

Effective Use of Reinforcement for Students with Externalizing Challenging Behavior

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When confronted with challenging externalizing behaviors—such as aggression, tantruming, or other acts with the potential to cause harm or disrupt class—it can be tempting to prioritize stopping the behavior (Kauten & Barry, 2020). In addition to trying to decrease challenging behaviors, most comprehensive behavior interventions involve having the student use prosocial behaviors more frequently. Increasing appropriate behaviors is important because it ensures the intervention process is a learning experience that contributes to the continuing development of the student. Additionally, appropriate behaviors can be designed to replace challenging behaviors. This process usually involves the use of reinforcement—consequences that predictably follow a behavior that increase the occurrence of a behavior over time (Zaheer et al., 2019).

Reinforcement is a common element of many interventions used in schools, including point systems (e.g., Kim et al., 2022) and behavior contracts (e.g., Bowman-Perrott et al., 2015). Any educator who has attempted to use rewards in class has undoubtedly observed that these are not always effective at increasing appropriate behaviors, however. The purpose of this brief is to provide guidance from the research on the appropriate use of reinforcement for children who exhibit externalizing behaviors. Specifically, the brief will address the importance of (a) identifying reinforcement, (b) providing reasonable expectations, (c) administering reinforcement frequently and immediately, and (d) considering context. Because these guidelines are not exhaustive, additional resources are provided following a discussion of implications for practice.

Intervention Strategies

Identify Reinforcers Before Trying an Intervention

Most educators are familiar with providing incentives or rewards for appropriate behavior. Although similar to the concept of reinforcement, incentives and rewards generally refer to consequences that educators expect to influence student behavior when used as part of a behavior management plan. Reinforcement refers to consequences that are already associated with behavior that occurs in certain contexts (King & Kostewicz, 2014). These are not necessarily provided by an educator as part of a behavior plan. If an inappropriate behavior is observed in class (e.g., talking out during class), it is likely being reinforced by a subsequent event (e.g., laughter from peers). While rewards may be selected based on beliefs about what might encourage appropriate behavior or what is on hand in the classroom, the use of reinforcers must be guided by knowledge about consequences to which the student is likely to respond. Failure to identify consequences that function as reinforcers for the student almost always produces an ineffective behavior intervention. The use of reinforcement should therefore involve some form of assessment.

Assessments used to identify reinforcers with the potential to change student behavior vary in terms of resources required for administration. Two broad types of assessments used in education settings frequently require the involvement of educators. The functional behavior assessment (FBA) is an intensive procedure that entails gathering information about students with behavioral needs beyond those addressed by generally effective classroom management (Zaheer et al., 2019). Although required for students with disabilities whose challenging behavior relates to their diagnosis, the FBA is increasingly used outside the scope of special education. The school or district-level behavior specialist will typically implement the FBA, which can entail a range of activities including stakeholder interviews and student observations. Educators may need to provide specific details regarding the student's behavior and describe events that occur prior to and immediately following the instances of misconduct. A specialist may then observe the student in class over multiple sessions.



One of the most important outcomes of an FBA is insight into what the student obtains or avoids through their inappropriate behavior—in other words, the items or activities (e.g., educator attention) that currently reinforce the student’s challenging behavior. With this information, the behavior intervention team can change the circumstances under which the student receives a reinforcer. For example, rather than escaping reading assignments by destroying materials and being excused from class, the student can delay the assignment by asking for a break. The primary benefit of the FBA is that it reveals reinforcers that are already present in the classroom, increasing the likelihood that a behavior plan incorporating the reinforcer will be effective. Limitations of the FBA include the time and expertise needed to collect data and interpret results—a single educator will not be able to complete an FBA without assistance. Additionally, it may not be appropriate or possible for educators to attempt to use reinforcers identified in the FBA as part of the intervention. In such cases, educators should consider alternative assessments.

