

FVA Report Samples

In SERP 520, Low Vision and Visual Functioning, you learned about the FVA. Conducting an FVA and developing recommendations to promote the use of the child's vision are key skills a TVI must demonstrate. Thus in your internship you will complete at least one FVA. Use the FVA Assessment Grading Rubric at the end of this document to assist you in developing your FVA.

*Note that supervisor comments on reports appear between ** and are in blue.*

Sample 1

Variety of Eye Conditions

This FVA by LL describes a high school student who has a variety of eye conditions including aniridia, cataracts, small optic nerves, glaucoma, and strabismus.

Sample 2

Retinitis Pigmentosa

This FVA by Karen Mulholland and Dr. Irene Topor describes a high school student who has retinitis pigmentosa.

Sample 3

Retinopathy of Prematurity

This FVA by TH describes a primary elementary school student who has retinopathy of prematurity.

Sample 4

Leber's Congenital Amaurosis

This FVA by JS describes a middle school student who has Leber's congenital amaurosis.

Sample 1

Student: KG

DOB: 10/92

Eye Condition: Aniridia, Nystagmus (See Ocular History)

Location: ASDB, Tucson Campus

Evaluators: E and L

Date of Report: 04/13/07

PURPOSE: This functional visual assessment (FVA) was conducted to provide current information about how effectively KG uses her vision, the extent to which reduced visual functioning affects her educational program and specific needs for modification related to her visual impairment.

OCULAR HISTORY: KG has aniridia, congenital cataracts, nystagmus, hypoplastic optic nerves and maculas, hyperopia, photophobia, and keratopathy. KG had a corneal obstruction in 2004, glaucoma bilaterally, and strabismus at birth. Reports from 2005 and 2006 state that KG has had strabismus surgery, a keratolimbic allograft, intraocular lens implants, and other medical treatments. A 2006 report states that KG's null point is below midline and that confrontation fields reveals superior temporal restrictions. KG's near acuity on 9/29, was OD 20/250, OS 20/400 and OU 20/300. KG's corrected distance acuity on 10/30/06, was 10/120 OD and 10/180 OS. On 8/14/06, KG's preferred size and distance for reading was 2M at 4.5 inches and 1M at 1.5 inches. KG states that her left eye is currently rejecting her stem cell transplant so she is undergoing medical treatment for this condition. Possible side effects of some of KG's medications include headaches, shaking, anemia, sleep difficulties, and a change in appetite.

TEACHER INTERVIEW: KG is a freshman at ASDB who is on a rotating classroom schedule. Most of the classrooms that KG participates in have overhead fluorescent lighting. KG's writing class involves a dimmer environment that includes lighting.

ACUITY *Please note that testing is done with both eyes and not separate eyes with visual acuity formal and informal testing. Additional lighting is not used for the formal tests and no pinhole testing is done.

1. Near acuity was measured using the Logarithmic Near Visual Acuity Chart "2000" without correction. Both Eyes.
 - 1.25 M at 2 inches; print is comparable to high school size books.
 - 2M at 2 ½ inches; print is comparable to large print materials.
 - 4M at 8 inches with no additional light. Print is comparable to print in newspaper headlines.

Summary: KG has reduced near visual acuity and uses a magnifier for reading. KG can start to identify print at 9 inches; the magnifier is the most effective and functional tool for this task. KG does not express a preferred viewing distance for reading during the formal visual acuity assessment. During the informal visual acuity assessment, KG states that her preferred near acuity is right at her face when she views a 1-inch object. KG states that she has her own system for reading that takes place by isolating words.

2. Distance acuity was measured using the Logarithmic 1- Foot Test Distance Chart: Both Eyes.
- 20/200 without correction or additional light.
 - No pinhole testing.

Summary: KG has reduced distance acuity and her working distance starts at 3-feet. KG has a monocular that she can use for distance activities.

3. Informal Near Visual Acuity:

Object and Size	Distance: Identifies Object and Preferred Viewing	Environment
½-inch silver magnet.	Identifies the item right in front of her face and states that she has no preferred viewing.	K sits in a chair at the end of a 6ft floor. White flooring, several bright lights. Dark brown table might have impacted lighting.
1-inch purple heart magnet.	Identifies object at 6 inches and preferred viewing distance is right at her face.	Same

4. **Informal Distance Visual Acuity:** In the science classroom, with a black science table to the side, white flooring, and fluorescent light, KG views a bright green bag that is 22 inches wide and 18 inches high. The bag sits on a gray science chair. At 24 ft., KG states that she knows something is present but cannot identify the object. KG infers the object at 6-ft. by the darker lines on the item. KG identifies the object at 2 ½ ft., which is also her preferred viewing distance. Glare might have impacted results.

FUNCTIONAL VISUAL ACUITY:

Location: Learning Resource Center Hallway

Lighting: Fluorescent

KG is able to identify the exit sign and plants that are about 70 feet away. KG sees blurry images in the form of people from at least 10 feet away.

COLOR, CONTRAST AND LIGHTING

Color and Contrast: No formal or informal color or contrast tests.

- Given different, colored backgrounds with red shapes, the student states that the brown is the best and red is the worst.

- Given different, colored backgrounds with green shapes, the student states that the red and yellow backgrounds are the best.
- Given different, colored construction paper and writing, KG states that she prefers the white background with the black writing. KG also prefers the black background with the yellow writing and the yellow background with the black writing.
- KG states that the white background with the black writing is the best overall combination. Might try a yellow background with the computer.
- Given a picture in color, on glossy paper and 6 inches away, KG is able to identify some details about the city. Given the same picture in black and white and 6 inches away, KG is able to identify picture in a better fashion. KG states that the white and black print copy is the best. The science book glossy paper and lighting reflection is too bright.

Indoor Color Glasses Assessment:

- Light Orange: KG states little difference and less contrast.
- Grey (58%): KG states grey is better than light orange but the difference is not that much.
- Light Plum: KG states that little difference between this color and grey.
- Light Amber: KG states that this color is the same as without glasses and worse than gray.
- Light Green (40%): KG states about the same as grey and plum but a little better.

Lighting:

Brightness and Glare: At 6 inches, looking at a colored picture on glossy paper is difficult with the lighting. The lighting works better with black and white copies. Lighting impacts glossy materials, reflective surfaces, the smartboard, the computer, and other materials. Sunlight can also impact what KG sees and in different environments KG might need to wear sunglasses. Overall, lighting can impact eye fatigue and activities such as reading.

Types of Lighting: The reading light is not functional for near activities and the classroom light can cast a shadow on her face. Magnifier lighting for reading depends on the lighting of the classroom. Lighting in Eva's classroom by the science table is okay and lighting by lab tables is sometimes too bright. The lighting in the classroom might have influenced informal distance and near acuity results.

Summary: KG appears to have **average** color vision. **Do you mean no color deficiency. I'm not sure what "average" would mean to others.** KG prefers a white background with black print. Yellow background with black writing is feasible and might be helpful for the computer. Contrast and lighting are not good with glossy paper. Too much fluorescent light or sunlight can impact functional vision.

VISUAL FIELDS:

****Please note that close to the time of this assessment KG is going to be out of school and receiving medical treatment for her eyes. Her eye condition is changing, her left eye is closed halfway, and her right eye is her dominant eye.**

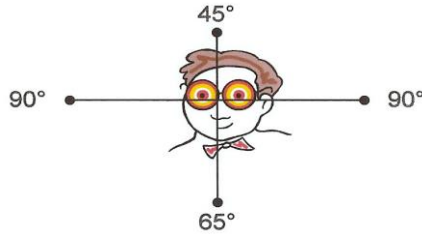


Diagram represents normal visual fields

Static Visual Field Assessment

Location: Learning Resource Center Hallway

Lighting: Fluorescent Lighting and Dim. The lighting in the hallway may have an impact on the results.

