## *Module: Video Modeling*

# Steps for Implementation: Video Modeling

These steps for implementation were adapted from:

LaCava, P. (2008). *Video modeling: An online training module.* (Kansas City: University of Kansas, Special Education Department). In Ohio Center for Autism and Low Incidence (OCALI), A*utism Internet Modules,* www.autisminternetmodules.org. Columbus, OH: OCALI.

The implementation process for video modeling is similar for each type of video modeling strategy (i.e., basic video modeling, video self-modeling, point-of-view modeling, video prompting). Ten steps are outlined below which describe how video modeling is implemented with learners with ASD.

### *Step 1. Targeting a Behavior for Teaching*

In Step 1, teachers/practitioners focus on identifying a behavior for the learner with ASD to acquire and then clearly describe it so that accurate data can be collected throughout the intervention process to monitor its effectiveness (Sigafoos et al., 2007).

1. Teachers/practitioners identify a target behavior that is important for the learner to be taught.

Target behaviors may include communication skills (e.g., requesting, giving compliments, initiating interactions with peers).

2. Teachers/practitioners define and describe the target behavior so that is observable and measurable.

*Example of a non-observable behavior: "Mary will increase her social skills with peers."*

*Example of an observable and measurable behavior: "Mary will initiate interactions with peers by saying, 'Hi,' at lunch and small group work time each day without prompting from adults."*

### *Step 2. Having the Correct Equipment*

Teachers and other practitioners must have access to two basic pieces of equipment to implement video modeling techniques with learners with ASD: (a) something to make the video and (b) something to show the video (Sigafoos et al., 2007).

1. Teachers/practitioners acquire a video recording device (e.g., hand-held camera, computer technology).

Videos can be created by using any number of devices including (a) traditional video cameras, (b) hand-held or micro video cameras, or (c) digital cameras. Picking the right device will be based on resources that are available in schools and districts and budget constraints.

2. Teachers/practitioners identify how the video will be played back (e.g., DVD, VCR, computer).

Two basic devices are used to show videos: (a) a TV with a video cassette player (VCP) or Digital Video Disk (DVD) or (b) a computer with a video player (e.g., Real Player, Apple Quick Time Player, Windows Media Player).

3. Teachers/practitioners are familiar with the equipment and are comfortable using it.

Teachers and other practitioners should practice using all equipment before implementing video modeling interventions with learners with ASD. This will ensure that the intervention is implemented as smoothly as possible.

### *Step 3. Planning for the Video Recording*

In Step 3, teachers and other practitioners plan for the video recording by creating scripts that can be used during the taping process.

1. Teachers/practitioners write a script or task analysis detailing exactly what needs to be said and/or done on the video.

Creating a script or task analysis of the skill that is being taught is very important for video modeling. A script tells learners with ASD what they need to say or do during the taping process. A task analysis is helpful for breaking down a complex skill into a sequence of several behaviors (e.g., all the steps in learning how to make a bed, how to use a microwave oven). It should include a list of all of the steps needed to complete the target behavior (Sigafoos et al., 2007).

### *Step 4. Collecting Baseline Data*

Before instruction takes place, it is important to identify skills that learners already have or how much of the target behavior they can do.

1. Learners complete as much of the skill as possible.

2. Teachers/practitioners collect baseline data to identify steps of the task analysis that the learner can complete without assistance.

Videos used during the intervention should be determined by baseline data. For example, if the learner already knows the first three steps in shoe tying, only the remaining steps could be included (Sigafoos et al., 2007).

### *Step 5. Making the Video*

With this step, teachers/practitioners make the video that will be used to teach a specific skill during the video modeling intervention.

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1. Teachers/practitioners identify the kind of video modeling that is appropriate for the learner (e.g., basic video modeling, video self-modeling, point-of-view modeling, video prompting) as well as the target behavior.

This may be determined by the type of task, skill, or behavior being taught. For example, if a behavior is already in the learner's repertoire and the goal is for him to engage in the behavior more frequently or consistently, self-modeling may be the best choice. If the behavior or skill is not in the learner's repertoire (i.e., he doesn't know how to do it), then having someone else model the behavior would be most appropriate. For tasks or skills with many steps or learners who progress slowly, video prompting may be the best option.

Other questions to ask when determining the type of video modeling procedure to use include:

- Do you want to show the target behavior from the learner's point of view or from a third person?
- If video modeling, who will be the model?
- If video self-modeling, how will you prepare the learner to be videotaped?

2. For basic video modeling, teachers/practitioners identify and prepare the model. For self-modeling, teachers/practitioners prepare the learner with ASD. Depending on the developmental and cognitive levels of the model, different teaching techniques may be used to prepare him/her. These may include providing a script, role-playing, breaking the task down into steps (i.e., task analysis), or modeling the desired behaviors. Sometimes, video can be recorded in real time (e.g., recording a student passing through a cafeteria line) and little preparation is necessary.

3. Teachers/practitioners record a video that is satisfactory in quality and accurately reflects the steps of the task analysis.

4. Teachers/practitioners edit the video and remove any errors and/or prompts.

Once the video is recorded, it may need to be edited to remove any errors, particularly for self-modeling, and also to remove prompts or added cues (beyond naturally occurring cues).

5. Teachers/practitioners complete voice-overs, if necessary.

Voice-overs may be used to further support the video and increase learner comprehension (Sigafoos et al., 2007). Voice-overs might include narration of the steps (e.g., "I wait in line. I use a spoon to take the food I want to eat.") or to describe the target behavior (e.g., "Students in the hallway hold their books and do not hit other students.").

