Evidence Based Practice Training

Video Modeling

CSESA

The Center on Secondary Education for Students with Autism Spectrum Disorders

Objectives

- Become aware of 27 EBPs identified for learners with ASD
- Describe key steps to using video modeling
- How to prepare for implementation
  - How to implement
  - How to assess progress
- Identify key pitfalls and ways to avoid them
- Identify ways to learn more about how to implement video modeling

What are EBPs?

Focused interventions that:

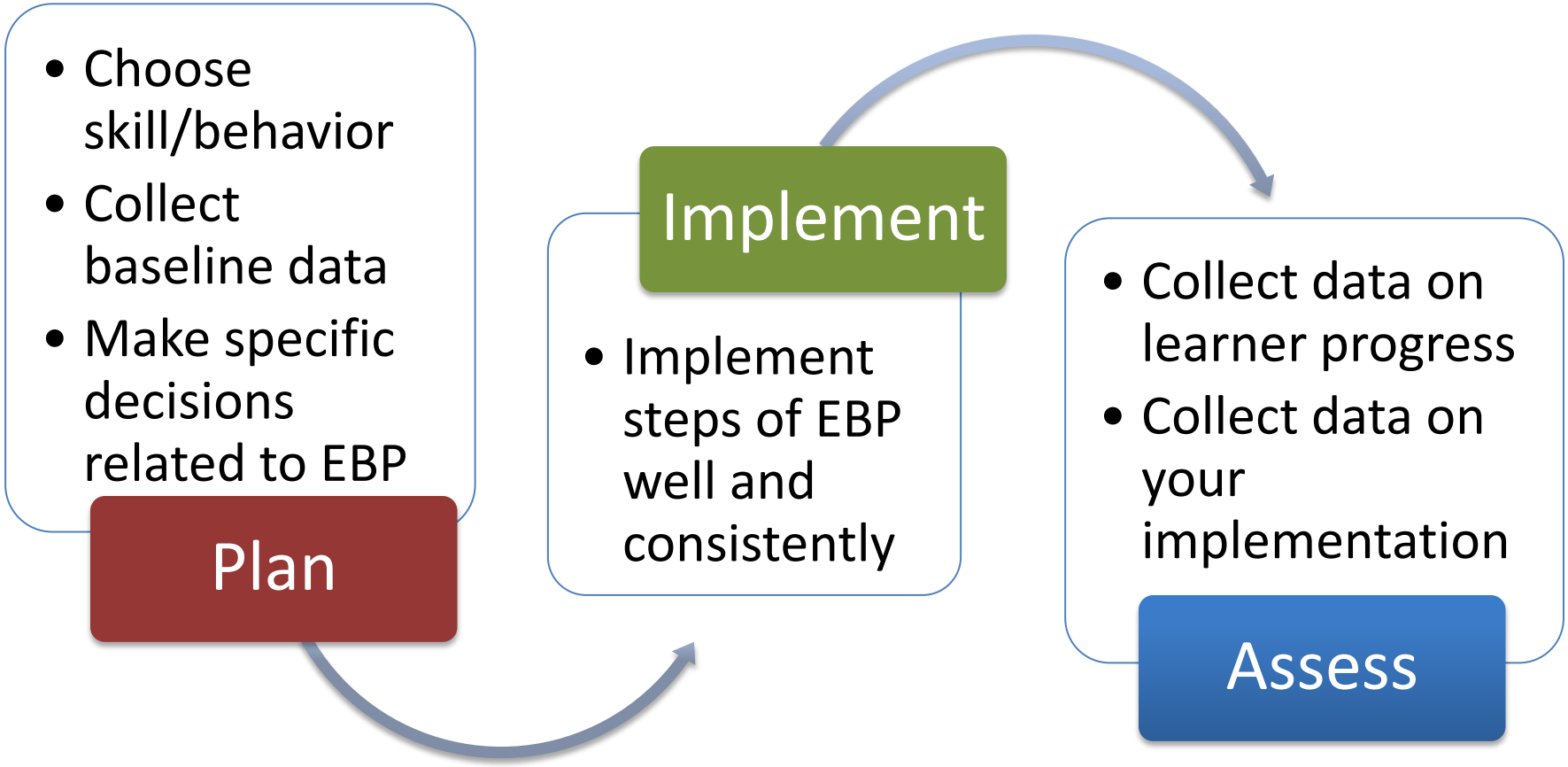
- Produce specific behavioral and developmental outcomes for a learner
- Have been demonstrated as effective in applied research literature
- Can be successfully implemented in educational settings

(Odom, Colett-Klingenberg, Rogers, & Hatton, 2010)

Evidence – Based Practices (2014)

