

Allied Health Media SpeechPathology.com

**Using Technology Assisted
Intervention to Promote Pragmatic
Language Development and
Generalization**

Presenter: Jennifer Jacobs, M.S., CCC-SLP

Moderated by:
Amy Hansen, M.A., CCC-SLP, Managing Editor, SpeechPathology.com

1

Allied Health Media SpeechPathology.com

SpeechPathology.com Expert eSeminar

**Need assistance or technical
support during event?**
Please contact
SpeechPathology.com at
800-242-5183

2

Allied Health Media SpeechPathology.com

Earning CEUs

- **Log in to your account and go to Pending Courses under the CEU Courses tab.**
- **Must pass 10-question multiple-choice exam with a score of 80% or higher**
- **Two opportunities to pass the exam**

3

Allied Health Media SpeechPathology.com

Peer Review Process

Interested in Becoming a Peer Reviewer?

APPLY TODAY!

3+ years SLP Professional Experience Required

Contact Amy Natho at anatho@speechpathology.com

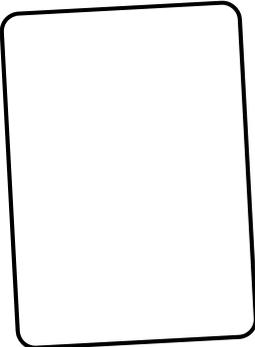
4

Digital Misadventures

Using Technology Assisted Intervention to Promote Pragmatic Language Development and Generalization

Technology Today

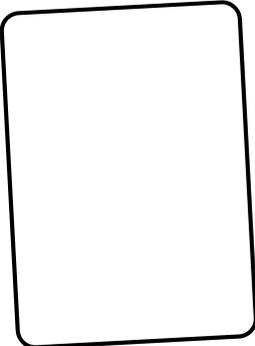
- Everybody gets so much information all day long that they lose their common sense. - **Gertrude Stein**
- Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important. - **Bill Gates**
- The Internet is so big, so powerful and pointless that for some people it is a complete substitute for life. - **Andrew Brown**



“the most popular and flattering diagnosis in town”

Juan Enriquez, a “futurist” at Harvard Business School, have argued that autism isn’t so much a vestige of the past as a glimpse of what’s to come: “the next evolutionary step” in an increasingly data-choked world.

Autism Spectrum: Are You On It?
By **Benjamin Wallace** Published May 12, 2014



“Video games for kids with autism, ADHD may become addictive”

A 2011 study by Orsmond and Kuo found that adolescents with autism spectrum disorder spend most of their discretionary time watching television and using the computer

The researchers found boys with autism played video games about twice as long as typically-developing children (2.1 hours per day vs. 1.2 hours, respectively).

Boys with autism were more likely to prefer role-playing games, which may be an additional risk factor for problematic use and addictive behavior.

“Technology as a Bridge”



Some of the best solutions for improving social skills in autism and ADHD do not involve taking children’s technology away from them, but adapting its use to integrate more social interactions.

Autism and technology is a natural fit in a digital world where there are increasing opportunities for people who relate well to technology and notice the details in visual patterns; traits that describe many children and adults with Autism

Learning Works for Kids Posted on September 3, 2013 by Dr. Randy Kulman

Research Supports

- Technology - specifically with video modeling supports - has been proven effective to target pragmatic skills for children and adolescents with autism

Computer Assisted Intervention (CAI)

- Children with autism were **more attentive, more motivated, and learned more** vocabulary in the computer than in the behavioral program. (Moore M, Calvert S, 2000)
- ...**better motivation and fewer behavior problems** in computer-assisted instruction compared to personal instruction; this did not affect their learning-rate...(Chen SH, Bernard-Opitz V 1993)
- Positive influence of CAI on autistic children's behavior problems (e.g. avoidance of eye contact, echolalia) as well as **improved spontaneous communication and better learning of academics**. (Bernard-Opitz V, Ross K, Tutas ML, 1990)

Computer Assisted Intervention (CAI) – cont.

- Eight distinct social problems were presented on a computer, along with a choice of possible solutions, and an option to produce alternative solutions. Results suggest young children with autism and their normal peers can be taught **problem-solving strategies** with the aid of computer interfaces. (Vera Bernard-Opitz¹, N. Sriram¹ and Sharul Nakhoda-Sapuan¹. 2004)
- Using Computer-Presented Social Stories and Video Models was effective for improving the rates of social communication for the participants, offering further evidence that a combined intervention (computer-presented Social Stories and video models) presented via computer may be a beneficial method for **remediating social skill difficulties** for individuals with HFA/AS. (Sansosti, Powell-Smith, 2008)

Studies showing the Enhancement of Communication

- **Spontaneous requesting** (Wert & Neisworth, 2003)
- **Recognizing emotions in speech and facial expressions** (Corbett, 2003)
- **Compliment-giving initiations and responses** (Apple, Billingsley, & Schwartz, 2005)
- **Language Production** (Buggey, 2005; Charlop-Christy et al., 2000)
- **Verbal responses to questions** (Buggey et al., 1999)
- **Conversational speech** (Charlop & Milstein, 1989; Charlop-Christy et al., 2000; Nikopoulos & Keenan, 2003, 2004; Ogeltree & Fischer, 1995; Sherer, Pierce, Parades, Kisacky, & Ingersoll, 2001).

