

# Computer Assisted Interaction Techniques to Target Social Learning



Laurie Jacobs MA CCC-SLP

# 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*



# Why Video Modeling is Effective

## *It's Easy and Fun*

- **Nonaversive** (Sturmev, 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/DVD's 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 support for children with disabilities
- **Novel** and expanding technology (Sturmev, 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 monitoring
- **Consistency** of targeted skills and training presentation from video and associated stimulus
- **Motivation and Enjoyment** of the student



# 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)



# Create A Video Library

Getting MORE videos –  
Always adding to your  
library...



# DIY Making Videos

Digital  
Cameras

Phones

Flip Cameras

Video Cameras



# How to Make 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 distracters
  - Highlight skill
  - Use a tripod



# What's the big deal about making your own videos?

## *The Difficulties in Making Your Own Videos*

- Time consuming, Time consuming, Time consuming
- Dealing with legalities of filming children and using them within public setting
- Editing programs and know how
- Capturing the moment without the distractions
- Filming at the social complexity of the child
- Finding the right filming conditions
- Developing the appropriate evaluation questions per video
- No standardization of questions or scoring mechanism
- Not tailored to a curriculum base
- Relying on the knowledge of facilitator to operate equipment/ask questions
- No introduction to social vocabulary



# Getting Videos from the Internet

DOWNLOADING:

Real Player - <http://www.real.com>

to Download videos and convert to format to view

If you are having trouble with it download again... for software updates



- Join Youtube
- Share video privately
- Download them on with Real Player
- Subscribe to video makers

- [Tahirose](#) – subscribe
- [youtube101](#)



# ONLINE RESOURCES TO GET VIDEOS

TEACHERTUBE.COM

\*LEARNING ENGLISH  
VIDEOS

**\*VSM Videos**

\* Amanda Show  
“The Literals”

SCHOOLTUBE.COM

Autism Games.blogspot.com

Howcast.com

Videojug.com

VoiceThread.com

\*Youtube.com

\*Mime videos



# Comic Strips

*Expand on Video – break it down*

- Comic Life – Program
- Free Online Comic Strip
- iPad/Touch – Comic apps





# Online Comics



# Free Online Animation Websites

- Bring your comic strips to life
- Can use real voiceovers to work on language
- Drawback – animated characters vs real pictures





# Kerpoof.com



# My School Day

## Social Skill Builder

- Rituals of recess
- Peer relations
- Appropriate classroom behavior
- Lunchtime interaction

Cognitive age: 6-12



# Preschool Playtime Volume 1 & 2

## Social Skill Builder

- Behavioral expectations outside of home
- Social Relationships
- Peer conflicts
- Sensory issues

Demonstrated in:

- Playgroup
- Preschool
- Park
- Outing

Cognitive age: 3-6



# School Rules! Volume 1 & 2

Social Skill Builder

- Social Interpretation Skills
- Personal Awareness
- Conflict Resolution
- Organization

Scenarios include:

**getting lunch, eating and talking to friends, “hanging out”, use of schedules and time management**

Cognitive age: 8-18



# My Community

## Social Skill Builder

- Social Expectations
- Safety Precautions
- Social Behavior
- All within community, including doctor's office, grocery store, neighborhood and more

Cognitive age: 5 & above



# Social Detective

Based on book by Michelle Winner and Pam Crooke

- Based on Social Thinking Ideals
- Uses “toolbox” to decipher what should be done or said in different situations.
- Uses thoughts, smart guesses, and emotions
- **Social Mapping**
- Elementary Age



# Systematic Breakdown of Videos

- Build Vocabulary – general discussion
  - Use vocabulary – multiple choice
    - Emotions
    - Contextual Cues – non verbal
      - Social Mapping
- Better/Best Scenarios – compare/contrast
- Critical Thinking – open ended questions



# How to make still screen shots from videos

On PC Press *Fn* and *PrtScn* or *HOME* button to capture Screen – then open in Paint (PC) or other graphic program

On MAC – use Grab program (search Grab) to capture images on screen, open in Paintbrush or other graphic program



# Using Images from Programs to Create Expansion Materials

Open Paint (PC) or Paintbrush (mac) and “paste” in screen shot  
You can then choose to make a selection of the image to save and use in for  
different expansion projects



# Sequencing:

What happened in what order?