Items or activities that have the potential to reinforce appropriate behavior, but that do not currently appear in the classroom, are often identified using preference assessments. The basic idea behind preference assessments is that items or activities the student prefers across a variety of contexts (e.g., a favorite candy, time to listen to music) can function as reinforcers in the classroom. For vocal students, a preference assessment can be as simple as asking the child to identify preferred items (e.g., food) and then having the student rank each item. Identifying multiple reinforcers is important because consistent use of the same item can lead to that item becoming less effective over time. Items with the highest rank are presumed to act as reinforcers for appropriate behavior. Assessments for students who do not typically communicate vocally and who may not be able to simply tell adults what they prefer require more effort. Typically, stakeholders familiar with the child’s preferences complete a brief questionnaire. A rank for these items is obtained by allowing students to select items or cards depicting activities from an array, choose a favorite item from pairs of items/activities, or by simply observing the amount of time a student spends engaging in an activity (for additional information, see King & Kostewicz, 2014).

Although easy to implement and a better means of identifying reinforcers than simply asking parents or educators, preference assessments are not without limitations. Items featured on preference assessment often appear in contexts unrelated to instruction and may not be appropriate for the classroom. Educators will also need to obtain these items in advance.

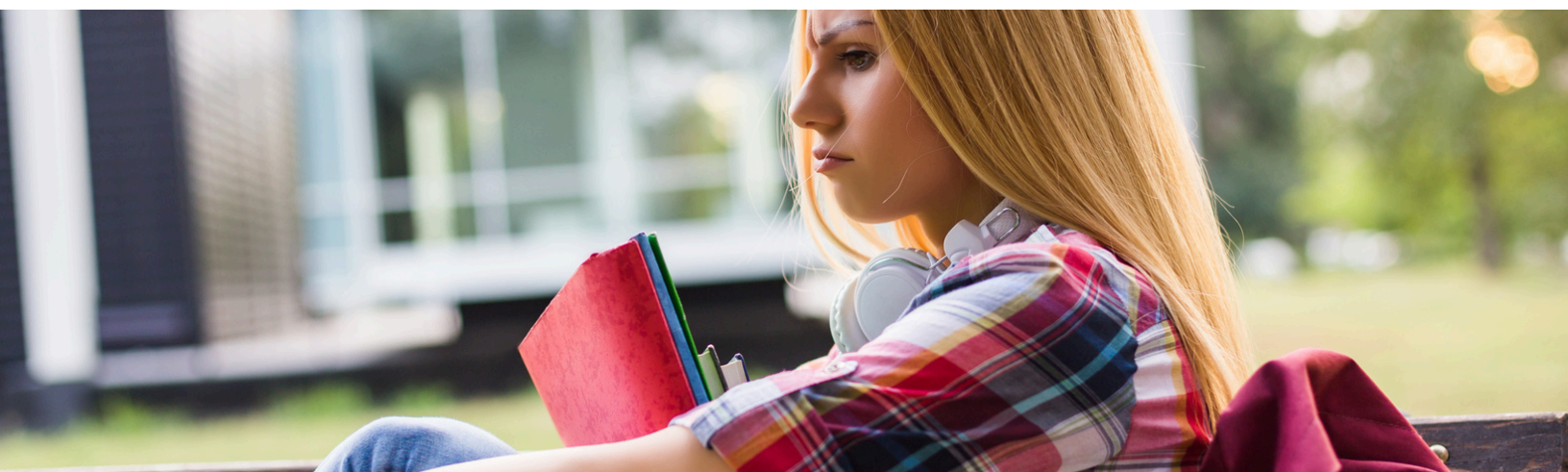


Additionally, a student's preference does not necessarily predict that an item or activity will increase rates of appropriate behavior. Data collection following implementation is necessary to determine whether the items or events identified using a preference assessment function as reinforcers.

Provide Reasonable Expectations

Educators hoping to use reinforcement should have a clear idea about the behaviors that will result in reinforcement, communicate these expectations with the student, and ensure that students are capable of meeting expectations (Zaheer et al., 2019). Changing behavior through the use of reinforcement requires educators to provide reinforcers when an appropriate behavior is observed and—to the greatest extent possible—withhold reinforcers upon the occurrence of challenging behavior. Thinking carefully about the behavior educators hope to reinforce is critical, as confusion can lead to inappropriately withholding reinforcement when an appropriate behavior is exhibited or accidentally reinforcing challenging behavior. Additionally, children often attempt to “bargain” with authority figures during the initial stages of a behavior intervention in instances where they have not actually exhibited an appropriate behavior. In such moments, it helps to be certain about behaviors that merit reinforcement.