For the purpose of determining her potential “area” of visual field, KG stood in the middle of a hallway that was 7 feet wide, 8 feet high, and 70 feet long. She was asked to look straight ahead with both eyes open. Without moving her head or eyes she pointed to or described objects seen at her highest, lowest, and left and right peripheral boundaries.

Summary: The picture below illustrates what a person with normal visual fields sees. The area within the x’s indicate KG’s potential visual field. **PLEASE SEE PICTURE ON SEPARATE PAGE.**



Student’s left

Student’s right

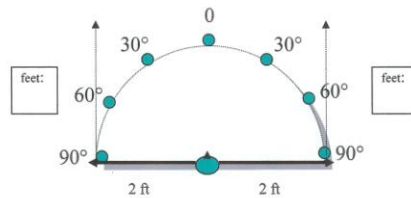
This is a picture of the hallway in the Learning Resource Center on ASDB campus. Early Warning Visual Field or Peripheral Constriction Assessment (using linear measurement)

Location: Classroom

Lighting: Fluorescent

For the purpose of determining if KG has a blind area that may functionally affect her early detection of objects or people she was asked to look straight ahead with both eyes open. Without moving her head or eyes she indicated when she was first aware of a person passing on his/her left and right sides. The person began walking from behind KG (two feet to the left or right of her midline) and continued walking forward, parallel to name's line of sight. KG indicated she was first able to detect the person walking on her left when the person was about two feet away. This linear measurement corresponds to about a 0 degree field loss. KG indicated she was first able to detect the person walking on her right when the person was about 2 feet away. This linear measurement corresponds to about a 0 degree field loss. KG's visual fields are about 90 degrees from midline.

Summary: The unshaded portion below reflects an approximation of KG's remaining peripheral visual field measured in degrees. Normal fields are around 90 degrees from midline.

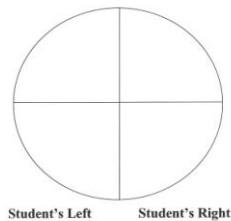


Preferred Visual Field Assessment: PLEASE SEE PICTURE ON SEPARATE PAGE.

Location: Outside, ASDB Campus
Lighting: Natural, Sunlight

For the purpose of determining the potential "use" of her visual field, KG was asked to take a walk moving her head and eyes as she normally would and indicate everything that she saw.

Summary: In the circle below, the horizontal line represents KG's eye level and the vertical line represents her midline. The Xs in the circle correspond to where K indicated she saw objects and people when walking, moving her head and eyes as she normally would.



Kinetic Visual Field at Near: PLEASE SEE PICTURE ON SEPARATE PAGE.

Location: Science Classroom

Lighting: Fluorescent

Adaptations: Sunglasses

For the purpose of determining if KG has a blind area that may functionally affect her ability to work at near she was asked to fixate with both eyes open on a mark in the center of the smartboard at the distance that he/she reads or does near tasks. Without moving her head or eyes she indicated when she first saw the dot of a laser pointer that the evaluator was moving from outside her visual field towards the center of the paper. This was repeated from all meridians of her visual field.

Summary: KG's usable visual field is comprised of an area represented in Appendix A.

OCULARMOTOR FUNCTION: *Please note that close to the time of this assessment KG is going to be out of school and receiving medical treatment for her eyes. Her eye condition is changing, her left eye is sometimes closed halfway, and her right eye is her dominant eye. Please note that she wears sunglasses for some of the activities due to lighting and nystagmus impacts movement/description of eyes.**

Fixation: KG wears sunglasses with this assessment and the smartboard. KG fixates on a target at 10 inches with both eyes. KG does not display eccentric viewing. KG states that she can mainly fixate with the right eye alone.

Accommodation: KG displays convergence. KG states that the closer the object comes towards her eye, the clearer the image and the better her eyes work together. From a one foot distance, KG states that the item is blurry and that at 8 inches she can see details. KG states that the item is not as clear at 1 inch but it is better than at the 1 foot distance.

Tracking: At 12 inches, KG follows the movement of the line on the smartboard that has her eyes follow a square and circular pattern. KG follows the horizontal movement of a yellow tennis ball, which has orange and black tape, at about 3 feet from one end of the table to the other. The ball crosses her midline. KG follows the movement of the teacher at about 10 feet as she walks in a straight line that is perpendicular to KG's vision and crosses midline back and forth a few times. KG is able to use a remote control and track a car independently on a white floor. KG moves and tracks the object from about 1 to 5 feet.

Shift of Gaze: Nystagmus impacts the observations of the eyes during this activity. KG appears to be able to shift gaze from one item to another at 12 inches from different areas in her visual field. KG appears to be able to shift gaze from two remote control cars at a 1 foot and 5 foot distance.

Scanning: KG displays scanning abilities at in the classroom with near objects, outside identifying intermediate objects and in the hallway identifying people at a distance.

Eye Preference: Student states that she prefers her right eye.

Summary: Recent changes in eye condition might impact results and observations. Student wears sunglasses for some activities and left eye is halfway closed. Tracking is good, appears to display convergence, and accommodation slightly impacted. Appears to have shift of gaze but hard to tell with nystagmus. Student prefers right eye.

SUMMARY OF RESULTS: KG has aniridia, nystagmus, hyperopia, hypoplastic optic nerves and maculas, photophobia, and keratopathy. KG is currently out of school for medical treatment for her eyes. KG currently needs a magnifier for reading and near tasks. KG has a monocular for distance tasks. KG needs sunglasses or eye protection with bright light, sunlight or the smartboard. KG prefers a white background with black print. KG prefers her right eye and has her own visual strategy for reading. Visual fields do not appear to impact functional vision and KG seems to have a variety of tools for vision changes and skills.

EDUCATIONAL RECOMMENDATIONS:

1. Referral for further evaluations.

- Sun Lens Evaluation.
- Indoor Color Glasses Assessment.
- Oculomotor and Visual Fields Assessments after surgery and vision are stable.
- Pinhole Testing.
- Test formal and informal visual acuity with separate eyes and with additional lighting.
- Updated clinical low vision evaluation.

2. Adaptations and Instructional Strategies

- Try different overlays with reading materials.
- Might try a yellow background on the computer.
- Sunglasses with SmartBoard
- Use additional lighting with reading or tasks if needed.
- Close blinds or curtains if the sun is in contact with the student.
- Use black and white copies, avoid materials and surfaces that cause a reflection, avoid glossy textbooks and materials
- Sunglasses with bright lighting in classroom when the lighting cannot be changed.
- Face TV, computer, smartboard, and bright materials away from direct light.
- Use typoscope or black matted paper under reading material.
- Use filters or visor to reduce glare.
- Use non-reflective contact paper with desk or in work areas.
- Teacher should provide print materials when KG has eye fatigue.
- Take breaks with sleepiness, headaches or eye fatigue.
- Use a bookmark for reading and use a case for storing magnifier.
- Promote the cleaning of low vision devices.
- Promote and infuse monocular for distance activities.
- Use an 8x telescope to increase the width of visual fields.
- Let student pick seating that is best for visual acuity and low vision devices.
- May require breaks when the class is reading or copying a lot of material.
- Continue to promote and use compensatory skills. KG continues to use preferred visual skills for reading. The student has her own individual technique.

- Continue to promote and use a wide variety of vision skills, coping strategies, and tools as vision changes.
- Suggestion by Eva: Videotaping the activities might be helpful for people who are assessing for the first time. The tape might provide additional data, observations, and details for the FVA.
- Using remote control cars on an independent level is a fun and effective tracking exercise.

