Functional Communication Training

Evidenced Based Practice for Students with Autism Spectrum Disorders
Basics of Functional Communication Training
Functional Communication Training

- **Used** to decrease inappropriate or maladaptive behaviors
- **Increase** communication.
- **Done after** a functional behavior assessment - first identify the function of an inappropriate behavior.
- Understanding the function **allows us to find an alternative** way for the learner to achieve that same function by using a more acceptable communicative behavior.
For Example:
The communicative behavior should serve as a replacement behavior by achieving the same function as the maladaptive behavior.

<table>
<thead>
<tr>
<th>Interfering Behavior</th>
<th>Function of Behavior</th>
<th>Replacement Communicative Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggression, Property Destruction, Elopement</td>
<td>Avoid task demands</td>
<td>Ask for a break</td>
</tr>
<tr>
<td>Aggression, Tantrums, Screaming</td>
<td>Obtain preferred item or activity</td>
<td>Request item or activity</td>
</tr>
</tbody>
</table>
FCT can Decrease Maladaptive Behaviors!

• FCT has been used to reduce behaviors such as:
  • Physical aggression
  • Tantrums
  • Screaming
  • Disruption

• Elopement
  • Self-injurious behaviors
  • Property destruction
  • Excessive straightening
  • Mouthing materials
ASD Video Glossary

Before and After
Behavior - Extreme Distress - Ethan

http://resources.autismnavigator.com/asdglossary/#/section/25/extremeDistress
Interventions can be tailored to the student's functioning level

• For example, if the original behavior served the function of avoiding or escaping a task or activity, the communicative behavior might be:
  • Touching a “break” card
  • Signing “break”
  • Saying the word “break”
  • Saying a phrase such as “need break” or “break please”
Functional Communication Training

• Can begin with one communicative partner and then goals can be added to generalize the communication behavior to:
  • New communication partners,
  • Different settings,
  • Different activities.
Key Idea

• The communicative behavior should serve as a replacement behavior by achieving the same function as the maladaptive behavior.
Benefits of FCT

• FCT provides a more acceptable alternative behavior or communication system that enables the learner to achieve the same desired outcome (such as escaping a non-preferred task, obtaining access to a preferred item or activity, obtaining attention, etc.).

• FCT operates not only by reducing problematic behaviors that may be harmful to both the learner and others, but also by increasing the communication skills of the learner to better get his or her needs met.
Benefits of FCT

• FCT can also be a low-cost intervention that does not take long to create.
• For example, for many learners, no materials are needed – only the verbal or gestural prompt provided by the instructor.
• For other learners, the replacement communicative behavior that is taught might simply involve a picture card that the learner points to or exchanges to obtain the desired outcome (such as a picture of a favorite toy).
How FCT is being used...

• How is FCT Being Used? Videos
• http://afirm.fpg.unc.edu/functional-communication-training/lesson-1-basics-fct/how-fct-being-used
## Evidence Base for FCT

<table>
<thead>
<tr>
<th>Stage</th>
<th>Preschool (0-2 years)</th>
<th>Elementary (3-5 years)</th>
<th>Middle (6-11 years)</th>
<th>High (12-14 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>Social</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
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<tr>
<td>Behavior</td>
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<td>Behavior</td>
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</tr>
<tr>
<td>School-Readiness</td>
<td>School-Readiness</td>
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<td></td>
</tr>
<tr>
<td>Play</td>
<td>Play</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptive</td>
<td>Adaptive</td>
<td></td>
<td>Adaptive</td>
<td></td>
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</tbody>
</table>
Communication

Frustrations Activity
Planning for Functional Communication Training
Identify an Interfering Behavior Appropriate for FCT

• Often these include:
  • Aggression,
  • Tantrums,
  • Destructive behaviors,
  • Self-injurious behaviors,
  • Elopement
Be Aware…

• Stereotypic or repetitive behaviors, which may not serve a clear communicative function may not be effectively replace using FCT

• Maladaptive behaviors that are associated with stereotypic or repetitive behaviors can still be appropriately addressed using FCT.

