavior. If we delay praise, it may have no effect. NOTE: With younger students or those with severe disabilities such as severe mental retardation or autism, praise must follow the behavior within a few seconds (usually 1-5 seconds). If delayed, the instructor should describe the behavior being praised.

Components of effective praise:

Praise must be descriptive. The praise statement should describe the specific aspects of the behavior that you are trying to strengthen. NOTE: With younger students or those with severe disabilities who may not be able to comprehend verbal language, instructors must still describe behaviors in understandable ways. We may do this by imitating behavior while praising it, using manual signs to describe and praise behavior, using communication boards or other assistive devices etc.

Components of effective praise:

Praise must vary in content and style. Avoid repetitive and mechanical praise statements; they may not be reinforcing at all. Praise must be delivered frequently. At first, we should praise each occurrence of a behavior. Later, if the behavior has increased, we should praise less frequently. For example, praise 2 out of 3 occurrences, then 1 out of 2 occurrences, then 1 out of 3 occurrences, and so forth. Eventually, the student’s behavior will continue with only occasional praise.

Components of effective praise:

Praise must be sincere and enthusiastic. Many students with disabilities experience frequent failure. They may not recognize when they are successful. Sincere, enthusiastic praise communicates to them that they can be successful and motivates them to keep trying.

Praise must fit age, culture, and gender. That is, we should tailor our praise to a student’s chronological age and cultural membership. For example, many younger students respond best to public, boisterous praise, while older students or those representing other cultures may prefer private or individualized praise.

Mini-Assignment

List 10 alternative ways to say (or communicate in nonverbal ways) “good work.” Ensure that your messages are consistent with the components of effective praise.
<table>
<thead>
<tr>
<th>Activities</th>
<th>How to identify activity reinforcers:</th>
</tr>
</thead>
</table>
| Activity reinforcers are opportunities for students to participate in preferred events if they meet some behavioral requirement. To be effective as reinforcers, activities must be appropriate to the age, gender, culture, and personal interests of the student. Examples of activity reinforcers include free time use at a computer or CD player, time in the gym to play basketball, opportunity to be a messenger, time in the library, etc. | - Watch to see what students do during free time.  
- If possible, allow students to communicate what they like to do. Ask them, “What activity would you like to work for?”  
- If possible, ask parents, guardians, or other what the child likes to do. |

<table>
<thead>
<tr>
<th>Limitations of activity reinforcers:</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Not all activities, such as field trips, can be conducted immediately after appropriate behavior.</td>
<td>Materials are items delivered contingently upon the occurrence of appropriate behavior. They must be appropriate to the age, gender, culture, and personal interests of the student. Examples of materials that instructors might use as reinforcers include stickers, keys, magazines, books, and tokens.</td>
</tr>
<tr>
<td>- Therefore, because they are delayed, these activities may not be contingent reinforcers. Tokens, discussed later, can help “bridge the gap” between a behavior and a delayed reinforcer. Talk with your classroom teacher.</td>
<td></td>
</tr>
<tr>
<td>- Some group activities may not be reinforcing to all students. That is, group activities may be reinforcing to some students but not others. Offer students choices between activities. Talk about your classroom teacher.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Materials</th>
<th>Tokens</th>
</tr>
</thead>
</table>
| How to identify material reinforcers:  
- Identify material reinforcers by asking students what they like.  
- If possible, ask parents, guardians, or other what they like.  
- Place several items in front of students and record which one(s) they take.  
- Limitations of material reinforcers:  
- Some materials may be expensive or inappropriate in certain classrooms. Talk with your classroom teacher.  
- Some materials may cost too much or may be freely available. If freely available, materials cannot be used as contingent reinforcers. Instructors should reinstate materials and deliver them only after the occurrence of appropriate behavior. | Tokens represent other positive reinforcers delivered at a later point in time. They are items that students can accumulate and exchange for valued activities or materials. The tokens may be points, stickers, play money, chips, etc. |
Features of a Token System:

- Tokens must be exchanged for backup reinforcements, such as activity or materials.
- Tokens will lose value as they are frequently exchanged for backup reinforcements.
- The ratio of tokens to backup value and the value of the backup must be carefully selected. That is, a token must be worth (enough, but not too much) for the student to want it.
- Tokens must be distributed fairly to students based on their work performance. Instructors and students should decide how many tokens will be distributed for various behaviors that are expected from the student.
- Once in place, there should be time on-task negotiations concerning the value of the tokens.
- Tokens should be an independent variable, not on the number of tokens received. Describe the behavior that preceded the tokens.

