Strategies for Improving Literacy Skills in Students with CVI

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Strategies for Improving Literacy Skills in Students with CVI

- Can the audience please let me know what their background is?
Strategies for Improving Literacy Skills in Students with CVI

• Can the audience please let me know their level of familiarity with the CVI Range and Dr. Roman’s 10 Behavioral Characteristics of a Child with CVI?
Strategies for Improving Literacy Skills in Students with CVI

- This presentation will be divided into two parts;
  - Strategies for Pre-Readers
  - Strategies for Beginning Readers
- I will be referring to students who have been evaluated using Dr. Roman’s CVI Range
- Phase II and Phase III students often benefit from use of the Pre-Reading Strategies
- The student who is resolving CVI characteristics (Phase III) is often working on improving literacy skills
- Strategies for Beginning Readers will present ideas and suggestions for these students in Phase III
Part I – Strategies for Pre-Readers

Pre-Reading Skills

- Pre-reading skills generally include, but are not limited to, the following:
  - Print Motivation
  - Letter Knowledge
  - Direction
  - Matching
  - Motor Skills
  - Narrative Skills
  - Print Awareness
  - Vocabulary
  - Rhyming and Phonological Awareness
Part I – Strategies for Pre-Readers

Print Motivation

• Print motivation may be one of the most important pre-reading skills to consider
• Make sure book reading time is fun
• Use strategies to ensure books are “CVI friendly”
• Keep reading time short, but do it often
• Create books that are predictable, with something recognizable appearing on every page
• Use Tablet Technology to create custom books of high interest to the child
Part I – Strategies for Pre-Readers

Print Motivation

Use books that are predictable and repeat a non-novel, recognizable item on each page.
Part I – Strategies for Pre-Readers

Print Motivation

Use books that are low in complexity, use a favored color, have reflective qualities and have hard, easy to turn pages
Part I – Strategies for Pre-Readers
Print Motivation
Books that have reflective qualities and can be SpotLIGHTed
Part I – Strategies for Pre-Readers
Print Motivation
Use “CVI Friendly” Strategies
Part I – Strategies for Pre-Readers

Print Motivation

Use Tablet Technology and Apps such as Pictello to create custom books using favored targets.

The orange Oball is made of hard plastic and has round holes. It has blue, green, yellow, red and orange small balls that rattle and make a loud noise.
Part I – Strategies for Pre-Readers
Print Motivation

Encourage recognition of 2D photos by using them in conjunction with 3D favored, non-novel targets

• In the next clip, note the following;
  – Use of strictly controlled environment including black background (mom wearing black cape), turning student away from windows, low overhead light level, plain walls and reduced noise
  – Given only one or two choices at a time
  – When choice is made, encouraged to reach and grasp food (mom has child reach for banana rather than her putting it to his mouth)
  – Use of SpotLIGHTing technique
  – Distance of target from child (within 24 inches)
Part I – Strategies for Pre-Readers
Print Motivation

Encourage recognition of 2D photos by using them in conjunction with 3D favored, non-novel targets

• Video Clip -Reading Readiness
Part I – Strategies for Pre-Readers
Direction
Part I – Strategies for Pre-Readers
Motor Skills
Part I – Strategies for Pre-Readers
Motor Skills
Part I – Strategies for Pre-Readers
Motor Skills

• Video Clip -Motor Skills
Part I – Strategies for Pre-Readers
Print Awareness

- Students will need to;
  - Understand that print on a page represents words that are spoken
  - Know how to follow words on a page
  - Know how to hold a book
Phonological awareness is the understanding that words are made up of smaller sounds. Phonological awareness generally comes before phonics.
Part I – Strategies for Pre-Readers

Letter Knowledge

Students will need to know that each letter is different from others. They will need to be able to recognize and name all letters and know that each has a different sound.
Part I – Strategies for Pre-Readers
Matching

Students with CVI will need experience in matching shapes, letters and numbers. They will need to understand the concepts “same” and “different”.

![Matching materials](image-url)
Students with CVI will need experience in telling and understanding stories. They need to be able to describe things and events.
Part I – Strategies for Pre-Readers

Vocabulary

- It will be important for students to know the names of things, feelings, concepts and ideas
- Label common, everyday objects the student comes in contact with during routines
- Discuss salient features of all objects
- Discuss salient feature of letters and words representing objects
- Point out words that the student comes in contact with during naturally occurring routines
Part I – Strategies for Pre-Readers
Vocabulary
Part II – Strategies for Beginning Readers

• Once pre-reading skills are mastered and the student is resolving behavioral characteristics (in Phase III), formal reading programs can be considered and/or introduced.

