FUNCTIONAL ASSESSMENT-BASED INTERVENTIONS

Functional assessment-based interventions (FABI) are a systematic approach used to support students with challenging behavior with the goal of teaching students functionally equivalent replacement behaviors to support them in enjoying a high quality life. Under IDEA (2004), functional behavioral assessments (FBA) are used to guide behavior intervention plans (BIP) and are mandated for students receiving certain disciplinary consequences. FABI procedures systematically coordinate the process of conducting FBA and writing BIP. FABI result in interventions based on the function of the target (i.e., problem) behavior determined by conducting a FBA. In other words, FABI look at the *why* behind the behavior occurrence rather than focusing solely on what the behavior looks like (i.e., topography). Determining the function of behavior provides insights for developing interventions to assist individual's in learning and using more desirable replacement behaviors. During the last two decades, FABI have moved beyond IDEA's mandate as a positive behavioral intervention and support for students with challenging behavior as part of Tier 3 practices.

The FABI Model

Umbreit, Ferro, Liaupsin, and Lane (2007) developed a systematic approach to identifying maintaining function(s) of target behaviors and designing interventions directly linked to results of the functional behavior assessment (FBA). However, there are many variations to conducting FBA and writing behavior intervention plans (BIP). The functional assessment-based interventions (FABI) model includes unique features to assist practitioners in their design, implementation, and evaluation of FABI in a range of settings with the current resources focused on supporting students in education settings

The **Function Matrix** is used to analyze FBA data to determine the hypothesis statement, which describes the function of the problem behavior. Behaviors are maintained by positive reinforcement (access) or negative reinforcement (avoidance), with individuals seeking or avoiding attention, activities or tangibles, and/or sensory stimuli. Some behaviors can be maintained by a single function (e.g., access attention); whereas, other behaviors serve multiple functions (e.g., access attention and escape nonprefered activities). The Function Matrix is a graphic organizer for information gathered during the FBA to analyze the data collected. The

hypothesis statement as to why the behavior is occurring is made based on where the preponderance of data are located in the Function Matrix.

After determining the hypothesized function of the behavior and then defining the replacement behavior, the **Function-Based Intervention Decision Model** is used to select the intervention focus. Two questions are answered by the team to guide them to the appropriate intervention method: (1) Can the student perform the replacement behavior? and (2) Do antecedent conditions represent effective practices? *Method 1* focuses on teaching the replacement behavior. *Method 2* focuses on improving the environment, whereas *Method 3* focuses on adjusting the contingencies. Lastly, there is a combination of *Method 1* and *Method 2,* which focuses on teaching the replacement behavior and improving the environment.

Each method includes three components referred to as ARE Components. **ARE Components** support a systematic method of constructing the intervention. Based on function and method, ***a****ntecedent adjustments*, ***r****einforcement adjustments*, and ***e****xtinction procedures* are developed to either teach the replacement behavior, improve the environment, or adjust the contingencies (or a combination of teach the behavior and improve the environment).

Systematic Approach

To design, implement, and evaluate a functional assessment-based intervention (FABI) the school problem solving team, leadership team, or Tier 3 team will complete five steps.

Step 1: Identify students who need a FABI. In Step 1, teams identify students through schoolwide data such as academic assessment data, curriculum-based measures, behavior screening tools, office discipline referrals, and attendance records to determine which students may benefit from tertiary supports (Tier 3). These students may not have responded to primary (Tier 1) or secondary (Tier 2) efforts or may have been identified directly to FABI due to pronounced concerns, as determined by systematic screening data. Education records are often examined to look for patterns of behavior, duration of difficulties, and any potential interventions that may have previously been implemented.