• For example, if a learner elopes to obtain access to a stereotypic or repetitive behavior (such as running away to stare at a favorite object) or engages in aggression when access to that behavior is blocked (such as striking out when an adult attempts to block the learner from repetitively opening and closing a cabinet), the associated behaviors such as elopement or aggression can be addressed using FCT by giving the learner a more appropriate way to communicate the desire to engage in the stereotypic or repetitive behavior.
In order to select and teach an appropriate replacement communicative behavior, it is first essential to understand the function of the interfering behavior. Sometimes a behavior may initially appear to serve one function, but upon further analysis, the behavior is revealed to serve a quite different function. For example, a learner who frequently runs away may be assumed to be attempting to escape or avoid certain tasks, but could actually be seeking attention or seeking access to a preferred item or activity.
Functional Behavior Assessment Handout
Ms. Jenkins teaches a self-contained class in an elementary school, and one student, Mia, has been running away from the classroom. The team determined that Mia was running out of the classroom in order to watch the water fountain, which she loves to do, so Ms. Jenkins and her assistant developed a picture card for Mia to give them to ask to go to the water fountain. Now, instead of disappearing from the classroom or dashing away, Mia asks one of her teachers to go to the water fountain instead.
What is the function?
What should be the form?
What should be the effort?

3 examples

https://www.youtube.com/watch?v=8eCfnrGu5xo&feature=related
Ensure All Team Members are Familiar with the Replacement Communicative Behavior

• An important step in the planning process is to ensure that all team members who are working with the learner understand the replacement communicative behavior that the learner will be using. Team members might include teachers, counselors, speech language pathologists, paraprofessionals, support staff, and parents; any adults who may be interacting with the learner in a context in which the learner may be using the replacement communicative behavior should be aware of the replacement communicative behavior.

• It is critical for people who may be interacting with the learner to both understand what the learner is trying to communicate and to be able to respond accordingly if put into a position to do so. Specifically, it is essential that the learner initially is able to obtain the desired outcome when using the replacement communicative behavior; otherwise, the learner may return to use of maladaptive behaviors if the replacement communicative behavior is unsuccessful.
Gather and Organize Supporting Materials

• **Prepare all** supporting materials prior to initiation of FCT.

• **Including:**
  • gathering any materials related to the communication, such as picture cards or communication cards.
  • programming devices if **necessary**
  • **preferred** items that the learner may be requesting, such as toys, books, games, or food.
Scenario 1

Celia primarily uses spoken language to communicate, but since she has difficulty using verbal communication when she is agitated, her teacher has created a card with the words “I need a break,” which will enable her to easily ask for a break.

What important feature of the replacement communicative behavior is being considered here?
Scenario 2

Joe primarily uses sign language to communicate, so his teacher will teach him a replacement communicative behavior that involves using sign language to ask for a break.

What important feature of the replacement communicative behavior is being considered here?
Scenario 3

Daniel has been hitting his paraprofessional to escape non-preferred activities, so his teacher is developing an alternative way for Daniel to ask for a break instead of hitting.

What important feature of the replacement communicative behavior is being considered here?
Using Functional Communication Training
Teach Use of the Replacement Communicative Behavior

Provide prompting and guidance to use the replacement communicative behavior using a most-to-least hierarchy. This hierarchy will vary depending on the form of the replacement communicative behavior, but may consist of full manual guidance and prompting with a gradual fading of prompts.
ASD Video Glossary
Teaching FCT by Parent

Behaviors - Extreme - Christopher 1
http://resources.autismnavigator.com/asdglossary/#/section/25/extremeDistress
Reinforce the Replacement Communicative Behavior

After the learner uses the replacement communicative behavior (initially through prompting, but eventually, independently), it is important for the instructor to reinforce the replacement communicative behavior by providing the relevant response that yields the desired outcome.