- Antecedent-based interventions
- Cognitive behavioral intervention*
- Differential reinforcement
- Discrete trial training
- Exercise
- Extinction
- Functional behavior assessment
- Functional communication training
- Modeling
- Naturalistic interventions
- Parent-implemented intervention
- Peer-mediated instruction/intervention
- Picture Exchange Communication System™
- Pivotal response training
- Prompting
- Reinforcement
- Response interruption/redirection
- Scripting
- Self-management
- Social narratives
- Social skills training
- Structured play groups
- Task analysis
- Technology-aided intervention/instruction
- Time delay
- Video modeling
- Visual supports

For All EBPs


• Choose skill/behavior
• Collect baseline data
• Make specific decisions related to EBP
Plan
Implement
• Implement steps of EBP well and consistently
• Collect data on learner progress
• Collect data on your implementation
Assess

Video Modeling

Who uses *Video Modeling*?

What is *Video Modeling*

An evidence-based practice that:

- uses video recording and display equipment to provide a visual model of the targeted behavior or skill
- shows the model to the learner; then the learner has an opportunity to perform the target behavior.

Why use *Video Modeling*

- Individuals with ASD tend to be visual learners, many having visual strengths.
- Youth with ASD may have difficulty focusing on relevant cues. Videos can highlight important cues.
- Watching videos may be a preferred activity for some youth with ASD.
- Video modeling does not involve social demands for the student with ASD.

More reasons to use *Video Modeling*

- Using the latest handheld technology makes video modeling really easy and convenient. For example: a student learning how to empty the dishwasher in a life skills class could be filmed completing the steps at school on an iPad that goes home with the student so he or she can then practice at home.

Target Skills Addressed in Research

- Increased independent completion of:
  - Vocational tasks
  - Daily living tasks
- Increased academic engagement
- Increased independent transitioning
- Reduced task completion time

Types of Video Modeling

Type of VM	Role of student	Role of model
Basic A model is recorded completing target skill	Views video made by model	Serves as model performing the target skill
Self-modeling Video taken of learner performing skill	Learner is recorded displaying skill; video reviewed later	Learner is the model
Point-of-view Skill recorded from perspective of a learner	View video of skill performed , then demonstrate skill	Serves as point of view model for the skill
Video prompting Skill broken into steps and recorded with pauses	Can serve a the model for recording Learner attempts each step before viewing other steps	Can serve as model for recording

Basic Video Modeling

- Involves recording someone besides the learner engaging in the target behavior or skill.
- Most commonly used form of video modeling.
- Model (peer, family member, teacher) is video recorded performing the targeted behavior.
- Video is played for the learner before each teaching situation.
- After the video is played, learner is prompted to perform the behavior.

Basic Video Modeling Example

- A school district had several students who are transitioning to one high school. The district identified 2 current high school students to serve as “tour guides” of the high school and a video recording was made. Each student with ASD was given a copy of the video to watch at home over the summer to acquaint them with this new environment so that when they started school in the fall, they would be better able to navigate the school and recognize familiar people and their functions.

Video Self-Modeling

- Records the learner displaying the target skill or behavior that is reviewed later
- Similar features as basic video modeling
- Primary model is the learner
- Provides an example of the learner performing the behavior successfully
- Self-modeling can be motivating for some learners.

Video Self-Modeling

- Amelia is a high school student who, without an adult right next to her to prompt, will leave her learning area, roam around the room, and engage in self-talk. The teacher used video self-modeling with visual cue cards and a short social story to teach her the concept of “waiting”.

Point-of-View Video Modeling

- Involves recording the target behavior or skill from the perspective of the learner
- Provides a unique way of showing how the behavior would look through the learner's eyes.
- Filmed to show the learner's view of the behavior

Example of Point-of-View Video Modeling

- Richard is learning a community - based skill of ordering food from a fast food restaurant. He uses a communication devise because he has few words. His job coach serves as the model for a point of view video recording of the process of ordering lunch using his communication devise, paying for the meals, and eating it in the restaurant.

Video Prompting

- Involves breaking down the behavior or skill into steps and recording each step with incorporated pauses
- Form of video modeling used to teach a sequence of skills
- Rather than recording the entire task, each skill part is shown followed by a pause
- At the pause, the learner performs the behavior
- Process is repeated until entire sequence is complete

Example

- Monica is a 17-year-old student with ASD who does not speak. She enjoys helping others but has had a difficult time learning to complete daily tasks that would support her developing independent skills of daily living. Her teachers video recorded a model demonstrating the sequence of steps required to make lunch (make sandwich, prepare a drink). They then showed Monica each step of the video, stopping to have Monica complete each step. Once the entire video was completed, Monica ate her sandwich with peers at lunch.