Limitations of token systems:

- Since tokens become valuable, items, theft or counterfeiting may occur. Guard against this by using your initial or other method to authenticate tokens.
- Back-up reinforcers sometimes become boring and predictable. If students lose motivation, vary the back-up reinforcers to keep interest level high.

Mini-assignment

- Describe potential reinforcers and how you would make them contingent on Kim’s behavior (from lesson 3). In lesson 3, we described “Kim,” a student who was off-task during a low percentage of independent seat work observations. We want to increase Kim’s time on-task. Kim enjoys praise, tokens, and drawing pictures. Describe potential reinforcers that you would discuss with your supervisor and how you would make them contingent on Kim’s behavior during and after independent seat work.

Five Guidelines for Behavioral Interventions

- There are five important guidelines for applying behavioral interventions. All interventions should include positive consequences for appropriate behaviors. Always focus on applying positive consequences to alternating, appropriate behaviors. When you are trying to decrease harmful or disruptive behaviors.
- Once an intervention has been applied, all users should be aware of it and should use the same intervention procedures. Communication among instructors is critical to the success of an intervention.
Five Guidelines for Behavioral Interventions

3. Students should play a part in developing interventions. By allowing students to participate in the interventions, they have ownership and responsibility. When students feel their ideas and suggestions are important, they are more likely to carry through with the conditions of the intervention. Students can become involved in developing an intervention by:
   - Selecting reinforcers
   - Setting the level of performance required to receive the reinforcer
   - Identifying other behaviors that might be strengthened, and
   - Monitoring their own behavior.

4. The students' expectations must be achievable. If the expectations are too high, the student may become frustrated and stop trying. If the expectations are too low, the reinforcement may become trivial and the student may lose interest in obtaining it. Carefully monitor the student's progress at the beginning of the intervention to determine if the expectations are being met. If the expectations are too high or too low, talk with the classroom teacher about adjusting it. This is important because one critical factor is that students must experience success soon after the intervention starts.

Steps in Preparing for an Intervention

We will describe three steps to prepare for starting an intervention:

1. Select the most appropriate recording procedure for the identified behavior. In Lesson 3, we discussed three ways to assess and measure behavior (frequency counting, time sampling, per opportunity recording). When we start an intervention, the recordings will tell us whether the intervention is effective.

2. Observe and record the behavior. Make sure you have established ways to observe and record behavior before starting an intervention. For more information on this, return to Lesson 4.

Formal and Informal Interventions

We will describe behavioral interventions as formal or informal. FORMAL INTERVENTIONS are those that include punishment procedures. Usually, they must be written and approved according to school district and/or state requirements. After a formal intervention is developed with a student, it is presented to appropriate persons for approval. Paraprofessionals using formal interventions must have adequate training. These interventions will not be discussed here because their use depends on each state's or agency's regulations and on completion of training (Morgan, locality, & Smith, 1997). Consult your instructor or supervisor for more information.

Steps to preparing for an intervention

1. Graph data before intervention (baseline) and during the intervention. When an intervention starts, compare the level of the behavior to the level in baseline and ask:
   - Is the appropriate behavior strengthening (increasing)?
   - Is the harmful/disruptive behavior weakening (decreasing)?
   - Should we change the intervention?

2. For example, the appropriate behavior shown in the graph above (left) is increasing. The intervention is working and no changes are necessary. However, the appropriate behavior in the graph below (right) is not increasing. If occurring at about the same level as the baseline, an instructor would want to change the intervention.
Formal and Informal Interventions

Informal Interventions are those that usually do not require approval from the school district or state. However, informal interventions must be approved by the classroom teacher. These interventions may be simple agreements between an instructor and student about changing behavior. They take the form of “if you behave this way, then you can...” or some type of reinforcement.” Paraprofessionals using informal interventions must have approval from the classroom teacher.

