Module: **Prompting**

Steps for Implementation: Graduated Guidance

Neitzel, J., & Wolery, M. (2009). *Steps for implementation: Graduated guidance.* Chapel Hill,
    NC: The National Professional Development Center on Autism Spectrum Disorders,
    FPG Child Development Institute, The University of North Carolina.

The graduated guidance procedure is used only with chained skills (skills comprised of several
behaviors sequenced together to form a more complex skill), and it almost always involves
using physical prompts. With the graduated guidance procedure, teachers/practitioners apply
the amount and types of prompts needed to help the learner with ASD complete the target
skill/behavior, and they immediately fade (reduce) the amount and types of prompts needed as
the learner begins to acquire the skill. This process requires many moment-to-moment
decisions about when to apply and fade the prompts. Thus, it takes considerable skill to use
graduated guidance, and failure to appropriately fade prompts can cause learners to become
prompt dependent.

Preparing for the Intervention

Step 1. Selecting and Describing the Target Skill/Behavior

In Step 1, teachers and other practitioners define the target behavior or skill that they want
learners with ASD to acquire. The graduated guidance procedure should only be used with
chained tasks (putting on a coat, setting a table, cleaning a bathroom, sorting and folding
laundry).

1. Teachers/practitioners define the target skill/behavior in terms that are observable and
   measurable.

For example, "John will become independent in domestic living skills" is not an observable or
measurable definition of a target skill/behavior. On the other hand, the definition, "John will set
the table for four people, with each setting having a plate, glass, napkin, spoon, fork, and knife
in their proper location" does specify the behaviors John will be taught. This specificity allows
teachers/practitioners to observe the target skill/behavior directly and measure his progress.

2. Teachers/practitioners identify the target skill/behaviors of the chain by:

   a. using a sequence of steps from research or a curriculum,
   b. completing the chain and writing down the steps,
   c. watching someone else do the chain while writing down the steps, and/or
   d. logically analyzing what needs to be done to complete the skill and writing down the
      refined steps.

With chained tasks, teachers and other practitioners identify (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

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the same time. In most cases, it makes sense to teach the chain in the sequence usually used by competent performers.

Step 2. Identifying the Target Stimulus

In Step 2, teachers/practitioners must identify the target stimulus. The target stimulus is the event or thing that should cue the learner with ASD to begin the chain.

1. Teachers/practitioners 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 instruction activity is the target stimulus for putting materials away, cleaning up the area, and moving to the next 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 it is time to go to the next class; a work shift is completed in an employment situation; or the clothing is dry and should be taken from the dryer, sorted, folded, and put away.

Sometimes the external event may be something someone else does. For example, when the teacher passes out a test, this may be the target stimulus for learners to write their names on the answer sheet; or a peer greeting the learner with ASD is the stimulus for returning the greeting; or when someone asks a question, this is the target stimulus for answering.

Clearly specifying the target stimulus allows the teacher to ensure learners are attending to the target stimulus before starting the chain. This will reduce dependence on teacher instructions and teacher prompts.

Step 3. Selecting the Cue or Task Direction

In Step 3, teachers and other practitioners identify the event or object that will cue the learner to perform the target skill/behavior. A cue basically tells the learner that it is time to use the target skill/behavior. Cues and task directions are bridges used in instruction to help learners identify the target stimulus and then engage in the target response. For example, if a teacher is teaching a boy to take off and hang up his coat when he enters the classroom, the target stimulus is going indoors (i.e., entering a room from outside cues most of us to take off and hang up our coat). However, during instruction, the teacher would likely greet the child warmly, and then say, "Take off your coat and hang it up." This statement tells the boy that some behavior is expected before he starts his school day. This statement does not tell him how to do the skills, it just tells him that it is time to do them.

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1. Teachers/practitioners select at least one of the following cues to begin the teaching exchange (trial):

   a. *material or environmental manipulation.* 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 play dough and toys on the table, arranging desks for small group work).
   b. *task direction.* Telling 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.* Ringing phone, fire alarm, school bus arriving after school.

