Module: **Functional Communication Training (FCT)**

Evidence-Based Practice Brief: Functional Communication Training (FCT)

This evidence-based practice brief on functional communication training includes the following components:

1. **Overview, which gives a quick summary of salient features of the practice, including what it is, who it can be used with, what skills it has been used with, settings for instruction, and additional literature documenting its use in practice**
2. **Steps for Implementation, detailing how to implement the practice in a practitioner-friendly, step-by-step process**
3. **Implementation Checklist, to be used to monitor fidelity of the use of the practice**
4. **Evidence Base Summary, which details the NPDC-ASD criteria for inclusion as an evidence-based practice and the specific studies that meet the criteria for this practice**
5. **Functional communication training data sheets**

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Overview of Functional Communication Training (FCT)

Franzone, E. (2009). *Overview of functional communication training (FCT).* Madison, WI:
National Professional Development Center on Autism Spectrum Disorders, Waisman
Center, University of Wisconsin.

Functional communication training (FCT) emerged from the literature on functional behavioral
assessment (FBA) as a systematic practice to replace inappropriate behavior or subtle
communicative acts with more appropriate and effective communicative behaviors or skills. FCT
is always implemented after an FBA has been conducted to identify the function of an interfering
behavior. When using FCT, teachers/practitioners analyze the interfering behavior to determine
what the learner is trying to communicate. For example, is the learner biting peers when she
wants a toy that another child has? Or is the learner yelling out in class so that he will be sent
out of the room? After teachers/practitioners have identified the function of the interfering
behavior, they then implement FCT to identify and teach a replacement behavior that is easy for
the learner to use and serves the same purpose as the interfering behavior, but in a more
appropriate way.

Evidence

FCT meets the evidence-based practice criteria with five single-subject design studies,
demonstrating its effectiveness for promoting appropriate behavior and communication skills for
children at the preschool and elementary school levels.

With what ages is FCT effective?

FCT can be used effectively with children with ASD, regardless of cognitive level and/or
expressive communicative abilities. The evidence base shows that FCT is an effective
intervention for learners at the early childhood and elementary levels. It is reasonable to assume
that it would be an effective practice for older learners as well.

What skills or intervention goals can be addressed by FCT?

FCT targets skills that help children and youth with ASD effectively communicate with others in
a variety of situations and settings. In the evidence base, FCT was used to decrease the
incidence of interfering behaviors and to replace subtle, less-clear communicative forms (e.g.,
leading an adult by the hand to a desired item) with clearer communicative forms (e.g.,
pointing).

In what settings can FCT be effectively used?

The evidence-based studies were conducted in clinical, school-based, and home environments.
While the research did not demonstrate use of FCT in community settings, it might be ideal for
teaching to occur in community settings if interfering behaviors regularly occur there. Teaching
in varied and/or more natural environments has been demonstrated to promote generalization of
skills.

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Evidence Base

The studies cited in this section provide the basis upon which this practice was determined to meet the NPDC on ASD's criteria as an evidence-based practice. This list is not exhaustive; other quality studies may exist that were not included.

Preschool

Carr, E. G., & Kemp, D. C. (1989). Functional equivalence of autistic leading and pointing: Analysis and treatment. *Journal of Autism and Developmental Disorders, 19*(4), 561-578.

Mancil, G. R., Conroy, M. A., Nakao, T., & Alter, P. J. (2006). Functional communication training in the natural environment: A pilot investigation with a young child with autism spectrum disorder. *Education and Treatment of Children, 29*(4), 615-633.

Olive, M., Lang, R., & Davis, T. (2008). An analysis of the effects of functional communication and a voice output communication aid for a child with autism spectrum disorder. *Research in Autism Spectrum Disorders, 2*(2), 223-236.

Schindler, H., & Horner, R. (2005). Generalized reduction of problem behavior of young children with autism: Building trans-situational interactions. *American Journal on Mental Retardation: 110*(1), 36-47.

Elementary

Casey, S., & Merical, C. (2006). The use of functional communication training without additional treatment procedures in an inclusive school setting. *Behavioral Disorders, 32*(1), 46-54.

Selected Additional Resources

Braithwaite, K. & Richdale, A. (2000). Functional communication training to replace challenging behaviors across two behavioral outcomes. *Behavioral Interventions, 15*, 21-36.

Buckley, S., & Newchok, D. (2005). Differential impact of response effort within a response chain on use of mands in a student with autism. *Research in Developmental Disabilities, 26*(1), 77-85.

Carr, E. G., & Durand, V. M. (1985). Reducing behavior problems through functional communication training. *Journal of Applied Behavior Analysis, 18,* 111-126.

Charlop-Christy, M. H., & Kelso, S. E. (2003). Teaching children with autism conversational speech using a cue card/written script program. *Education and Treatment of Children, 26*(2), 108-127.