Applying Informal Interventions

Let’s examine five informal interventions that may be useful for students with whom you work:

1. Debugging the environment to promote appropriate behavior
2. Increasing alternative communication
3. Increasing alternative ways to get attention
4. Delivering positive reinforcement for the absence of disruptive behavior
5. Mixing “easy” and “hard” expectations

Intervention 1: Debugging the environment to promote appropriate behavior

- Occasionally, students behave in harmful or disruptive ways because of factors in the environment. For example, busy, noisy environments may increase harmful/disruptive behaviors. Also, interacting with a disliked person, participating in activities in hot/cold settings, or learning boring tasks may increase harmful/disruptive behaviors. Effective instructors watch for these factors and “debug” environments to promote appropriate behaviors.

Intervention 1: Debugging the environment to promote appropriate behavior

Example of Intervention 1: Michael was a youth with autism. His paraprofessional (Shelley) was delivering instruction to Michael on how to make a purchase at a supermarket. When Michael and Shelley entered the supermarket, Michael engaged in speaking, lumping, hand-biting, and moving his head up and down. Because Michael had no verbal skills and limited sign language, he could not tell Shelley why he did everything. Shelley observed that Michael was reading the manual of a vending machine being placed in the front of the store. When Shelley asked Michael if he was excited about having a soda, he signed “yes, I want a drink.” Shelley debugged the environment by arranging for Sally and Michael to enter the supermarket through another entrance. Also, she set up a point system so that Michael could earn a soda after the instructional session if he did not engage in these behaviors.

Intervention 2: Increasing Alternative Communication

Many of our behaviors function to communicate information. Verbal commands, facial expressions, and gestures can all be ways that we intent to communicate. However, students with autism may need more assistance in this area. In order to communicate effectively, we need to focus on increasing positive, alternative ways to communicate (O’Neill & Reith, 1993). To implement this intervention, follow these steps:

1. Meet with the student to find out what messages the student is trying to communicate. The student may be trying to say “I need a break,” “I need a drink,” “I need a snack,” or “I’m hot,” etc.
2. With the student’s assistance, agree on a message (a verbal statement, manual sign, or other communication) that you two will accept as a positive, alternative form of communication. Agree that, when the student uses this form of communication, you and others will act upon it by either granting the request or offering an alternative.
Intervention 2: Increasing Alternative Communication

3. When the student uses this message, respond by 
groaning the request (example: “Oh, let’s work on an 
a easier task for awhile.”) or by offering an alternative 
(example: “thanks for asking nicely. Let’s work on an easier 
task.”)

4. If the student uses harmful/disruptive behaviors to 
communicate (such as a loud voice, obscenities, 
temporary, etc.) try to redirect the student. That is, direct 
the student to return to the task until she is ready to use the 
agreed upon message. Be careful not to ignore the event 
while the student is still behaving in a harmful or disruptive 
way.

Intervention 3: Increasing Alternative ways to 
get attention

Some students may get attention from others by 
behaving in disruptive ways. Intervention 3 involves 
reducing these attention-seeking behaviors while 
increasing more appropriate ways to get attention. The 
Involves reinforcing an appropriate behavior while 
ignoring the disruptive, attention-seeking behaviors.

Note: Ignoring disruptive behavior may initially 
cause it to increase. Therefore, ignoring should only be 
used when the behavior is not harmful. To carry out this 
intervention, follow these steps.

Intervention 3: Increasing alternative ways to 
get attention

1. Meet with the student to find out why attention is 
needed. Does the student want to work with 
someone else? Does he want an opportunity to talk 
about something?

2. Agree on a way that the student could seek out 
attention that everyone will accept as an 
appropriate alternative (e.g., saying “Can I talk 
with you now?”). Agree that, when the student uses 
this form of attention-seeking, everyone will try to 
provide attention or offer an alternative.

