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## Session Objectives

- Understand what "Visually Impaired" means, per NCDPI
- Understand the Eligibility Process for Visual Impairment Services
- Understand how to provide appropriate modifications for a student with a Visual Impairment



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## What is "Visual Impairment" ...

As defined for education purposes...

"Visual impairment, including blindness, means an impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness. A visual impairment is the result of a diagnosed ocular or cortical pathology."



(Policies Governing Services for Children with Disabilities July 2014)

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## In Other Words...

- **Total Blindness**
  - No light perception (NLP)
- **Legal Blindness**
  - Visual acuity of 20/200 or worse in the better eye with correction (glasses) or
  - Reduced visual field of 20 degrees or less
- **Low Vision**
  - Visual acuity between 20/70 and 20/200 in the better eye with correction (glasses)



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## Eligibility



Student must meet visual requirement, according to recent eye medical report;

AND



Have an adverse effect on educational performance;

AND



Require specially designed instruction.

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## Eliminating the Myths

1. blind ~~≠~~ seeing black
2. Individuals who are blind or VI do not have super human senses.



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## Understanding Visual Acuity 20/20

What is "20/20" vision?

20 → Furthest distance at which subject can see target

/

20 → Distance of target seen with "normal" vision



Acuity of 20/20 = "perfect vision"

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## Understanding Visual Acuity 20/200

What is "20/200" vision?

20 → Furthest distance at which subject can see target

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200 → Distance of target seen with "normal" vision

Acuity of 20/200 = Legally Blind



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## Four Pieces of Vision Evaluation

- Ophthalmological or Optometric Evaluation
- Functional Vision Assessment
- Learning Media Assessment/Braille Skills Inventory
- Orientation and Mobility Evaluation\*



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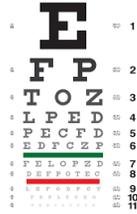
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## Piece 1: Eye Medical Information

### Ophthalmological or Optometric Evaluation:

(must be less than 1 year old)

*\*Initial Evaluations or Reevaluations  
students who have a documented visual  
impairment cannot be given a vision screening.  
An EYE REPORT must be used as their  
vision screening.*



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## Piece 2: Functional Vision Assessment

### Functional Vision Assessment (FVA):

How does a student use their vision in a functional (non-clinical) environment??

- Conducted by Teacher of the Visually Impaired (TVI)
- Intended to inform about the IMPACT of a visual condition on a student's LEARNING.



www.pathstoliteracy.com

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## Understanding Functional Vision Assessments

- FVAs assess HOW a student uses vision and the need for specialized instruction**
- drives the development of VI goals
- gives important information on the modifications and adaptations a student needs in order to be successful.

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## Areas of an FVA

- Eye Medical Information
- Appearance of Eyes/Visual Behaviors
- Ocular Motor Skills
  - Visual Fixation
  - Visual Fields
  - Visual Tracking
  - Shift of Gaze
  - Visual Search and Scan
  - Figure/Ground Discrimination
  - Visually Directed Reach
  - Visual/Cognitive
- Midrange (3-5 ft) and Distance Vision (beyond 5 ft)
- Near Vision (16" or less)
- Glare/Lighting Needs
- MORE!!!!



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## Piece 3: Learning Media Assessment/ Braille Skills Inventory

### Learning Media Assessment (LMA)/

### Braille Skills Inventory

What is the student's most efficient means of obtaining written information?

Visual vs. Tactile  
Print/Large Print vs. Braille



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## Piece 4: Orientation and Mobility Evaluation

### What is Orientation and Mobility (O&M)?

refers to the travel skills for a person who is blind or visually impaired.

The O&M Evaluation determines the safety, independence and efficiency that a person has when moving in familiar and unfamiliar areas.



O&M = Access to the World!