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Drasgow, E., Halle, J. W., Ostrosky, M. M., & Harbers, H. M. (1996). Using behavioral indication and functional communication training to establish an initial sign repertoire with a young child with severe disabilities. *Topics in Early Childhood Special Education, 16*, 500-521.

Doss, S., & Reichle, J. (1989). Establishing communication alternatives to the emission of socially motivated excess behavior: A review. *Journal of the Association of Persons with Severe Handicaps, 14*(2), 101-112.

Durand, M., & Merges, E. (2001). Functional communication training: A contemporary behavior analytic intervention for problem behaviors. *Focus on Autism and Other Developmental Disabilities, 16*(2), 110-119.

Durand, M. (1990). *Severe behavior problems: A functional communication training approach*. NY: Guilford.

Hagopian, L. R., Contrucci-Kuhn, S. A., Long, E. S., & Rush, K. S. (2005). Schedule thinning following communication training: Using competing stimuli to enhance tolerance to decrements in reinforcer density. *Journal of Applied Behavior Analysis, 38*(2), 177-193.

Mancil, G. R. (2006) Functional communication training: A review of the literature related to children with autism. *Education and Training in Developmental Disabilities, 41*(3), 213-224.

Martin, C. A., Drasgow, E., Halle, J. W., & Brucker, J. M. (2005). Teaching a child with autism and severe language delays to reject: Direct and indirect effects of functional communication training. *Educational Psychology, 25*(2 & 3), 287-304.

O'Neill, R. E., & Sweetland-Baker, M. (2001). Brief report: An assessment of stimulus generalization and contingency effects in functional communication training with two students with autism. *Journal of Autism and Developmental Disorders, 31*(2), 235-240.

Module: **Functional Communication Training**

Evidence Base for Functional Communication Training

The National Professional Development Center on ASD has adopted the following definition of evidence-based practices.

To be considered an evidence-based practice for individuals with ASD, efficacy must be established through peer-reviewed research in scientific journals using:

- *randomized or quasi-experimental design studies.* Two high quality experimental or quasi-experimental group design studies,
- *single-subject design studies.* Three different investigators or research groups must have conducted five high quality single subject design studies, or
- *combination of evidence.* One high quality randomized or quasi-experimental group design study and three high quality single subject design studies conducted by at least three different investigators or research groups (across the group and single subject design studies).

High quality randomized or quasi experimental design studies do not have critical design flaws that create confounds to the studies, and design features allow readers/consumers to rule out competing hypotheses for study findings. High quality in single subject design studies is reflected by a) the absence of critical design flaws that create confounds and b) the demonstration of experimental control at least three times in each study.

This definition and criteria are based on the following sources:

Horner, R., Carr, E., Halle, J., McGee, G., Odom, S., & Wolery, M. (2005). The use of single subject research to identify evidence-based practice in special education. *Exceptional Children, 71,* 165-180.

Nathan, P., & Gorman, J. M. (2002). *A guide to treatments that work.* NY: Oxford University Press.

Odom, S. L., Brantlinger, E., Gersten, R., Horner, R. D., Thompson, B., & Harris, K. (2004). *Quality indicators for research in special education and guidelines for evidence-based practices: Executive summary.* Arlington, VA: Council for Exceptional Children Division for Research.

Rogers, S. J., & Vismara, L. A. (2008). Evidence based comprehensive treatments for early autism. *Journal of Clinical Child and Adolescent Psychology, 37*(1), 8-38.

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Using these criteria, the empirical studies referenced below provide documentation for supporting functional communication training as an evidence-based practice. This list is not exhaustive; other quality studies may exist that were not included.

Preschool

Carr, E. G., & Kemp, D. C. (1989). Functional equivalence of autistic leading and pointing: Analysis and treatment. *Journal of Autism and Developmental Disorders, 19*(4), 561-578.

Mancil, G. R., Conroy, M. A., Nakao, T., & Alter, P. J. (2006). Functional communication training in the natural environment: A pilot investigation with a young child with autism spectrum disorder. *Education and Treatment of Children, 29*(4), 615-633.

Olive, M., Lang, R., & Davis, T. (2008). An analysis of the effects of functional communication and a voice output communication aid for a child with autism spectrum disorder. *Research in Autism Spectrum Disorders, 2*(2), 223-236.

Schindler, H., & Horner, R. (2005). Generalized reduction of problem behavior of young children with autism: Building trans-situational interactions. *American Journal on Mental Retardation: 110*(1), 36-47.

Elementary

Casey, S., & Merical, C. (2006). The use of functional communication training without additional treatment procedures in an inclusive school setting. *Behavioral Disorders, 32*(1), 46-54.