Thanks for your diligence in working with a student who was undergoing many visual changes at the time you and Eva were trying to get assessment results. You included enough qualifying information about what was happening with the student. Overall, even though the timing was difficult, you had a good experience that was “reality” for what you might be facing when working as a TVI with a caseload. Thanks for your good work, write-up and suggestions.*

Sample 2

FUNCTIONAL VISION ASSESSMENT

Student: Johnny
DOB: 9-20-91
School: ASB, Tucson Campus
Eye Condition: Retinitis Pigmentosa, (RP)
Evaluator(s): Karen Mulholland, M. Ed., CLVT
Irene Topor, Ph.D., CLVT
Date(s) of Assessment: 10-17-06 and 10-30-06
Date of Report: 10-30-06

PURPOSE: This functional visual assessment (FVA) was conducted to provide current information about how effectively Johnny utilizes his vision, the extent to which reduced visual functioning affects his educational program and specific needs for modification related to his visual impairment.

Assessment procedures:

- Teacher interview
- Formal near and distance visual acuity assessment
 - Logarithmic Near Visual Acuity Chart “2000”
 - Logarithmic Acuity Chart from Bernell (10 Foot Test Distance)
- Functional visual acuity assessment
 - Awareness
 - Identification
 - Preferred
- Functional assessment
 - Color
 - Contrast
 - Lighting
- Visual field assessment
 - Early warning visual field assessment
 - Static visual field
 - Preferred visual field
 - Near visual field assessment
- Oculomotor function assessment
 - Fixation
 - Accommodation
 - Tracking
 - Shift of gaze
 - Scanning
 - Eye preference

OCULAR HISTORY

Johnny had an electroretinogram (ERG) conducted on 8-8-05 (Dr. Red, Ph.D.) confirming the diagnosis of retinitis pigmentosa (RP). RP is a hereditary eye condition

that is marked by progressive retinal changes in both eyes accompanied by a loss of peripheral (side) vision and night blindness (reduced acuity in low levels of illumination). The final stage of this disease results in severely limited visual fields with reduced central acuity. Johnny also has the refractive errors myopia (near sightedness) and astigmatism (irregularly shaped cornea). His most recent eye examination is dated 7-3-06 (Dr. Blue, O.D.) at which time his acuity in his right and left eyes tested separately was 20/60 without correction and 20/30 with correction. This represents a decrease in both his corrected and uncorrected acuity when compared to his eye exam dated 6-21-05. At that time his acuity in his right and left eyes tested separately was 20/25 and 20/20 with correction. Johnny has prescription glasses but is resistant to wearing them.

Refer to student's educational file for additional relevant medical information.

TEACHER INTERVIEW

Johnny is a high school student in a rotating academic program. His teachers stated the following: Each room with the exception of one has indirect fluorescent lights, track spotlights in the ceiling, and a window. The teacher in one of these rooms does not use the fluorescent lights and instead has a selection of task lights positioned throughout the room. In this setting Johnny moves to an area that has a full-spectrum light to do near work. In the room without a window, Johnny does computer work in a dark corner of the room and near work under both fluorescent and spotlights directed on his work area. All teachers state Johnny prefers regular print at a distance of about 12-16 inches and that they rarely do board work but feel he can satisfactorily read what they do present on the board at distances of up to 10 feet.

ACUITY

1. Near acuity was measured using the Logarithmic Near Visual Acuity Chart "2000" without correction.

- .80M at 16 inches with no additional light. Johnny stated this was his preferred viewing distance. This print size is about the size of magazine print.
- .25M at 5 inches with no additional light. This print is about the size of print in a mail order catalog.
- .20M at 5 inches with additional light. This is the smallest print size on the chart.

Summary: Johnny has good central acuity at near without correction and can visually discriminate single letters without difficulty at a working distance of 16 inches, the distance he states he prefers. He is able to visually discriminate extremely small print by getting closer to his work or adding additional task lighting.

2. Distance acuity was measured using the Logarithmic Acuity 10 Foot Test Distance Chart by Bernell: (Johnny did not have his glasses available to him for this assessment.)

- Both eyes tested separately and together:
 - 10/32 (20/64) without correction with additional light
- Pinhole test on right and left eye separately:
 - 10/12 (20/24) right eye
 - 10/16 (20/32) left eye

Summary: Johnny has reduced distance visual acuity without his glasses. Pinhole testing would indicate he should benefit from refractive correction, although he would still have slightly reduced acuity. Glasses would not correct the eye condition retinitis pigmentosa.

FUNCTIONAL VISUAL ACUITY

Location: Outdoors

Lighting: Sunny day

Johnny was asked to look as far away as possible and indicate when the presence of any form was detected. He identified the mountains located in the very far distance, as well as a white fence located at least 120 yards from him.

Summary: While outdoors on a sunny day, Johnny is aware of and can identify large objects located in the far distance and is able to identify them without difficulty.

COLOR, CONTRAST, LIGHTING

Location: Indoors

Lighting: Room with fluorescent overhead lighting with two windows.

Color:

- Using the Holmgren-Type Color Vision Test, Johnny was able to match 22 of 24 colors with relative ease. He confused two shades of yellow. He could also name color categories for all of the colors. Adding additional task lighting did not change his results.

Contrast:

- Johnny's acuity at near increased from .80M at 16 inches without a colored acetate filter, to .63M at 16 inches with a turquoise matt acetate filter. This print size is slightly larger than footnotes.
- When presented with a variety of backgrounds, Johnny was able to find buttons of the same and contrasting colors.
- When presented with pictures whose foreground and background are similar, (i.e. green snake hidden in green leaves of the same color) he was able to immediately identify the location of the hidden objects.

Lighting:

Johnny's acuity did not improve at 16 inches when given a variety of different lights to include full-spectrum, incandescent, fluorescent and a combination of incandescent and fluorescent lights. His best acuity at this distance was .80M with and without additional task lighting. A light meter measured the footcandles as 26 footcandles in the area in which the assessment was conducted. The Lighting Handbook recommends 30 footcandles for reading printed materials for an individual aged 20-29 with 20/30 vision.

Summary: Johnny appears to have near normal color vision. Functionally, he has no problem with contrast but a turquoise blue matt-finished overlay allows him greater

acuity. For near tasks he did not benefit by the use of additional task lighting at his preferred working distance of 16 inches provided there is sufficient ambient lighting available.

VISUAL FIELD ASSESSMENT

A visual field is defined as the full extent of the area visible to an eye that is fixating straight ahead. The diagram below illustrates normal visual fields.

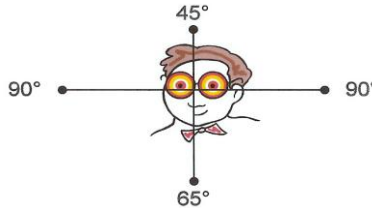


Diagram represent normal visual fields

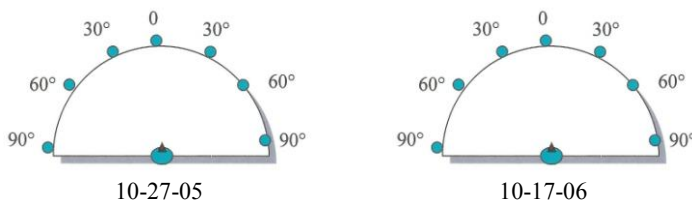
1. Early Warning Visual Field or Peripheral Constriction Assessment (using template)

Location: Indoors

Lighting: Fluorescent overhead lighting in room with no windows

For the purpose of determining if Johnny has a blind area that may functionally affect his early detection of objects or people he was asked to look straight ahead with both eyes open. Without moving his head or eyes he indicated when he was first aware of a person passing on his left and right sides. The person began walking from behind him and continued walking forward, parallel to his line of sight. He indicated he was first able to detect the person walking on his left when the person was 60 degrees from his midline, and on the right at about 35 degrees from his midline.