For example, if the learner’s replacement communicative behavior is to ask for a break, the instructor should respond by removing demands and providing a break. If the learner’s replacement communicative behavior is to request a preferred item or activity, the instructor should respond by providing access to the preferred item or activity.
Reinforce the Replacement Communicative Behavior

Reinforcement of the replacement communicative behavior is built into FCT. By providing immediate access to the desired outcome, the learner’s use of the replacement communicative behavior is reinforced.

When first teaching use of the replacement communicative behavior, it is important to reinforce the communicative behavior consistently and frequently. Thus, a common teaching strategy is to structure the teaching environment in a way that facilitates frequent opportunities to use the communicative behavior over the course of a teaching session.
Reinforce Replacement Communicative Behavior Graphic

http://afirm.fpg.unc.edu/functional-communication-training/lesson-3-use-fct/reinforce-replacement-communicative-behavior
Remove Reinforcement for the Interfering Behavior

An additional strategy relevant to responding to the learner is to put the interfering behavior on extinction and/or block access to the desired outcome.

Putting a behavior on extinction means that the interfering behavior should no longer be reinforced (i.e., it no longer enables the learner to gain access to the desired outcome); the interfering behavior is commonly ignored.

For example, the learner might be prevented from obtaining a preferred item or activity unless the replacement communicative behavior is used while the interfering behavior is simultaneously ignored.
Checking In

Jean’s teacher has provided full manual guidance to prompt Jean to present a picture card to request her preferred activity of reading. Jean’s teacher is now touching Jean on the elbow and using the verbal prompt, “Tell me what you want to do.”

Time Delay
Most-to-least prompt hierarchy
Extinction
Support Learner's Generalization of Replacement Communicative Behavior

- Consider the following:
  Set up structured opportunities for the learner to use the replacement communicative behavior in a different setting
  Set up structured situations in which the learner can use the replacement communicative behavior with other adults
  Provide multiple opportunities for the learner to practice in the new setting and with different people
Consider Shaping the Replacement Communicative Behavior

In some cases, the replacement communicative behavior that is taught and used by the learner may already be in an acceptable form. For example, for a learner who communicates using picture cards, providing a picture card that indicates the need for a break would be an acceptable form of communication.
Consider Shaping the Replacement Communicative Behavior

However, for some learners, the initially acceptable communication may consist of a single word, picture, or some approximation of the replacement communicative behavior that is not at the level at which the learner is ultimately capable of communicating.

For example, for a learner who is putting together several picture cards to create short phrases and sentences on a communication board or a learner who speaks in full sentences, a brief phrase on a picture card is a simpler form of communication than what might ultimately be expected.
Shaping Involves...

Gradually reinforcing closer approximations of the desired communicative behavior. Modeling and prompting might also be needed to show the learner what is expected.
Shaping

For example, if a learner who can communicate using short phrases and sentences has been asking for a preferred item by saying “toy,” the shaping steps might be for the learner to say:

“Want toy”
“I want toy”
“I want the toy”
“I want the toy, please”
The final form of the desired communication would depend on the skills of the learner.
Thin Reinforcement for Replacement Communicative Behavior

Providing an immediate response to a learner that reinforces use of the replacement communicative behavior is not always feasible.

For example, a learner may request access to a preferred activity when it is not appropriate or even possible.
A valuable step in the teaching process is to thin the reinforcement for the replacement communicative behavior by gradually increasing the interval of time between the learner’s use of the replacement communicative behavior and the reinforcing response (such as removing demands or providing access to a preferred item or activity).

This step essentially teaches the learner to wait for the reinforcer.

The time interval should be discussed and decided upon by the team based on the individual needs of the learner, but could be as short as initially waiting 5-10 seconds.
Checking In

What teaching strategy is next?
Scenario 1

Deanna is a 3rd grader who has been engaging in self-injurious behavior in order to avoid writing tasks. Ms. Lawrence, the paraprofessional in her class, has used full manual guidance to prompt Deanna to give a picture card to the teacher to ask for a break.