Common Pitfalls

- Not preparing the video model prior to filming
- Not giving the student opportunity to practice with the equipment before showing the video model
- Incompatibility of filming and viewing equipment
- Covering too large or complex of a skill without identifying small steps

Steps for Implementing Video Modeling

Step 1. Planning for video modeling

Step 2. Implementing video modeling

Step 3. Monitoring progress

Step 1. *Planning Video Modeling*

1.1 Targeting the behavior

1.2 Simplifying the task

1.3 Selecting reinforcers to pair with the target skill

1.4 Choosing the equipment

1.5 Creating the video

1.6 Determining baseline

1.7 Introducing viewing equipment to student

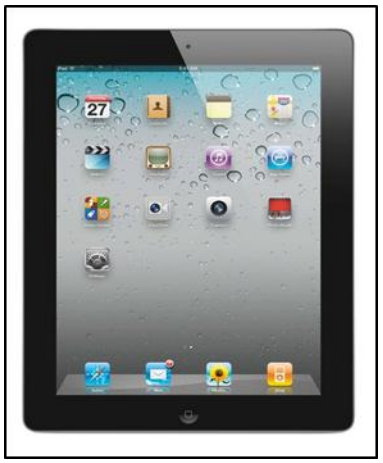
Step 2: *Implementing Video Modeling*

2.1 Arranging the environment