• Use the most current FVE to determine;
  – The most appropriate font (Arial or APHont, by APH)
  – The most appropriate print size (I generally find that 18-24pt. font works best)
  – Placement of the materials (left, right flat, on the books stand, etc.)
  – Use of supplementary lighting, SpotLIGHTing, or backlighting
  – Use of blocking materials
Part II – Strategies for Beginning Readers

Lighting
Part II – Strategies for Beginning Readers

Lighting
Part II – Strategies for Beginning Readers

Blocking Materials

• The use of blocking materials will vary with need. They help to block out excess detail on a page of print, images or symbols
  – Window Cards
  – Blocking materials
  – Markers or Bright Line Markers (APH)
  – Templates
  – Occluders
Part II – Strategies for Beginning Readers
Blocking Materials
Part II – Strategies for Beginning Readers
Blocking Materials

• Video Clip – Blocking Materials
Part II – Strategies for Beginning Readers
Create more “White Space”; reduce information on a page of print

• A. Use White Out
• B. Physically **cut** out excess print and **paste** on more white paper
• C. Block off excess print with white paper and photocopy the new, simplified version
• D. Enlarge on photocopy machine
• E. Choose materials that offer reduced “clutter”/more “white space” (Mac and Tab series)
• F. Discuss with ophthalmologist/optometrist the possibility of using reading glasses (+ lens)
• G. Fold the page
Photos of common (favored items) or real targets presented against high contrast – may be black/white or color
Part II – Strategies for Beginning Readers
Determine and use appropriate picture types for each student’s needs

Black and white illustrations

Tab is a cat.
Part II – Strategies for Beginning Readers
Determine and use appropriate picture types for each student’s needs

Color illustrations
A child in Phase III may still have difficulty locating the cat in this real picture photo. Note the level of complexity the student is able to tolerate in pictures.
Part II – Strategies for Beginning Readers
Determine and use appropriate picture types for each student’s needs

- Video Clip - Pictures
Part II – Strategies for Beginning Readers

Determine and use appropriate picture types for each student’s needs

For this student, black line drawings are easiest to interpret. Characters, or key features, are highlighted consistently throughout the story.
Use Sharpie pens, highlighters and markers to draw visual attention to a specific key feature (or features). Use this technique consistently.

- A key feature (or two) in a picture.
- New words
- High frequency words
- Salient features of a word
- Let student highlight new words
Part II – Strategies for Beginning Readers
Discuss key features or salient features of objects, words, shapes
Part II – Strategies for Beginning Readers
Highlight key features or salient features of objects, words, shapes
Part II – Strategies for Beginning Readers

The shape (in bright yellow) of the M for McDonald’s is distinctive. Children generally learn that it stands for McDonald’s long before they can “read”
Part II – Strategies for Beginning Readers

Use tablet technology in conjunction with your chosen literacy program

• Practice new reading words
• Discuss salient features of a word
• Practice writing vocabulary words
• Send by email, books to practice at home on student’s tablet technology
Part II – Strategies for Beginning Readers
Use tablet technology in conjunction with your chosen literacy program

- Video Clip 5-Book and iPad
Part II – Strategies for Beginning Readers
Determine which color combinations to use when reading from tablet technology
(these print/background color choices were created in Book Creator)
Part II – Strategies for Beginning Readers

Use PowerPoint Presentations and/or Smart Boards in conjunction with your student’s literacy program

Note the following in the short clip;

- Reduced overhead lighting in room
- Angle of student to use best field of view
- Distance student is from the screen
- Number and size of targets in activity
- Movement and bright color of targets against black background
- Pattern cursor makes as the teacher moves it
Part II – Strategies for Beginning Readers
Use PowerPoint Presentations and/or Smart Boards in conjunction with your student’s literacy program

• Video Clip – Use of PowerPoint/Smart Boards
Part II – Strategies for Beginning Readers
Choose an appropriate literacy program

My favorites;

• Primary Phonics Series by Barbara W. Makar, correlates with grades K-2 (eps.schoollspecialty.com)
• Edmark Reading Program (donjohnston.com)
Part II – Strategies for Beginning Readers
Choose an appropriate literacy program