Summary: Normal fields are around 90 degrees from midline. When compared to assessment done on 10-27-05 Johnny has experienced a reduction in visual field of about 10 degrees on his left and 30 degrees on his right. The unshaded portion below reflects an approximation of his remaining peripheral visual field measured in degrees. The shaded area represents where Johnny needs to scan in order to see objects in that area.



2. Static Visual Field

Location: Indoors in hallway

Lighting: Natural lighting from door, fluorescent lighting along right side of hallway

For the purpose of determining his potential “area” of visual field, Johnny stood in the middle of a hallway that was 7 feet wide, 8 feet high, and 70 feet long. He was asked to look straight ahead with both eyes open. Without moving his head or eyes he pointed to colored paper seen at his highest, lowest, and left and right peripheral boundaries.

Summary: The picture demonstrates what a person with normal vision sees. The area within the Xs illustrates what Johnny indicated he was able to see. This area represents his potential visual field.



Student's left

Student's right

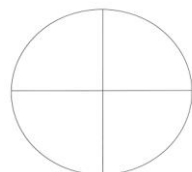
3. Preferred Visual Field

Location: Outdoors in an unfamiliar residential and light business area

Lighting: Bright sunny day

For the purpose of determining the potential “use” of his visual field, Johnny was asked to take a walk moving his head and eyes as he normally would and indicate everything that he saw. In the circle below, the horizontal line represents Johnny's eye level and the vertical line represents his midline. The Xs in the circle correspond to where he indicated he saw objects and people when walking, moving his head and eyes as he normally would.

Summary: There are a limited number of X's in Johnny's central field because he is most likely compensating by scanning into his more restricted peripheral field and not concentrating as much on his central field. He is seeing objects in all of his quadrants indicating he scans well into areas in which his visual field is restricted.



4. Near Visual Field

Location: Indoors in a room without windows

Lighting: Overhead fluorescent light

For the purpose of determining if Johnny has a blind area that may functionally affect his ability to work at near he was asked to fixate with both eyes open on a mark in the center of a paper at the distance that he reads or does near tasks. Without moving his head or eyes he indicated when he first saw the dot of a laser pointer that the evaluator was moving from outside his visual field towards the center of the paper. This was repeated from all meridians of his visual field. When holding his eyes steady and looking at an 8 ½ x 11-inch paper at a distance of 16-18 inches his visual field was compromised with a greater loss on the left.

Summary: The unshaded portion in **APPENDIX A** reflects an approximation of Johnny's remaining peripheral visual field measured at his preferred viewing distance. The shaded area represents where Johnny needs to scan in order to see things located in that area. Assessment completed on 10-25-06 did not show this reduction in field.

OCULOMOTOR FUNCTION

- Fixation: Johnny fixated on a target at 8 inches with both eyes but noted that the target "disappeared" when he used his right eye only.
- Accommodation: From a six-foot distance, Johnny looked at words and sentences written on a white board and copied them onto a piece of paper. After doing this activity for ten minutes, he told the evaluators that his eyes were tired and he needed a break.
- Tracking: Johnny followed his teacher's movement in the classroom at 3 ft. and his peers outdoors at six feet and beyond. Johnny told the evaluators that he sometimes "loses" objects when they are on his far left side. Johnny reports that following people or moving targets at these same distances in dim or night lighting is difficult because he is unable to see detail.
- Shift of gaze: Johnny demonstrated his ability to shift gaze between looking at his friends and his school textbook (16-inch distance) and from the class video to his teacher at intermediate (3 feet) and far distance (6 feet).
- Scanning: Johnny exhibited scanning behaviors as he selected food in the cafeteria (near), identified a friend by name as he stood between two other students (intermediate), and ordered a meal from the menu (4 columns of food) in a fast food restaurant (distance).
- Eye preference: Johnny commented that his left eye is his preferred eye. When given a colorful kaleidoscope to look through he selected his right eye to look through it 3/3 times.

Summary: When using both eyes together Johnny has good oculomotor function. He experiences visual fatigue after a period of accommodating between distance and near viewing. He has a right eye preference.

SUMMARY OF RESULTS: Johnny has the progressive eye condition retinitis pigmentosa. Assessment would indicate that at the present time he has sufficient acuity to read standard print at near without magnification or additional task lighting. The turquoise overlay improved his acuity overall, however the impact of color and contrast did not effect his ability to function visually. He has experienced a reduction in his peripheral field over the last year that needs to be considered when programming for him. Johnny's right eye is his preferred eye. He comments that there are times when he misses people, events, and objects when they are on his far right side when tracking them at intermediate/far distances.

EDUCATIONAL RECOMMENDATIONS

1. Referral for further evaluations.

- Night evaluation for orientation and mobility and functional living skills.
- Further clinical testing to determine if there is a ring scotoma (blind spot) impacting the vision in Johnny's right eye. He noted that there are instances where people, objects, and events disappear on that side.
- LMA to determine the efficiency of Johnny's learning and literacy media.
- Clinical low vision examination (CLVE) to determine if optical devices (i.e. field enhancement system) would increase Johnny's visual efficiency.
- Sun lens evaluation to determine if tinted lenses will maximize Johnny's functional vision, enhance contrast and provide comfort against glare.
- Counseling for the purpose of addressing educational and emotional implications related to his eye condition.

2. Adaptations

- Give Johnny a choice to use a turquoise overlay for reading since it improved his near visual acuity.
- During this assessment lighting was not currently an issue for Johnny, but give him opportunities to use additional task light if he asks for it. Night evaluation will determine if Johnny has lighting needs in levels of low illumination.

2. Instructional strategies

- Teach Johnny to scan his books, assignments, computer monitor, magazines, maps etc., to assure that he is aware of all of the visual information on a page or computer monitor. Given the nature of RP, one cannot be sure that all information is seen. Johnny is aware that he is missing information on his right side.
- Allow Johnny to choose seating that best maximizes his remaining field of vision. The closer he sits to something, the smaller his field of view is.
- When copying off the board, Johnny may require frequent breaks to prevent visual fatigue.

Sample 3

FUNCTIONAL VISION ASSESSMENT

Student: CU
DOB: May 2, 2001
School: ASDS, Tucson Campus
Eye Condition: Retinopathy of Prematurity (ROP)
Evaluators: UA TVI Student
TVI Professional
FVA dates: November 2006 and December 2006
Date of Report: April 12, 2007

Purpose:

This functional visual assessment (FVA) was conducted to provide current information about how effectively C uses his vision, the extent to which reduced visual functioning affects his educational program and specific needs for modification related to his visual impairment.

Assessment Procedures:

- Background Information
- Informal Observations
 - O&M
 - Hallway
 - Classroom
- Formal near and distance visual acuity assessment
 - Lea Logarithmic Near Vision Chart
 - Lea Logarithmic Distance Vision Chart
- Functional Visual Acuity
 - Awareness
 - Identification
 - Preferred
- Functional Assessment
 - Color
 - Contrast
 - Lighting
- Visual Field Assessment
 - Static visual field
 - Early warning visual field
 - Kinetic visual field (near)
- Oculomotor function assessment
 - Fixation
 - Accommodation
 - Tracking
 - Shift of gaze

- Scanning
- Eye Preference

Background Information

C was born at 24 weeks gestation and was hospitalized for 6 months following his birth. He required life support throughout the duration of his hospital stay, as well as at home for a short period of time following his release.