Step 4. Selecting Reinforcers

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

1. When choosing reinforcers for learners with ASD, teachers/practitioners 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. Teachers/practitioners identify a reinforcer that is appropriate for the target skill/behavior and instructional task.

The chosen reinforcer should be as natural as possible. That is, it should be related to the activity that is being implemented. 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/behavior is requesting.

With chained skills and the graduated guidance procedure, the completion of the chain is ideally a reinforcer; however, with many learners this is not the case. Thus, additional reinforcers should be used at the end of the chain.

Some 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,

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- preferred toys and games, and
- 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. Identifying the Controlling Prompt

In Step 5, teachers/practitioners select a prompt that ensures that the learner with ASD performs the target skill/behavior correctly. This is called the controlling prompt. 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.

1. Teachers/practitioners try out different prompts to see which ones are successful in getting the learner with ASD to complete the task correctly.

With the graduated guidance procedure, the prompts are almost always physical prompts, although with learners who have a lot of language skills, verbal prompts could be used. When selecting and using physical prompts, teachers/practitioners should be careful in how they use these prompts. Providing physical prompts from behind the individual often allows for more natural movements to be taught. Teachers/practitioners should be careful not to force or hurt the learner when physically prompting. When resistance occurs, just hold the hands in place rather than forcing movement. When resistance subsides, then continue to prompt the movement. Be sure others (supervisors, assistants, co-workers) understand the purpose and nature of physical prompts so that you are not accused of physical abuse.

Step 6. Determining the Length of the Response Interval

With graduated guidance, a short response interval (a couple seconds) often occurs after delivery of the target stimulus, attending cue, and task direction. Because chains are being taught, this short response interval is an opportunity for the learner to start the chain on his/her own.

1. When determining the length of the response interval, teachers/practitioners consider:

    a. *learner characteristics.* Teachers/practitioners 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 seconds to this usual time is generally adequate for determining the length of the response interval.

    b. *task characteristics.* Teachers/practitioners 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, then the teacher might try using 4 seconds as the response interval for this particular learner with ASD. Teachers/practitioners 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

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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.

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

This information gives teachers and other practitioners a good starting point for the response interval.

Step 7. Specifying Prompt Fading Procedures

In this step, teachers/practitioners determine how they will fade prompts as the learner with ASD becomes more proficient at doing the chained skill.

1. Teachers/practitioners select one of the following prompting strategies to fade prompts:

   a. *decreasing the intensity of the prompt.* Intensity refers to the amount of force used when delivering the physical prompts. An example would be moving from complete hand-over-hand instruction, to just having your hands on the learner while s/he does the chain.

   b. *providing less assistance by changing the prompt type.* An example would be moving from a full physical prompt to a verbal prompt.

   c. *immediately removing the prompt.*

Although teachers/practitioners make decisions about fading prompts within the context of ongoing routines and activities, they must specify clear strategies for prompt fading prior to implementation to decrease learner dependence on prompts to use the target skill/behavior correctly.

Step 8. Identifying Activities and Times for Teaching

Graduated guidance is used to teach chained skills. Examples include dressing and undressing, cleaning up work and play areas, feeding with a spoon, drinking from a cup, using a napkin, bathing, washing hands, combing hair, setting a table, washing dishes, making a snack, cooking, janitorial skills, and many others. Because the target stimulus (i.e., the need for the chain) should signal the time for using the skill, teaching should occur when the chain is needed.

1. Teachers/practitioners analyze the day and determine when and where the chain is needed.

Those times should be selected as the instructional times.

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2. If few natural times to teach the chain are identified, teachers/practitioners build in times when the skill may be taught.

For example, if the skill being taught is taking off a coat, this may only occur when the child enters the classroom and comes in from the playground. Adding other times (e.g., wearing the coat to the gym, or to the lunch room) is appropriate, because this would increase the teaching opportunities.