- Advantages of Primary Phonics Series and Edmark Reading Program
  - Photos and black/white line drawings are easy to interpret
  - Photos and black/white line drawings are easy to highlight/outline when noting a specific salient feature
  - Books are relatively easy to enlarge or purchase enlarged
  - Often able to create “more white space” on each page
  - Can be broken down into smaller “chunks”
  - Software for Edmark allows for a projected image or can be used on a large computer monitor
  - Many school districts already have the Edmark Reading program
Part II – Strategies for Beginning Readers
Choose an appropriate literacy program

- What literacy programs have you found to be beneficial when working with students with CVI?
Part II – Strategies for Beginning Readers
Use “Cheat Sheets”, Guides, and/or Mnemonic Devices to help during lessons

- Music Mnemonics
- Name Mnemonics
- Expression or Word Mnemonic
- Model Mnemonics
- Ode or Rhyme Mnemonics
- Note Organization Mnemonics
- Image Mnemonics
- Connection Mnemonics
Part II – Strategies for Beginning Readers
Use “Cheat Sheets”, Guides, and/or Mnemonic Devices to help during lessons

• Video Clip - Mnemonics
Part II – Strategies for Beginning Readers
Reduce or eliminate distracting sensory input

• A. Reduce or eliminate unnecessary auditory input, including outdoor noises, whenever possible.
• B. Reduce or eliminate unnecessary tactual input
• C. Reduce or eliminate unnecessary visual input, including movement from other students, flashy jewelry, cell phone/keys, etc., when possible
Part II – Strategies for Beginning Readers
Reduce or eliminate distracting sensory input

- Video Clip -Sensory Complexity
Part II – Strategies for Beginning Readers
Slow Down!

• Give your student time to:
  think about the word(s)
  remember key points
  recall mnemonic devices
  process the information

• Give your student time to use the above
to read what they are seeing!
Part II – Strategies for Beginning Readers

Use tablet technology Apps in conjunction with your reading program

- Programs such as Book Creator can be used to support and provide practice, highlight salient features of words, highlight phonetic rules, and present mnemonic devices for any program you are using. You use this app in conjunction with iBooks.

- Pictello is a simple way to create talking photo albums and talking books on your iPad. You can record your own voice or use text to speech. You can import your own photos or use photos from the Internet. You can control the speech rate and volume.

- Go to the Perkins.org Webinar section for a two part listing of appropriate apps for children with visual impairments, or go to www.wonderbaby.org for a review of all apps for children with visual impairments. Note the new iPad accessibility guide available, “iOS Success; Making the iPad Accessible”.
Strategies for Improving Literacy Skills in Students with CVI

• As you work on developing each literacy activity, ask yourself these questions with regard to your student;
  – How will I address multi-sensory input; can I reduce auditory input, eliminate the light coming through the window, reduce distracting “visual clutter”, etc.
  – How close does this target need to be? What is the best distance for this student?
  – How complex is the target itself? Can this student tolerate more than one color or pattern?
  – How much complexity can this student tolerate in the array? One target at a time only? Two well spaced targets? Three or more targets at a time?
  – Does this student require high contrast behind each target? How will the activity be presented?
  – Does this student have a visual field preference? How can I present this activity in his/her preferred visual field?
  – Will light benefit (or interfere) with the learning process for this student? Will use of SpotLIGHTing techniques help? Can I use an iPad for this pre-reading activity?
Strategies for Improving Literacy Skills in Students with CVI

- As you work on developing each literacy activity, ask yourself these questions with regard to your student:
  - Does this student attend to one particular color more frequently and if so, how can I incorporate it into this pre-reading activity?
  - Does movement of the target help this student visually attend more consistently? Will movement be needed to initiate looking behavior and if so, how can I incorporate that into this activity?
  - Does this student have difficulty with visual fatigue? If so, how long can this student work on this activity?
  - Will positioning be a concern for this student? What would be the best position for this student to be in while using his/her vision? Can the PT help with this?
  - Will use of looking and reaching/grasping be a concern for this student with this activity? If so, how can it be modified?
• Thank you for attending this Webinar. As always, I want to also thank my students and their parents, for allowing me to learn the many strategies and techniques that help make their student the best that they can be.

• Questions?