C has been diagnosed with Retinopathy of Prematurity (ROP). This is the result of a series of destructive retinal changes that can develop after prolonged life-sustaining oxygen therapy is given to premature infants. In C's case, ROP has caused total retinal detachment of his right eye, leaving him with no usable vision. In addition to ROP, C's eye is becoming increasingly smaller over time due to a condition called phthisical eye. Phthisis is an involution of the eye that results in shrinkage and loss of visual function. A macular fold in his left eye has also left him with reduced visual acuity. In addition to ROP, Dr. James Maxon has also documented C as having horizontal nystagmus resulting in an involuntary jerking of the eyes.

C's records indicate that he has undergone laser retinal surgery (date unknown). He does wear corrective lenses which were last recorded as a plano lens in the right eye, and -1.00 spheres for the left. His most recent ophthalmologic exam performed on April 10, 2006 by Dr. Richard Terry recorded C's near acuity as 2.5 M (20/125) at 3 inches with a slight field restriction in the left eye.

C was tested for hearing loss in 2004, and because of his "active behavior" results were inconclusive. It was recommended that C follow-up with his primary care physician for wax removal, and that his hearing acuity be retested prior to beginning of the next school year.

Informal Observations

C was observed over 3 days in November and December of 2006 in a variety of environments, including his regular classroom with his TVI, during an orientation and mobility lesson, and hallways throughout the ASDB campus.

Orientation and Mobility

C was observed traveling around the ASDB campus with his O&M teacher. C used his cane well even when traveling in unfamiliar places. During the lesson, his O&M teacher took C on his second trip to the cafeteria's elevator to visit the basement. C was able to locate the cafeteria without difficulty, and immediately walked to the black button to activate the elevator without hesitation (he focused on the button at 5 feet away). The lights inside the cafeteria were dim. While inside the basement C located the lights on inside the auditorium while getting a drink from the fountain.

While returning to his classroom C was asked what cars he saw in the visitor parking lot near the administration building. The weather was overcast with patches of sun. C stated

that he saw two white jeeps – but the white jeeps were not there (although typically they are). C also stated that he saw a white van, which was approximately 50 feet away on his right side. When asked to point to the red Toyota Tacoma truck parked perpendicular to the white van, C could not identify it. C did not identify this truck until he was approximately 5 feet from it. C did not know the truck was red until standing next to it.

Classroom Hallway

C was observed in the hallway during regular classroom time. He did not wear his prescription lenses. The hallway outside the classroom is lit with full-spectrum lighting, grey carpet and blue walls. A green basket was placed at one end of the hallway and C was asked to identify where the basket was located while standing at the opposite end. C consistently tilted his head to use the vision in his left eye. Eccentric viewing was noted throughout the activity. C claimed to be unable to tell that the basket was in the hallway (standing 18 feet away) but grinned and pointed to the general direction of the basket.

Hallway on opposite end of elementary school building

C was taken to a busy hallway at the opposite end of his classroom and asked to identify objects on the wall. C did not wear his prescription lenses. C identified a pink circle on the wall to his left at 2 feet, and called both the yellow and orange circles “orange” (approx. 4 to 6 feet away). Approximately 20 feet away on the hall door contained a large yellow smiley face, and a bright red stop sign. C could not identify either of the objects nor could he correctly name their colors. When standing at a distance of no more than a few feet, C could identify the yellow smiley face and the stop sign, but still misnamed the color red. C is not consistent with his colors. He does not always call red “blue” or any other color for that matter. His color choices are random.

In terms of visual field, C did not identify any objects on his right side, above his head, or on the ground. All objects were seen on his left field of view, at eye level.

Classroom

In the classroom C was observed locating colored cotton balls on black felt. During this exercise C wore his prescription lenses, but removed them claiming they were “too big.” C has no difficulty matching colors to their partner. C matched yellow, orange, blue, and red felt consistently every time. When asked to locate these colored cotton balls again on a floral patterned background, C was able to do it with general ease. He did experience a delayed response when working with white on yellow. C dropped a blue crayon on grayish blue carpet and located it visually with no difficulty. When given a choice between blue and yellow colors, C picked yellow.

During a test in which C was asked to fixate on a black felt dot marking center (1 inch in diameter), and not move his head, C could identify the red laser coming into his field of vision at 4-6 inches from the black dot on his left side. C did not see the dot coming from the right side until it hit midline. C was sitting in front of the window with the sunlight coming through the window to his right. C was not wearing his corrective lenses. C refused extra lighting, or closing the window.

FVA Results

ACUITY

1. Near Visual Acuity was tested using the **LEA Symbols Logarithmic Near Acuity Test**. C was able to accurately read the LEA Symbols at 8.0M held 2 inches from his face. His right eye was not occluded due to documented lack of vision. C recently lost his prescription glasses and currently wears glasses with no prescription strictly for protection. These glasses did not change testing results. There was no difference in testing when supplemented with extra light. C stated that he preferred to have no extra light.

Informally, C was able to locate objects within 3-6 inches of his face with relative ease. Occasionally C could see things at a greater distance of up to 3 feet.

2. Distance Visual Acuity: This was tested using the **LEA Symbols Logarithmic Distance Acuity Test**. C was unable to identify the LEA Symbols when standing at 10 feet. C was moved to 8 feet where he inconsistently identified the top row of symbols. When put 5 feet away from the chart, C was able to identify the symbols by using the LEA puzzle to point to the symbols he believed his teacher was pointing to. C was unable to name the symbols correctly, but could match them with 90% accuracy. C's visual acuity measured 15M at 5 feet. **The way to report this is 5 (for distance from the chart /300 for size of the symbol); the M notation is used for near acuity.**

Summarize what C could do; what is meant by 90% accuracy? The visual acuity threshold is when he can name/match one more than half of the symbols correctly on any given line of symbols.

Informally, C was able to identify objects in the distance that were permanently present on campus: cars, buildings, doors, etc. C often saw things in the distance that were not there, and very rarely was able to identify the color of the objects he was claiming to locate. It is uncertain if C actually saw these objects in the distance, or he was identifying them from memory.

3. **Print size and reading speed: C is not formally reading yet. He can draw vertical, horizontal, and s-curve lines although he is unable to tell you that is what he is doing. You'll look at this in an LMA.**

COLOR, CONTRAST, LIGHTING

Location: Indoors

Lighting: Classroom with fluorescent overhead lighting.

Color:

- Color Vision: Color Vision was tested using paint color swatches (yellow, orange, green, blue, purple, pink, and red). C is unable to consistently name colors, and will tend to name a color that of its closest hue. Pink is red, yellow is orange, etc. C will also call any dark color black if he is unable to assign it a color.

Contrast:

- Although only briefly tested, C was able to identify a red cotton ball on a red piece of felt. He also was able to identify a blue cotton ball on a cluttered blue floral background. C’s ability to detect objects in a low contrast and cluttered environment seems to be adequate.

Lighting:

- Sensitivity to Light: Observations in his classroom and on walks outside indicate that C does not have any sensitivity to light. No observable squinting or discomfort was noted between inside/outside or dark/light environments.

Summary: So what can be said about C’s color vision, contrast sensitivity and sensitivity to light?

VISUAL FIELD ASSESSMENT

A visual field is defined as the full extent of the area visible to an eye that is fixating straight ahead. The diagram below illustrates normal visual field.