2.2 Selecting time to show the video

2.3 Showing the video

2.4 Perform the target skill or behavior



Step 3: *Monitoring Progress*

3.1 Determining the effectiveness of the intervention

3.2 Fading the video

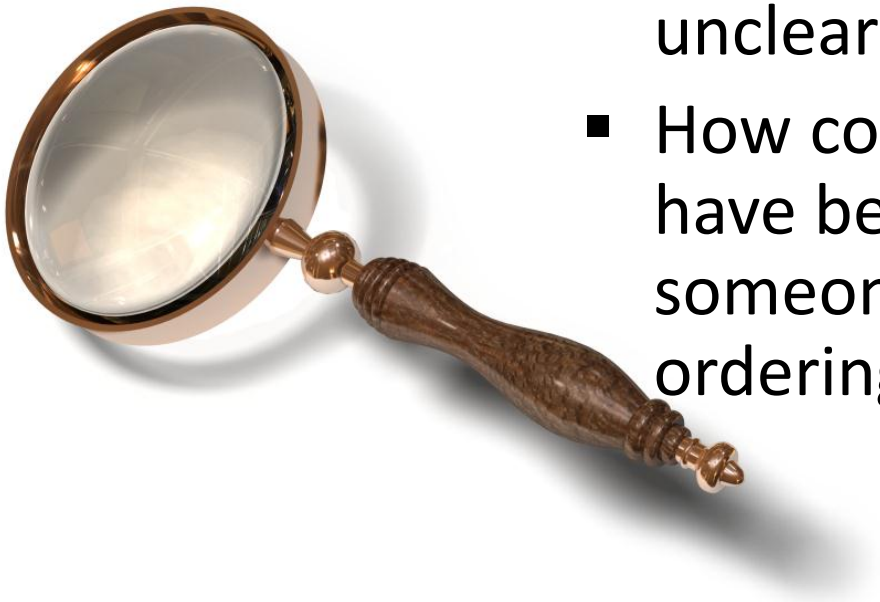
Example: Point-of-View Video Modeling

- Point-of-view video modeling to learn a community based skill

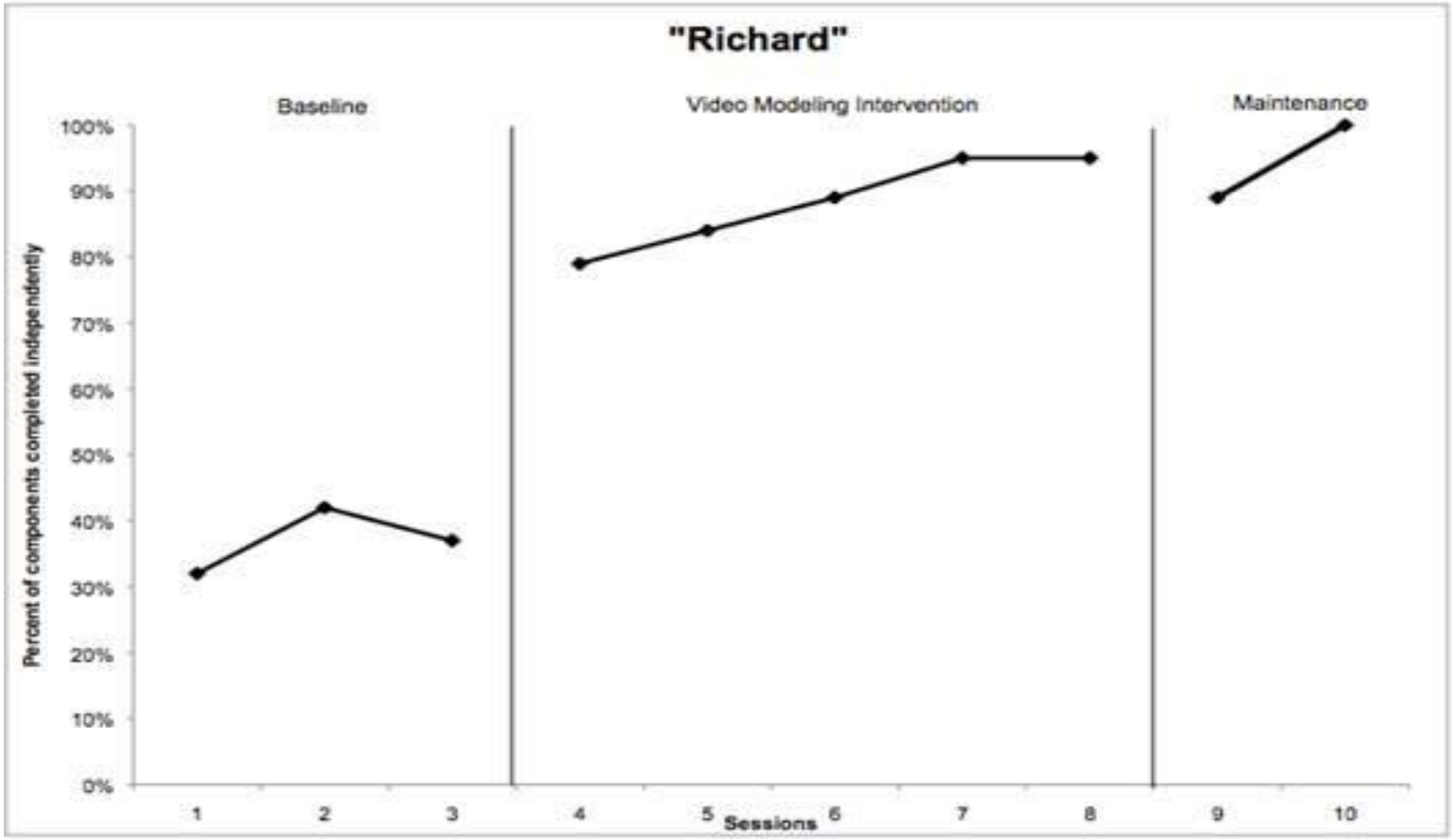
VideoModeling57343680_hi.mp4

What did you notice?

- What planning steps had to occur before this video was recorded?
- How clearly does this video show the steps in the process of ordering, paying for, and leaving to consume the drink? What was unclear?
- How could this video modeling have been used differently for someone unfamiliar with the ordering/paying process?



Reviewing Progress: How Well Did Richard Learn This Skill?