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Steps for Implementation: Functional Communication Training

Franzone, E. (2009). *Steps for implementation: Functional communication training.* Madison, WI: The National Professional Development Center on Autism Spectrum Disorders, Waisman Center, University of Wisconsin.

Functional communication training (FCT) is most frequently used to replace interfering behaviors (e.g., disruptive, repetitive/stereotypical) or subtle, less clear communicative forms (e.g., reaching, leading) with more conventional communicative forms (e.g., pointing, picture exchange, signing, verbalizations).

Step 1. Identifying the Interfering Behavior

In Step 1, teachers/practitioners identify (a) an inappropriate behavior (e.g., hitting, grunting, falling to the floor) that is serving some type of communicative function and that is being reinforced (perhaps unknowingly) so that it continues to occur on a regular basis or (b) a subtle communicative attempt that can be replaced with a more conventional form of communication.

1. Teachers/practitioners (e.g., speech/language pathologist, paraprofessional) identify an interfering behavior or a subtle communicative form to be the interfering behavior.

Potential interfering behaviors that are serving some type of communicative function and are being reinforced (perhaps unknowingly) include:

- interfering behaviors that may be repetitive, disruptive, and/or self-injurious and
- subtle forms of communications such as grunting, reaching, leading.

Step 2. Completing a Functional Behavioral Assessment (FBA)

In Step 2, two components of the FBA process are implemented by teachers/practitioners. These components serve as reminders to those who are experienced with the FBA process. For teachers/practitioners who are not as familiar with FBA, please refer to the FBA Steps for Implementation. A high-quality FBA has many discrete steps related to identifying the interfering behavior, collecting baseline data, developing a hypothesis statement, and testing the hypothesis that are helpful when implementing FCT. Therefore, if you are not familiar with the complete FBA process, please refer to Steps 1 through 5 of the FBA brief.

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1. Teachers/practitioners complete a high-quality FBA .

With FBA, teachers/practitioners use (a) indirect (e.g., interviews, record review, questionnaires) and (b) direct assessment (e.g., A-B-C observation) to create a hypothesis about the function of the interfering behavior and to determine what might be causing and reinforcing the behavior. An FBA provides teachers/practitioners with a clear understanding of why learners engage in the interfering behavior.

2. Teachers/practitioners identify the function of the interfering behavior.

Data collection is a key part of a high-quality FBA and is essential for determining the function of the interfering behavior. The function of the interfering behavior will most likely include one of the following:

- *gaining attention* (e.g., a teenager screams to get attention from staff);
- *escape* (e.g., a boy bites his hand so that he is removed from math class);
- *gaining access to tangible/edible items* (e.g., a girl grabs cookies from her friend's hand); or
- *acquiring automatic sensory stimuli* (e.g., a learner flaps his hands during language arts).

Data also provide baseline information that is critical for planning effective interventions. Considerations for planning interventions include identifying:

- **antecedents** of the interfering behavior (i.e., what happens to precipitate the behavior) and **consequences** (i.e., what happens after the behavior that might be maintaining it);
- environments where the interfering behavior occurs;
- people involved with the learner when the interfering behavior occurs; and
- the frequency and intensity of the interfering behavior.

Step 3. Identifying a Replacement Behavior as a Substitute for the Interfering Behavior

In Step 3, teachers/practitioners identify a replacement behavior that serves the same function as the interfering behavior and that will serve as a substitute.

In general, a replacement behavior should still allow the learner to get what he wants just as easily, or more easily, than the interfering behavior. If it doesn't, then the learner has little incentive to use the replacement behavior that is less efficient than the interfering behavior.

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1. Teachers/practitioners select a form of communication (e.g., signing, verbalizations, pictures) that is appropriate for the learner.

Depending on the learner, the replacement behavior may be delivered through verbalizations (e.g., words), signs, gestures, pointing, the use of a picture exchange system, or a speech generating device.

2. Teachers/practitioners choose a replacement behavior that is efficient.

The replacement behavior should be simple enough (a) to be taught in a short amount of time and (b) allow the learner to quickly acquire the behavior and gain access to the reinforcement. If learners are asked to produce a complicated replacement behavior, they may revert back to the undesirable interfering behavior.

3. Teachers/practitioners identify a replacement behavior that is acceptable and appropriate for both the environment and the learner.

The replacement behavior should be appropriate for the learner's environment and be a task or activity that the learner can or will do. For example, teaching a seventh-grade student to hold up a large picture of a toilet to request a bathroom break is not acceptable in an inclusive middle school setting because it may invite unnecessary teasing from classmates. In this situation, it may be more appropriate to teach the student the sign for toilet.

