



Using an Assistive Technology Device with Picture Symbol Communication, Converted to Speech

Objective: To teach home maintenance skills using a Digivox (a device designed for use as an augmentative and alternative communication tool to present photographs of steps of tasks paired with auditory instructions).

Setting and Materials:

Settings: Various locations in a private separate school for children with mild to profound physical and / or intellectual disabilities, including:

1. School lunch room to teach device usage
2. School lunch room to apply device usage to daily living skills

Materials:

1. A Digivox, an AAC tool combining recorded speech with changeable paper overlays with 12 windows
2. For each step in a task, a photograph that will fit in the Digivox window. Photographs are arranged in the windows on the device in a left to right and top to bottom sequence
3. An auditory description of each step

Content Taught

The following home maintenance skills were taught:

1. Sorting groceries
2. Operating a dishwasher

Task Analysis for Sorting Groceries		
Steps	Visual cue (Photographs) if using device	Auditory cue if using device
Remove all groceries from the bag	Student removing items from bag	"Take out"
Place 4 paper good together	4 items together on table	"Get ____, ____, ____, ____"
Put 4 items in bottom of cabinet	Items in cabinet	"Put ____, ____, ____, ____ in the bottom cabinet"
Place 4 cupboard food items together.	4 items together on table	"Get ____, ____, ____, ____"
Put 4 items in top cabinet	Items in cabinet	"Put ____, ____, ____, ____ in the top cabinet"

Place 4 cleaning items together	4 items together on table	"Get ____, ____, ____, ____"
Put 4 items in bathroom cupboard	Items in cupboard	"Put ____, ____, ____, ____ in the bathroom cupboard"
Place 2 freezer items together	2 items together on table	"Get ____, ____"

Task Analysis for Operating a Dishwasher		
Steps	Visual cue (Photographs) if using device	Auditory cue if using device
Open the door	Dishwasher door open	"Open the door"
Pull out the top rack	Top rack pulled out	"Pull the top rack out"
Put ____ in the top rack	____ in the top rack	"Put the ____ in the top rack"
Put ____ in the top rack	____ in the top rack	"Put the ____ in the top rack"
Push the top rack in	Top rack pushed in	"Push top rack in"
Pull out the bottom rack	Bottom rack pulled out	"Pull the bottom rack out"
Put ____ in the bottom rack	____ in the bottom rack	"Put the ____ in the bottom rack"
Put ____ in the bottom rack	____ in the bottom rack	"Put the ____ in the bottom rack"
Push the bottom rack in	Bottom rack pushed in	"Push bottom rack in"
Pour ____ scoops of soap	Scoop being poured in	"Pour ____ scoop of soap"
Close the door	Door closed	"Close the door"
Turn the dial to "wash"	Dial setting turned to "wash"	"Turn the knob to wash"

Teaching Procedures

1. Create a task analysis for each task to be taught to students.
2. Create photographs and auditory instructions to illustrate each step necessary to complete a task. Photographs should depict the student correctly completing the each step in the task. Auditory instructions are instructor-created verbal directions that match each step in the task.
3. Place photographs on buttons with corresponding verbal direction on device in a left to right and top to bottom sequence
4. Give students a general attentional cue such as "It's time to work"
5. When student responds to attentional cue, give direction "Use the Digivox to help you wash the dishes" or "Use the Digivox to help you put the groceries away".
6. Wait 5 seconds for the student to respond.

7. Use a system of least prompts to teach students how to use the Digivox as a self-prompting device.
 - a) Verbal plus prompt: Tell students: "Touch the picture again," which provides the prerecorded verbal direction.
 - b) Wait five seconds. If step is not completed appropriately, provide a verbal elaboration of the pre-recorded verbal direction.
 - c) If the step is not completed, touch the picture to provide the pre-recorded verbal direction and provide a gesture prompt such as pointing to the dial on the dishwasher.
 - d) If needed, touch the picture to provide the pre-recorded verbal direction and model the step, returning materials back to original state so student can complete the step after observing modeling. For example, when modeling "close door", model the step but then open the door again to provide students with opportunity to complete the step by closing the door.
 - e) If needed, touch the picture to provide the pre-recorded verbal direction and provide a physical prompt by taking the student's hand and physically completing the step.
8. Provide descriptive verbal praise on a continuous reinforcement schedule for unprompted and prompted correct.
9. Provide a reinforcing activity when all chained steps are completed.
10. Teach two task sequences using these procedures
11. Use multiple exemplars of materials (i.e., several examples of the same type of item, such as peanut butter) by randomly selecting the items to use in a given session.

Evaluation

Collect student performance data on the number of unprompted correct responses for each task sequence.

Lesson Plan Based on:

Mechling, L. C. & Gast, D. L. (1997). Combination audio/visual self-prompting system for teaching chained tasks to students with intellectual disabilities. *Education and Training in Mental Retardation and Developmental Disabilities*, 32, 138-153.

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