

---

---

# Telepractice Proves Effective for Those Living with Down Syndrome

— Jennifer Gray, M.S., CCC-SLP —

Maria Bernabe, M. S., CCC-SLP

---

---

# Disclosure Statement

## Jennifer Gray, M.S., CCC-SLP

- Self-employed at Grays Peak Speech Service, LLC
- In private practice (children, teens, and adults) and Early Intervention specializing in Down syndrome speech, language, and feeding.
- I have no financial relationship with the techniques and materials discussed in this presentation.
- No royalties are acquired from materials or speaking events.

# Disclosure Statement

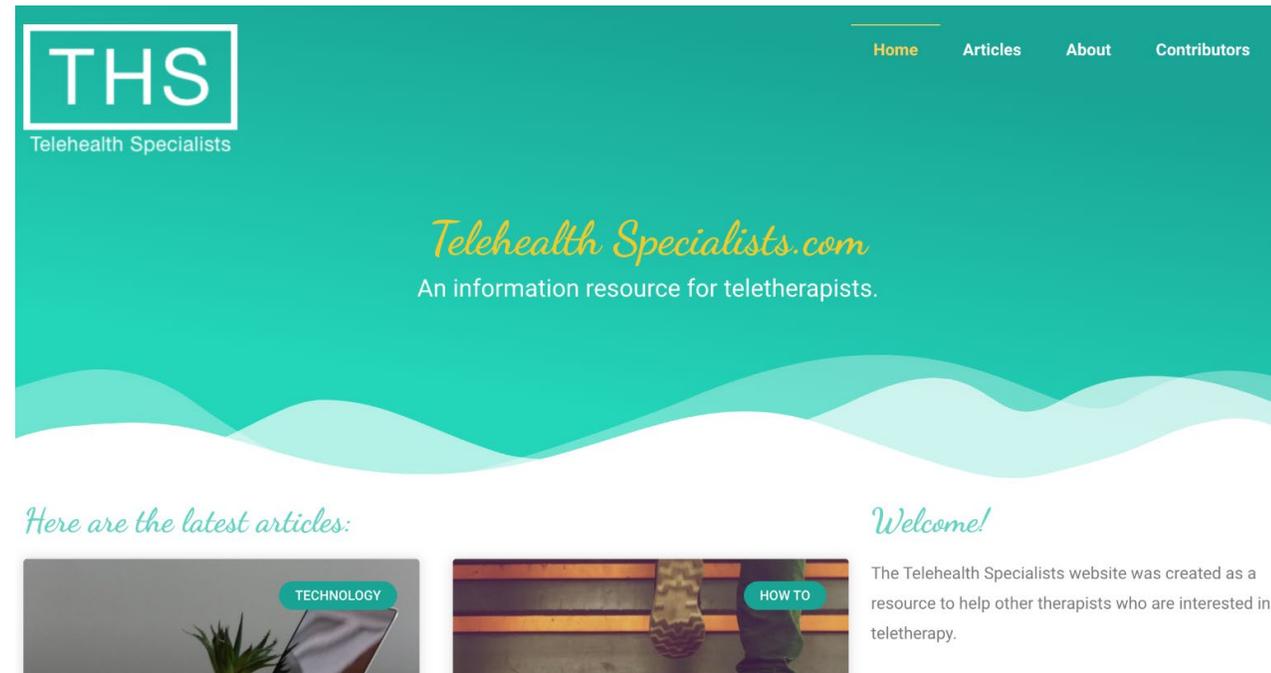
## Maria Bernabe, M.S., CCC-SLP

- Self employed by A Plus Speech Therapy, LLC
- Private practice specializing in early intervention and telepractice
- Blog: [TelehealthSpecialists.com](http://TelehealthSpecialists.com)
- No financial relationship with the techniques and materials discussed in this presentation
- No royalties are acquired from materials or speaking events

# What is Telepractice

Remote service delivery using telecommunications technology where you and your client are in different physical locations. Therapy is provided using live audio and/or video but can also be pre-recorded (ASHA, 2019).

You must be licensed in the state where you reside and the state in which your client is located.



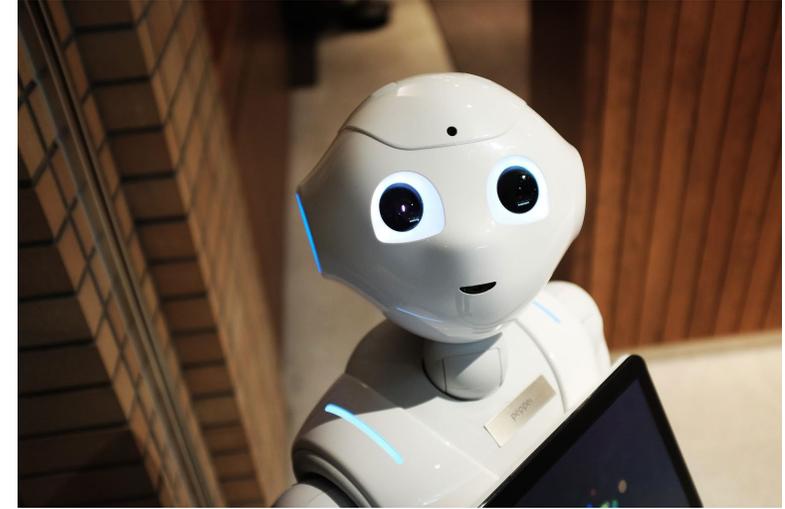
# Service Locations

- Early Intervention – home and community settings
- Schools
- Outpatient – Rehabilitation and Habilitative services
- Private Practice
- Anywhere with Internet service
- Unconventional services
  - Volunteering
  - Collaboration with teams and specialists
  - Consults
  - Homework check-ins
  - Maintenance check-ins



# Technology Requirements

- High Speed internet (bandwidth of > 20
- Computer
- Web camera
- Audio
- Software/hardware used for “virtual meeting space”



When selecting software there are several things to consider. Most importantly, consider security and be aware of potential threats that may put your client’s privacy at risk (Anne, Kelly, Houston, & Telepractice & eLearning Laboratory, 2013).