Implementing the Intervention

Step 1. Implementing Graduated Guidance

1. When implementing graduated guidance, teachers/practitioners:

   a. approach the learner with ASD,
   b. secure the learner's attention,
   c. present the target stimulus OR call the learner's attention to the target stimulus,
   d. deliver the task direction, and
   e. provide a short response interval.

For example, if a learner has been using finger paints, and it is time to wash hands, the teacher would approach the learner; speak to him (attending cue); say, "Your hands are dirty" (calling attention to the target stimulus); say, "time to wash your hands" (task direction); and wait a couple seconds for the learner to start moving toward the sink.

If the learner with ASD does not respond after a short response interval has been provided, teachers/practitioners provide additional assistance to the learner.

2. Teachers/practitioners provide the amount and type of prompt needed to get the learner with ASD to start performing the chain.

3. As soon as the learner with ASD begins to do the chain, teachers/practitioners reduce the intensity or amount of the prompt and start to shadow the learner's movements.

Shadowing is a term used to describe the action of holding your hands near the learner's hands so you can immediately guide the learner to complete the behavior.

4. If the learner with ASD stops doing the chain, teachers/practitioners immediately provide the amount and type of prompts needed to get the movement started.

5. If the learner with ASD begins to use the target skill/behavior incorrectly, teachers/practitioners immediately block that movement and provide the amount and type of prompt needed to get the learner to do the chain correctly.

6. If the learner with ASD resists the physical prompt, teachers/practitioners:

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      a. stop moving and
      b. hold the learner's hands in place.

7. When the resistance subsides, teachers/practitioners start the movement toward completing the chain again by applying the amount and type of prompt needed.

8. As the learner with ASD completes each step of the chain correctly (prompted or unprompted), teachers/practitioners provide verbal praise and encouragement.

9. At the end of the chain, teachers/practitioners provide reinforcement to the learner with ASD for completing the task correctly.

If resistance occurs on the last step of the chain, reinforcement is not provided. If this happens, teachers/practitioners stop teaching the target skill/behavior until the learner with ASD is no longer resistant. Teachers/practitioners then begin teaching the target skill/behavior from the beginning of the chain.

Step 2. Monitoring Learner Progress

An important component of graduated guidance is collecting data to monitor learner outcomes. When using this prompting procedure, teachers/practitioners should measure chains that were completed without prompts, chains completed correctly with prompts, and chains completed with resistance. Some teachers/practitioners also collect data on chains completed correctly without prompts and with or without shadowing. Although it is often difficult to collect data on each step of the chain, it is desirable to do so.

1. Teachers/practitioners record the number of chains done:

      a. correctly without prompts,
      b. correctly with prompts, and
      c. correctly, but with resistance.

2. Teachers/practitioners review progress monitoring data to determine whether the learner is starting to do the skill without prompts.

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The following table provides an example data collection sheet that can be used to monitor learner progress when the graduated guidance procedure is implemented.

Table 1. Example Graduated Guidance Data Collection Sheet for Washing Hands

Steps of the chain	Time	9:00	10:05	10:30
	Session	1	2	3
	Date	10/09	10/10	10/11
Walked to sink		I	I	I
Turned on the water		I	I	I
Adjusted temperature of the water		R	R	P
Put hands under water		P	I	I
Applied soap		P	P	P
Rubbed hands together		P	P	I
Rinsed hands under water		I	I	I
Got a towel		R	P	P
Dried hands		R	P	I
Threw towel away		I	I	I

I = independent, P = prompted, and R = resistance

These data help teachers make decisions about when to make changes in the prompting procedure. For instance, if the learner was very resistant to completing the chain, then increasing the reinforcer for completing the chain without resistance is recommended.

Sometimes it is not possible to score each step of the chain. In these cases, the entire chain is scored as independent, prompted, or resistance. If prompts are given on any chain, then it is scored as prompted. If resistance and prompts are given, it is scored as resistance.