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## Common Signs of Visual Impairment in Children

- Shutting or covering one eye, tilting head or thrusting head forward, squinting
- Difficulty with work requiring vision
- Avoidance of near work task or irritation when required to do near work
- Inability to see distant objects
- Difficulty with navigation
- Eye appearance (crossed eyes, nystagmus)



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## Types of Visual Impairment

- Ocular Visual Impairment, including problems:**
  - With the structure/functioning of the eyes &/or optic nerves
  - in the retina (Retinopathy of Prematurity, coloboma)
  - in the lens (cataracts)
  - With the optic nerve (optic nerve hypoplasia; optic nerve atrophy)
- Neurological Visual Impairment:**
  - Problems with the visual pathways from the eye to the brain &/or problems in the brain interpreting visual signals
    - Cortical Visual Impairment
    - Delayed visual maturation (resolves by one year of life)



Perkins Braille

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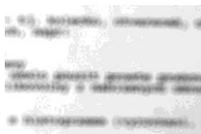
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## Effect on Visual Functioning

### Reduced Acuity



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## Myopia (nearsightedness)



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

## Hyperopia (farsightedness)



[en.excimerclinic.ru](http://en.excimerclinic.ru)

## Effect on Visual Functioning

### Reduced Visual Field



Macular Degeneration



Scotomas (blind spots)

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# Cataracts



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

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# Retinitis Pigmentosa



[www.bioinformaticaindeklas.nl](http://www.bioinformaticaindeklas.nl)

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# Glaucoma



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

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## Cortical/Cerebral Visual Impairment

### CVI

Difficulty processing visual signals in the brain



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## Most Prevalent Childhood Visual Conditions

- Cortical Visual Impairment (CVI)
- Retinopathy of Prematurity (ROP)
- Optic Nerve Hypoplasia (ONH)



Hatton, Ivy, & Boyer. (2013). *Journal of Visual Impairment and Blindness*

Also common:

- Albinism
- Nystagmus
- Cataracts



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## What Does This Mean for the Student?

- Vision is involved in up to 80% of learning
- Everything must be taught intentionally
- Low motivation to explore the environment, interact with others and manipulate objects
- Everything takes longer to learn and do
- Student can experience low self-esteem

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## When Interacting With a Student Who Has a Visual Impairment

- Say "Hello" and "Goodbye". Tell the student *who you are* when you approach them. They may not recognize your voice.
- Address student by their first name to get their attention (in classroom).
- Tell them what you are going to do before you do it. Explain unexpected noises. Let them know when someone else has entered the room.
- Ask if they would like help, don't assume they do.
- It is okay to use "sight language". For example, "see you tomorrow", "take a look at this", etc.
- DO NOT mouth words silently to others when in the presence of someone who is visually impaired.
- Don't yell!



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## Visually Impaired Services

### Roles of a Teacher of the Visually Impaired (TVI)

#### Direct service:

- Direct instruction in the Expanded Core Curriculum
- Specialized Assessment

#### Indirect service:

- Consultation/collaboration with school staff, parents, and/or other professionals
- Material preparation, book and test ordering
- Troubleshooting technology issues



www.intercom.escco.org

*TVIs are not academic tutors.*

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## Unique Educational Needs

### Expanded Core Curriculum

- Compensatory Skills
- Orientation and Mobility
- Social Skills
- Independent Living Skills
- Recreation & Leisure
- Sensory Efficiency
- Assistive Technology
- Career Education
- Self-Determination



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# Orientation and Mobility Services

## Orientation & Mobility (O&M)

- Independence
- Long cane
- Echolocation
- Sighted Guide
- Dogs
- Assistive technology



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# Paraprofessional

## Paraprofessional (Brailist)

Provides support to the student with visual impairment with specific direction from the TVI and O&M.