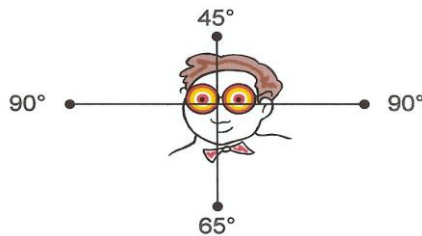


Diagram represents normal visual fields

Static Visual Field Assessment

Location: ASDB Hallway

Lighting: dim, fluorescent lighting

For the purpose of determining C’s potential “area” of visual field, he stood in the middle of a hallway that was 7 feet wide, 8 feet high, and 20 feet long in the elementary school building as ASDB (Tucson campus). C was asked to look straight ahead with both eyes open. Without moving his head or eyes he pointed to or described objects seen at his highest, lowest, left and right peripheral boundaries.

During this assessment C was able to detect objects in his upper, lower, and left visual fields. C did not detect objects in his right due to vision loss from ROP. C was able to identify pink and yellow construction paper on the left side of the hallway approximately 4 to 6 feet away at eye level. C also pointed to a red stop sign on the door at the end of

the hallway at 20 feet, but called it a yellow pumpkin. A teacher was standing 12 feet from C, and he was unable to identify the color of her pants. C also noted seeing the color white on his right side where the letters F, E, J, and Y were stapled to the wall, as well as noticing the light on the ceiling.

Summary: C was able to detect objects in his upper, lower, and left visual fields. C claimed to see objects in his right field. Due to “active behavior” it was difficult to keep C still. Results may be skewed due to him moving his head throughout the exercise.

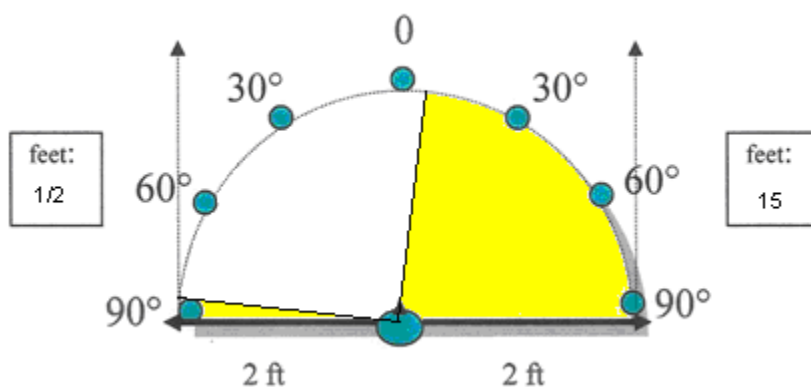
Early Warning Visual Field or Peripheral Constriction Assessment (using linear measurement)

Location: C’s regular classroom

Lighting: Full Spectrum

For the purpose of determining if C has a blind area that may functionally affect his early detection of objects or people he was asked to look straight ahead with both eyes open. Without moving his head or eyes he indicated when he was first aware of a person passing on his left and right sides. The person began walking from behind C (two feet to the left or right of his midline) and continued walking forward, parallel to C’s line of sight. C indicated he was first able to detect the person walking on his left when the person was about ½ a foot away. This linear measurement corresponds to about a 10 degree field loss. C indicated he was first able to detect the person walking on his right when the person was about 15 feet away. This linear measurement corresponds to about an 85 degree field loss.

Summary: The unshaded portion below reflects an approximation of C’s remaining peripheral visual field measured in degrees. Normal fields are around 90 degrees from midline.



Summary: C has severe field restrictions due to total detachment of the retina in his right eye.

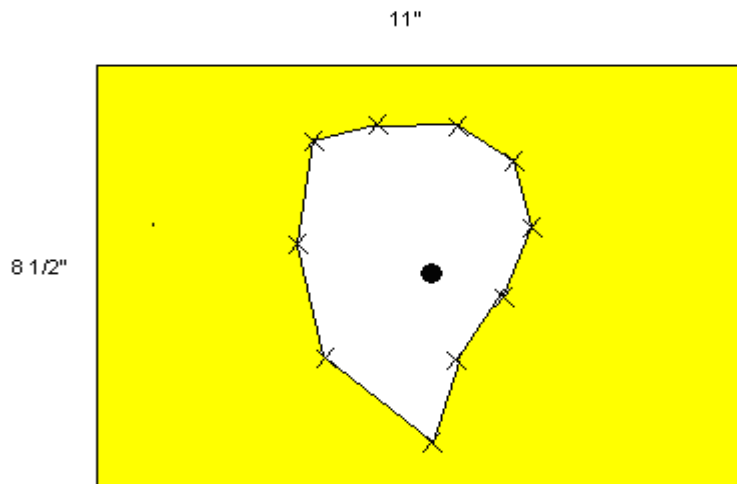
Kinetic Visual Field at Near

Location: Teacher's Classroom at ASDB (Tucson)

Lighting: Overhead fluorescent lights. Window on right side.

For the purpose of determining if C has a blind area that may functionally affect his ability to work at near he was asked to fixate with both eyes open on a mark in the center of a paper at the distance that he reads or does near tasks. Without moving his head or eyes he indicated when he first saw the dot of a laser pointer that the evaluator was moving from outside his visual field towards the center of the paper. This was repeated from all meridians of his visual field.

Summary: C's usable visual field with the paper held at 3 inches is comprised of an area



Appendix A

represented below.

OCULOMOTOR FUNCTION

- Fixation: C fixated on a target (4-inch orange truck) at about 12 inches with his left eye. His left eye did turn inward. He also turned his head slightly to the left. His left eye moved constantly due to nystagmus. C cannot see out of his right eye.
- Accommodation: C was able to read 1-inch letters at 3 inches. His right eye consistently turned inwards.
- Tracking: C followed the orange car as it rolled across his desk. An adult helped C hold his head still. He was able to track the car left to right at a near distance of about 1 foot and at 3 feet. C had a hard time keeping his head still as he wanted to turn his head slightly to the right to cross midline. His left eye tracked the car while his right eye turned inwards. C had the same results watching a person walk by at 10 feet.

- Shift of gaze: C demonstrated his ability to shift gaze between looking at a truck and a bus. He had more difficulty shifting to the right side and paid more attention to whatever was on his left.
- Scanning: C was able to identify pictures in a book (near). He did move his head to help him scan. It is not clear what type of search pattern C was using. He is also able to locate specific items on his desk.
- Eye preference: C only has vision in one eye.

Summary: C uses only his left eye due to no vision in his right. His oculomotor skills are satisfactory to be successful in his self-contained classroom. Now, and in the future, more time needs to be taken to help C learn good scanning skills as this will affect his ability to excel in academics as more independence becomes expected of him. As C grows older and begins to read, visual fatigue may present to be an issue, he currently expresses visual discomfort after even minimal periods of fixation.

SUMMARY OF RESULTS: C has an eye condition known as Retinopathy of Prematurity. C only has vision in his left eye. Current assessment results indicate that C has **suitable – report the number you obtained – suitable is vague.** near vision to learn to read in print or identify objects without additional task lighting. Contrast is not an issue, but high contrast could prove beneficial to his reduced acuity. C has a reduced visual field that must be taken into account when presenting materials. C has difficulty identifying colors and shapes by name, but is able to match them without difficulty.

