

How to Change Behavior in the Context of an FBA-Based Intervention

Bob Morgan, Tyra Sellers, Alice Keyl, Utah State University

Teachers implementing behavior interventions are often more effective in eliminating problem behavior and building new skills if they start with functional behavior assessment (FBA). Using FBA, the teacher identifies the purpose, or function, of a problem behavior, then teaches a “replacement skill” that serves the same function. For example, rather than throw a tantrum to avoid a high demand assignment, a teacher teaches a seventh grader to approach an adult in the room to ask for help on particularly difficult problems. Or, instead of making noises to get attention, a teacher teaches a first grader to submit a card with a picture of himself helping the teacher as if to ask “can I be your helper this morning?”

The logic of FBA-based intervention is that students who are taught to engage in the replacement skill when confronted with certain situations will no longer resort to the problem behavior. Research shows that teaching functionally equivalent replacement behavior effectively decreases problem behaviors and teaches new ways to approach problems (Ellingson, Miltenberger, Stricker, Galensky, & Garlinghouse, 2000; Ingram, Lewis-Palmer, & Sugai, 2004; Iwata et al., 2000). FBA-based interventions are more effective than generic interventions involving positive reinforcement consequences. For example, Ingram et al. found FBA-based interventions were more effective than generic behavior intervention in decreasing disruptive behaviors in two sixth grade boys.

Not only does FBA identify a replacement behavior, it helps determine which consequence strategies to use, and which to avoid, in designing an intervention. For example, if the student who previously threw a tantrum to avoid a high demand task begins to ask for help in an appropriate manner (the replacement behavior), the teacher may reduce the assignment by 10% (the consequence strategy). Even with the reduction of the

assignment, the student probably gets more work done, and the 10% can be added back later. If the student who made noises to get attention submits a card instead, she may be allowed to help the teacher and get three minutes of personal time at the end of the school day.

Without knowing the function of the problem behavior, teachers sometimes inadvertently reinforce the problem behavior. For example, placing a student in timeout for throwing a tantrum (when the purpose of the tantrum was to avoid a high demand task) may reinforce the problem behavior. The next time he confronts a high demand task, the student may throw a tantrum to get access to timeout.

How does a teacher identify the function of problem behavior? How does a teacher identify and teach a replacement? How is the FBA-based intervention implemented? A step-by-step method for FBA-based intervention follows.

Step 1. Gather information from other teachers or parents by asking a series of questions about the function of the problem behavior. There are several commercially available functional assessment interview protocols (e.g., O’Neill et al., 1996). Key questions include “When/where does the problem behavior occur? When/where does the problem behavior *not* occur? Describe the circumstances that would almost guarantee the problem behavior occurring? Describe the circumstances that would almost guarantee the problem behavior will *not* occur.”

Step 2. Examine answers to questions to identify common themes. Which potential function is identified most frequently? Are there patterns between potential function and other events?

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Step 3. Develop a hypothesis, or best guess, regarding the function of the problem behavior. The hypothesis should be in the form:

When _____ (name the antecedents or events that set the state for the behavior to occur)

The student _____ (name the problem behavior)

In order to _____ (describe the function of the behavior)

Example: When presented with a high demand academic task (particularly independent seatwork on math problems), Allison buries her head on the desk and refuses to engage in the assignment in order to avoid the task.

Behaviors have different functions. They usually function to GET something or AVOID/ESCAPE something. Behaviors may function to avoid/escape a high demand task (like an academic assignment), a low demand task (one that is boring), or a person (adult or peer). Other behaviors may function to get attention (from adults or peers), activities or tangibles (or maintain them if they are to be taken away).

Step 4. With a hypothesis about the function of a problem behavior, identify an alternative behavior that will serve the same function, be judged as socially appropriate, and be reinforced by teachers.

Example: Instead of burying her head on the desk and refusing to engage in the assignment, Allison will raise her hand, wait to be acknowledged, and ask for help on a math problem.