Video Self-Modeling - Amelia

- Example of video self-modeling to improve a target behavior

video modeling waiting video.avi

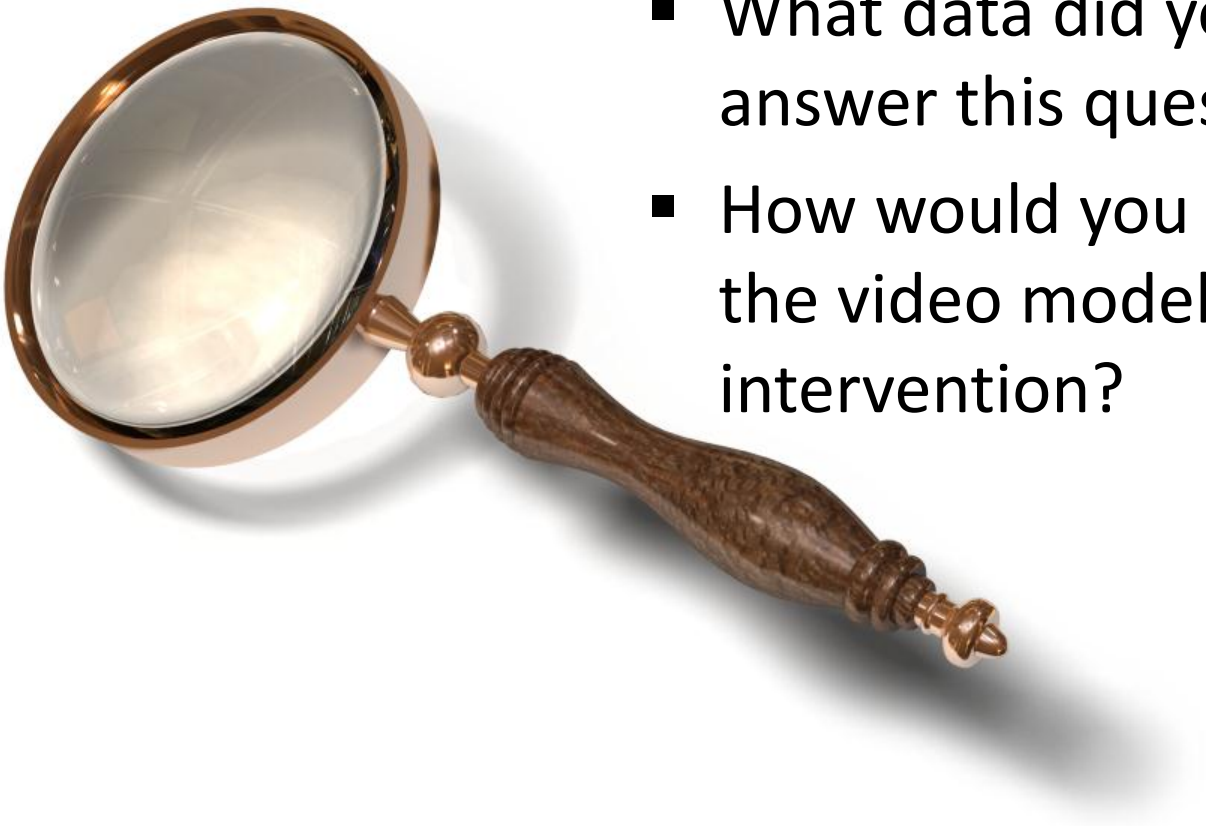
At Baseline: Frequency Data

Days	Out of Seat	Total
Monday	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	9
Tuesday	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	16
Wednesday	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	13
Thursday	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	17
Friday	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	12

Following Intervention: Progress Monitoring Data

Days	Prompts Used	Out of Seat	Total
Monday	Visual Cue Cards Verbal Prompts Physical Redirection	✓ ✓ ✓ ✓ ✓ ✓ ✓	**7**
Tuesday	Visual Cue Cards Verbal Prompts Physical Redirection	✓ ✓ ✓ ✓ ✓	**5**
Wednesday	Visual Cue Cards Verbal Prompts	✓ ✓ ✓ ✓ ✓	**5**
Thursday	Visual Cue Cards Verbal Prompts	✓ ✓ ✓	**3**
Friday	Visual Cue Cards	✓ ✓ ✓	**3**

What did you notice?



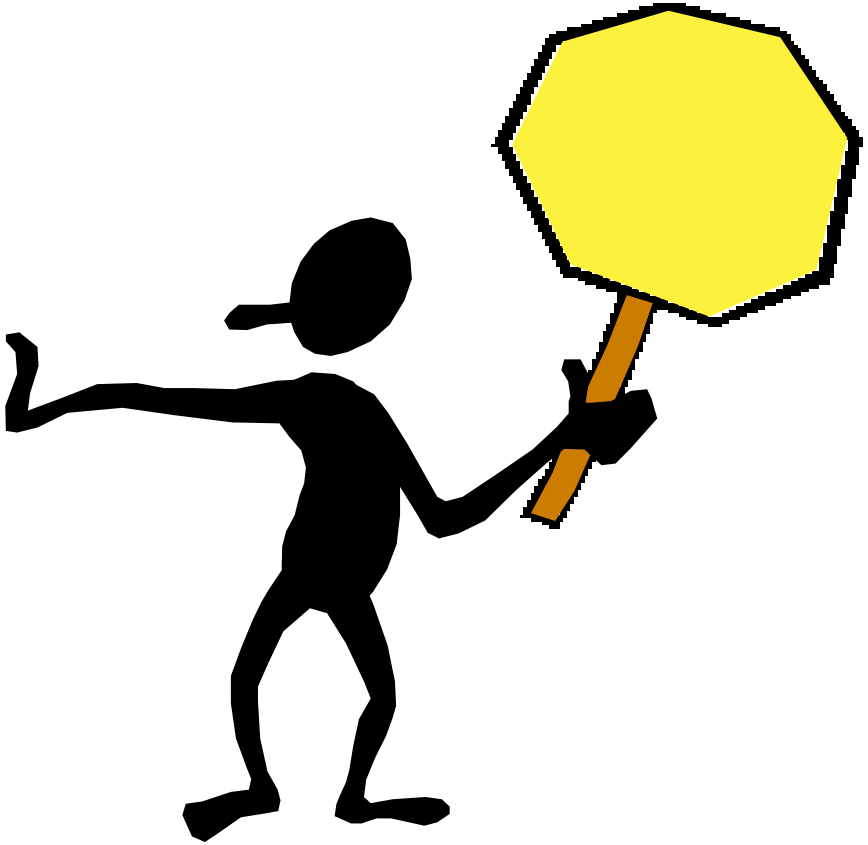
- Is Amelia now able to complete the task independently?
- What data did you use to answer this question?
- How would you plan for fading the video modeling intervention?