Studies showing the Enhancement of Social Skills

- ♦ **Play**
- ♦ **Reciprocal play** (Nikopoulos & Keenan, 2004)
- ♦ **Motor and verbal play sequences** (D'Ateno, Mangiapanello, & Taylor, 2003)
- ♦ **Play** (Charlop-Christy et al., 2000)
- ♦ **Play-related comments** (Taylor, Levin, & Jasper, 1999)
- ♦ **Socio-dramatic play** (Dauphin, Kinney, & Stromer, 2004; Nikopoulos & Keenan, 2003)
- ♦ **Complying, greeting, and sharing** (Simpson, Langone, & Ayres, 2004)
- ♦ **Spontaneous greeting** (Charlop-Christy et al., 2000)
- ♦ **Social initiations** (Nikopoulos & Keenan, 2004; Buggey, 2005)

Why is Video Modeling Effective? *It's Easy and Fun*

- **Nonaversive** (Sturmey, 2003), and many parents and teachers view it as an acceptable intervention (see Buggey, Toombs, Gardener, & Cervetti 1999; Charlop & Milstein, 1989; Nikopoulos & Keenan, 2003).
- **Convenient** for parents and teachers because recorded videotapes/DVDs can be reused. Furthermore, teachers may have better control over the type of behaviors that are presented to children; unwanted behaviors may be edited. (customization)
- **Economical** for teachers when instructing community living skills such as purchasing grocery items (Alcantara, 1994); these skills can be modeled and recorded on videotape or DVD and shown to children initially to provide a less invasive intervention.
- VM can be incorporated as one element within a broad package of positive behavioral supports for children with disabilities

Why is Video Modeling Effective? *It's Easy and Fun (cont.)*

- **Novel** and expanding technology (Sturme, 2003) for positive behavioral support. Because it is acceptable and widely used by typical adults and children for leisure, educational, and business activities, it has considerable potential as an effective, socially acceptable form of support.
- **Easily implemented** and feasible from the perspective of the teachers
- Minimal use of trained individual to assist after program is initiated, and greater use of aides for monitoring
- **Consistency** of targeted skills and training presentation from video and associated stimulus
- **Motivation** and Enjoyment of the student

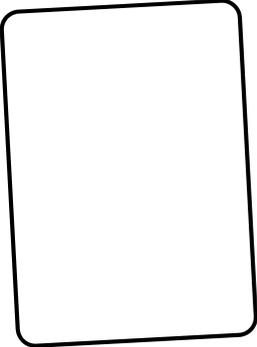
Observational Learning Process

- Attention -when model appears more like self, attention increases
- Retention -we store images seen, bring them up when needed, and reproduce actions
- Reproduction -images translate into actions when skills are within our repertoire
- Motivation -there is a reason for imitation to occur

From "Video Modeling: Why does it work for children with autism?" by Corbett & Abdullah, 2005

AFFINITY THERAPY

- Four autism researchers, including two Yale professors, are designing a study in which autistic children will undergo affinity therapy; movie character role-play will be used to develop social communication skills. The affinity therapy study will be conducted in addition to an ongoing study that exposes autistic children to pivotal response treatment.



Participatory Design (PD):

actively involves all "stakeholders" in the design process in order to help ensure the product designed meets their needs and is usable

This process is NOT PASSIVE...

INTERVENTION...

What to do and how!

Determine Your Plan

- What materials am I going to use?
- What means of technology am I going to use?
- What skills am I going to target?

Remember!

Best way to generalize is to use a combination of many different materials, means of technology & skills.

THERE IS NOT JUST ONE RIGHT WAY!

VIDEOS

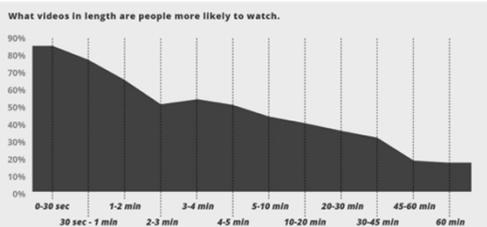
- MAKE YOUR OWN
- GET THEM FROM THE INTERNET
- USE PROFESSIONALLY MADE VIDEOS

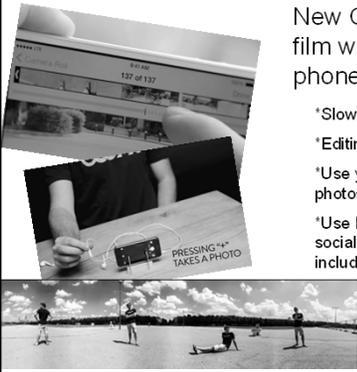
Making Your Own Videos

- Evaluate your student – determine challenges and needs
- Select **obtainable** goals first to achieve success
- Choose subjects – neurotypicals, friends, siblings; think liability
- Decrease auditory and visual distractors
- Highlight skill