# Privacy

## What can you do?

- Carefully select software that is secure - encrypted
- Consider using a VPN to make internet connection more private (may slow down internet speed)
- Ensure your client receives services only when authorized individuals are present
- Have a plan in place to avoid and correct privacy issues
- Use headphones so that others around you don't hear what is being said
- Store files and recordings in password protected devices
- Require a password in order to enter an online session
- Password protect PDFs if sending over email
- Use a HIPAA compliant client portal

# Platforms & Documentation

**Online Platforms-** software used to meet online with your client

- popular platforms:
  - Zoom
  - Go To Meetings
  - WebEx
- [EverythingSLP.com](https://www.everythingslp.com) - has a guide for helping you select a platform.
- Documentation- creating and storing
  - several online options available such as:
  - G suite- cloud based system offering ability to create & store documents
  - Simple Practice - cloud based system for documentation & communication

# Eligibility Requirements

One should consider **physical ability, cognitive ability and vision and hearing ability**. Cason & Cohn (2014) stated that “The client selection process should consider these limitations, potential modifications necessary to maximize participation, the nature of the interventions to be provided, and the support available to the client to determine if the use of telepractice is appropriate” (Cason & Cohn, 2014, p.12).

Consider the school, client and parents when asking yourself eligibility questions.

# Eligibility Requirements cont.

Requirements for parents/caregivers:

- space with minimal distractions
- basic understanding of computer/technology needed
- high speed internet
- adequate equipment ability to set up/ troubleshoot with guidance
- ability to complete carryover exercises online if assigned
- ability to follow through with instructions, recommendations - requires time to build this skill
- ability to set up activities/toys prior to the therapy session by following a plan sent ahead of time
- available computer at the time of therapy session (scheduling)
- if siblings present, are they productive participants or need babysitter?



# Eligibility Requirements cont.

Requirements for client/student:

- attend for at least 20-30 minutes with or without assistance
- allow assistance from parent or e-helper (is behavior appropriate)
- good vision (good enough?)
- good hearing (good enough?)
- can independently respond (use mouse, pointing, verbal, sign, gesture?)\*
- able to learn to use computer in order to effectively participate in sessions



## Teletherapy Eligibility Questionnaire

1. Does your child stay seated at a regular table or on the floor for 20-30 minutes when engaged in motivating tasks?
2. Does your child have severe vision problems not corrected by prescription glasses?
3. Does your child have severe hearing problems not corrected by the use of hearing aids?
4. For teletherapy to be effective, all distractions need to be eliminated. If you are bringing other children, can you pre-arrange supervision for those children so that we can provide the most effective session for your child?]
5. Does your child have motor difficulties that will affect controlling a computer mouse or keep his/her head up to look at a computer screen?
6. Do you have access to a high-speed internet connection?
7. Do you have access to a desktop computer or laptop?
8. Does your laptop or desktop have good video and audio capabilities?
9. Can you or other primary caregiver be present during your child's speech therapy session?
10. Do you have a space in your home that is quiet and free of distraction to use during your child's teletherapy session?

# Example Requirements/Eligibility in CO



**COLORADO**  
Office of Early Childhood  
Department of Human Services

## HOME - TELEHEALTH CHECKLIST

### Provider Information

NAME

ADDRESS

PHONE

EMAIL

+ DISCIPLINE

### CHECKLIST

<input type="checkbox"/>	Therapist has completed EI Colorado Telehealth training or has received a waiver from EI Colorado.	
<input type="checkbox"/>	Therapist is licensed where client receives therapy, even if the client being seen is not in Colorado.	State(s) licensed:
<input type="checkbox"/>	The therapist will provide mutually agreed upon Telehealth services to children and families. Consideration of comfort with technology, internet connectivity, and Telehealth service delivery model was discussed.	
<input type="checkbox"/>	The therapist has a system in place to make reasonable attempts to verify the identity of the client, which may include an initial in-person visit.	
<input type="checkbox"/>	The therapist is conducting the session in a secure area that is private and cannot be overheard or viewed by individuals that are not involved in the session.	
<input type="checkbox"/>	The session is conducted in an area where outside distractions can be eliminated.	
<input type="checkbox"/>	Lighting and acoustic conditions have been tested to ensure optimal audio/visual environment.	
<input type="checkbox"/>	Only the therapist will be present during the session, unless otherwise agreed upon by the client.	
<input type="checkbox"/>	Therapist uses software that contains appropriate privacy and security standards. Software used must be approved by EI Colorado or CCR.	Software:

# Services Provided

- Consults
- Screenings
- Consultations: Less frequent sessions or assessments only when billing is conflicting or when acting as a specialist consulting with an existing professional team
- Evaluations, Dismissals
- Treatment: weekly, bi-weekly, intensive
- Intensive treatment: motor speech, CAS recommended frequencies (3-5x/week), LSVT, 5-minute artic
- Groups
- Functional and Social applications

# Online Test Administration

Assessments | US > Contact Us Store Cart Sign in/Register

Pearson Professional Large Scale Admissions Talent Order Status Quick Order Search

Products Featured Topics Digital Solutions Training Ordering Blog & Webinars Field Research

Home > Professional Assessments > Digital Solutions > Digital Assessment Library

## Digital Assessment Library

School districts with 500+ Individual Education Plans (IEPs) can get unlimited access to Pearson's library of 30+ on-demand assessments.

Get started!  
View the Library or contact the sales team.

View the Library

Contact Sales

Overview Explore Training Contact us

### Overview

The Digital Assessment Library for Schools provides school districts with unlimited use of more than 30 assessments on Q-interactive and Q-global, including WISC-V, BASC™-3, KTEA™-3, Sensory Profile™ 2, CELF®-5 and more.