Common Problems and Solutions

Problem	Solution
Task/skill very complex	Try using video prompting
My student only wants to watch the video. Does not want to perform the skill. What should I do?	Make certain the student is motivated to learn the skill. Be clear on the expectations, provide adequate support (then fade), identify and use reinforcers.
I am having a hard time getting my student to perform the skill without first watching the video. I know he can do it?	Fade the use of the video. ➢ Try showing the video every other time you request the task or skill; then every third time. ➢ Try having student only watch the first part of the video, not the full video before performing the task.
I went to all this trouble recording another person perform the task, then it would not play on my IPad when I tried to intervene with the student.	Check compatibility of your recording and playing equipment prior to using it to intervene.

CAUTION!

Avoid:
video dependence



The Key to Effective "Video Modeling"

- Use a representative video model of the specific target skill or behavior; if task is too long, use video prompting of steps
- Plan to use compatible equipment and check equipment interface with computer (iPad) prior to recording
- Fade use of the video modeling intervention once skill is mastered

Summary Points of Video Modeling

- Video modeling is an evidence-based practice that builds on observational learning.
- Can be created for an array of skills, age groups, and in a variety of settings.
- Four types of video modeling, each individually developed for unique situations.
- Evidence supports a sequential series of steps to implement the strategy with fidelity.
- Can be a fun and effective instructional strategy.

To Learn More…

Evidence-based Practice Resources

- EBP literature review http://autismpdc.fpg.unc.edu/sites/autismpdc.fpg.unc.edu/files/2014-EBP-Report.pdf
- EBP Case Studies for High School http://csesa.fpg.unc.edu/resources/evidence-based-practices-case-studies
- EBP Briefs and AFIRM modules (http://autismpdc.fpg.unc.edu)
  - Overview
  - Evidence Base
  - Steps for Implementing
  - Implementation Checklist
  - Sample Data Collection Forms (optional)
- Autism Internet Modules (http://www.autisminternetmodules.org)

Example: Step-by-Step Directions

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

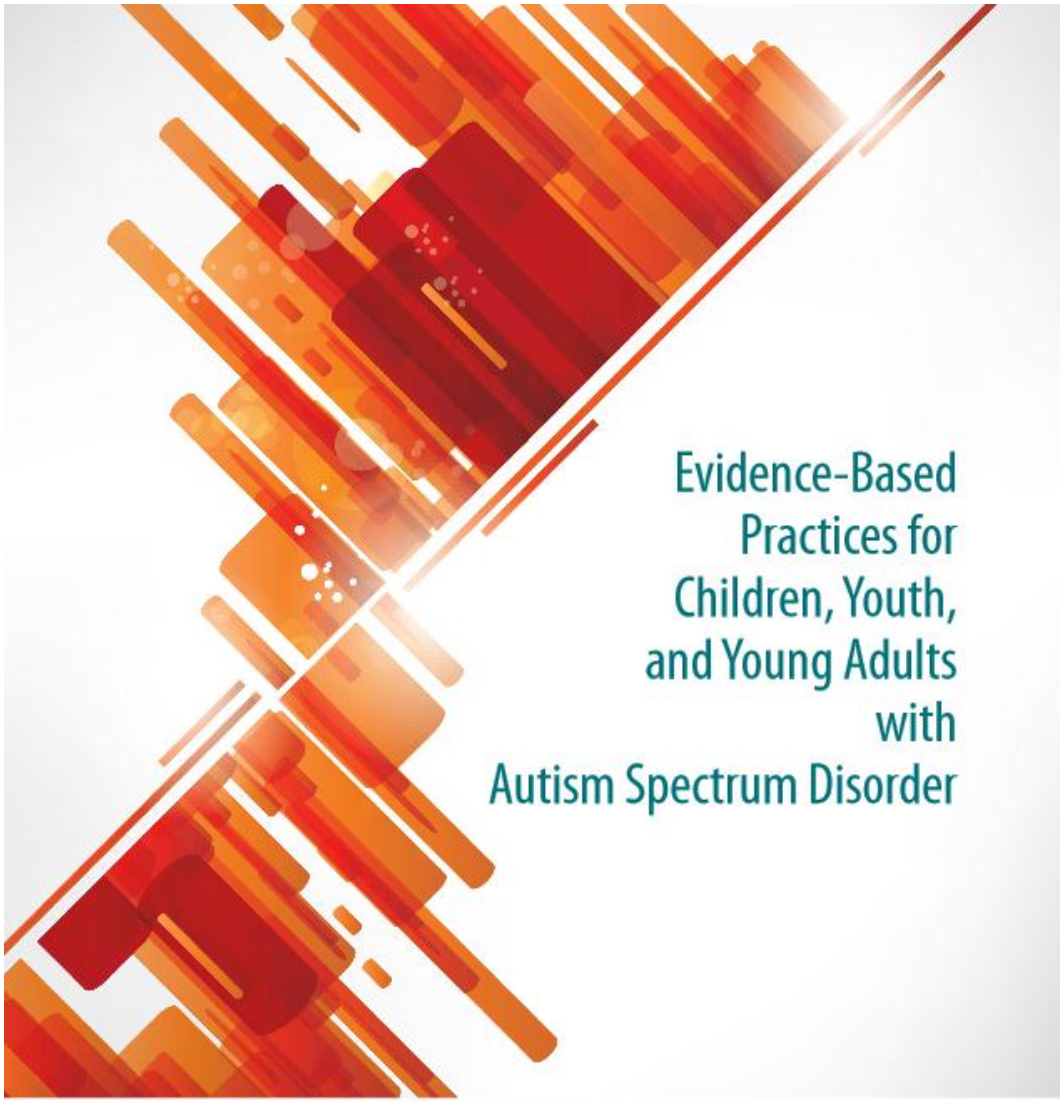
Teachers and other practitioners must have access to two basic pieces of equipment to implement video modeling techniques with learners with ASD: (a) something to make the video and (b) something to show the video (Sigafoos et al., 2007).