4. Teachers/practitioners choose a replacement behavior that is recognized by multiple communicative partners.

If the replacement behavior is not recognizable to others, communication partners may not respond, and the interfering behavior may not be reduced. Teaching a learner with severely reduced intelligibility (i.e., difficult to understand) to say, "I need help with this," may not be an appropriate use of FCT. If the sentence is difficult to understand, communicative partners may not provide the reinforcement (assistance) consistently, and the interfering behavior will not decrease. However, if the same learner is taught to sign, "Help," communicative partners could more quickly recognize the communication and provide reinforcement.

One caveat is worth noting. With sign language, it may be that the communicative act is recognizable to a limited group: either to people who understand sign language or, even more limiting, a select group of people who have learned an individual learner's version of signed words. Other forms of communication, including pictures and speech generating devices, may be easier to generalize to multiple environments.

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> 5. Teachers/practitioners incorporate attention-getting into the replacement behavior if necessary.

Teachers/practitioners should recognize that learners using nonverbal communicative forms (e.g., signing, pointing to pictures) may need to gain the attention of the communicative partner prior to making requests. Gaining the attention of others before making a request is particularly relevant if initial instruction in FCT occurs in an environment in which the learner already has the communicative partner's attention (e.g., traditional one-on-one therapy at a table). In other environments, the learner may be unable to use the replacement behavior successfully if the communicative partner is not attending. For example, a learner may be signing, "Help," while his assistant is attending to another student. The replacement behavior could be to *first* touch the communicative partner's shoulder and *then* produce the sign.

In summary, the replacement behavior should be one that is easily taught, is agreed to be appropriate by all team members (including classroom teachers, assistants, special education staff, parents, and, potentially, the learner), and is easily understood by communicative partners. Most importantly, the replacement behavior should always result in access to the reinforcer.

Step 4. Designing and Implementing Data Collection Procedures

In Step 4, teachers/practitioners design and then implement data collection procedures that are functional, meaningful, and useful for the team. When designing data collection procedures, teachers/practitioners collect data (in the same fashion as they were collected during the FBA) to monitor learner progress, to determine the effectiveness of FCT, and to identify ways in which the intervention needs to be modified if the learner is still using the interfering behavior more often then the replacement behavior.

> 1. Teachers/practitioners implement data collection procedures that are functional, meaningful, and available to team members responsible for data collection.
>
> 2. Data are collected:
>
>   a. before FCT is implemented (typically during the FBA process) and
>   b. during the implementation of FCT (e.g., weekly).

Baseline data are gathered during the FBA process. For more detailed information on collecting baseline data, please review the **FBA Steps for Implementation**, Step 3.

Data collected during the implementation of FCT will be used to monitor its effectiveness. Typically, data are collected on the same variables during the FBA, the pre-intervention phase (or baseline), and intervention.

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3. Data collection focuses on:

- antecedents,
- prompts required to produce the replacement behavior,
- frequency of the replacement behaviors,
- frequency of the target interfering behaviors, and
- consequences of the behavior.

The following chart provides an example of a data collection process.

Interfering Behavior (IB): *Running from room*						
Replacement Behavior (RB): *Sign for break*						
Date	**Location**	**Antecedent**	**IB or RB**	**Prompts required**	**Consequence**	**Notes**
7-30	*Resource Room*	*Math flashcards*	*IB*	I P G V	*Avoided task, quickly brought back to room*	*On phone…missed early indicators*
7-30	*Classroom*	*Ind. reading*	*RB*	I P G V	*Break given*	
7-31	*Classroom*	*Ind. reading*	*RB*	I P G V	*Break given*	

Data collection allows teachers/practitioners to determine if the replacement behavior is decreasing the incidence of the interfering behavior. Data also may be compared to baseline data to determine overall progress and to provide information on the consistency or changing functions of behaviors. In addition, data allow team members to monitor the level of prompting required to use the replacement behavior.

4. Teachers/practitioners use data to monitor FCT effectiveness and whether aspects of FCT need adjustment.

If learners continue to (a) use the interfering behavior rather than the replacement behavior, (b) require intrusive prompting to use the replacement behavior, or (c) have difficulty generalizing the use of the replacement behavior, then certain aspects of the intervention may need to be altered. The following questions may be helpful during this problem-solving process (more details on these issues are discussed later in this guide):

- Has the function of the behavior been identified correctly?

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- Did the communicative act serve as a replacement for the behavior?
- Was the replacement behavior efficient, appropriate, and recognizable?
- Was instruction provided in environments where the interfering behavior typically occurs?
- Was the instruction provided in multiple environments and with multiple people?
- Were the prompting procedures appropriate for the learner?
- Did the communicative partner provide reinforcement quickly and consistently?
- Was the interfering behavior, if produced, not reinforced/made less efficient?

Step 5. Manipulating the Environment to Elicit the Interfering Behavior

In Step 5, teachers/practitioners manipulate the environment, materials, and/or activities to elicit the interfering behavior and provide numerous opportunities for learners to practice using replacement behaviors instead.