The library covers a range of assessments, including ability, achievement, behavior, mental health, speech and language, and

## Available for Online Administration

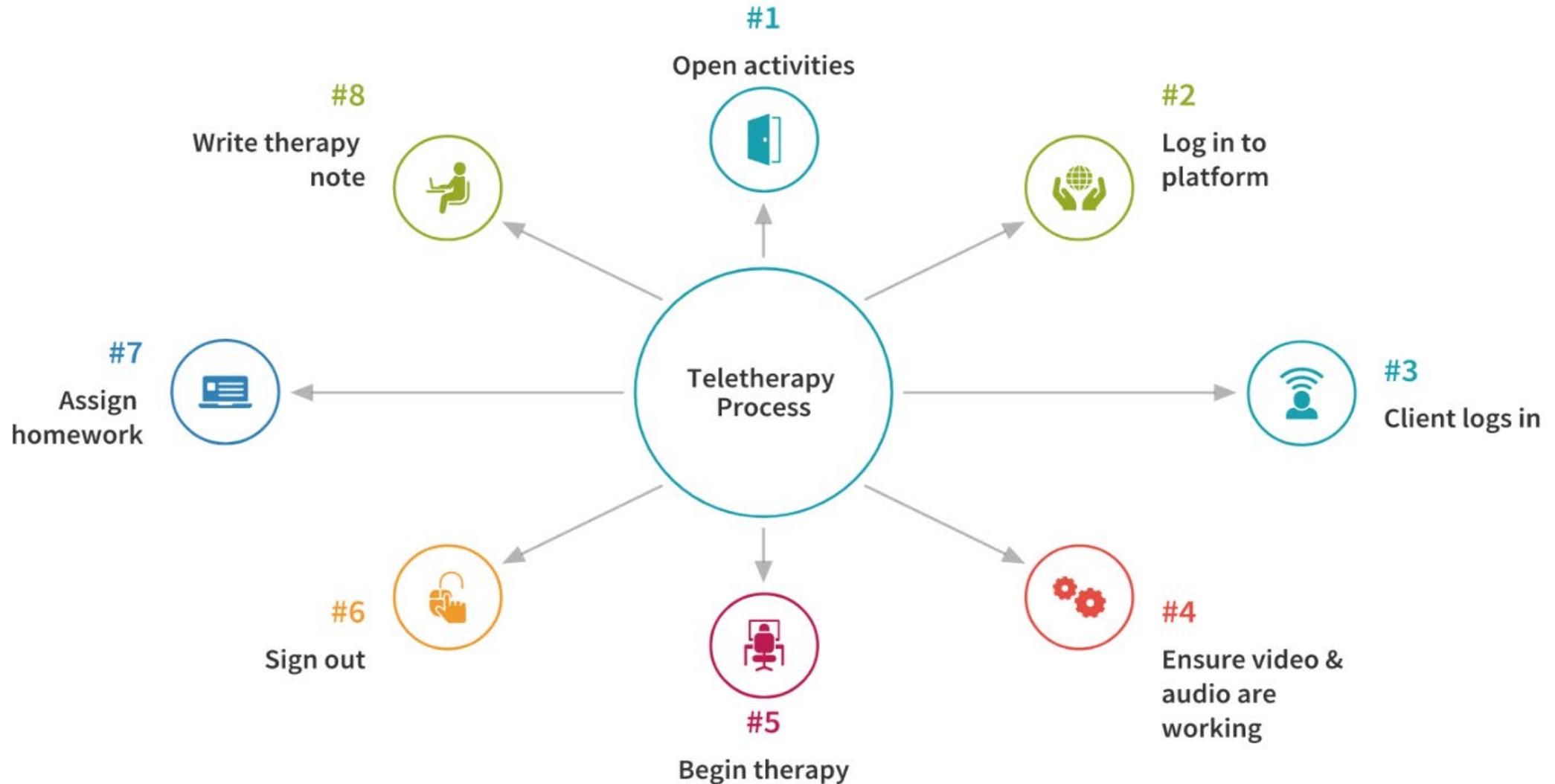
CELF - 5

GFTA -3

PPVT - 5

EVT - 3

# Example: therapy process for one session



# Why is Teletherapy So Effective for Those Living with Down syndrome?

- Sessions are:
  - visual
  - focused
  - consistent
- Can be:
  - repetitive
  - intensive
  - frequent
  - short

- Most have specific learning strengths inherent to teletherapy.
- Frequent (2+ days per week), intense, and brief sessions require higher level of planning, travel, and time in clinic settings and even in-home travel therapists can rarely accommodate.
- Meaningful, contextual, and functional therapy activities are ESSENTIAL for success.

# Treatments for Speech, Language and Feeding

- Very few specialists and limited Down-syndrome-specific programs and techniques.
- School and clinic therapies not enough:
  - very complex speech, language, learning, and health profiles
- Those with DS need ongoing speech and language intervention throughout the lifespan (Buckley, 1993):
  - Birth to 3
  - Preschool
  - School age
  - Adolescent
  - Adult