Intervention 3: Increasing alternative ways to 
get attention

3. When the student uses the appropriate form of 
attention-seeking, provide attention or offer some 
alternative (e.g., “Thanks for asking nicely. I’m busy 
right now, but I could talk with you in five minutes.”)

4. If the student uses disruptive behavior to get 
attention, try to ignore it. However, if the behavior 
becomes dangerous or harmful, redirect the student to 
another task until he is ready to use the agreed-upon 
message. Be careful not to deliver too much attention 
while the student is still behaving in a disruptive way.

Intervention 3: Increasing alternative ways to 
get attention

Example of intervention 3: Gary interrupted a parent-teacher (Carla) by hugging her arm to gain her attention. Gary, 
Carla, and the teacher decided that Gary should seek for 
Carla to finish her conversation, then say “Excuse me, Carla, 
may I talk with you?” with a smile and sit down. When he did 
this, Carla would talk with him. Gary and Carla practiced 
these behaviors on the teacher worksheet. If he interrupted or 
touched Carla, she would walk away, gently but consistently 
ignoring his pleading and touching. On the first day, Gary 
talked and interrupted Carla twice. On the second day, he 
asked appropriately once, but interrupted her three times. At 
this point, the teacher and Carla met with Gary for additional 
practice. After that, he used the technique consistently, and 
generally received Carla’s attention.
Intervention 3: Increasing alternative ways to get attention

Communicate Intervention 3 to all instructo. Someone who does not understand the intervention may inadvertently pay attention to the behavior. This makes the behavior harder than ever to decrease.

Intervention 4: Delivering positive reinforcement for the absence of disruptive behavior

Sometimes students develop habits that are difficult to break. For example, students with autism may engage in “self-stimulatory” behaviors, such as waving their arms or rocking back and forth. These and other behaviors may be considered disruptive because they serve no useful purpose. One effective way to change these disruptive behaviors is for instructors and others to deliver positive reinforcement when the disruptive behavior does not occur. That is, provide reinforcement according to a time schedule as long as the disruptive behavior does not occur, or X minutes after the last occurrence. To carry out this intervention, follow these steps.

Intervention 4: Delivering positive reinforcement for the absence of disruptive behavior

Example of Intervention 4. Cella had been diagnosed with autism. She sometimes rubbed the back of her head rapidly. Rubbing her head did not appear to communicate a message, nor did Cella do it for attention. However, it interrupted her activity and caught the attention of classmates, so it was considered disruptive. Her paraprofessional (Doug) noticed that Cella enjoyed listening to music during free time. When Doug put on music, Cella seemed to agree that she could listen to her favorite music as long as she did not rub her head. If she rubbed her head, Cella agreed that she would give up five minutes of music during free time. After the first five minutes of free time, she could turn on the music. If more rubbing occurred, the music remained off for another five minutes.

Intervention 5: Mixing “easy” and “hard” tasks.

Most of our daily routines involve both easy and hard tasks, or preferred and nonpreferred activities. If we do all the easy tasks first, we lose motivation to do the hard ones. Few of us do the hard ones first and the easy ones last! Many of us naturally mix the easy and the hard ones to maintain motivation and avoid a long series of hard tasks. Instructors can help students do the same thing. To carry out this intervention, follow these steps.

Intervention 5: Mixing “easy” and “hard” tasks.

Meet with the student to identify the easy and hard tasks (or easy and hard instructions) to follow.

With the student's assistance, identify a positive reinforcer.

If the student completes both easy and hard tasks, follow the easy task. Note: If the student does not complete both tasks, the student should be able to complete an easy task. After a reinforcement is delivered, the student should receive an easy task.

If the student makes progress using this intervention, change the schedule of reinforcement, that is, shorter success on an easy task sequence, change to a short success on an easy task sequence, and then change to an easy task sequence, then change to a long success on an easy task sequence.
Intervention 5: Mixing “easy” and “hard” tasks.