1. Teachers/practitioners teach the replacement behavior in the environments where the interfering behavior occurs.

The FBA process gives teachers/practitioners information about the situations and environments in which the interfering behavior is likely to occur. For example, if the FBA documents that a learner bangs his head on the table to reject any painting activity, the replacement behavior (e.g., pushing a Big Mac ® switch that is programmed to say, "No, thank you,") should be taught in the context of the art class in which the interfering behavior occurs.

2. Teachers/practitioners manipulate materials or activities to provide opportunities for the repeated practice of the replacement behavior.

For example, a teacher/practitioner could plan more painting activities so that a learner can practice using the Big Mac ®. Other examples might include serving very small portions at snack time so the learner must present a picture of "more" multiple times (instead of leading someone to the food/drink) or having an adult engage in another activity so that the learner has to gain attention by waving her hand (rather than screaming).

Please refer to *Naturalistic Teaching: Steps for Implementation* (National Professional Development Center on ASD, 2009) for more information about manipulating an environment in order to elicit specific skills.

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Step 6. Planning Opportunities for Generalization

The primary component of Step 6 is to plan opportunities for generalization so that learners can practice replacement behaviors in multiple settings and with multiple individuals.

1. Teachers/practitioners teach the replacement behavior with multiple communication partners.

A key factor in the generalization of replacement behaviors is to include multiple people as communicative partners so that learners become accustomed to interacting with various people.

2. Teachers/practitioners teach the replacement behavior across multiple environments.

Another factor in generalization is to teach the use of the replacement behavior in multiple environments. These environments may include different areas in the school, job sites, before and after school care facilities, and the home. Home programs as well as environments that encourage choice-making tend to result in more successful FCT programs and generalization of skills.

3. Teachers/practitioners train communicative partners to respond to the learner's use of the replacement behavior.

For example, if a learner is taught to say, "Leave me alone" rather than biting peers, the peers are taught to move away from the learner when they hear this request. Similarly, all communicative partners (e.g., assistants, teachers, parents, peers) should be taught to provide reinforcement quickly and consistently.

4. Teachers/practitioners introduce varied vocabulary for requesting, if appropriate for the learner's developmental level.

Generalizing requests for tangibles may be improved by teaching learners ways to request varied tangibles. For example, teach learners how to request bubbles, sandbox, rice bin, and Legos rather than always practicing a request for bubbles. Make certain that the vocabulary chosen is reinforcing to learners as well as appropriate for their developmental levels.

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Step 7. Prompting Learners to Use Replacement Behavior

In Step 7, teachers/practitioners use prompting procedures to help learners use replacement behavior when appropriate. Prompts will vary depending on the individual learner's abilities.

1. Teachers/practitioners prompt the learner to use the replacement behavior, beginning with a prompt that ensures errorless learning (i.e.,using a prompt intrusive enough to guarantee use of the replacement behavior).

With all prompting procedures, **errorless teaching** is the goal. That is, the teacher/practitioner may use a higher level of prompting in order to guarantee that the learner produces the replacement behavior *rather than* the interfering behavior. This may require a more-intrusive prompt (with a goal of moving toward a less intrusive prompt; see Step 11) to ensure use of the replacement behavior

The correct prompting level will vary depending on the learner. Some learners may be able to use the replacement behavior when prompted subtly. For example, a seventh grader who is high-functioning but minimally verbal may start humming loudly while doing seat work so that he is sent out of the room. A teacher may be able to explain to him that he will be provided with a card with an X on it, and that he is to hand it to the teacher when he wants a break. It may then take prompts as subtle as the teacher touching the card to prompt him to use the strategy. However, other learners may require a more intrusive prompt such as hand-over-hand to help them activate the speech generating device that voices their request, "I want a break."

Please refer to *the prompting module* (National Professional Development Center on ASD, 2009) for more information about prompting.

Step 8. Not Reinforcing the Interfering Behavior

In Step 8, reinforcement is not provided for the interfering behavior. In the case of dangerous behaviors and subtle communicative acts, teachers/practitioners alter their reactions to decrease the effectiveness and efficiency of the interfering behavior.

1. Teachers/practitioners must not reinforce any instance of the interfering behavior, if possible.

In the process of teaching the replacement behavior, teachers/practitioners do not reinforce any instance of the interfering behavior.

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2. Teachers/practitioners intervene as minimally as possible if the interfering behavior is potentially dangerous.

If learners engage in behaviors that are potentially dangerous to themselves or others, teachers/practitioners intervene as minimally as possible to protect the safety of all involved.

3. For subtle communicative acts (e.g., leading), teachers/practitioners make the interfering behavior less efficient than the replacement behavior (e.g., pointing).

To accomplish this, teachers/practitioners

a. pause after the learner uses the subtle communicative act (e.g., leading),
b. ask, "What do you want?"
c. prompt the learner to use the replacement behavior, and
d. provide reinforcement for using the replacement behavior.