# Common Goals for those Living with Down syndrome

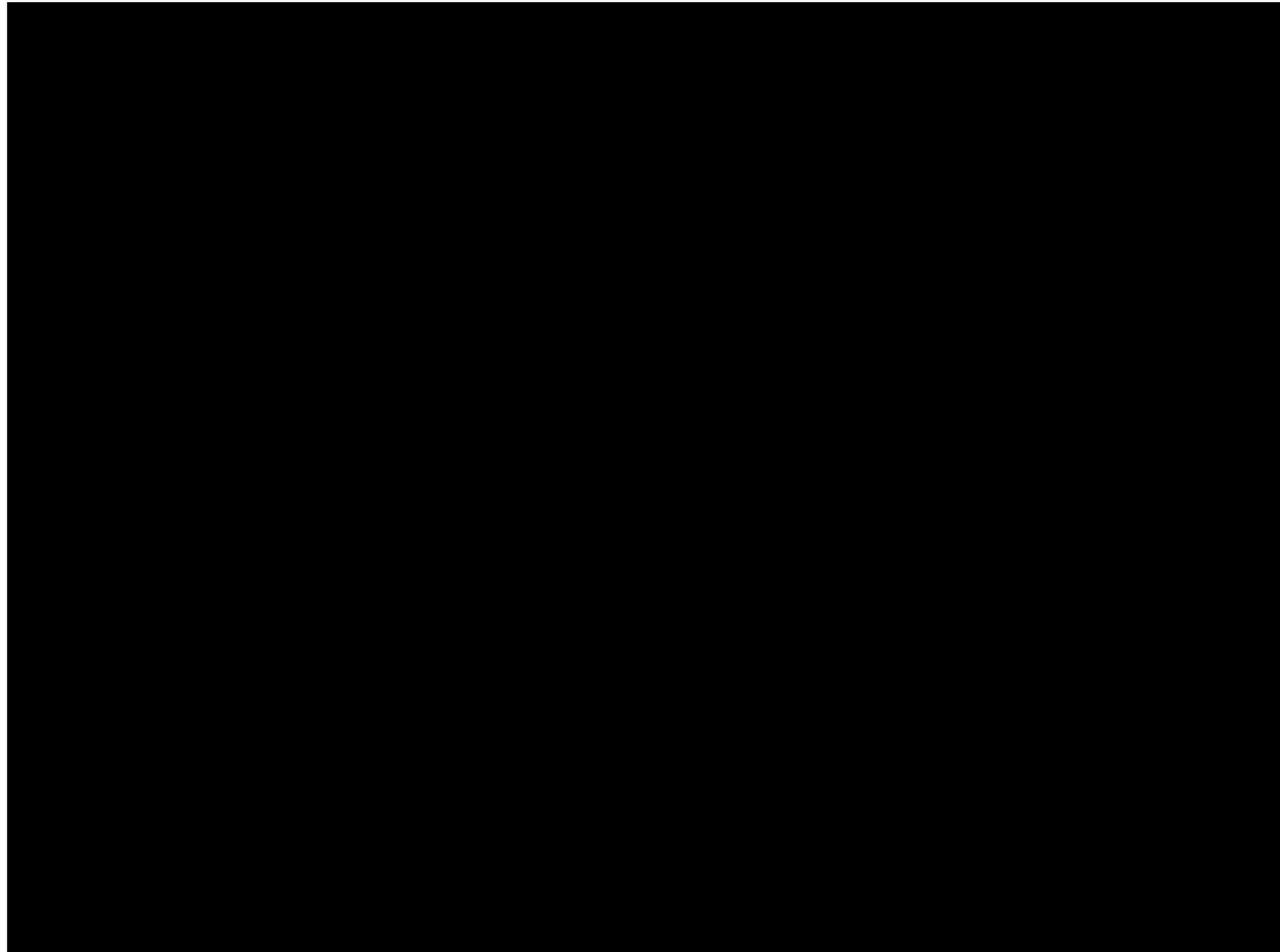
- Speech clarity: articulation, phonology, motor planning, fluency, voice & resonance
  - Studies show all of these are usually present and should be treated accordingly

University of Vermont. (2016, February 5). More effective speech therapy approach for children with Down Syndrome. *ScienceDaily*. Retrieved November 20, 2019 from [www.sciencedaily.com/releases/2016/02/160205100848.htm](http://www.sciencedaily.com/releases/2016/02/160205100848.htm)
- Feeding: coaching and monitoring oral and pharyngeal phase eating, picky eating, messiness.
- Receptive & expressive language, memory, auditory processing, cognitive learning and processing (Chapman & Hesketh, 2001).
- Functional and social Language use. *This is the #1 concern for parents of teens and young adults.*
- Daily living/Self-help, educational adaptations and performance, vocational preparation, and higher education.

# Private & School Application:

Private HS student speaking at his own IEP while his therapist watches through Go To Meeting.

The student and therapist practiced beginning with an outline, writing his own index cards, and rehearsing each sentence many times. He was allowed to keep his ideas and use his humor (he is like this in real life too).



# Visual Teletherapy Tools

- PowerPoint
- Online Interactive: Boom Cards, SMART Exchange
- TPT: Pre-made visual tools
- Apps: Marco Polo
- Video Modeling: Personal videos, Signing Time, Copy-Kids, Gemiini, etc.
- Personal Books (make and print, Shutterfly, etc.)
- You Tube

\*\* Create your own library\*\*

# Screenshot Example of Boom Card Video

The screenshot displays a web browser window with a video player. The browser's address bar shows the URL `wow.boomlearning.com/play/HLjgQjLW3r`. The video player has a blue header with a 'Back' button and a 'Preview' label. A progress bar at the top of the video player shows 24% completion. The main content of the video is a Boom Card with a red scalloped border. The card's title is 'Reading Detective Context Clues'. The text on the card reads: 'Martin **ascended** the stairs to the attic.' Below the text is a cartoon illustration of a detective wearing a red hat and a grey coat, holding a magnifying glass. To the right of the illustration are three buttons: 'walked down', 'walked up', and 'walked across'. The 'walked across' button is highlighted with a mouse cursor. On the right side of the video player, there is a control panel with buttons for 'Overview', 'First', 'Previous', 'Skip', 'Hide cards', and 'Give Up'. A 'Feedback' button is visible in the bottom left corner of the browser window.

Chrome File Edit View History Bookmarks

Boom Cards! - Play

wow.boomlearning.com/play/HLjgQjLW3r

Apps Chase Dashboard < Teleh... Dashboard-AF

Google Drive My Drive - Google...

Back Preview

24

Reading Detective  
Context Clues

Martin **ascended** the stairs to the attic.

