

Prompting (PP)

Brief Introduction

Prompting (PP) procedures include any help given to learners that assists them in using a specific skill. Prompting is used to increase the likelihood that a person will provide a desired response. When using a prompt to enhance learning a specific skill, it is important to fade, or reduce, the prompt once the skill is mastered (Alberto & Troutman, 2013).

Description

Verbal, gestural, or physical assistance is given to learners to assist them in acquiring or engaging in a targeted behavior or skill. Prompts are generally given by an adult or peer before or as a learner attempts to use a skill. These procedures are often used in conjunction with other evidence-based practices including time delay and reinforcement, or are part of protocols for the use of other evidence-based practices such as pivotal response training, discrete trial teaching, and video modeling. Thus, prompting procedures are considered foundational to the use of many other evidence-based practices.

PP meets evidence-based criteria with one group design and 32 single-case design studies. According to the evidence-based studies, this intervention has been effective for toddlers (0–2 years) to young adults (19–22 years) with ASD. PP can be used effectively to address social, communication, behavior, joint attention, play, school-readiness, academic, motor, adaptive, and vocational skills.

Brief Adapted from

Cox, A. W. (2013) *Prompting (PP) fact sheet*. Chapel Hill, NC: The University of North Carolina, Frank Porter Graham Child Development Institute, The National Professional Development Center on Autism Spectrum Disorders.

Neitzel, J., & Wolery, M. (2009). *Overview of prompting*. Chapel Hill, NC: The University of North Carolina, Frank Porter Graham Child Development Institute, The National Professional Development Center on Autism Spectrum Disorders.

Matrix of PP by Outcome and Age (years)

Social			Communication			Behavior			Joint Attention			Play			Cognitive			School Readiness			Academic			Motor			Adaptive			Vocational			Mental Health		
0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22

Prompting (PP) Research Summary

Ages	Skills/Intervention Goals	Settings	Outcome
1–14 years	Academic, communication, physical/leisure	School, home, community	EBP

*The information found in the Research Summary table is updated yearly following a literature review of new research and this age range reflects information from this review.

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Research

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Prompting (PP) Steps for Implementation

Prompts are often categorized into a hierarchy from most intrusive to least intrusive. Types of prompts (from most intrusive to least intrusive), their descriptions, and examples are as follows:

- *Full physical assistance*: The teacher uses “hand-over-hand” support to aid the child in completing a task (e.g., when teaching the child to pick up a cup, the teacher takes the child’s hand and guides him to pick it up).
- *Partial physical assistance*: The teacher provides partial physical assistance to help the child complete a task (e.g., when teaching the child to pick up the cup, the teacher guides the child’s hand to the cup by tapping his elbow).
- *Full model*: The teacher models the desired behavior (e.g., when teaching the child how to clap, the teacher claps while telling the child to clap).
- *Partial model*: The teacher models only part of the desired behavior (e.g., when teaching the child how to clap, the teacher puts his hands in front of himself, but does not actually clap).
- *Full verbal prompts*: The teacher verbally models the desired behavior (e.g., when teaching the child to expressively label “car,” the teacher asks, “What is it? Say car.”).
- *Partial verbal model*: The teacher verbally models only part of the desired behavior (e.g., when teaching the child to expressively label “car,” the teacher asks, “What is it? Say c___”).
- *Gestural prompt*: The teacher utilizes a physical gesture to encourage the desired behavior (e.g., when teaching the function of an object, the teacher says, “What do you drink with?” while holding his hand to his mouth shaping it like a cup).
- *Positional prompt*: The teacher places the target item in a location that is closer to the child (e.g., when teaching the child to label “toy,” the teacher places the toy closest to the child).
- *Time-delay or prompt-delay techniques* (Walker, 2008): This instructional procedure is proven to be effective, especially for children with ASD. When teaching a novel task, time delay is used to transfer the stimulus control from a controlling prompt to a natural prompt by placing varying amounts of time between a controlling prompt and a natural prompt. Given different lengths of time delay, time delay strategies are categorized into constant time delay (CTD) and progressive time delay (PTD). CTD indicates that there is a standard time delay whereas PTD has a graduated delay. The procedures of time delay strategy begin with a zero-second (0-s) delay trial, meaning the controlling prompt is presented with task instruction at the same time without any delay in between. Gradually, to fade the prompt, time delay is increased between the natural prompt (task direction) and the controlling prompt.

Not all prompts in the hierarchy need to be used when teaching a skill. Prompts should be chosen based on which ones are most effective for a particular child. Prompts should be faded systematically and as quickly as possible to avoid prompt dependency. Overall, the goal of using prompts is to help the child independently perform the desired behavior.

Prompting (PP)

Least-to-Most Prompting: Planning

Step 1. Identifying the Target Skill/Behavior

- A. Define the target behavior in terms that are observable and measurable.
- B. Identify the target behavior as being either:
 - i. A discrete task
 - ii. A chained task

Step 2. Identifying the Target Stimulus

- A. Identify one of the following as the target stimulus:
 - i. A naturally occurring event
 - ii. Completion of one event or activity
 - iii. An external signal

Step 3. Selecting Cues or Task Directions

- A. Select at least one of the following cues to begin the teaching exchange (trial):
 - i. Material or environmental manipulation
 - ii. Task direction
 - iii. Naturally occurring event
- B. Identify one of the following as a time to give the cue/task direction:
 - i. At the first prompt level (independent level)
 - ii. At each step of the prompt hierarchy

Step 4. Selecting Reinforcers

- A. When choosing reinforcers for learners with ASD, identify:
 - i. what has motivated learners in the past and
 - ii. learners' deprivation state (i.e., What do they want that they can't easily get?).
- B. Identify a reinforcer that is appropriate for the target skill and instructional task.