This delay in reinforcement may make the subtle communicative act much less efficient than the replacement behavior.

Step 9. Providing Reinforcement

In Step 9, it is pivotal that reinforcement for the replacement behavior is provided quickly and consistently.

1. All communicative partners consistently provide immediate reinforcement in response to the replacement behavior.

While learners are acquiring the replacement behavior, it is critical for their partners to respond quickly and consistently. If communicative partners do not consistently and quickly respond to replacement behaviors, learners will not get the desired reinforcement, the interfering behavior will not decrease, and the replacement behavior will not be used.

For example, if learners do not immediately get desired consequences (e.g., communicative partner is working with another student and makes the learner wait to get his chip after the learner signs, "chip"), they are unlikely to use the replacement behavior. Instead, they will use the interfering behavior (e.g., reaching across the table) that the FCT program is trying to decrease.

Please refer to *Positive Reinforcement: Steps for implementation* (National Professional Development Center on ASD, 2008) for more information about reinforcement.

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Step 10. Shaping the Response

In Step 10, teachers/practitioners focus on **shaping** learners' responses into more complex communication.

1. Teachers/practitioners initially accept any approximation of the replacement behavior.

Early approximations of the replacement behavior are often imperfect. For example, a learner may be taught to request, "I want a snack." As this communicative response is introduced, the learner may simply say, "Snack." Initially, teachers/practitioners accept this communicative attempt because it is preferable to the behavior (e.g., grabbing food from a shelf).

2. Teachers/practitioners shape the production of the replacement behavior by reinforcing closer approximations of the replacement behavior until it more closely resembles the desired production.

As the training process goes on, more complete approximations of the communicative response should be required.

3. Teachers/practitioners change the replacement behavior if it appears that, even with opportunities for shaping, the learner is unable to produce it accurately.

It is important to remember that the replacement behavior should be something that the learner can produce efficiently and that is easily recognizable. If a learner is not able to produce the replacement behavior well, even with opportunities for shaping, it may be appropriate to choose a different replacement behavior, such as a simpler verbalization (e.g., "Eat" rather than "I want a snack"), a sign, use of a speech generating devices, or pictures.

Step 11. Fading the Use of Prompts

In Step 11, teachers/practitioners fade the use of prompts so that learners become more independent in using replacement behaviors.

1. Teachers/practitioners slowly fade the use of prompts, using data and time delay.

Prompts that are required early in the training process are faded and replaced with prompts that are less intrusive. For example, a student who requires **hand-over-hand assistance** to activate a speech generating device may quickly require a different, less intrusive cue, such as a hand hovering over the icon or pointing to the device.

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Time delay is one way to identify types of prompts learners require. When a less-intrusive prompt is introduced, *wait* and see what the learner does. Wait long enough for the learner to have an opportunity to produce the replacement behavior (the amount of time will vary depending on the learner), but intervene with a more intrusive prompt if it appears that the learner will produce the interfering behavior instead.

The following chart provides an example of how prompts can be faded during FCT (adapted from Durand, 1990). In this example, a student is being taught to request a break by pointing to a picture representing "break." The most intrusive prompt, a physical prompt to elicit the point, is described as Prompt Level 4. The least intrusive prompt is simply being in the math classroom; the classroom itself serves as a reminder for the routine of the class (namely, that a break will be provided when and if the student point to the break picture).

Phase	Prompt Level 1	Prompt Level 2	Prompt Level 3	Prompt Level 4	Student Response	Teacher/Practitioner Response
I	Math class	Teacher gestures toward break card on corner of desk	Teacher says, "Tell me break"	Physically prompt learner to point to picture of "break"	Points to "break"	Allow student to spend time away from work
II	Math class	Teacher gestures toward break card on corner of desk	Trainer says, "Tell me break"		Points to "break"	Allows student to spend time away from work
III	Math class	Teacher gestures toward break card on corner of desk			Points to "break"	Allows student to spend time away from work
IV	Math class	Teacher gestures toward break card on corner of desk			Points to "break"	Allows student to spend time away from work

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Step 12. *Increasing the Time Between the Replacement Behavior and Reinforcement*

In Step 12, because it is not realistic for reinforcement to always be granted immediately upon the request, teachers/practitioners slowly increase the interval between the replacement behavior and the delivery of the reinforcement.

1. Teachers/practitioners talk with team members to determine a reasonable amount of time for learners to wait between production of the replacement behavior and delivery of reinforcement.

2. Teachers/practitioners slowly increase the length of time between the production of the replacement behavior and the delivery of reinforcement.

It may also be useful to increase the distance between learners and communicative partners so that learners must seek out communicative partners before using the replacement behavior. This may be done by having the learner and the communicative partner in different areas of the same room, or even by having the communicative partner in the hall or around the corner.