Step 2: Conduct the Functional Assessment. In Step 2, teams conduct the FBA and determine the hypothesized function. Functional assessment tools are used to identify the target behavior (e.g., problem behavior) and determine the maintaining function(s). This systematic approach begins with a systematic review of school records and informal observations in the classroom. Next, teams identify and operationally define the target behavior during the teacher

interview; this definition is carried forward through the duration of the functional assessment. Then, parent and student interviews are administered focusing on the same target behavior identified in the teacher interview. Through these interviews the team obtains information about the student's strengths and needs as well as information on potential function(s). This is followed by three hours of direct observation (A-B-C recordings) over the course of at least three sessions. To supplement the interviews and observational data, rating scales are used to assess possible acquisition or performance deficits from the teacher and parent's perspectives. Data from the functional assessment are organized using the *Function Matrix,* a tool to assist in analyzing data to determine the hypothesized function(s) of the target behavior. A hypothesis statement of the function of the target behavior is written based on the information gleaned from the *Function Matrix*. Finally, teams select and operationalize the replacement behavior - a behavior that socially acceptable and will result in the student's need being met (i.e., the function).

Step 3: Collect Baseline Data. In Step 3, teams determine the dimension of behavior to be measured. They select a behavior recording system to measure the behavior of interest. This is often the replacement behavior so that they examine and monitor a desired change, it also allows for the conversation to be focused on the positive behavior. However, teams may elect to measure the target behavior. Data recording procedures are planned, taught, and practiced to criterion (e.g., 90% interobserver agreement across three consecutive trials) to ensure confidence in the data collected and clarity of the behavior measured. Once two recorders are reliable, baseline data collection occurs, which includes approximately five observations (min of 3 observations). The secondary (trained) observer independent observes and collects data at the same time as the primary observer for 25% of observations and inter-observer agreement (IOA) is calculated. Baseline data are graphed and monitored to inform phase change decisions (e.g., introducing the intervention).

Step 4: Design the Intervention. In Step 4, teams begin the design process by working through the *Function-based Intervention Decision Model* to guide intervention planning. This is comprised of two core questions: (1) Can the student perform the replacement behavior? and (2) Do antecedent conditions represent effective practices? Responses from these questions help focus the intervention towards one of three methods: Method 1: Teach the Replacement Behavior, Method 2: Improve the Environment, Method 3: Adjust the Contingencies, or a combination of Method 1 and Method 2. Each method includes ARE components: teaching or

modifying: (A) antecedents, (R) reinforce the occurrence of the replacement behavior, and (E) extinction or withholding the consequences that were previously reinforcing the target behavior. Once the intervention method is selected and specific plan tactics are designed, the teacher and student are trained in the procedures and implementation materials are prepared. Social validity surveys are used to make sure the teacher, parents, and student have consensus on the goals, are comfortable with the procedures, and believe the intervention is likely to achieve the desired outcomes. If there are serious concerns for any one of the parties (e.g., student embarrassed or teacher doesn't feel they are feasible), procedures are revisited and modified accordingly.

Step 5: Test the Intervention. In Step 5, teams implement and evaluate the intervention, using three essential indicators of trustworthiness to draw accurate conclusions regarding intervention outcomes, by asking the following three questions: (1) Was the intervention implemented as planned (i.e., treatment integrity)? (2) Was a functional relation established between the introduction of the intervention and changes in student behavior and did these outcomes generalize or maintain (i.e., monitoring student outcomes to determine a functional relation)? and (3) What did stakeholders (e.g., teachers, parents, and students) think about the social significance of the intervention goals, the social acceptability of the intervention procedures, and (anticipated) effects of the intervention after concluding the intervention. For this, teams: (a) monitor treatment integrity, (b) implement a single-case research design (e.g., A-B-A-B withdrawal, changing criterion, or multiple baseline) to monitor student outcomes and (c) administer social validity surveys prior to and at the conclusion of the intervention.

Ci3T Supports Library: FABI

In these materials, you will find resources to help you design, implement, and evaluate FABI in your setting. In the implementation materials you will find a sample FABI Tier 3 Intervention Grid. Additionally, you will find procedural integrity step checklists, data summary Excel templates; as well as forms to support the functional behavior assessment (FBA) and data collection process including: A-B-C observations, treatment integrity checklists, social validity surveys, and direct behavior measurement. Additionally, you will find process guides to support the drafting of operational definitions, as well as phase change decision making. In the resources

folder, you will find a resource guide of available websites, books, and articles that provide more detail on FABI as well as a PowerPoint to support your professional learning efforts.