

The Developing Child with Vision Impairment

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Objectives: Upon completion of this presentation the attendees will be able to:

1. Understand the meaning of Low Vision and its impact on function.
2. Understand the implication of vision loss related to concept and social development of children.
3. Identify low vision tools and devices used in the classroom.
4. Identify and implement adaptations that enhance functional independence.

Presentation Outline

I. Definitions

- a. Acuity
- b. Reduced visual fields
- c. Reduced central vision
- d. Low vision
- e. Legal Blindness

II. Implications of vision loss

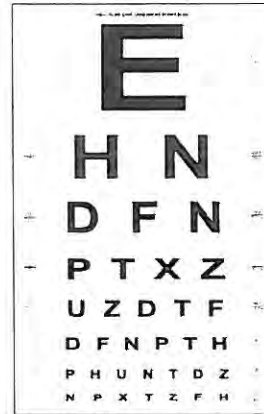
- a. Concept development
- b. Social development

III. Making accommodations

- a. In the home
- b. In the classroom

Acuity

- A measure of the clarity of vision
- Most commonly measured using a Snellen Chart



Presenter notes:

Acuity

- Measured using ratios such as 20/20
- 20/20 considered “normal” vision and used as a baseline



Presenter notes:

Here you can describe 20/20 as what is considered normal vision and what the 20/20 ratio stands for

Acuity

Example: 20/200

20 = testing distance

200 = person with “normal” vision
can see symbol at this distance



Presenter notes:

If you have a Snellen chart, you may refer to how the person with 20/200 vision would be able only to see the large “E” at 20 feet.

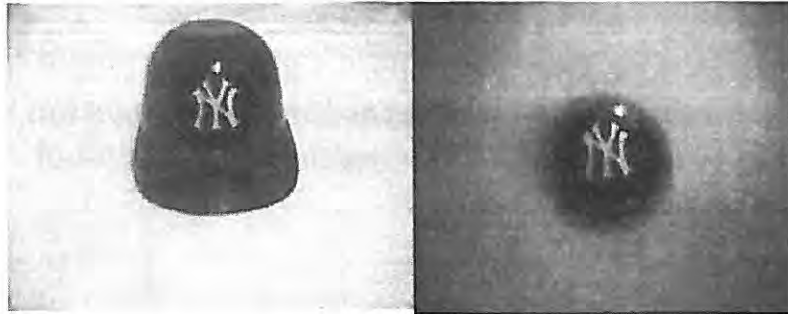
Reduced Visual Fields



Constricted Vision

Full Field View

Constricted View



Presenter notes:

This slide illustrates how, by only seeing part of an image or object, the student may not be able to figure out what he/she is looking at. Also, again you may reinforce that this is not necessarily how a field loss would appear to the student.

Constricted Vision

- A limitation of peripheral vision also referred to as “tunnel vision”
- Peripheral vision is responsible for “side vision” and detects movement outside of direct line of vision



Presenter notes:

When speaking about field loss discuss that although looking through a paper towel or toilet paper tube can give you an idea about the loss of visual fields, it is not so apparent to the student.

You may provide examples of how a specific field loss would affect the child at school and some of the implications (e.g., a student may bump into his peers because he can't see that they are beside him—creating social issues; a student may stumble if they can't see in the lower visual field etc.)

Reduced Central Vision

- Central vision is responsible for viewing fine details
- Limited central fields can affect access to print and may impact reading speed and the size of the text required
- Peripheral vision can remain intact and be the primary means of gathering visual information



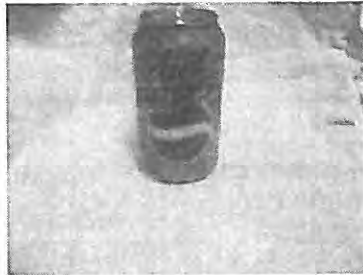
Presenter notes:

With the slide that follows, illustrate what a child with a central field loss might see, you can discuss some of the visual behaviors that you might see (e.g., a head tilt as they read etc.)

Reduced Central Vision

Full Field of Vision

Reduced Central Vision



Presenter notes:

See notes on previous slide

Low Vision vs. Legal Blindness



Presenters notes:

Generally, people may know that 20/200 is considered legally blind. If available you may want to hand around a 20/200 simulator but that you would like to give people a more thorough understanding of these terms related to vision loss.

Low Vision

- Defined as having a visual acuity of between 20/70 and 20/200 in the best eye with correction



Presenter notes:

If you have vision simulators available it will be good to show people what an acuity of 20/70 looks like. You may have discussion about how much it seems that a person with 20/70 can see, however in day to day life, there is a lot that a student with this acuity cannot see or is able to see with a lot of difficulty—causing possible fatigue and frustration.

Legally Blind

- A visual acuity of 20/200 or greater in the best corrected eye

and/or

- A reduced visual field of 20 degrees or less



Presenter notes:

Again, if simulators are available, you can pass them around and discuss the implication for these types of vision loss.

Implications of Vision Loss



Reduced Distance Sense

- Individuals with sight learn incidentally (through observation) from their environment
- Individuals with vision loss may not have the same access to this type of incidental learning
- Information must be explicitly taught
 - Must be directly demonstrated to a child, through tactile and/or auditory means.



Presenter notes:

In the next slide is a video clip of a teacher reading to the class. The video will go from blurred to clear. Ask participants to discuss the implications for the child who cannot see clearly.



Presenter notes:

Click on video and ask participants to discuss the implications for the child who cannot see clearly.

Developing Concepts

- Students need to make connections between abstract ideas, real situations and objects
- Students need to be explicitly taught to make connections and develop concepts
 - (example: to develop vocabulary kids must be able to match language to real life activities or objects)



Presenter notes:

Here you can revisit that vision is one of the distant senses and is the sense that helps us to organize the world that surrounds us. Children who have full use of their sight and hearing learn many concepts from watching and overhearing. Anyone who has children will know that they just learn vital concepts without ever have them taught to them.

Depending on the level of visual impairment, a child may develop a distorted understanding of concepts from not being able to see clearly. They may get fragments of information.

Functional Vision

- The amount of remaining vision an individual has and the manner in which he/she uses it
- Functional vision can vary depending on environmental situations and activities (lighting, glare, contrast)
- Individuals can be considered to have low vision or legal blindness and still have a significant amount of functional vision



Presenter notes:

Here, you can talk about the fact that the Snellen acuity figures give you a little bit of information but doesn't give you the full picture of how the child uses his/her vision in day to day life.

This slide describes the variables that affect how a student is able to use his vision which will help you to make adaptations that will enhance the student's ability to use his vision.