



## Teaching Job Skills Using Computer Based Instruction

**Objective:** To teach students water a plant, deliver mail, and change paper towels.

### Setting and Materials:

**Settings:** Instruction is conducted in a small office four times per week. Skill generalization is measured in the community at a job site.

**Materials:** Materials include a laptop computer, a *PowerPoint* computer software program, digital video camera, *Windows Movie Maker*, a CD-ROM, and a *Magic Touch* touch screen. Materials for skill generalization include: a 24 inch canvas bag with a strap, plastic bottle filled with water, one roll of paper towels without plastic wrapping, an empty roll of paper towels, and a legal size envelope.

### Content Taught

1. The student is taught how to perform 3 job tasks (watering a plant, delivering mail, and changing paper towels in a restroom) using “life like” scenarios via computer based video instruction.
2. Task analysis includes the following steps:

Photograph on Computer Screen	Video recording of Task Analysis
<p>Job skill 1 – Watering a plant</p> <ol style="list-style-type: none"><li>1. Elevator</li><li>2. Inside elevator floor panel</li><li>3. Scene to left of elevator on 3rd floor</li><li>4. Plant</li><li>5. Water Bottle</li></ol>	<ol style="list-style-type: none"><li>1. Walk to elevator</li><li>2. Touch “3”</li><li>3. Turn, walk to left</li><li>4. Walk to plant</li><li>5. Water plant</li></ol>
<p>Job skill 2 – Delivering mail</p> <ol style="list-style-type: none"><li>1. Elevator</li><li>2. Inside elevator floor panel</li><li>3. Scene to left of elevator on 2nd floor</li><li>4. Table in office</li><li>5. Envelope on table</li><li>6. Elevator</li><li>7. Outside elevator “up/down? Panel</li><li>8. Inside elevator floor panel</li><li>9. Counter on 1st floor</li><li>10. Envelope on counter</li></ol>	<ol style="list-style-type: none"><li>1. Walk to elevator</li><li>2. Touch “2”</li><li>3. Turn, walk to left</li><li>4. Walk to table</li><li>5. Put envelope in bag</li><li>6. Walk to elevator</li><li>7. Touch “down” arrow</li><li>8. Touch “1”</li><li>9. Walk to counter</li><li>10. Put envelope on counter</li></ol>

<p>Job Skill 3 – Changing paper towels</p> <ol style="list-style-type: none"> <li>1. Restroom door</li> <li>2. Empty roll of paper towels</li> <li>3. Full roll of paper towels</li> <li>4. Classroom door</li> </ol>	<ol style="list-style-type: none"> <li>1. Walk to restroom</li> <li>2. Put empty roll of paper towels in bag</li> <li>3. Put full roll of paper towels on top of cabinet</li> <li>4. Walk to classroom</li> </ol>
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### Teaching Procedures

1. Prior to the lesson:
  - a) Create video recordings with sound and digital still photographs of each step of the task analysis for each job task (e.g., watering a plant, delivering mail, changing paper towels in a restroom)
    - i. The teacher will create video recordings of task analysis using a subjective point of view (move the camera as if it were the student and show what the student would be seeing).
    - ii. Video will show the instructor completing each step of the task analysis.
    - iii. Video should be recorded separately and edited using Windows Movie Maker, and saved on CD-ROM.
  - b) A Magic Touch touch screen will be used to select photographs.
  - c) Photographs should be hyperlinked (correct) to digital video clips that will automatically play the step of the task analysis corresponding to the photograph. d.
  - d) Program PowerPoint to advance to the next slide (touch of the computer screen), which will automatically play the video recording.
  - e) Once the video stops, program PowerPoint to advance to the next slide containing 3 still photographs.
  - f) Program PowerPoint to remain on this slide until the correct photograph corresponding to the next step in the task analysis is chosen.
2. Computer based video instruction (CBVI):
  - a) Teacher will gain students attention by directing the use of the touch screen to make selections, and saying, "It's time to practice watering the plant, delivering mail, and changing paper towels on the computer."
  - b) Students will be presented with three different photographs on the computer screen.
  - c) The student will select (touch the screen) the one that corresponds to the next step of the task analysis to complete the job task.
  - d) Once student provides correct response, a video recording showing completion of the task analysis step will be presented.

- e) Using a constant time delay procedure, begin with a 0 second delay until the student has 100% correct wait responses (correct response after teacher prompt) for one session.
- f) Then, use a 3 second constant time delay for all remaining instructional sessions.
- g) If the student provides an unprompted or prompted correct response, the computer program will advance to the next slide and will show a video recording of the next step of the task analysis.
- h) If the student provides an unprompted incorrect response, the teacher will point to the correct photograph.
- i) If the student provides a prompted incorrect or not response, the teacher will touch the correct photograph and advance the slide to the video screen.

### Evaluation

Data should be collected on the number of correct student responses for the task analysis. Students should meet 100% of unprompted correct selections for one session. Teachers can use actual job sites to assess skill generalization.

#### Lesson Plan Based on:

Mechling, L. C., & Ortega-Hurndon, F. (2007). Computer-based video instruction to teach young adults with moderate intellectual disabilities to perform multiple step, job tasks in a generalized setting. *Education and Training in Developmental Disabilities*, 42, 24-37.

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