Step 13. *Monitoring Learner Progress*

In Step 13, the teacher/practitioner continues to take data related to the learner's use of the replacement behavior to measure progress and make plans related to what prompting and reinforcement procedures are required.

1. Teachers/practitioners collect progress monitoring data for individual learners to determine:

   a. learners' use of the replacement behavior in different settings, and
   b. the type and intensity of prompts needed by learners to use the replacement behavior correctly.

As teachers/practitioners fade prompts, learners become more independent in their use of the replacement behavior. Teachers/practitioners use these data to determine whether independent use of skills generalizes across environments and communicative partners.

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Example: FCT Data Collection Sheet

Interfering Behavior (IB):						
Replacement Behavior (RB):						
Date	**Location**	**Antecedent**	**IB or RB?**	**Prompts required**	**Consequence**	**Notes**
				I P G V		
				I P G V		
				I P G V		

2. Teachers/practitioners use progress monitoring data to determine next steps.

Teachers/practitioners use data to make instructional decisions. For example, the learner may not use the replacement behavior at lunch. Progress monitoring data may indicate that the communicative act is not reinforced quickly and consistently in the lunchroom. As a result, staff can be alerted to this and properly trained. Data may also show, for example, that the learner is always being provided with a verbal prompt. Teachers/practitioners may look at these data and decide that all the communicative partners should use time delay to see if a less intrusive prompt would work. Additionally, if data indicate that the learner is not using the replacement behavior, it may be necessary to go back to the FBA and determine if, in fact, the true function of the interfering behavior was identified.

<div align="center">

Reference

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Durand, M. (1990). *Severe behavior problems: A functional communication training approach.*
      NY: Guilford.

Module: **Functional Communication Training (FCT)**

Implementation Checklist for Functional Communication Training (FCT)

Franzone, E. (2009). *Implementation checklist for functional communication training (FCT).* Madison, WI: The National Professional Development Center on Autism Spectrum Disorders, Waisman Center, University of Wisconsin.

Instructions: The Implementation Checklist includes each step in the process of implementing FCT. Please complete all of the requested information including the site and state, individual being observed/interviewed, and the learner's initials. To assure that a practice is being implemented as intended, an observation is *always* preferable. This may not always be possible. Thus, items may be scored based on observations with the implementer, discussions and/or record review as appropriate. Within the table, record a 2 (implemented), 1 (partially implemented), 0 (did not implement), or NA (not applicable) next to each step observed to indicate to what extent the step was implemented/addressed during your observation. Use the last page of the checklist to record the target skill, your comments, whether others were present, and plans for next steps for each observation.

Site: _____ State: _____

Individual(s) Observed: _____ Learner's Initials: _____

Skills below can be implemented by a practitioner, parent, or other team member

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
Planning (Steps 1 - 6)									
Step 1. Identifying the Interfering Behavior	**Score****								
1. Identify an interfering behavior or a subtle communicative form to be the interfering behavior.									
Step 2. Completing a Functional Behavior Assessment (FBA)									
1. Complete a high-quality FBA that includes:									
a. indirect assessment (e.g., interviews, record reviews, questionnaires) and									
b. direct assessment (e.g., A-B-C observation).									
2. Identify the function of the interfering behavior.									

**Scoring Key: 2 = implemented; 1 = partially implemented; 0 = did not implement; NA = not applicable*

Module: Functional Communication Training (FCT)

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
Step 3. Identifying a Replacement Behavior as a Substitute for Interfering Behavior		**Score****							
1. Select a form of communication that is appropriate to the learner (e.g., signing, verbalizations, pictures).									
2. Choose a replacement behavior that:									
a. can be taught in a short amount of time and									
b. allows the learner to quickly learn the behavior and gain access to the reinforcement.									
3. Identify a replacement behavior that is acceptable and appropriate for the environment and the learner.									
4. Choose a replacement behavior that is recognized by multiple communicative partners.									
5. Incorporate attention-getting into the replacement behavior, if necessary (e.g., when using sign language).									
Step 4. Designing Implementation Data Collection Procedures									
1. Implement data collection procedures that are functional, meaningful, and available to team members responsible for data collection.									
2. Data are collected:									
a. before FCT is implemented (typically during the FBA process) and									
b. during the implementation of FCT (e.g., weekly).									