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.

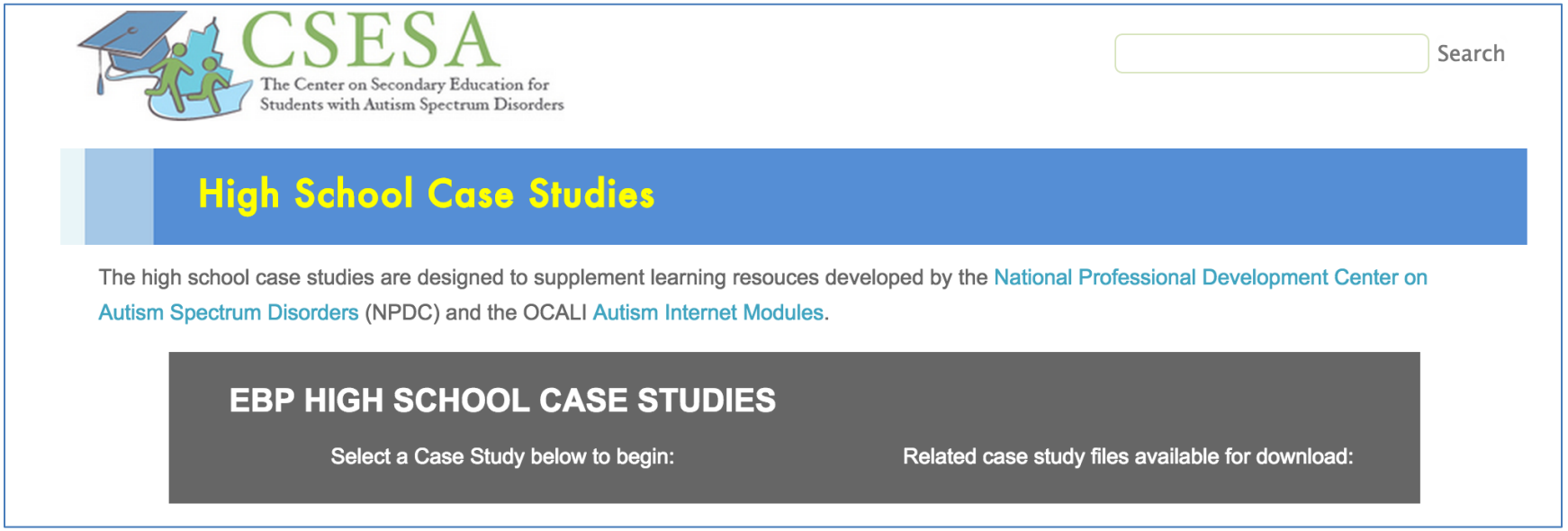
2. Teachers/practitioners identify how the video will be played back (e.g., DVD, VCR, computer).

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).