Step 5. Identifying Activities and Times for Teaching

- A. Before implementing the intervention, identify all the times during the day when the learner may need to use the target skill.
- B. Before embedding prompting procedures, identify specific routines and activities in which prompting procedures can be incorporated to teach target skills.
- C. Identify when and where the direct instruction will occur.

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Step 6. Selecting the Number of Levels in the Hierarchy

- A. When selecting the number of prompt levels, consider:
 - i. Task characteristics
 - ii. Learner characteristics
 - iii. Time available for instruction

Step 7. Selecting the Types of Prompts to Be Used

- A. Select at least one of the following prompts for each level of the prompting hierarchy:
 - i. Gestural
 - ii. Verbal (e.g., clues, hints, commands, questions, rule statements)
 - iii. Visual (e.g., pictures, objects)
 - iv. Model (full, partial)
 - v. Physical (full, partial)
- B. Choose prompt types based upon:
 - i. Learner characteristics
 - ii. Skill characteristics

Step 8. Sequencing Prompts from Least-to-Most Assistance

- A. When sequencing the prompting hierarchy, determine which type of prompt provides a learner with:
 - i. the least amount of assistance,
 - ii. more information, and
 - iii. the most amount of assistance.

Step 9. Determining the Length of the Response Interval

- A. When selecting a response interval, time how long it takes the learner to complete similar skills/tasks.
- B. When determining the length of the response interval, consider:
 - i. Learner characteristics
 - ii. Task characteristics
 - iii. The amount of time a learner will be allowed to begin and complete the task
- C. Identify an initial response interval of 3 to 5 seconds.

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Least-to-Most Prompting: Intervention

Step 1. Establishing Learner Attention, Delivering the Stimulus, and Providing the Cue

- A. Establish the learner's attention through one of the following:
 - i. Delivering the target stimulus
 - ii. Using an attention-getting strategy (e.g., saying learner's name, saying, "Look," having the learner touch the stimulus)
 - iii. Presenting the cue or task direction

Step 2. Waiting for the Learner to Respond

- A. Wait for the learner to respond using the identified response interval before providing increased support.

Step 3. Responding to Learner's Attempts

- A. If the learner's response is correct, immediately provide positive feedback by:
 - i. offering reinforcement (e.g., praise, access to materials, break) and
 - ii. stating what the learner did (e.g., "You said, 'More.' Here's more snack.")
- B. If the learner's response is incorrect:
 - i. interrupt the incorrect response and
 - ii. deliver the next prompt in the hierarchy.
- C. If the learner does not respond, use the prompt in the next level of the prompting hierarchy.
- D. Continue through the prompting hierarchy until a correct response (prompted correct response) occurs, and deliver the reinforcer.

Step 4. Monitoring Learner Outcomes

- A. Record each type of response that occurs.
- B. Review data to determine if progress is being made.

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Simultaneous Prompting

Step 1. Establishing Learner Attention, Delivering the Stimulus, and Providing the Cue

- A. Establish the learner's attention by:
 - i. delivering the target stimulus,
 - ii. using an attention-getting strategy (e.g., saying learner's name; saying, "Look;" having the learner touch the stimulus), and/or
 - iii. presenting the cue or task direction.

Step 2. Implementing the Prompt

Instructional Sessions

- A. After securing the learner's attention, presenting the target stimulus, and delivering the cue/task direction, immediately deliver the controlling prompt.
- B. If the learner's response is correct (prompted correct), immediately provide positive feedback by:
 - i. offering reinforcement (e.g., praise, access to materials, break) and
 - ii. stating what the learner did (e.g., "You said, 'More.' Here's more snack.").
- C. If the learner's response is incorrect (prompted error) or if the learner with ASD does not respond, ignore the response and go on to the next trial.

Probe Sessions

- A. After securing attention, presenting the target stimulus, and delivering the cue/task direction, deliver the response interval (no prompt is provided).
- B. If the learner's response is correct (unprompted correct), immediately provide positive feedback by:
 - i. offering reinforcement (e.g., praise, access to materials, break) and
 - ii. stating what the learner did (e.g., "You said, 'More.' Here's more snack.").
- C. If the learner's response is incorrect (unprompted error) or if the learner with ASD does not respond, ignore the response and go on to the next trial.

Step 3. Monitoring Learner Progress

Instructional Data

- A. Collect data daily during the instructional sessions.
- B. Select a new controlling prompt if the learner makes errors on 25% of the trials over the course of three consecutive instructional sessions.
- C. Select a different reinforcer if no responses occur on 25% of the trials over the course of three consecutive instructional sessions.

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- D. If a learner begins to make errors when using a previously mastered discrete skill (e.g., raising hand, pointing to letters), make modifications to the initial cue (e.g., using two different types of cues instead of one).

Probe Data

- A. Implement at least one probe session daily.
- B. Identify how many trials will be implemented during each probe session (at least two trials on each behavior per probe session).
- C. Present the cue, but not the controlling prompt, during each probe session.
- D. Select a different prompting procedure (e.g., least-to-most, graduated guidance) if the following occurs:
 - i. Learner errors occur on 25% of trials over the course of five consecutive probe sessions
 - ii. Instructional data indicate 100% correct responses
- E. Select a different reinforcer if no responses occur on 25% of the trials over the course of three consecutive probe sessions.
- F. If a learner omits a step from a chained task, modify that step to make it more apparent to the learner with ASD.