Two important points must be made about replacement behaviors. First, replacement behaviors vary depending on the context and must be appropriate to the situation.

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Second, replacement behaviors must be taught. The reason the replacement behavior is not already occurring is because the student did not learn to engage in it, did not detect the circumstances necessary to engage in it, or received reinforcement for engaging in the problem behavior instead.

Step 5. Teach the replacement behavior. Arrange a situation that is similar to the problem situation. Show the replacement behavior, describe it, and encourage the student to practice it. Reinforce approximations as the student practices. Don't expect perfection.

Step 6. Make the replacement behavior as efficient as possible. Here is the challenge: the student must be able to engage in the replacement behavior as quickly and easily as he engages in the problem behavior. If it takes too long or does not get recognized by the teacher or adult in the room, the student will resort to the problem behavior.

Step 7. Immediately reinforce the occurrence of the replacement behavior for each occurrence. Provide a "high magnitude" reinforcer for the replacement behavior, at least initially. If the replacement behavior begins to occur at a high rate, the teacher may begin delaying the response to the behavior or change the schedule of reinforcement.

Step 8. Set up additional "backup" reinforcers for engaging in the replacement behavior. A back-up reinforcer is one that is more delayed but "backs up" the immediate reinforcer. For example, if the immediate reinforcer is praise and a token, then later, five tokens may serve as the back up or be exchanged for five minutes of free time. The back-up reinforcers should also relate to the function of the problem behavior. That is, they should relate to the same GET or AVOID/ESCAPE function as the problem behavior.

Step 9. While reinforcing the occurrence of the replacement behavior, use extinction (i.e., withhold the consequence that has been maintaining the problem behavior), or other consequence strategy for the problem behavior. That is, assuming the problem behavior is maintained by attention, ignore it if possible. Extinction may also involve withholding tangible items or activities, or preventing escape, depending on the function of the problem behavior. If it is not possible to use extinction, use loss of tokens, points, or other strategies to provide immediate consequences. Severe aggressive or other injurious behavior must result in immediate intervention from a trained teacher or other trained personnel to insure safety and welfare of all students. The incident may need to be treated as an emergency, and follow district and state guidelines.

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Table 1 describes how to carry out FBA-based intervention with problem behavior serving common functions. It shows various functions of problem behavior, consequences that may be implemented for problem behavior, replacement behaviors aligned to the function of the original problem behavior, positive consequences for engaging in the replacement behavior, and guidelines on practices to avoid.

Table 1. How To Set Up FBA-Based Intervention with Common Problem Behavior Functions

PB=Problem Behavior
RP=Replacement Behavior

Function of PB	Consequences for PB*	RP	Consequences for RP	What to Avoid and Why
Escape high demand task (academic or functional skill)	Extinction (i.e., keep demands in place) or other consequence	Ask for help, finish the ones you can do, etc.	Praise and other reinforcers	Arrange time-out for PB, because it allows student to successfully escape the task
Escape low demand task (boredom)	Extinction (i.e., keep demands in place) or other consequence	Ask for alternative task	Access to alternative task	Arrange time-out for PB, because it allows student to successfully escape the task
Escape a person, such as a peer	Extinction (i.e., keep presence of person in place) or extra work or other consequence	Ask teacher in private for re-assignment or to work with other peer	Access to re-assignment or other peer	Remove peer or arrange time-out for PB, because it allows student to successfully escape
Get attention from adults	Extinction (i.e., deny or remove attention from adult)	Ask for assistance or brief individual time	Provide brief assistance or time. If not possible, schedule for later	Provide attention, even in the form of reprimands, warnings, and so forth, because that fulfills the function of the PB
Get attention from peers	Extinction (i.e., deny or remove attention from peers)	Finish work without disruption to earn attention from peers (set up in a behavior contract)	Provide opportunities for limited time with peers	Allow peers to remain together so that attention is received for PB
Get tangibles or activity	Remove tangibles or activity	Ask "when can I have it back?"	Provide it back. Gradually delay contingent on RP	Provide access to tangibles or activity

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