walked down  
walked up  
walked across

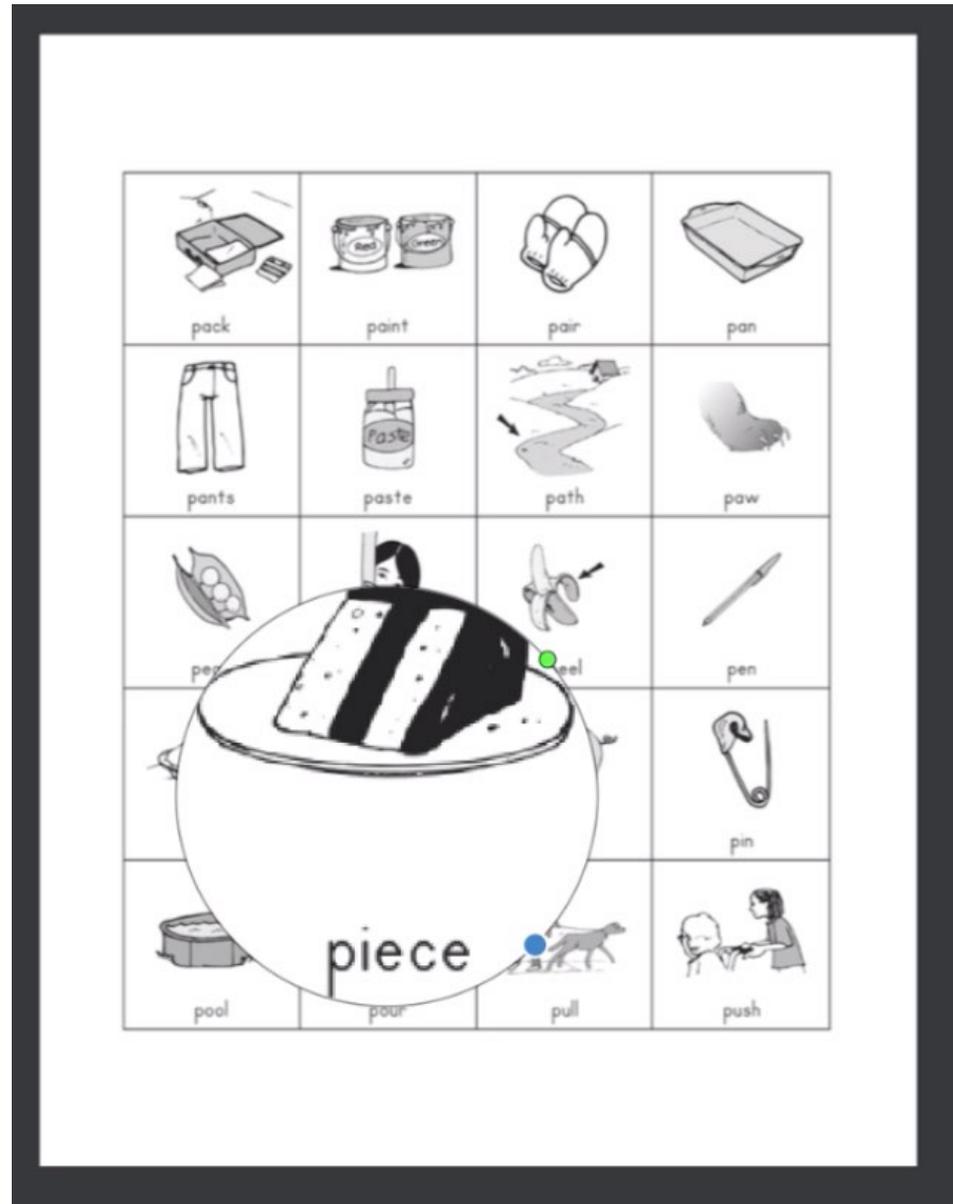
Feedback

Overview  
First  
Previous  
Skip  
Hide cards  
Give Up

# Example: Using Boom Cards During Therapy

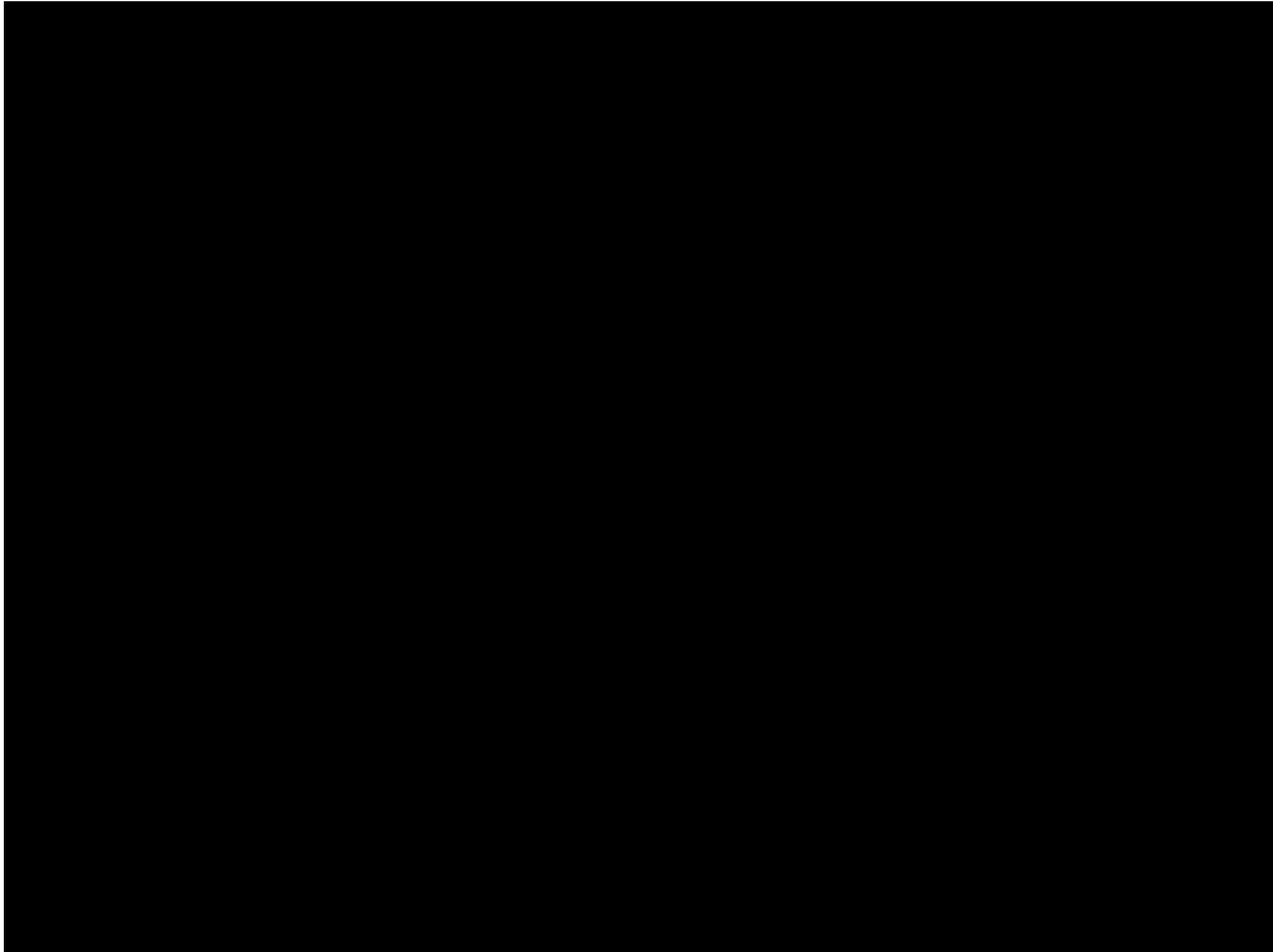


# Screenshot Example of PDF Tools Video



Using a magnifying glass tool to play “detective” while practicing words beginning with /p/.

