STEP-BY-STEP INSTRUCTIONS

Simultaneous Prompting

The simultaneous prompting procedure can be used with both discrete (single responses of relatively short duration) and chained skills (several behaviors sequenced together to perform a more complex skill). The simultaneous prompting procedure requires two types of daily sessions: instructional sessions and probe sessions. It requires only one prompt—a controlling prompt. The controlling prompt is the least intensive prompt needed by the learner with ASD to use the target skill correctly. For some learners, the controlling prompt may be as simple as pointing to the faucet to prompt hand washing, while others may need full hand-over-hand assistance. The controlling prompt is used on all trials of the instructional sessions; however, it is not used in the probe sessions.

Preparing for the Intervention

Step 1. Identifying the Target Skill/Behavior

In Step 1, team members define the target behavior or skill that they want a learner with ASD to acquire.

1. Team members define the target skill/behavior in terms that are observable and measurable.

For example, “John will increase his language skills” is not an observable or measurable definition of a target skill/behavior. On the other hand, the definition “John will request more snack by saying, ‘More, please’ in two out of three opportunities during snack time” allows team members to directly observe the target skill/behavior and measure the learner’s progress.

2. Team members identify the target skill/behavior as being either:

    a. *a discrete task*. A discrete task is one that requires a single response. Examples include pointing to objects, identifying letters, naming pictures or objects, reading words, writing the answers to simple math problems, greeting a peer who enters the room, and answering questions.

    b. *a chained task*. Chained tasks require that team members determine (a) the number and sequence of steps in the chain, (b) whether to teach one step at a time, or (c) whether to teach all steps at the same time. Examples of chained tasks include washing hands, making a sandwich, eating a meal, getting dressed, putting on coat, cooking, and transitioning from one class to the next. In general, teaching the entire chain at the same time is recommended.

Step 2. Selecting the Target Stimulus and Cue

In Step 2, team members identify (a) the target stimulus and (b) the cue or task direction. The target stimulus is the object, gesture, activity, or situation to which we want the learner with ASD to respond when instruction is finished. The cue or task direction is what informs the learner that some response is expected during instruction. A cue basically tells the learner that it is time to use the target skill. Identification of the target stimulus is a critical part of the planning and implementation process because it helps control the learner’s behavior. Furthermore, the cue

signals the learner to use the target skills in situations in which the team member is not present or after the skill has been mastered.

EXAMPLES

- When teaching learners with ASD to play, the toy is the target stimulus.
- When teaching the learner with ASD to initiate social interactions, the presence of a peer is the target stimulus.
- When teaching the learner with ASD to read words, the presence of text is the target stimulus.

The cue or task direction also is important in the planning and teaching process because it signals the learner to use the target skill. Often, cues or task directions are verbal statements made by team members. Such statements do not tell the learner how to do the target skill, but they tell the learner that a certain behavior is expected. Target stimuli may be components of an activity, a team member, peers, or other elements of the natural environment. Cues and task directions often are added to the environment. For example, in teaching a learner to speak to his peers, the target stimulus is the presence of the peer. A cue or task direction may not be used beyond a general reminder at the beginning of the session to “Talk with your friends when you play.” When teaching a learner to read words, the words are the target stimulus, but the cue or task direction may be the team member saying, “What’s this word?” Target stimuli should be clear and consistent, so that reinforcement is successfully linked with completing the target skill. Cues and task directions are used to speed up instruction and let learners know that they should do something.

1. Team members identify one of the following as the target stimulus:

    a. *a naturally occurring event*. Examples: Having dirty hands after finger painting is the target stimulus for hand washing; needing to use the bathroom is the target stimulus for asking to use the restroom or moving to the bathroom and using it.

    b. *completion of one event or activity*. Examples: Completing an instructional activity is the target stimulus for putting materials away, cleaning up the area, and moving to the area for the next activity; finishing one job is the target stimulus for doing the next job (e.g., finishing stocking a shelf in the store is the target stimulus for taking the boxes to the trash).

    c. *an external signal*. Examples: A ringing bell may signal (a) it is time to go to the next class; (b) a work shift is completed in an employment situation; or (c) the clothing is dry and should be taken from the dryer, sorted, folded, and put away.

2. Team members decide whether to use a cue or task direction during instruction.

In most cases, this decision is made based on the type of skill being taught. For many skills, a cue or task direction is not warranted. Examples include a peer initiating an interaction with the learner, someone speaking to the learner, the presence of toys, and so forth. In other cases, a task direction makes teaching much easier and faster. Examples include teaching learners with ASD to name objects or pictures, and read words.

3. Team members choose one or more of the following as the cue that will be used during instruction:

a. *material or environmental manipulation*. Examples include getting the materials set up and ready before the learner comes to the activity (e.g., setting up tasks for individual work time, setting the table before snack, placing playdough and toys on the table, giving a book to the learner for story time).

b. *task direction*. Examples include telling the learner to get his coat on to go home, giving a picture card to go wash hands, presenting a flashcard with a sight word on it and asking, “What is this?”

c. *naturally occurring event*. Examples include a ringing phone, fire alarm, school bus arriving after school, a peer greeting the learner, the glass being empty during snack time, dirty hands after finger painting, an interesting and novel event occurring (spilling milk during snack setting the occasion to say, “uh-oh”), or a peer offering the child a toy.

Target stimuli and cues/task directions should be clear, complete, and specific, and aimed at learners’ skill and interest levels. For example, a team member would not use picture cards with a learner who is able to follow verbal instructions. Furthermore, a parent would not tell a child to put on his coat if he is learning how to do this independently. In this case, the coat on the chair would serve as the naturally occurring cue. It is essential that the cue be clear enough so that learners with ASD know what they are supposed to do during the particular task or activity.