- Modify instructional materials
- Storing and distributing braille, large print, and audio text
- Assistance with instruction

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# Accommodations & Modifications

*Modifications for a student should ALWAYS be specific to that student. In visual impairment, one size does NOT fit all.*

- Be aware that visual functioning may fluctuate
- Visual fatigue
- Visual response time may be delayed
- Fixation distances will vary

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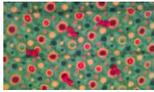
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## Visual Considerations

### Visual Considerations

- Visual Fields
- Viewing Angle
- Contrast
- Size of Items
- Color of Items
- Background
- Visual Clutter
- Visual Spacing



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## Accommodations & Modifications

**Environment/Seating:** Look at placement in the class. Does the student need to be seated:

- by the window/away from the window
- close to the board
- open and close doors fully
- eliminate unnecessary background noise
- close to an electrical outlet for equipment
- on one side of the classroom or another for field loss
- sufficient room for equipment and braille/large print materials
- keep materials in consistent locations



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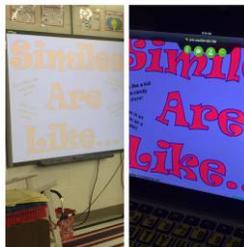
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## Accommodations & Modifications

### Writing on Whiteboard or Smartboard

- Write daily assignments in the same place every day
- Use fresh markers
- Print is easier to read than cursive
- Blue and black ink is easier to see at a distance
- Use screen sharing program to display overhead/Smartboard to iPad or laptop



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## Accommodations & Modifications

### Videos

- When showing a video to the class, preview it to determine importance of visual information
- Let student know what is happening in the video
- Described videos are available through the *Described and Captioned Media Program* [www.dcmp.org](http://www.dcmp.org); accounts are free



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## Accommodations & Modifications

### Presentation

- Allow students to tactually explore anything shown in class
- Exploration of concrete materials
- Include multi-sensory presentation of material: tactile, taste, sound, and even smell
- Provide as much oral language as possible to described the activity
- Avoid pronouns, use specific names

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## Accommodations & Modifications

### Handouts

- Copies need to be clear and dark (beware of photocopy machines with fading ink toner)
- Word searches and other visual scanning activities should be avoided
- Consider providing student with digital copy
- Provide TVI or Brailist copies of handouts in sufficient time to transcribe into braille



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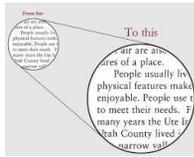
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## Will the Student Use Large Print or Braille?

### Large Print/Braille

- Just because a student is "visually impaired" doesn't necessarily mean they need large print or need to learn braille
- It can take more time to read large print and braille
- Large print is more costly to produce than standard print
- Braille reading fluency is a minimum of 30% slower compared to a sighted reader



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## Unique Educational Needs

### Print Accessibility

- Magnification
- Digital books
- Audio books
- Braille



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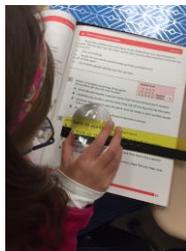
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## Unique Educational Needs

### Low-Tech Magnification/Visual Aids

- Reading glasses/bifocals
- Hand held magnifier
- Slantboard



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## Unique Educational Needs

### High-Tech Magnification

- CCTV
- iPad
- Screen magnification for a computer



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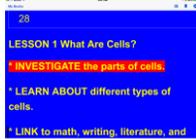
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## Unique Educational Needs

### Audio Books

- North Carolina Library for the Blind and Physically Handicapped (NCLBPH)
- Bookshare
- Learning Ally



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## Unique Educational Needs

### Braille

Braille is created or obtained through several different ways:

1. It can be ordered through library/sharing programs
2. Text books can be created by ordering them through vendors
3. In-house staff can create braille through software programs that convert text to braille and then are embossed or hand brailled using a Perkins brailier



*Higher employment rates associated with braille knowledge*

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## Special Considerations

- Pat yourself on the back every time you help with seeing, not thinking.
- Even though helping can feel right, be aware that too much assistance is short-sighted. Sometimes less is more, less is better.
- Assign student learning partners and sighted guides.
- Teach students to decline assistance, "Thanks, but please let me try it by myself."
- Collaborate with other adults and agree to remind each other to step back.

Adapted from Classroom Collaboration, by Laurel J. Hudson, Ph.D. (Perkins School for the Blind)



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## The DEC 4...

*"If the student is blind or partially sighted, will instruction in or use of Braille be needed?"*



For a student with a documented visual impairment, you must answer "YES" or "NO" not "N/A".

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## Questions



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## Contact Us

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With Presentation Content Credits: Amy Campbell

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