# Example: Using a PDF worksheet during therapy



# Use of video- For specific goals

Answering questions, retelling  
inferencing, sequencing, short-  
term memory, executive  
functioning, etc.

<https://www.youtube.com/watch?v=93hq0YU3Gqk>



# Use of video- For specific goals



# Video Modeling-Extremely effective for those who learn best visually.

YouTube

toddler eating chicken nuggets



18 month old eats Chicken Nuggets

2,234 views • Nov 20, 2016

10 4 SHARE SAVE



**COPY-KIDS™** Because children learn best from other children.

WHAT IS COPY-KIDS PRESS AWARDS BLOG SHARE STUDIES CONTACT BUY DVD

Copy-Kids Official Trailer

Copy-Kids II Official Trailer

Dawn Winkelmann, M.S., CCC-SLP Interview

Buy DVD

**Simple. Adorable.** Never has healthy eating been so much fun - and your kids will want to join in.

Featured Post Entry

Organic. Whenever you can.

Organic for the kiddos!

My children's pediatrician emphasized that fruits and vegetables are critical for health and brain development.

Now available on amazon instant video Stream it today!

# Video Modeling for Feeding



# Power Point

-These can be made ahead of time or online-



The image shows a screenshot of a PowerPoint presentation. On the left is a vertical navigation pane with six slide thumbnails. The main area displays the first slide, which has a light blue background with water bubbles. The slide title is "OVER THE WEEKEND". Below the title is a paragraph of text. The navigation pane thumbnails contain the following titles: "OVER THE WEEKEND", "I KNOW HOW TO SWIM" (with a water image), "I HAD A SWIM MEET OVER THE WEEKEND" (with a swimmer image), "I LEARNED HOW TO DO A FIP TURN" (with a swimmer image), "I GOT FIRST, SECOND, AND THIRD PLACE" (with a list of items), and "MY RIBBONS" (with a ribbon image).

**OVER THE WEEKEND**

We will use this for a week or two to master this set of retelling. My hope is that as she overlearns sets of scenarios and how to talk about them , it will bleed onto other topics because she is more confident about retelling in general. This happened with the intense LSVT program so we will use it for this goal as well.

The first two pictures are to give her an instant win win. She prefers to read the titles and this is ok for the first 2-3 trials, but we will fade them out. Her spontaneous utterance length is around 4-6 words. As phrases exceed this and contain irregular grammar, it gets harder.

- I SWAM THE POOL EVERY
- AND
- THE BACKSTROKE
- MY GARDEN & THE BACKSTROKE

**MY RIBBONS**

# Mother's Testimonial

Private client; 13 yrs old; LSVT & Speech and language interventions.



# Teletherapy in Early Intervention

- Some states have begun to offer telepractice/telehealth as an “equal” service.
- Still used as a secondary modality
- Better utilizes the coaching role and family education
- Early studies reveal outcomes equal to in-person sessions in less time.
- Fears of reduced child engagement
- We have found it to be particularly useful for the DS population for the control of illness (especially those undergoing chemotherapy treatments or have compromised immune systems). Children with DS are sick more often than most other EI populations.
- Ability to control stimuli. Overstimulation and refusal behaviors are very common .
- Primary or One-Provider Models require therapists to monitor all aspects of a child’s development, health, and well-being.
  - Teletherapy allows a natural tendency to use the parent/caregiver for education and problem solving.
- Supports the coaching model of intervention.

# Early Intervention

Telehealth not only facilitates the therapists' task of coaching families, recent studies have shown that coaching behaviors are actually enhanced in telehealth sessions because the provider is not physically present in the home.

# Findings

Telepractice is an effective way to teach families language facilitation strategies in naturalistic settings.

- McDuffie and colleagues reported that the use of telepractice was effective in teaching mothers of children with Autism how to use specific strategies for responding to their child's communication acts.
- Mothers were taught to use commenting, interpret communication acts, expand communication attempts and provide indirect prompting.
- They found no significant difference between on-site and telepractice coaching and education.

McDuffie et al. 2013

- Another study conducted with mothers of children with Fragile X syndrome found that telepractice was an effective when using a coaching model for teaching how to respond to communication acts.
- Lessons were provided to teach mothers how to use indirect and direct prompts as well as how to respond to communication acts.
- Mothers were able to increase their ability to use verbally responsive language.

McDuffie et al. 2016

# Myths

The online training offered to Colorado practitioners contains a section on **dispelling myths** about telehealth.

One myth is that telehealth is “lesser than” in-person services. Research is demonstrating that this is not true, and that in actuality, children’s outcomes are sometimes even better than those for children who are receiving services by an in-person therapist (Blaiser & Behl, 2015; Baharav & Reiser, 2010).

Another myth is that providers aren’t able to build rapport with families when telehealth is used. When one looks at the relationships developed over social media, this myth can be dispelled.

Finally, there is a myth that technology is very expensive and difficult to use. There are so many different platforms that meet the needs of providers who are utilizing telehealth that finding one that meets a therapist’s and family’s needs is increasingly easier and less expensive.