### *Step 6. Arranging the Environment for Watching the Video*

In this step, teachers and other practitioners arrange the environment so that learners with ASD can watch the video and learn how to use the target skill.

1. Teachers/practitioners identify the environment where the video will be watched, considering when and how it will be used within natural routines.

The following questions may be helpful when determining when and where the video modeling intervention will be implemented.

- How often and when will the video be shown?
- Where will the learning take place?

2. Teachers/practitioners ensure that the materials for the performance of the target behavior match those on the video.

Teaching should take place in the most natural setting and at times when the target behavior can be used in a functional way (e.g., making a sandwich at lunch time with the video being shown right before). It is important to use the same materials during the intervention as those that are used in the video (Sigafoos et al., 2007).

### *Step 7. Showing the Video*

In Step 7, teachers/practitioners show the video that demonstrates the use of the target behavior to learners with ASD.

1. Teachers/practitioners allow the learner to watch the video and provide prompts necessary to gain and/or keep attention.

Many learners with ASD will sit down and watch the video without prompting; however, some may need prompting to attend to and watch the video. Other learners may need continued prompts to focus on relevant video.

2. Teachers/practitioners allow the learner to watch the video an appropriate number of times before expecting the learner to use the target skill.

Teachers and other practitioners may have to show the video several times before asking the learner with ASD to use the target skills during classroom routines and activities.

3. For video prompting, teachers/practitioners stop the video after each step of the task analysis so the target skill can be performed by the learner.

When using video prompting, remember to stop the videotape after each step so that the behavior can be performed (Sigafoos et al., 2007).

### *Step 8. Monitoring Progress*

The focus of Step 8 is on monitoring learner progress to determine the effectiveness of the intervention.

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1. Teachers/practitioners collect data on the performance of the target behavior, noting the specific steps of the task learners were able to do independently.

2. Teachers/practitioners note how often and when the learner watches the video when using the target behavior.

Collect data on learner performance each time the target behavior is used and how often the learner refers to the video model when using the behavior.

3. If, after collecting data on three to five occasions, learners are not making progress, teachers/practitioners should begin troubleshooting (see Step 9). If learners are making progress, instruction is continued until they have reached maximum proficiency.

When collecting progress monitoring data, it is important to observe the trend. For example, is the learner making progress or is the learner's use of the target behavior remaining the same? For most skills or behavior, if after collecting three to five data points, the learner does not seem to be making progress, refer to the troubleshooting hints in Step 9. Be careful not to alter or discontinue instruction too quickly, particularly for new and complex skills and behaviors. If learners are succeeding, continue instruction until they have reached maximum proficiency. Maximum proficiency should be determined by the learner's IEP goal; some learners may be working toward complete independence, others may by working toward chaining multiple steps together while being provided with visual prompts (e.g., a visual schedule). Once the learner is consistently using the target behavior, fade the use of prompting (as appropriate) and the video to promote maintenance of the behavior (Sigafoos et al., 2007).

### *Step 9. Troubleshooting if the Learner is Not Making Progress*

In this step, teachers/practitioners adjust or change tactics to help learners with ASD acquire the target behavior if they are not making adequate progress.

1. Teachers/practitioners analyze the learner's progress monitoring data to identify changes needed for the video modeling procedure.

First, progress monitoring data are analyzed to determine whether changes to the video modeling strategy are needed to improve learner progress (Sigafoos et al., 2007).

2. Teachers/practitioners adjust intervention tactics to help learners make progress by considering the following questions:

    a. Is the learner watching the video enough times per week?
    b. Is the learner watching the video, but not attending to the most relevant parts?
    c. Is the learner getting enough prompting from adults and/or peers to use the target behavior?
    d. Is the learner receiving the appropriate amount and type of reinforcement for performing, or attempting to perform, the target behavior(s)?
    e. Is the video too complex?

f. Does another task analysis need to be completed to make sure that the video includes the correct steps?
g. Does the learner have the skills (e.g., imitation, learn by observation) needed to benefit from video modeling?

3. Teachers/practitioners implement the adjustments to the video modeling procedures.

### *Step 10. Fading the Video and Prompting*

1. Teachers/practitioners fade the use of prompting to encourage independent use and to promote maintenance of the target behaviors.

As in good teaching, prompts are faded once the learner shows progress or is able to use the target behavior consistently. The fading of prompts gives the learner the opportunity to independently use the target behavior in new situations and with different individuals.

2. Teachers/practitioners use one or more of the following procedures when fading videos:

    a. Delaying start/premature stop. By delaying the start of the video or ending it before it is over, less of the video is shown. When the amount of the video is gradually decreased, the learner sees less of the video modeling. This procedure is maintained if the learner continues to use the target behavior successfully. At a certain point, the video can be stopped entirely.

    b. Error correction. This procedure can be used if a learner continues to make mistakes with certain parts of the target behavior. Only the particular scene where the mistake has been occurring is played for the learner to rewatch and practice. For example, if a learner correctly performs all the steps in getting mail from the mailbox, except the step where he locks the mailbox, then the section of video that details locking the box would be the only piece shown.

    c. Scene fading. This technique involves gradually removing scenes or parts of the task from the video that the learner has mastered (Sigafoos et al., 2007).

3. Teachers/practitioners allow the learner to continue watching the video to some extent if it is appropriate, enjoyable for the learner, and supports the behavior.

Some learners may benefit from consistent watching of videotapes for long periods of time (e.g., weeks, months) because it is not only enjoyable for them, but the practice continues to support their success. The key is to individualize the viewing patterns for the learner.

## Reference

Sigafoos, J., O'Reilly, M., & de la Cruz, B. (2007). *How to use video modeling and video prompting*. Austin, TX: Pro-Ed.