EDUCATIONAL RECOMMENDATIONS:

Strategies:

- C should be given many opportunities to interact with print at school and at home. Print should be presented in enlarged fonts (take note of visual field restrictions), in an uncluttered format, and although contrast did not seem to be an issue, high contrast colors are always preferred when working with children with visual impairments. Continued use of his CCTV should be expected in order to achieve maximum results. **Literacy- might be more of an LMA recommendation, but you could take note of range of sizes of print C notices most often.**
- Continue to ask C whether or not he would like extra lighting in the classroom. Currently he is not requesting task lighting, but it gives him the option should he decide to in the future. A night evaluation will determine if C needs more lighting in low levels of illumination. **Adaptation.**
- C should be given multiple opportunities for concept development. It is important that C has a concrete understand of concepts at school, home, and throughout his world to provide a strong foundation for future learning. **Okay, but how can you build activities to build concepts where C is using vision? Incorporate what you*

know about C's best viewing distance for near, intermediate and distance for objects, events and activities and have him practice verbalizing the visual characteristics of what he sees.

- Teach visual scanning patterns – use left eye to scan into his right visual field for near, intermediate and distance.*

Adaptations:

- Materials should be presented to C in such a way that is maximizes the use of his vision in his *usable left* eye. Although contrast is currently not considered an issue, student with visual impairments typically perform better under high contrast. This should be taken into consideration when presenting materials.
- A slant board should be used during all activities. This should allow C to access materials with proper posture and an appropriate working distance.

Referrals:

- C should continue follow up with an audiologist to determine the presence of a possible hearing loss.

Further Evaluations:

- C's color vision should be further evaluated to determine whether where-in-lies his difficulty with color identification.
- Night evaluation for orientation and mobility and functional living skills.
- LMA to determine whether or not C is using his auditory or visual senses for receiving information from the environment. This may also prove beneficial in determining whether he is a candidate for a braille program.
- Sun lens evaluation to determine whether or not tinted lenses will maximize functional vision, contrast, as well as comfort against glare.
- C should continue audiological examinations in order to conclusively determine the presence of a possible hearing loss.

Sample 4

FUNCTIONAL VISION ASSESSMENT

Student: Melissa S.
DOB: 8-17-94
School: ASB, Tucson Campus
Eye Condition: Leber's congenital amaurosis
Evaluator: UA TVI student
TVI Professional
Date(s) of Assessment: 10-5-06, 10-18-06, 11-8-06, 12-10-06, 2-5-07, & 3-18-07
Date of Report: 12-10-06

Purpose: This functional visual assessment (FVA) was conducted to provide current information about how effectively Melissa utilizes her vision, the extent to which reduced visual functioning affects her educational program and specific needs for modification related to his visual impairment.

Assessment procedures:

Teacher Interview
Formal near and distance visual acuity assessment
 Lighthouse Near Test
 North Carolina Continuous Text
 Feinbloom Distance Acuity Test
Functional visual acuity assessment
 Awareness
 Identification
 Preferred
Functional Assessment
 Color
 Contrast
 Lighting
Visual field assessment
 Early warning visual field assessment
 Static visual field
 Preferred visual field
 Near visual field assessment
Oculomotor function assessment
 Fixation
 Accommodation
 Tracking
 Shift of Gaze
 Scanning

Eye Preference

OCULAR HISTORY

Melissa had an eye exam conducted by Dr. Beverly Moore on May 10, 2005, confirming the diagnosis of Leber's congenital amaurosis. Leber's congenital amaurosis is a congenital defect marked by blindness or near-blindness in both eyes. It may be accompanied by nystagmus, sensitivity to light and marked reduction in retinal function. Melissa has diffuse retinal changes in the mid periphery bilaterally along with a bilateral maculopathy. At the time of this evaluation her visual acuity was tested at 20/400 in the right eye, and 20/200 in the left with no improvement with a pinhole occluder. At near, her right eye was 20/100, and the left was 20/100. Melissa does not wear prescription glasses, but has recently expressed that if they helped her functional vision, she would wear them.

Refer to student's educational file for additional relevant medical information.

TEACHER INTERVIEW

Melissa is a seventh grade student in a rotating academic program. Her teachers stated the following: When hand writing materials, Melissa uses regular college ruled paper and writes adequately legibly without visual aids. Her teachers state that she prefers to read regular print textbooks with a CCTV. Otherwise, if she reads without visual aids her preferred reading distance is at approximately four inches.

ACUITY

1.) Near acuity was measured using the Lighthouse Near Acuity logmar chart without correction.

- 3.2M at 16 inches with no additional light using both eyes.
- 1.25M at 3 inches with left eye only.
- .8M at 23 inches with right eye only.

Near reading fluency was tested with the North Carolina Continuous Text without correction.

--.5M line at 3 inches away with both eyes with no additional lighting. Melissa stated that this is her preferred viewing distance.

Summary: Melissa has significantly reduced central acuity at near without correction. She stated that 3 inches is her preferred viewing distance at which she can read comfortably. She stated that direct lighting significantly reduced her ability to read print.

2.) Distance acuity was measured using the Feinbloom Distance Acuity Chart.

- *100 line reading* 2 out of 3 correctly – 20/200 with both eyes. *You can take this out. Just report the acuity.*

Distance acuity was also measured using the Logarithmic Distance Acuity Chart with a pinhole device testing both eyes separately.

--Left eye- *100 line read* 3 out of 5 correctly

--Right eye-*80 line read* 3 out of 5 correctly – 20/160.

Summary: Melissa has reduced distance visual acuity. Pinhole testing indicates that she would benefit from refractive correction

Functional Visual Acuity

Location: Outdoors

Lighting: Sunny day

Melissa was asked to look as far away as possible and indicate when the presence of any form was detected. She requested to put her sunshades on, and was able to see approximately 170 feet to the elementary school. She was able to identify the doorway and three sets of windows. She was also able to identify clouds in the sky.

Melissa was also tested with her sunshades off with a pinhole occluder. With the pinhole occluder she was able to identify a bush between two trees at 110 feet away. There was not much contrast between the color of the bush and the surrounding asphalt parking lot.

Summary: While outdoors on a sunny day, Melissa's functional vision differs depending upon whether she is wearing her sunshades or using a pinhole occluder. She stated that wearing her sunshades improved her functional vision and she could identify clouds in the very far distance, as well as windows and doorways at 170 feet away. A pinhole occluder improved Melissa's functional vision and she was able to identify a 4-foot low contrast shrub at 110feet.

Color, Contrast, Lighting

Location: Indoors in classroom

Lighting: Room with overhead lighting and two windows on one wall

Color:

--Using the *Holmgren* Color Test, Melissa was able to match dark reds correctly, though she stated that she thought it was black. She also stated that all of the light colors looked the same, and that the entire medium colors looked the same.

--She was able to sort the colors into three categories of light, medium, and dark, but not able to identify the colors consistently.

Contrast:

--Melissa was able to identify all shades of buttons on both colored and cluttered background when area was well lit with no glare.

--At her desk she read a textbook with colored overlays. She expressed no benefit from all of the overlays, except purple, which was 'a little better,' and rose, which contributed the most beneficial benefits for contrast sensitivity.

Lighting:

--Using the Lighthouse Continuous Text, Melissa was able to read the 1.M lines at 3 inches with the indirect florescent lighting.

--When attempting to read the same material under a natural lighting source, the results were the same, but she expressed that it was extremely uncomfortable due to glare.

--Using a desktop incandescent light indirectly pointed at the text on her right side she read the .8M line at 3 inches. With a rose overlay she was able to read the .63 line, but reported that there was much more glare.

--She was able to read the 3.2M line with the incandescent light directed from her right side.

Summary: Melissa appears to have no color vision, and could only tell light from dark colors. Her contrast vision is significantly improved from rose overlays. Her vision is also compromised in most environments with glare. Lighting results suggest that she will benefit most from a full spectrum light, which is cast onto reading material from the back and to the side.

Visual Field Assessment

A visual field is defined as the full extent of the area visible to an eye when fixating straight ahead. Normal visual fields are 90 degrees to the left and right, 45 degrees upward, and 65 degrees downward.