Step 3. Selecting a Controlling Prompt

In Step 3, team members select a prompt that ensures that the learner with ASD performs the target skill correctly. This prompt is referred to as the controlling prompt.

1. Team members try out different prompts to see which ones are successful in getting the learner with ASD to do the task correctly.

The issue is not whether the prompt occasionally gets the learner to do the behavior. A controlling prompt elicits the correct behavior on a very consistent basis – nearly every time it is used! In general, team members should use the least intrusive prompt that is still controlling. For example, if pointing to the sink and saying, “Better wash your hands” is enough to get the learner to start the sequence of washing hands,that would be better than using a physical prompt. Models are good prompts, but learners must be able to imitate others for models to be effective.

Step 4. Selecting Reinforcers

Step 4 is focused on selecting reinforcers that are appropriate for individual learners with ASD, task demands, and target skills. The goal of reinforcement is to increase the likelihood that the learner with ASD will use the target skill again in the future. Therefore, selected reinforcers should be highly motivating.

1. When choosing reinforcers for learners with ASD, team members identify:

   a. what has motivated learners in the past and
   b. learners’ deprivation state (i.e., What do they want that they can’t easily get?).

2. Team members identify a reinforcer that is appropriate for the target skill and instructional task.

The reinforcer should be as natural as possible. That is, it should be related to the activity that is going on. For example, it would be natural for a learner with ASD to get free time or have access to a preferred activity/object after taking part in a challenging, non-preferred learning activity. Another example would be to use food as a reinforcer during food-related activities such as snack time or lunch when the target skill is requesting "more" or talking with peers. Two critical things to remember about reinforcers are (a) they are individually determined, and (b) they may lose their power with repeated use.

Examples of positive reinforcement include:

- preferred activity/favorite toy (e.g., special job, squishy ball, sand table)
- free time
- verbal praise
- food-related activity
- opportunities to be away from others
- objects used in stereotypic behavior
- preferred games and activities
- time with a preferred adult or peer

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

Step 5. Determining the Response Interval

The simultaneous prompting procedure uses two types of sessions: instructional sessions and probe (test) sessions. In the instructional sessions, the team member secures the learner's attention, presents the target stimulus and cue/task directions, and then presents the controlling prompt. The prompt is presented before the learner has a chance to respond. After the prompt, the team member should present a *response interval* within which the child must respond. With the probe sessions, the team member secures the learner's attention, presents the learner with the target stimulus and cue/task directions, and then presents the *response interval.* No prompt is delivered.

5. Team members consider both learner characteristics and task difficulty when determining the response interval. When using a full physical prompt (i.e., physically guiding the learner to complete the task) during the instructional sessions, no extra response interval is provided. If the learner responds correctly to a prompt, the team member provides reinforcement (e.g., more juice, "Good job," preferred activity). If the learner does not do the target skill correctly, the team member ignores the response or corrects it and provides the next trial.

1. When determining the length of the response interval, team members consider:

    a. *learner characteristics*. Team members should consider factors such as how long it usually takes the learner to respond when the learner knows how to do the behavior. Adding a couple of seconds to this typical length of time is generally adequate for determining the length of the response interval.

b. *task characteristics*. Team members might consider how long it takes another learner with ASD to use a similar skill. For example, if it takes another learner 4 seconds to respond to a verbal prompt, the team member might try using 4 seconds as the response interval for this particular learner with ASD. Team members also should consider the amount of time a learner will be allowed to *begin* a task as well as how long the learner will have to *complete* the task. For example, a learner with ASD may begin writing his name within 4 seconds of the cue; however, it may take him 2 minutes to complete the task. In this case, setting the response interval at 6 seconds for the learner to start the task, and 2.5 minutes to complete it is reasonable. For tasks that require more than one step (e.g., setting the table, getting dressed, washing hands), team members use the same response interval for each step; however, some skills may require more time than others to complete (e.g., turning on water takes less time than rubbing soap between hands).

2. When selecting a response interval, team members time how long it takes the learner to complete similar skills/tasks.

This information gives team members a good starting point for determining the response interval. The response interval for instructional sessions and the probe sessions should be the same to make it easy for the team member to remember.

Step 6. Identifying Activities and Times for Teaching

Simultaneous prompting can be used during explcit instruction to teach discrete skills (e.g., answering questions, pointing to numerals) in which learning takes place during individual work or small-group time. It can also be embedded into ongoing activities to teach such skills. In addition, simultaneous prompting can be used to teach chained tasks (e.g., putting on coat, washing hands, cooking) that often are embedded within ongoing routines and activities. The selection of activities and materials depends upon the skill(s) the learner needs to acquire. Team members also should consider using favorite activities or materials during teaching activities to increase motivation. Regardless of whether discrete or chained behaviors are taught, two sessions are needed with the simultaneous prompting procedure.

1. Team members identify two times during the day when the target skill can be taught and measured.

One time is used for instruction, and the other is a “probe” session, or test session.

2. Team members identify how many trials will be implemented during each instructional and probe session.

This decision is made by taking into account the learner’s characteristics (how readily the learner acquires new skills) and the characteristics of the skill (how difficult the skill is). In general, more than one discrete skill is taught at a time. For example, if the skill is reading words, at least two words should be taught at once. At least five trials should occur in each instructional session for each skill. Chained skills are generally taught with total task instruction, meaning all steps of the chain are taught simultaneously as the chain should be performed.

Probe sessions often have fewer trials (two or three) per target skill than instructional sessions. The purpose of probe sessions is simply to test (measure) whether learning is occurring. With chained skills, one opportunity to practice the skill each day may serve as the probe session.