**Scoring Key: 2 = implemented; 1 = partially implemented; 0 = did not implement; NA = not applicable*

Module: Functional Communication Training (FCT)

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
Step 4. Designing Implementation Data Collection Procedures (cont.)	**Score****								
3. Data collection focuses on:									
a. antecedents,									
b. prompts required by learner to produce the replacement behavior,									
c. frequency of the replacement behavior,									
d. frequency of the interfering behavior, and									
e. consequences of the replacement/interfering behavior (i.e., what happens right after the replacement/interfering behavior).									
4. Use data to monitor FCT effectiveness and whether aspects of FCT need adjustment.									
Step 5. Manipulating the Environment to Elicit the Interfering Behavior									
1. Teach the replacement behavior in the environments where the interfering behavior occurs.									
2. Manipulate materials or activities to provide opportunities for repeated practice of the replacement behavior.									
Step 6. Planning Opportunities for Generalization									
1. Teach the replacement behavior(s) with multiple communication partners.									
2. Teach the replacement behavior(s) across multiple environments.									
3. Train communicative partners to respond to the learner's use of the replacement behavior.									

 **Scoring Key: 2 = implemented; 1 = partially implemented; 0 = did not implement; NA = not applicable

Module: **Functional Communication Training (FCT)**

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
Step 6. Planning Opportunities for Generalization (cont.)					**Score****				
4. Introduce varied vocabulary for requesting, if appropriate for learner's developmental level.									
Intervention (Step 7 – 12)									
Step 7. Prompting Learners to Use Replacement Behavior(s)									
1. Prompt the learner to use the replacement behavior, beginning with a prompt that ensures errorless learning.									
Step 8. Not Reinforcing the Interfering Behavior									
1. Do not reinforce any instance of the interfering behavior, if possible.									
2. Intervene as minimally as possible if the interfering behavior is potentially dangerous.									
3. For subtle communicative acts, make the interfering behavior less efficient than the replacement behavior by:									
a. pausing after the learner uses the subtle communicative act,.									
b. asking, "What do you want?"									
c. prompting the learner to use the replacement behavior, and									
d. providing reinforcement for using the replacement behavior.									
Step 9. Providing Reinforcement									
1. All communicative partners consistently provide immediate reinforcement in response to the replacement behavior.									
Step 10. Shaping the Response									
1. Initially accept any approximation of the replacement behavior.									

**Scoring Key: 2 = implemented; 1 = partially implemented; 0 = did not implement; NA = not applicable

Module: **Functional Communication Training (FCT)**

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
Progress Monitoring (Step 13)									
Step 13. Monitoring Learner Progress	**Score****								
1. Collect progress monitoring data for individual learners to determine:									
a. learners' use of communicative acts in different settings, and									
b. the type and intensity of prompts needed by learners to use communicative acts correctly.									
2. Use progress monitoring data to determine next steps.									

**Scoring Key: 2 = implemented; 1 = partially implemented; 0 = did not implement; NA = not applicable

Module: **Functional Communication Training (FCT)**

Date	Observer Initials	Target Skill/Behavior, Comments, and Plans for Next Steps
Date	Observer Initials	Target Skill/Behavior, Comments, and Plans for Next Steps
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Module: Functional Communication Training (FCT)

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Date	Observer Initials	Target Skill/Behavior, Comments, and Plans for Next Steps

Module: **Functional Communication Training (FCT)**

Blank FCT Data Collection Sheet

Learner _____

Person collecting data _____

Interfering Behavior (IB):						
Replacement Behavior (RB):						
Date	**Activity/ setting**	**Antecedent** (record what happens right before the IB or RB)	**IB or RB?**	**Prompts**	**Consequence** (record what happens right after the IB or RB)	**Notes**
				I P G V		
				I P G V		
				I P G V		
				I P G V		
				I P G V		
				I P G V		
				I P G V		
				I P G V		
				I P G V		
				I P G V		
				I P G V		
				I P G V		
				I P G V		
				I P G V		
				I P G V		

Key: I = Independent, P = Physical prompt, G = Gestural prompt, V = Verbal prompt

Module: **Functional Communication Training (FCT)**

Example: FCT Data Collection Sheet

Learner: Tiffany

Person collecting data: Teacher

Interfering Behavior (IB): Tiffany hits peers when she wants toys they are playing with
Replacement Behavior (RB): Tiffany will say, "My turn" when she wants a toy that a peer is playing with

Date	Activity/ setting	Antecedent (record what happens right before the IB or RB)	IB or RB?	Prompts	Consequence (record what happens right after the IB or RB)	Notes
2/20	Free play	Peer picks up toy near Tiffany	RB	I P G V	Peer gave toy to Tiffany	
2/20	Free play	Peer sat near Tiffany with an animal	IB	I P G V	Peer started crying	
2/20	Small groups	No more brushes at painting activity	RB	I P G V	Peer gave Tiffany paintbrush	
2/21	Outside	Tiffany sat down in sandbox next to peer with shovel	RB	I P G V	Peer gave Tiffany shovel	
				I P G V		
				I P G V		
				I P G V		
				I P G V		
				I P G V		

Key: I = Independent, P = Physical prompt, G = Gestural prompt, V = Verbal prompt