Example of Intervention 5: Dallas was a student with marked noncompliance. He enjoyed drawing pictures and was considered “the second grade artist.” However, he disliked reading. He would often start a reading activity with the paraprofessional (Amanda) read a few sentences aloud, mispronounce a few words, and show his frustration by yelling, screaming, and throwing the book. Amanda arranged for Dallas to read one sentence, then draw a picture about the sentence. After one minute of drawing, Dallas would read the next sentence, then draw another picture or add to the first one. Dallas continued to alternate drawing and reading activities. After three daily sessions, Amanda asked Dallas to read two sentences before he drew a picture. Eventually, Dallas was reading an entire story, then drawing a picture to describe it.
Appendix D:

Coaching Session Topics
<table>
<thead>
<tr>
<th>Antecedent:</th>
<th>Before</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior:</td>
<td>Behavior</td>
</tr>
<tr>
<td>Consequence:</td>
<td>After</td>
</tr>
</tbody>
</table>

**CONSEQUENCES:**
Positive: Behavior Increases
Punishing: Behavior Decreases
Neutral: Behavior doesn’t change

**LEAST RESTRICTIVE:**
Try least restrictive and if it is ineffective then try more restrictive.

**SPECIFYING BEHAVIORS:**
1- Pinpoint behavior
2- Have clear expectations with students
3- Assess progress and communicate with teachers and parents

**SPECIFY:** Define exactly what is going on (be specific)

**DEFINE:** What do you want the student to do instead?
Be **specific:** What (behavior), How much (percentage), When (what time), Where (which class period)

**OTHER FACTORS:**
T- Time of day
I- Illness
M- Medication
E- Environment (stimuli)
Assessing: reasons to assess behavior

1. Compare behavior to verify problem
2. Determine how much of a problem it is
3. Compare baseline to intervention to see if it is working
4. Determine how behavior is related to events before and after
5. Meet accountability for IEP

Frequency Counting:

1. Specified & Defined
2. Easily observable
3. Start & Stop
4. Same length of time

Time Sampling:

1. Specified & Defined
2. No beginning or end
3. High frequency

Per Opportunity:

1. Specified & Defined
2. Instructor sets the opportunity
3. Observer determines whether the response is correct or incorrect
Activity Reinforcers:

1. Ask parents what student likes to do
2. See what they do in free time

*Limitations: Activities that are too far away

Material Reinforcers:

1. Ask parents what like
2. See what student likes

*Limitations: some materials not acceptable for all classrooms

Token Reinforcers:

1. Frequently exchanged
2. Emphasis on the performance not on tokens

*Limitations: Have back-up reinforcers to keep motivation

6 Components to Effective Praise:

1. Contingent
2. Descriptive
3. Varied
4. Frequent
5. Sincere
6. Age Appropriate
Interventions:

- All interventions need to include positive consequences
- All instructors need to be aware of procedure
- Student helps with intervention
- Must be achievable
- Specific & well defined

Prepare an Intervention:

1. Select recording procedure
2. Observe & record
3. Graph

Intervention 1: Debugging

- Look @ environment & change as needed

Intervention 2: Increase Communication

1. Find out what trying to communicate
2. Agree on appropriate message
3. Respond with request if appropriately asked
4. Redirect with inappropriate request

Intervention 3: Increase Attention

1. Find out why need attention
2. Agree on appropriate response
3. Respond with request if appropriately asked
4. Ignore with inappropriately request

Intervention 4: Positive Reinforcement for Absence of Behavior

1. Describe behavior to decrease
2. Identify reinforcer
3. Decide how to deliver reinforcer
4. Ignore disruptive behavior

Intervention 5: Hard & Easy Tasks

1. Identify hard & easy tasks
2. Identify reinforcer
3. Describe how will deliver reinforcer
4. If making progress, change reinforcement schedule

4 ways for student to participate in intervention:

1. Select reinforcer
2. Set level of performance
3. Identify other areas to work on
4. Monitor own behavior
Figures
Figure 1: Number of participants who answered each question correctly on the pre-test, post-test, and one month follow up test.
Figure 2: Number of questions answered correctly per participant on the pre-test, post-test, on one month follow-up test.