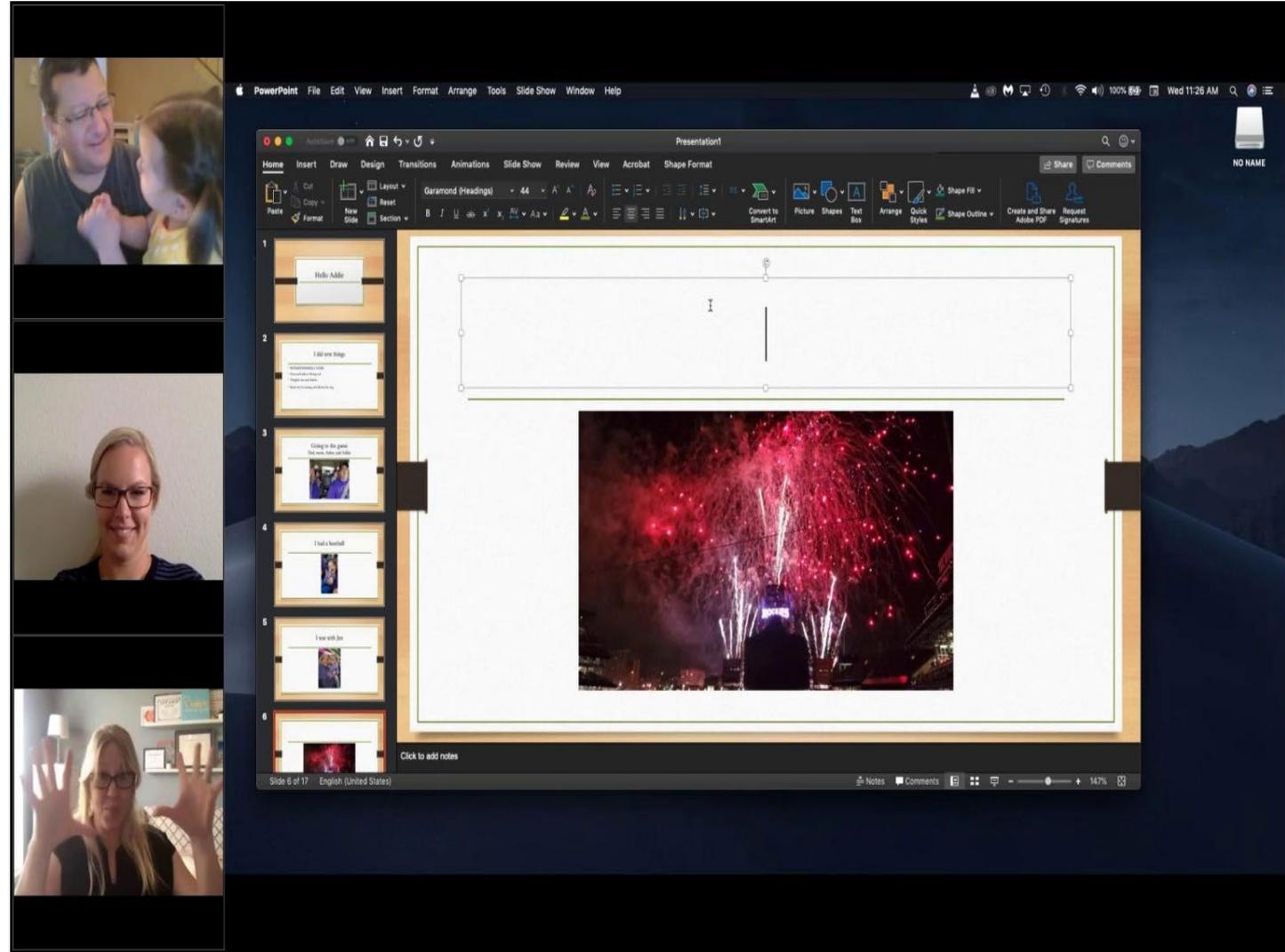
International Journal of Telerehabilitation: [Development of Statewide Policies & Procedures](#)

# Video & Pic Example(s)

- **Myth**: Young children can't attend to a screen long enough for a productive session. Playing with a person in the same room is the only way she will engage.
- ***Child A.T.*** began speech, lang, and feeding services in EI and remained with same therapist for private services when she turned 3 years-old.
- She has Down syndrome and was/is going through chemotherapy for leukemia. This makes her susceptible to common germs and infections that could jeopardize her health.
- Her dad is with her every session. She began in a high chair and is now content with dad's lap.

# Example with multiple viewers

AT is 2.9 years-old



The screenshot displays a Zoom meeting interface. On the left, there are three video thumbnails: the top one shows a man and a young child, the middle one shows a woman with glasses, and the bottom one shows a woman with her hands raised. The main area shows a PowerPoint presentation titled 'Presentation1'. The slide currently displayed is slide 6 of 17, featuring a large text box with a cursor and a photograph of red fireworks. The PowerPoint ribbon is visible at the top, and the Zoom status bar at the bottom indicates 'Slide 6 of 17' and 'English (United States)'. The system tray at the top right shows the date and time as 'Wed 11:26 AM' and a battery level of 100%.

# Groups and Social/ Functional Purposes

- Functional skills: conversation, friendships, mutual interests, shared experiences, similar strengths and needs
  - Can be mixed DS and non-DS - this may be better as children become teens/adults
  - Peer Models (not just Paras).
- Use of additional technologies: social media, Apps
- Themes: Cooking, biking, chores, movies, music, etc

Use of weekly Teletherapy with weekly or monthly groups in the community or using social communication apps (e.g., Marco Polo).

# Independence!

- Creates opportunities to begin and end own sessions.
- Creates opportunities to schedule their next appointment.
- Enables communication with friends, peers, relatives, teachers, etc. using:
  - Visual and written technology
    - text, email, video, media
- Visual recorded homework and check-ins