On the other hand, children cannot consistently exhibit appropriate behavior without a clear understanding of expectations. Posting classroom expectations is a hallmark of effective classroom management for this reason; however, behavioral expectations for children who exhibit challenging behavior often differ from those addressed in typical classroom expectations. Educators should plan to provide frequent reminders regarding appropriate behaviors, particularly in advance of activities where the behavior is most relevant. For example, educators should remind a student about how to engage appropriately with peers and what this entails immediately prior to a group assignment.



One final consideration is the student's ability to perform the expected behavior. Regardless of the quality of the reinforcers or the clarity of the expectations, a child who has no history of performing a desired behavior (e.g., an advanced academic task) will likely require some form of instruction before consequences for performing the behavior are relevant. A student who struggles to perform addition, for example, will not complete long-division problems correctly simply because he will earn access to a favored activity afterward. In instances where it is unlikely the child will be able to perform a behavior without extensive instruction, educators should consider reinforcing a somewhat easier version of the behavior until the child can consistently perform the behavior of interest.



For example, a teacher who identifies engaging in classroom discussion as a target behavior might begin by reinforcing eye-contact or any other signs of interest in a topic. This may be followed by reinforcing only small verbal contributions. Eventually, the teacher could only provide reinforcement for extended, quality contributions. However, this will only work if the educator provides supplemental instruction relevant to appropriate behavior.

Reinforce Appropriate Behavior Frequently and Immediately

When used for any student who exhibits a challenging behavior, reinforcement must consistently follow the appropriate behavior—especially at first—and as close to the occurrence of behavior as possible (Richman et al., 2015). Attempting to establish the relationship between an appropriate behavior and a reinforcer can be difficult, especially when a child is already receiving reinforcement for challenging behavior. In the first stages of implementing an intervention, it is important to set a reasonable goal the child can meet without difficulty. Ensuring reinforcement follows the occurrence of the appropriate behavior is also key. These requirements pose challenges for educators in charge of entire classrooms who may not have time to attend to a single student consistently. Unfortunately, providing reinforcement quickly and consistently often makes it seem as though the student with a history of challenging behavior is receiving greater benefits than peers who do not require intervention.



Unlike many students who do not require behavior intervention, however, children who receive behavior support often have a history of receiving reinforcement for inappropriate behavior. To compete with a behavior that the child may have been using to access reinforcement for many years, educators must establish the appropriate behavior as a more effective method of accessing reinforcement. Having paraprofessionals or even peers accept some responsibility for providing reinforcement can make initial use of reinforcement more feasible and provide a higher likelihood of success. Once the intervention has had some success, educators may provide reinforcement less frequently and increase the requirements for receiving reinforcement (Zaheer et al., 2019).

To the greatest extent possible, students should also receive reinforcement immediately following appropriate behavior. Research suggests that, for many students who exhibit challenging behavior, the most important quality in a reinforcer is the speed at which it is delivered. Children with ADHD, a diagnosis associated with negative peer-interactions and classroom behavior supports, are more responsive to immediate consequences than children without ADHD (Patros et al., 2016). Thus, a child may exhibit inappropriate behavior to get an immediate reprimand rather than appropriate behavior that receives infrequent praise or attention in many classrooms. Consistently providing reinforcement immediately following an appropriate behavior can improve the effectiveness of intervention plans for many children who require behavior supports.

Consider the Context

The effectiveness and feasibility of reinforcement depends on many situational factors. Events a child encounters throughout the day can alter the ability of typically effective reinforcers to improve behavior (Hill et al., 2020). A child who has not been exposed to preferred items or activities is more likely to exhibit appropriate behaviors when these preferences are used as reinforcers. In contrast, a child with the flu is less likely to exhibit behaviors that result in access to preferred activities. A child who recently received an unexpected additional hour of unrestricted access to computer games in an early morning class is also less likely to complete math problems in exchange for time on the computer in the afternoon.