Things to Remember when Making Videos

- Keep It Short – “Snackable content” - Bite-sized
- Close frame – torso and up... face toward camera
- Focus on the Positive
- Be intentional: Remember explicit instruction





New Cool Features to film with Smart phones

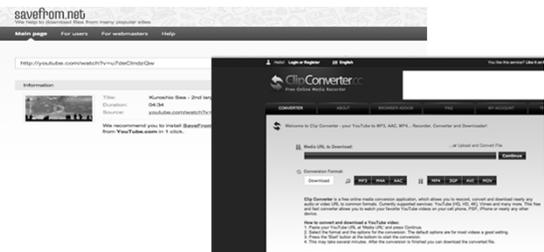
- *Slow Motion – Iphone 5s
- *Editing Features
- *Use your headphones to take photos
- *Use Panoramic to images on social environments; can even include your student

Places to Get Videos

Search “Social Skills” “Making Friends,” or whatever you are working on in video sites:

- Youtube.com
- Videojug.com
- Howcast.com
- Expertvillage.com
- Teachtube.com

Getting Videos from Internet



What Kind Of Videos?

- Commercials
- Mime Videos
- Televisions Shows
- Learning English Videos – Idioms
- Whatever else is available....

Commercials: Non Verbal Language Skills

Non Verbal Language

<https://www.youtube.com/watch?v=16vARJeag4Y>

T.V. Shows: The Nod

<https://www.youtube.com/watch?v=k0Zn4NCsP9Q>

- T.V. Shows
- The Middle,
- The Big Bang Theory
- Parenthood
- Seinfeld

How-To Videos

https://www.youtube.com/watch?v=1q_TuDxY5pI

Make Videos Intentional

- Map out skill(s) you are trying to target
- Give student "roadmap": What to expect and how to react to social situations
 - ID social skill
 - ID possible problem with skill observed
 - ID possible outcomes/consequences
 - ID emotions of participants (including observers)
 - ID resolutions – age appropriate/real life

Pre-made Videos

- Social Skill Builder – a complete curriculum using intentional video modeling to target social skills
- Available in CD and app format
- Data Collection and Lesson Plans

Anatomy of a Conversation

www.lburkhart.com/chat_ideas.htm

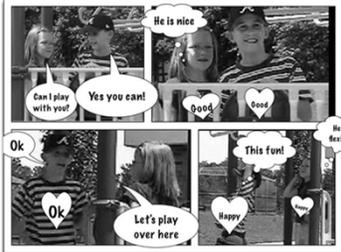
- Attention Getters
- Maintainers, Holder, Interjections
- Starters/Context Starters
- Turn Transfer – Questions
- Repairs
- Topic Closures/Transfers

Speech Bubble Stickies

Online Comic Strips

- **Bubblr** Bubblr is a tool to create comic strips using photos from flickr.com
- **Cartoonist** Cartoonists is an online tool to create cartoons or personal digital stories
- **Comic Master** Comic Master allow you to create your own short graphic novel.
- **Domo animate** Import your pictures, select a nice song to accompany
- **Slidestory** Combine sharing pictures and narration
- **Zimmer Twins** - create and share their own animated stories

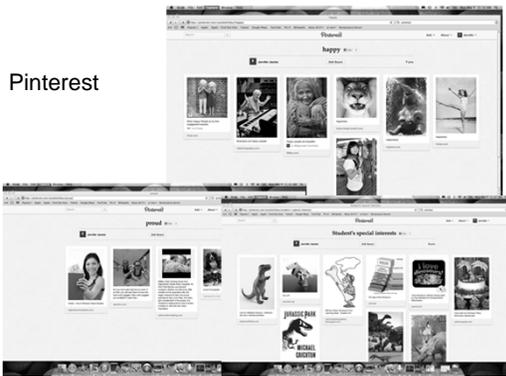
Making Comic Strips



Digital Storybooks

- ZooBurst - digital storytelling create own 3D pop-up book
- Domo animate - Import your pictures, select song to accompany
- Slidestory - Combine sharing pictures and narration
- Zimmer Twins - create and share their own animated stories
- Story Telling Apps
 - Puppet Pals
 - ShowMe Interactive Whiteboard
 - Sock Puppets
 - Toontastic

Pinterest



Sharing with Small Group

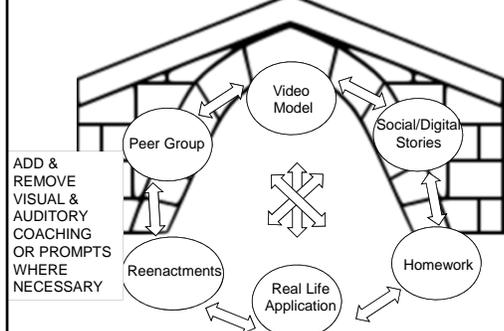


What a Screen Shot Can Do...

- Comics
- Stories
- Sequencing
- Prediction



NOT A LINEAR METHOD Framework of Social Generalization



Generalization of Social Skills

- Varied intervention techniques
- Involvement of Parents & Teachers
- Homework
- Use in multiple environments with different peers

