Designing Instruction Programs for Skill Acquisition

There are a number of things that teachers should consider when developing an instructional program to teach a new skill. First, they must decide what to teach by evaluating the student and setting and instructional objective. Second, teachers need to identify the instructional or natural cues that signal the student to perform the skill. Third, behavior change procedures must be selected, which can include reinforcement procedures, prompting, and compensatory strategies. Finally, a data collection system must be created to indicate the student’s progress in learning the skill.

These components make up the basis for an instructional program that can be used by a teacher or paraprofessional with a student with ASD. The figure outlines the Instructional Model.

QUESTION: How does the teacher implement instruction?

ANSWER: Implementing instruction with a student requires individualization. Each student with ASD is unique requiring his or her own program and instruction. However, a series of steps exist that comprise the instructional process every educator should understand and follow when providing instruction to any student with ASD.

Instructional Cue → Prompt → Student Response → Reinforcement

QUESTION: What is an instructional cue?

ANSWER: An instructional cue is the direction or antecedent that signals the student what to do. Examples include asking, “Who are the characters in the story?” “What is 5 x 8?” or showing a student a picture and asking, “What do you see?” The instructional cue can be contrived. For example, when teaching money skills, the teacher may hand the student a coin and ask, “How much money do you have?” The cue can also be a natural cue.

QUESTION: What are natural cues and why is it important to include them in an instructional program?

ANSWER: A natural cue represents some feature of the classroom or part of an activity that signals the student what to do. Typically, a natural cue is one that the student can see, hear, touch/feel, or smell and has not been changed or added to by the teacher. Examples include a cell phone ringing, announcements over a loud speaker, and the placement or location of school supplies or other materials. When a natural cue is present or occurs during the student’s school day, the student may attend to the cue and respond correctly, not attend to the cue at all, or respond incorrectly. For example, when teaching money skills, the teacher may hand the student a coin and ask, “How much money do you have?” The cue can also be a natural cue.

Waiting for verbal instructions to complete a task or activity may result in the student being dependent on the teacher. This some-
times is referred to as “prompt dependence,” and can limit access to activities without the supervision or support of an instructor. Teaching students to respond to cues in the environment can address this concern and potentially increase inclusion in many settings. Initially, the student may need to be prompted to respond to the natural cues. These prompts can be gradually faded so that eventually the student responds only to the natural cue without additional support from the teacher.

QUESTION: What are prompts and how should they be used during instruction?

ANSWER

There are different types of prompts including verbal, gesture, model, and physical prompts. How and when a teacher uses prompts depends on the student’s level of independence in completing a specific skill. Verbal prompts can be full verbal prompts or only partial. A full verbal prompt provides detailed instruction as to exactly what the student should do (e.g., “Turn to the next page in the book.”). A partial verbal prompt provides information that is general, such as, “What do you do now?” Gesture prompts include such things as pointing, looking at, motioning toward, or moving closer to items used in the task. If the teacher is using a gesture prompt for instruction, she might point to the page in the book, look at the book, or touch the page to prompt the student to turn the page.

The last two types of prompts are model and physical. When using a model prompt, the teacher demonstrates the behavior that she wants the student to do. For instance, if the teacher wants the student to stand, she stands up. Typically, model prompts are effective if the student demonstrates the ability to imitate behaviors that are shown to him or her. Physical prompts are the most intrusive types of prompts used for instruction. The teacher can use a full physical or partial physical prompt. Full physical prompts, sometimes referred to as “hand over hand,” are the most intrusive of all the prompts. A partial physical prompt usually means that the teacher is gently guiding the student such as touching his or her elbow rather than moving the student’s hands to complete the activity.

Any of these prompts can be used alone or paired together. For instance, the teacher might say “Turn the page of the book” while pointing to the book. This teacher is using a verbal prompt paired with a gesture prompt. Or, the teacher might say “Stand up” as she stands up. Here, she is using a verbal prompt paired with a model prompt to get the student to stand. Identifying which prompt(s) to use and how to pair them together should be explained in the instructional program.

QUESTION: How does the teacher determine which reinforcement procedures to use for an instructional program?

ANSWER

The purpose of positive reinforcement is to assist students in acquiring new skills and maintaining them over time. So, it is important for the teacher to use reinforcement during instruction. The student receives reinforcement contingent on the occurrence of a specific behavior. The anticipated outcome is that his or her skill performance will increase or improve in anticipation of receiving the reinforcer. When and how often the student receives the reinforcer during instruction is an important consideration. These decisions are made based on the skill level of the student. Initially, the student may receive reinforcement more frequently to promote learning. Once learning occurs, the amount and frequency of the reinforcer can be faded. A more detailed answer to this question is not possible within the scope of this Q&A. VCU-ACE has developed several resources on reinforcement that can be found online at: http://www.vcautismcenter.org/resources/factsheets.cfm.