- Reinforce the replacement communicative behavior
- Support the learner’s generalization of the replacement communicative behavior across people and settings
- Consider shaping the replacement communicative behavior
Scenario 2

Raul is a kindergarten student who has been running away from the classroom in order to engage in a repetitive behavior (and his restricted interest) of opening and closing the electronic door in the school lobby. Raul uses sign language to communicate in phrases and sentences. The interventionist has taught use of the replacement communicative behavior, which is for Raul to request going to open the electronic door by signing “door,” and Raul is able to independently ask the interventionist, lead teacher, paraprofessional, and speech language pathologist for access to the door rather than running out of the room. Raul is reinforced by being given access to the electronic door when he uses the replacement communicative behavior of signing “door.”

Teach use of the replacement communicative behavior using a most to least prompt hierarchy

Support the learner’s generalization of the replacement communicative behavior across people and settings

Consider shaping the replacement communicative behavior
Scenario 3

Tito has been screaming when he wants a preferred activity, which is to swing on a swing – either in the classroom adaptive swing or on the playground swings. His teacher has taught the replacement communicative behavior of asking for the swing using a picture card and vocalization, and he is now able to independently ask several adults for access to the swing both inside the classroom and outside at recess. The speech language pathologist has also worked with Tito on shaping his communication into a short phrase (“want swing please”), which he now uses without the picture card to request the swings.
Monitoring Functional Communication Training
Collect and Analyze Data on Interfering Behavior

- Data collection in FCT should focus on two key areas:
  - Interfering behavior that was targeted for the intervention
  - Replacement communicative behavior that is being taught to the learner.
<table>
<thead>
<tr>
<th>Setting</th>
<th>Antecedent</th>
<th>Behavior</th>
<th>Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/21 Time: 8:30 am</td>
<td>Classroom-independent</td>
<td>Given math worksheet</td>
<td>Runs out of room</td>
</tr>
<tr>
<td>2/22 Time: 9:00 am</td>
<td>Independent desk work</td>
<td>Given spelling sheet</td>
<td>Runs into corner of room and hides under table</td>
</tr>
<tr>
<td>2/22 Time: 1:00 pm</td>
<td>Classroom-reading center</td>
<td>Given reading journal</td>
<td>Runs out of room</td>
</tr>
<tr>
<td>2/23 Time: 8:30 am</td>
<td>Independent desk work</td>
<td>Given math worksheet</td>
<td>Runs into corner of room and hides</td>
</tr>
</tbody>
</table>
Replacement Communicative Behavior

It is important to collect data on the learner’s use of the target communicative behavior. Data collection might include the level of support and prompting the learner needs and relevant details such as the setting, time, antecedents, and/or consequences.

Information can be collected about both the interfering behavior and replacement communicative behavior simultaneously. Here is a sample data collection tool for both the interfering behavior and the replacement communicative behavior.
Replacement Communicative Behavior - Interval

Can be used when replacement communicative behaviors are provided or in situations where the behaviors are frequently occurring.

Note the time interval in the sheet above is 5 minutes.

Time intervals could be as short as a few seconds or as long as a full 45-60 minute class period.

The time interval selected should be short enough to capture the occurrence of the behavior appropriately.
<table>
<thead>
<tr>
<th>Date</th>
<th>Start Time</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Stop Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/7</td>
<td>1:00 pm</td>
<td>FP+VP</td>
<td>FP+VP</td>
<td>IB</td>
<td>FP+VP</td>
<td>FP+VP</td>
<td>FP+VP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1:30 pm</td>
</tr>
<tr>
<td>2/8</td>
<td>1:05 pm</td>
<td>IB</td>
<td>FP+VP</td>
<td>FP+VP</td>
<td>FP+VP</td>
<td>PP+VP</td>
<td>PP+VP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1:35 pm</td>
</tr>
</tbody>
</table>

**Prompt Key:** VP = Verbal Prompt; VC = with Visual Cue; GP = Gestural Prompt; PP = with Partial Physical; FP = Full Physical; I = Independently; IB = Interfering Behavior
Checkin In

Joan has been hitting other people and screaming in order to gain their attention. She engages in this behavior approximately 5-6 times in an hour. Using FCT, her teacher is teaching Joan to request attention in a more appropriate way using her voice output device. Which type of data collection sheet would be most useful for collecting data during the training process?