EBP Literature Review

EBP Case Studies for High School



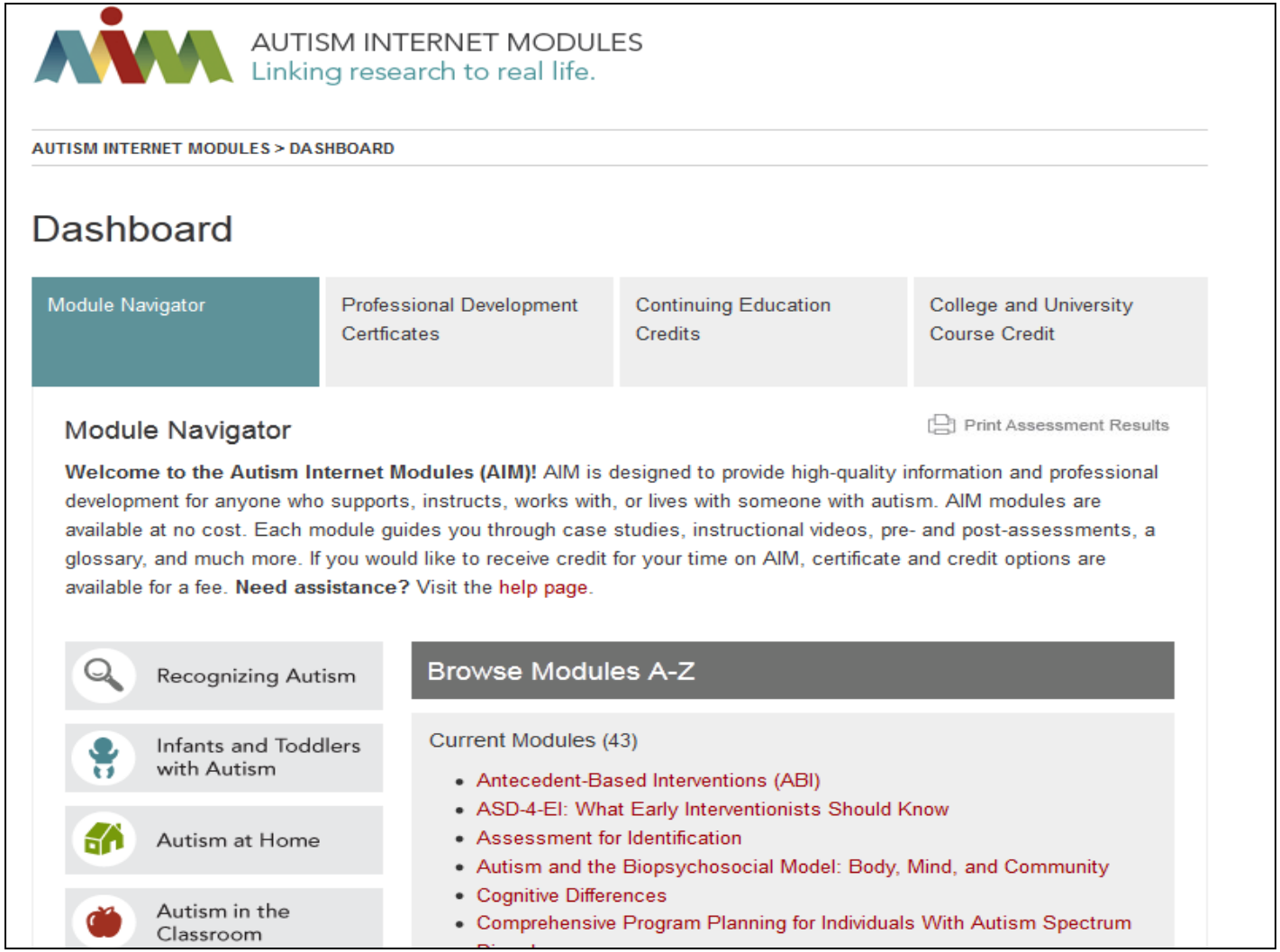
http://csesa.fpg.unc.edu/resources/evidence-based-practices-case-studies

Implementation Checklist for Video Modeling

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
Step 1. Targeting a Behavior for Teaching		**Score****							
1. Teachers/practitioners identify a target behavior that is important for the learner to be taught.									
2. Teachers/practitioners define and describe the target behavior so that it is observable and measurable.									
Step 2. Having the Correct Equipment									
1. Teachers/practitioners acquire a video recording device (e.g., hand-held video camera, digital camera, computer technology).									
2. Teachers/practitioners identify how the video will be played back (e.g., DVD, VCR, computer).									
3. Teachers/practitioners become familiar with the equipment and are comfortable using it.									

Autism Internet Modules

- http://www.autisminternetmodules.org/



Action Plan

What will I do tomorrow:

1.
2.
3.

Questions