



Using Simulated Instruction and Video Modeling to Teach Selecting a Bus Stop

Objective: To teach students to push a “request to stop bus signal” and exit a city bus in response to target landmarks.

Setting and Materials:

Settings: Classroom and community (i.e., in-vivo on a public city bus route)

Materials:

- Video recordings (with voice over) and still photographs
- Data sheets that correspond to the task analysis presented in the video recordings
- Digital video camcorder
- Laptop
- PowerPoint (used to develop CBVI program)
- *Magic Touch* touch screen
- Video prompts:
 - (a) Video segments are recorded for the bus route for use during 0s and 3s video prompting instructional trials.
 - (b) These recordings are made from a person-first perspective, but do not include voice over.
 - (c) Video segments include:
 - a. Walking to the bus stop, boarding the bus, using a pass, sitting down, riding the bus, passing landmarks, pushing the “request to stop signal” at the target landmark, standing up and exiting at the correct bust stop.
 - b. During the first trial using CBVI (following video modeling) the student saw the first PowerPoint slide of a video segment (from a person-first perspective) of walking to the bus stop, boarding the bus, using a pass, sitting down, riding the bus, and looking out the window for landmarks.
 - c. As the bus passes the three landmarks there are no verbal cues provided during video prompting.
 - d. During the playing of this video segment, a photograph of the “request to stop bus signal” is positioned at the bottom right corner of the PowerPoint slide (Figure 2).
 - e. When selected the photograph button is programmed to stop the video.
 - f. If correct, the instructor advances the program to the next slide which contains a voice over, “Yes, that’s right. Push the request to stop signal when you see the Chick-Fil-A and Target sign” and a video segment shows the bus stopping and exiting the bus.

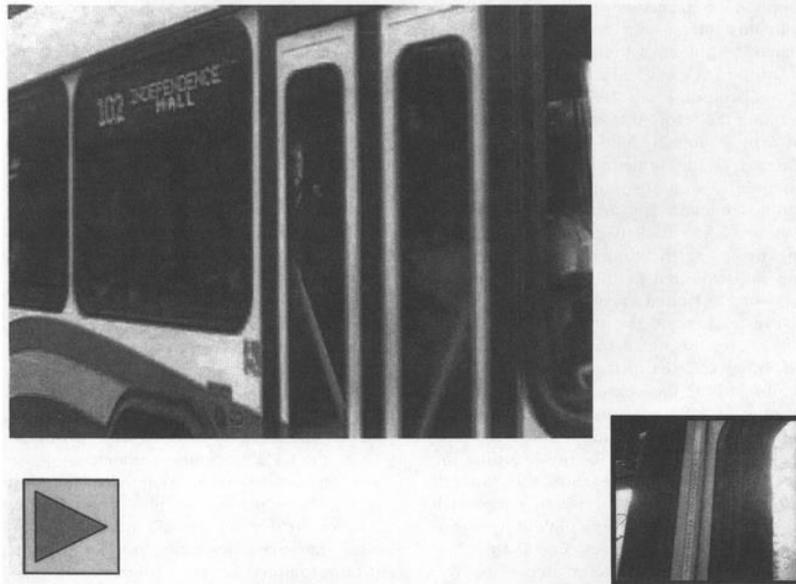


Figure 2. PowerPoint slide depicting video prompt with photograph of the “request to stop bus signal”.

Content Taught

Teach the skills needed to record video clips for video modeling and familiar with city bus system.

General Teaching Procedures

1. Three target landmarks are selected to visually cue students.
2. The purpose of the first two landmarks are to cue or prime the student to look for the third landmark.
3. The third landmark is approximately 500 yards from the target bus stop destination and positioned between the previous bus stop and the target bus stop on the route.
4. The actual target location is not visible from the final landmark.
5. Students are taught to identify landmarks using a 3s constant time delay (CTD) procedure and CBVI
6. CBVI includes:
 - (a) video modeling: Presentation of the entire bus route to its target destination with verbal cues.
 - (b) video prompting: Presentation of bus route with target landmarks as decision points for pushing the “request to stop bus signal” at the target landmark. Each prompting video lasts 9 minutes and 59 seconds. Instructional sessions occurred 2-3 days per week and consists of watching the video model one time followed by three trials using video prompting.

Computer-Based Video Instruction Condition

1. Each session begins with the first PowerPoint slide with a photograph of the destination store, three landmarks, and the recorded task direction, “Riding the bus to Target” (Figure 1)



Figure 1. PowerPoint slide depicting video model of the bus route and three photographs of the landmarks.

2. Next slide contains video model. After the video model, the first trial begins with video prompting.
3. Intervention begins using CTD with a 0s delay.
4. Each student remains at 0s until 100% correct wait responses for one session (three trials).
5. The teacher touching the photograph of the “request to stop bus signal” on the computer screen.
6. When the target landmark appears in the video the teacher delivers the gesture and points to the photograph of the “request to stop bus signal” and says, “When you see the signs of two landmarks push the request to stop signal.”
7. Student’s correct response results in the teacher advancing the program to the next slide which contains a voice over, “Yes, that’s right. Push the request to stop signal when you see the two target signs” and a video segment shows the bust stopping and exiting the bus.
8. Following 0s delay trials, CTD trials implementing a 3s delay interval are provided.
9. Using the CTD procedure a student response is recorded on data sheets as: (a) unprompted correct (initiating and touching the photograph of the “request to stop bus signal” within 3s of the target landmark appearing on the screen); (b) unprompted incorrect (touching the photograph before the target landmark appeared on the screen); (c) prompted correct (touching the photograph within 3s of the instructor prompt); (d) prompted incorrect (touching something else on the screen); and (e) no response (failure to initiate touching the photograph within 3s or the instructor prompt).
10. An unprompted or prompted correct response results in the instructor advancing the program to the next slide which contains a voice over, “Yes, that’s right. Push the request to stop signal when you see the two target signs” and a video segment shows the bus stopping and exiting the bus.



11. An incorrect or no response is followed by the instructor restarting the video prompting segment, pointing to the video and saying, for examples, “Look for Advanced Auto Parts”, “Look for Olive Garden”, “When you see the Chick-Fil-A and Target sign push the request to stop signal” and touching the photograph when the target landmark appeared.
12. Students receive non-specific verbal praise on the average of one time per trial for general attending and attempts to complete the task.

Teacher Responses to Students’ Responses

1. Student responds incorrectly
 - (a) The teacher and the student exit at the stop where the signal is pushed
 - (b) The teacher and student boarding the next available bus and returning to the school site
2. Student responds correctly
 - (a) The teacher and the student exit at the stop where the signal is pushed
 - (b) The teacher and the student walk to the destination and make a purchase before boarding the bus and returning to the school site.

Evaluation

Record students’ correct response, incorrect response, or no response of initiating and pushing the “request to stop bus signal” within 3s of the target landmark appearing in the student’s bus window. Mastery can be defined as 80% independent/unprompted responses in 3 out of 4 consecutive sessions.

Lesson Plan Based on:

Mechling, L., & O’Brien, E. (2010). Computer-based video instruction to teach students with intellectual disabilities to use public bus transportation. *Education and Training in Autism and Developmental Disabilities, 45*. 230-241.

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