# PowerPoint Example

## Big Girl Bed Unicorn bed

USE WORDS/READING TO INCREASE HOW MANY WORDS SHE SAYS AT  
A TIME

# Make Topics Personally Relevant

friends

danced

red

school

dress

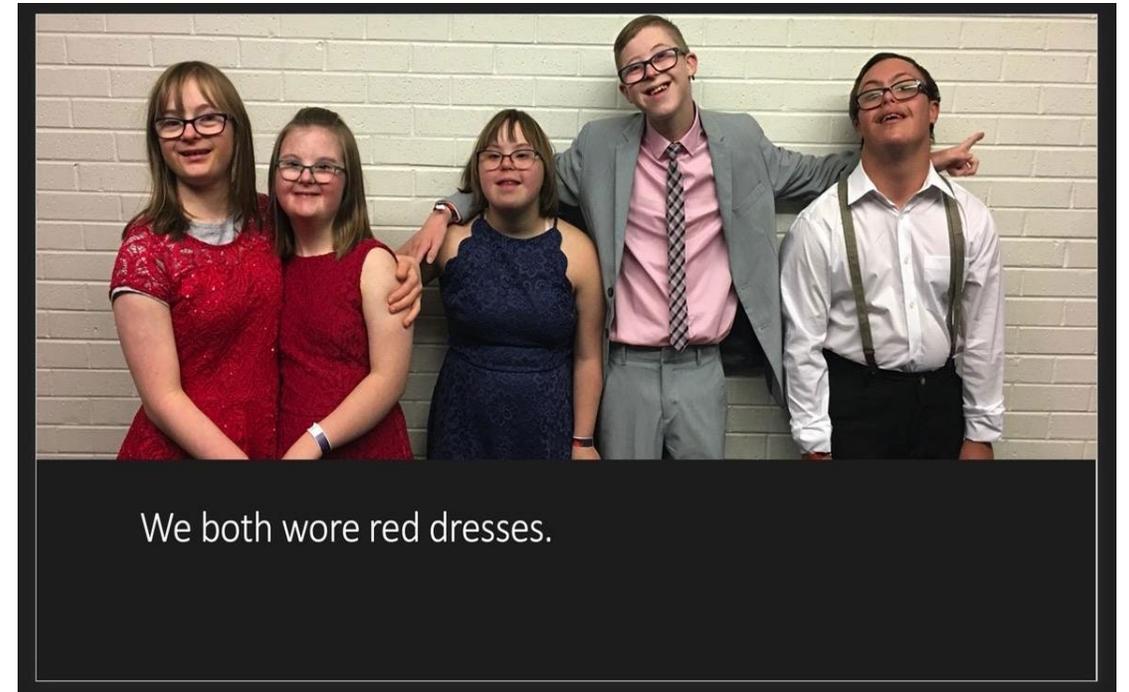
fun

Wisconsin

ate

sang

Knowing the corresponding vocabulary may help telling others about Homecoming.



# Resources

1. Free Books on PDF <https://freekidsbooks.org/>
2. Free Songs with Lyrics and Videos <https://supersimple.com/>
3. Free & Paid Activities <https://wow.boomlearning.com/>
4. Teachers Pay Teachers: <http://www.teacherspayteachers.com>
5. Free & Paid Online Games <https://chrome.google.com/webstore/>
6. Free Downloadable Activities: <http://SpeakingofSpeech.com>
7. Online Activities <https://exchange.smarttech.com/>

# Resources

1. Power Point
2. Accessible Chef: <https://accessiblechef.com/>
3. Downsyndromespeech.com
4. [www.pinterest.com](http://www.pinterest.com)
5. <https://tactustherapy.com/>
6. Many, many Apps
7. Research and resources for medical concerns and comorbid disorders: aphasia, apraxia/childhood apraxia of speech, auditory processing disorders, autism spectrum disorders, AAC use, chronically ill, dysarthria, feeding, fluency, intellectual disabilities, short-term memory/executive functioning, reading/literacy acquisition and use, sensorimotor disorders, etc.

# Reference List

Anne, M. F., Kelly, J B., Houston, K. T., & Telepractice & eLearning Laboratory. (2013, April 1). Putting the "Tele-" in Telepractice. doi/full/10.1044/tele3.1.9.

Behl, Diane D. MEd; Blaiser, Kristina PhD; Cook, Gina PhD; Barrett, Tyson BS; Callow-Heusser, Catherine PhD; Brooks, Betsy Moog MS; Dawson, Pamela MEd; Quigley, Suzanne PhD; White, Karl R. PhD. A Multisite Study Evaluating the Benefits of Early Intervention via Telepractice. *Infants & Young Children*: [April/June 2017 - Volume 30 - Issue 2 - p 147–161](#)

Buckley, S. (1993). Developing the speech and language skills of teenagers with Down's syndrome. *Down's Syndrome: Research and Practice*, 1, 63-71. [[Read Online](#) ]

Cason, J, & Cohn, E. R. (2014). Telepractice: An Overview and Best Practices. *Perspectives on Augmentative and Alternative Communication*, 23(1), 4. doi:10.1044/aac23.1.4.

Chapman, R, and Hesketh, L. (2001) Language, cognition, and short-term memory in individuals with Down syndrome. *Down Syndrome Research and Practice*, 7(1), 1-7. doi:10.3104/reviews.108

# References Cont.

Wishart, J (2001) Motivation and learning styles in young children with Down syndrome. *Down Syndrome Research and Practice*, 7(2), 47-51. doi:10.3104/reports.113

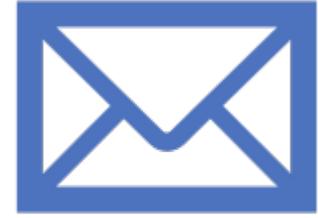
McDuffie, A., Machalicek, W., Oakes, A., Haebig, E., Ellis Weismer, S., & Abbeduto, L. (2013). Distance video-teleconferencing in early intervention: Pilot study of a naturalistic parent-implemented language intervention. *Topics in Early Childhood Special Education*, 33, 172–185.

Mcduffie, A., Oakes, A., Machalicek, W., Ma, M., Bullard, L., Nelson, S., & Abbeduto, L. (2016). Early Language Intervention Using Distance Video-Teleconferencing: A Pilot Study of Young Boys With Fragile X Syndrome and Their Mothers. *American Journal of Speech-Language Pathology*, 25(1), 46–66. doi: 10.1044/2015\_ajslp-14-0137

Vani Rupela, Shelley L. Velleman, Mary V. Andrianopoulos. Motor speech skills in children with Down syndrome: A descriptive study. *International Journal of Speech-Language Pathology*, 2016; 1 DOI: [10.3109/17549507.2015.1112836](https://doi.org/10.3109/17549507.2015.1112836)

[https://gallery.mailchimp.com/77bac9f533d6bce265cae77d9/files/20161215Published\\_Article\\_1\\_.pdf](https://gallery.mailchimp.com/77bac9f533d6bce265cae77d9/files/20161215Published_Article_1_.pdf)

# Contact Us



**Jennifer Gray, M.S., CCC-SLP**

Email:

[jennifer@grayspeaktherapy.com](mailto:jennifer@grayspeaktherapy.com)

Website:

[www.grayspeaktherapy.com](http://www.grayspeaktherapy.com)



**Maria Bernabe, M.S., CCC-SLP**

Email:

[maria@aplusspeech.com](mailto:maria@aplusspeech.com)

Websites:

[www.aplusspeechtherapy.com](http://www.aplusspeechtherapy.com)

[www.telehealthspecialists.com](http://www.telehealthspecialists.com)