# Scripting and Anatomy of a Conversation:

[www.lburkhart.com/chat\\_ideas.htm](http://www.lburkhart.com/chat_ideas.htm)

Attention Getters

Maintainers, Holder,  
Interjections

Starters/Context Starters

Turn Transfer – Questions

Repairs

Topic Closures/Transfers



# Talking Bubble Sticky Notes – put on computer screen

Puremodern.com

Sticky notes



# Make Comic Strips

remember Speech Bubble/Thought Bubble/Emotion



Prediction:  
what will happen next?

?



# Thought Bubbles

## Creating Picture in A Picture Movies

- Using PC – Power Point
- Using Mac – iMovie or Keynote



# Research

- In a study done in a graduate level History class, Vess (2006) found that the use of iPod created a learner-centered environment, created continuous engagement, and active learning along with a strong sense of community.
- Video iPod was found to be an effective instructional tool in increasing independent responding of an individual with developmental disabilities in a community based employment setting. This also led to decrease in outside prompting (Laarhoven et al. 2009).
- iPods were used with 8<sup>th</sup> grade literature classes. It was found that students developed deeper understanding of the concepts taught, were actively engaged and happy (Bauleke, & Herrmann, 2010).

Bonnet & Agrawal, 2011



# Research

- Handheld devices can leverage the power of technology to enable all students to succeed (Gulchak, 2008).
- There is a direct correlation between the amount of student learning and personal development and the student involvement in the program (Astin, 1985).
- Teachers in this generation are more aware of the motivation benefits from using technology in special education (Rao, Dowrick, Yuen, & Boisvert, 2009).
- Due to the ubiquitous adoption of mobile devices in our society, mobile technology offers a contextual and authentic medium for learning (Fisher & Baird, 2007).

Bonnet & Agrawal, 2011



# Video Modeling is becoming Portable and Research Validated *“Ipod/padification of Education”*

- Video Modeling via iPod... to **ease transitions** (Cihak, 2010)
- Visual and Auditory Reinforcers
- Behavioral Interventions
- Visual Schedules
- Flash Cards
- AAC
- Social Stories
- Ebooks
- Etc. Etc.

“Educators are digital immigrants, while our students are digital natives...!”  
(Prensky 2001)



## App Recommendation Sites – some of the many

- Momswithapps.com
- Iphonemom.com
- Smarttots.com
- Geekslp.com
- Autismepicenter.com
- Twit.tv/ipt
- <http://mobilelearning4specialneeds.wikispaces.com/>
- [http://web.me.com/eccsms/poddytraining/Poddy\\_Training.html](http://web.me.com/eccsms/poddytraining/Poddy_Training.html)
- <http://slpsharing.com/>
- <http://www.connsensebulletin.com/2011/01/apps-for-education-update/>
- <http://www.bestkidsapps.com/>
- <http://www.iear.org/>
- <http://www.scribd.com/doc/24470331/iPhone-iPad-and-iPod-touch-Apps-for-Special-Education>
- <http://itouchforspecialneeds.pbworks.com/w/page/27170032/i-Touch-for-Special-Needs>
- [http://www.ocali.org/view.php?nav\\_id=101](http://www.ocali.org/view.php?nav_id=101)
- <http://www.bestkidsapps.com/ages-0-4/the-best-educational-iphone-apps-for-kids/>
- <http://www.pcmag.com/article2/0,2817,2366274,00.asp>
- Iphone4kids.com



# Video Modeling Becomes Portable

- Taking what you worked on in the therapy room out to the natural environment
- Using as cues and reminders to goals
- Students are motivated to learn and more likely to carry over skills



Computer/Video

Go back if  
needed in  
order meet  
goals

1:1 rehearsal

Visual Supports

Reenact with peers

Fade prompts &  
supports

Paraphrase how it  
played out

Independent Behavior



# Video Modeling Meets our Students Where they Learn Best

Many students with disabilities – particularly those with ASD – are visual learners. As Dr. Temple Grandin, a professor, author, and researcher with autism, explains, “I think in pictures. I do not think in language. All my thoughts are like videotapes running in my imagination. Pictures are my first language, and words are my second language ([Grandin, 2002](#)). For such individuals, videos, simulations, virtual environments (VEs), pictures, and other multimedia can be effective teaching tools ([Grandin, 2002](#); [Loftus, 2005](#); [Parsons, 2006](#); [Parsons et al., 2006](#); [Dana, 2005](#)).