Similarly, the presence of alternative forms of reinforcement for inappropriate behavior can greatly diminish the influence of reinforcement for appropriate behavior (May, 2019). A child who may respond to educator-administered reinforcers during 1:1 instruction may nonetheless exhibit challenging behavior associated with peer-attention in whole-class settings. Consequently, a behavior plan must often include some flexibility (e.g., types of reinforcers, changes due to health concerns) and interventions beyond reinforcement to be generally effective.



One additional consideration is the instructional goals, resources, and teaching philosophy of educators involved in using reinforcement (Monzalve & Horner, 2021). The behavior plan should take the preferences of educators and staff into account, particularly when educators are asked to administer reinforcement in addition to other duties. A good behavior plan represents a compromise between techniques likely to change a child's behavior and techniques personnel responsible for implementation can realistically administer. The feasibility of providing a specific form of reinforcement should be considered both during the development and implementation of an intervention plan.

Key Implications for Practice



Effective reinforcement involves many considerations and is often time-consuming. Identifying likely reinforcers, providing clear expectations, consistent administration, and a consideration of context will ultimately increase a behavior intervention plan's chance of success.



Reinforcement represents a critical part of any behavior intervention plan. However, it often does not work in isolation and should be combined with effective academic instruction and additional behavior interventions for maximum effect. Often, additional interventions are needed because specific circumstances prevent reinforcement from being used effectively for the purposes of behavior intervention—for example, educators may not control the source of reinforcement for the challenging behavior (e.g., peer attention) or items the student finds reinforcing may not be appropriate for an educational context.



The guidelines described in this brief can assist the application of reinforcement regardless of whether it is part of a formal behavior plan. However, reinforcement is often used in consultation with a behavior specialist or support team and may differ from the rewards, incentives, and other management typically administered in class. As a plan will not succeed without proper implementation, the preferences of educators and other staff should be considered throughout the behavior intervention process.

Related Resources

- **Autism Focused Intervention Resources and Modules** (<https://afirm.fpg.unc.edu/>) are freely available resources related to challenging behaviors exhibited by students with developmental disabilities disseminated by the US Department of Education (USDOE). Modules provide guidance and classroom-ready materials related to many relevant interventions and include material exclusive to reinforcement (registration required): Sam, A., & AFIRM Team. (2015). *Reinforcement*. Chapel Hill, NC: National Professional Development Center on Autism Spectrum Disorder, FPG Child Development Center, University of North Carolina. Retrieved from <http://afirm.fpg.unc.edu/reinforcement>
- **The Center on Positive Behavior Interventions** (<https://www.pbis.org/>) is designed to help school personnel implement interventions of varying intensity within the context of schoolwide systems of support. Resources include technology, such as reinforcement tracking apps, and professional development presentations: Sugai, G. (2016). *Effective use of positive reinforcement*. Center on Positive Behavioral Interventions and Supports. Retrieved from <https://www.pbis.org/resource/effective-use-of-positive-reinforcement>
- **The National Center on Intensive Intervention** (<https://intensiveintervention.org/>) at the American Institutes for Research is funded by the USDOE and aims to assist educators to provide intensive, evidence-based behavioral and academic interventions. Handouts, toolkits, and presentations pertain to a range of topics, including the use of reinforcement: Freeman, J., Briere, D., & Simonson, B. (2019). *Consequence strategies to increase behavior*. National Center on Intensive Intervention. <https://intensiveintervention.org/consequence-strategies-increase-behavior-behavior-course>
- **The IRIS Center** (<https://iris.peabody.vanderbilt.edu/>) is supported by the USDOE that provides free resources and professional development credits on a range of activities, including behavior interventions. A series on behavior intervention strategies and techniques, including reinforcement, is freely available: IRIS Center (2023). *Addressing challenging behaviors*. IRIS Center. <https://iris.peabody.vanderbilt.edu/module/bi2-elem/#content>

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