- Data collection sheet with individual occurrences
- Data collection sheet with 5-minute intervals
- Data collection sheet with 10-second intervals
Determine Next Steps Based on Learner's Progress

Considerations for Monitoring FCT Handout
What if the learner with ASD is not showing progress with FCT?

If the learner with ASD is not showing progress with functional communication training, ask yourself the following questions:

• Is FCT being used with fidelity (Implementation Checklist)?
• Did a functional behavior assessment (FBA) indicate the function of the behavior?
• Is the replacement communicative behavior addressing the function of the interfering behavior?
• Are team members providing the learner with reinforcement for using the replacement communicative behavior?
If these issues have been addressed and the learner with ASD continues to not show progress, consider selecting a different evidence-based practice to use with the learner with ASD.
Checking In

• What are the next steps?
What is a next step related to prompts that might be considered based on this data?

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Antecedent</th>
<th>IB or RCB</th>
<th>Prompt Needed</th>
<th>Consequence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/5</td>
<td>Class play area</td>
<td>Told, “time to play”</td>
<td>RB</td>
<td>PP, VP</td>
<td>Give ball</td>
<td>w/TA</td>
</tr>
<tr>
<td>3/6</td>
<td>Class play area</td>
<td>Told, “time to play”</td>
<td>RB</td>
<td>PP, VP</td>
<td>Give ball</td>
<td>w/TA</td>
</tr>
<tr>
<td>3/6</td>
<td>Recess</td>
<td>Told, “time to play”</td>
<td>IB</td>
<td>Ignore</td>
<td></td>
<td>w/TA</td>
</tr>
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### What is a next step related to location that might be considered?

Interfering Behavior (IB): Screaming and falling to floor to obtain preferred item - ball

Replacement Communicative Behavior (RCB): Ask for ball using picture card

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- Consider putting the interfering behavior on extinction.
- Consider prompting and teaching the replacement communicative behavior at recess to support learner generalization of the skill to this setting.
- Consider generalizing the replacement communicative behavior to the gym.
Step by Step Guide Handout
Let’s Check In
1. Functional communication training is a systematic practice used to....

Choose one
Replace maladaptive behaviors
Replace interfering behaviors
Both A and B
2. Functional communication training has been used to...

Choose all that apply

- Reduce physical aggression
- Reduce self-injurious behaviors
- Increase greetings of peers
- Reduce elopement
- Increase conversation skills
- Reduce property destruction
3. The function of the interfering behavior should be determined after selecting an appropriate replacement communicative behavior.

True
False
4. When selecting a replacement communicative behavior, consider:

   Form       Function       Effort

Choose one
- A and B
- B and C
- A and C
- All of the above
- None of the above
5. The replacement communicative behavior should initially require:

High effort for the learner to produce
Low effort for the learner to produce
None of the above
6. When teaching the use of the replacement communicative behavior what prompts should be used?

A most-to-least hierarchy
A least-to-most hierarchy
No prompts
7. After the learner uses the replacement communicative behavior, the instructor should

Continue with the task or activity the learner was engaged in.

Reinforce the replacement communicative behavior by providing the relevant response that yields the desired outcome.

Reinforce the replacement communicative behavior by providing a token using the token economy system.
8. When using FCT, do not thin reinforcement for the replacement communicative behavior.

True
False
9. Data collection in FCT should focus only on the interfering behavior that was targeted for the intervention.

True
False
10. Select possible reasons for why a learner with ASD might not show progress with FCT.

Choose all that apply

• FCT is not being used with fidelity
• A functional behavior assessment was used to determine function of the interfering behavior
• The replacement communicative behavior did not address the function of the interfering behavior
• Team members provided the learner with reinforcement for using the replacement behavior
Let’s design an intervention...

ASD Video Glossary
Associated Features - Challenging Behaviors - 3 - Robbie