1. Early Warning Visual Field or Peripheral Constriction Assessment (using template)

Location: Indoors

Lighting: Fluorescent overhead lighting in a hallway with no windows

For the purpose of determining if Melissa has a blind area that may functionally affect her early detection of objects or people she was asked to look straight ahead with both eyes open. Without moving her head or eyes she indicated when she was first aware of a person passing on her left and right sides. The person began walking from behind her continued walking forward, parallel to her line of sight. She indicated she was first able to detect the person walking on her left when the person was 55 degrees from midline, and on the right at about 45 degrees from midline.

Summary: Normal fields are around 90 degrees from midline. Melissa's *ophthalmological* Examination on May 10, 2005 indicated that her visual fields were 30 degrees on both sides. The 10-25 degree variability between

these two assessments may be due to Melissa's large central scotoma, which is a non-seeing area within the visual field. Consequentially, approximately 50% of Melissa's visual field is compromised and she needs to scan in order to see objects in those areas. [*Couldn't locate document showing this. Do you have it?*](#)

2. Static Visual Field:

Location: Indoors in the LRC hallway at ASDB

Lighting: fluorescent lighting overhead

For the purpose of determining her potential "area" of visual field, Melissa stood in the middle of a hallway that was 7 feet wide, 8 feet high, and 70 feet long. She was asked to look straight ahead with both eyes open. Without moving her head or eyes he pointed to colored paper seen at her highest, lowest, and left and right peripheral boundaries.

Summary: Attached within this document is a picture of the assessment of the Static Visual Field. The picture demonstrates what a person with normal vision sees. The area within the X's illustrates what Melissa indicated she was able to see. This area represents her potential visual field.

3. Preferred Visual Field

Location: Outdoors between the middle school and PE building at ASDB

Lighting: Bright sunny day

For the purpose of determining the potential "use" of her visual field Melissa was asked to take a walk moving her head and eyes as she normally would and indicate everything that she saw. A picture of the Preferred Visual Field Assessment sheet used is attached. The horizontal line represents Melissa's eye level and the vertical line represents midline. The X's in the circle correspond to where she indicated she saw objects and people walking, moving her head and eyes as she normally would.

Summary: There are X's in all quadrants within the central and periphery. This indicates that even though Melissa has limited field vision she has learned to scan well in all areas in which her visual field is restricted.

4. Near Visual Field

Location: Indoors in a classroom with windows

Lighting: Overhead fluorescent light and natural light from windows

For the purpose of determining if Melissa has a blind area that may functionally affect her ability to work at near she was asked to fixate with both eyes open on

a mark in the center of a SmartBoard at the distance that she does near tasks. Without moving her head or eyes she indicated when she first saw the dot of a laser pointer that the evaluator was moving from outside her visual field toward the center of the SmartBoard. This was repeated from all meridians of her visual field. When holding her eyes steady and looking at the SmartBoard from a distance of 16-18 inches her visual field was equally compromised from all meridians.

Summary: A picture is attached of the results from the Near Visual Field Assessment. The unshaded portion reflects an approximation of Melissa's remaining peripheral visual field measured at her preferred viewing distance. The shaded area represents where Melissa needs to scan in order to see things located in that area.

Oculomotor Function

Fixation: Melissa fixates centrally, is able to fixate with each eye alone, and her fixation is steady when asked to maintain gaze on target. She has no preference for one eye near and/or distance and to left and right.

Accommodation: Reading material was moved slowly toward Melissa's face. She stated that it was clear at 10 inches, and that the material blurred at 1 inch.

Tracking: Melissa follows an object which is moved in front of her face with both eyes together, and with eyes only; not moving her head simultaneously. As she does so, her eyes cross midline in both directions, although there is a slight jerkiness in her tracking.

Shift of Gaze: Two objects were held in front of Melissa at 10 inches away, and on each side to observe her shift of gaze. She shifts her gaze from one object to another in all directions, and on all sides without difficulty. She also has no preference on any particular side in her shift of gaze.

Scanning: Melissa exhibited scanning behaviors at a near and intermediate distance. She moves her head in a random search pattern while doing so. She is not able to scan in the distance due to her compromised distance acuity.

Eye Preference: Melissa commented that her left eye is her preferred eye.

Summary: When using both eyes together Melissa has good oculomotor function. The only abnormality with her oculomotor function is a slight jerkiness when she is tracking across midline. She has a left eye preference.

Summary of Results: Melissa has the eye condition Leber's congenital amaurosis, which is accompanied by large central scotomas. Assessment would indicate at the present time that her acuity is such that she has sufficient acuity to read near print, but should have the accommodations of a CCTV or hand held magnifier to compensate when needed. Melissa also has no color vision, and has difficulty with contrast and glare. She benefits from a rose overlay as long as there is not glare due to it. Her peripheral field vision is also

compromised by approximately 50% on both sides *Might be clearer to say this by stating how much visual remains rather than what the reduction is*, and she needs to use scanning skills to adjust to this.

EDUCATIONAL RECOMMENDATIONS

1. Referral for further evaluations

-Melissa and her educational team would both benefit from an updated *Ophthalmological -spelling* Examination. It was observed that she may benefit from corrective lenses. Melissa's acuity was improved by a pinhole occluder, and she voiced that if corrective lenses helped her to see better that she would wear them.

-Referral to a counselor so that Melissa can discuss the implications of her diagnosis. Her eye condition is unstable, and her vision could decrease rapidly. She should have a plan for her education and life if this happens.

-A Clinical Low Vision Evaluation would be recommended. According to Melissa's school records it is unknown when and if she has had this type of evaluation.

2. Adaptations

-Melissa should wear sunshades outside for additional contrast, which benefits her functional vision.

-Melissa should have rose-colored overlays available to her in the classroom, which improved contrast while reading.

-A full spectrum light should be available to her in the classroom. She is affected by glare and found the most benefit to her vision by a full spectrum light projected from the back and to the side.

-Melissa should have a lighted hand held magnifier available to her. She voiced that she has used this before and it improved reading of near material, though she does not have one currently.

3. Instructional strategies

-Melissa would benefit from learning ways use to use adaptations that may benefit her in the future if her visual impairment worsens. She would also benefit from self-advocacy instruction.

-Melissa would benefit from preferential seating within 4 feet of instruction and during group projects. Also if educational materials are presented

within instruction at a distance, they should be made available to her at her desk.

-If reading materials are too cluttered, Melissa should have a non-contrasting background or a CCTV available to her.

Instruction during reading to scan around her blind spot.

FVA Assessment Report

Name_____

Point value: 40

Date_____

_____ (2) Completed all demographic information for the child. Listed relevant assessment procedures.

_____ (2) Reported ocular history from OBJECTIVE medical report information provided. If information was unavailable, noted that in the ocular history summary

_____ (2) Summarized parent/student/teacher interviews in the past tense with objective descriptions of shared information. Information related to the student's use of functional vision.

_____ (6) Acuity – Gave an overview of environments in which the student was tested. Stated which acuity test was used based on the student's visual functioning and ability to respond to symbols. Reported near results in "M" notation and distance results with "feet" in numerator. Functional visual acuity was factually reported per student performance. Summaries of acuity measures were reflective of student performance.

_____ (5) Color, Contrast, Lighting- Gave a description of environments in which the students was tested. Stated how color/contrast and lighting results were tested (e.g., noted which formal and/or informal tests were used), and summarized student performance in each of the areas.

_____ (6) Visual Field - Gave an overview of environments in which the student was tested. Used appropriate visual field assessments templates and changed the wording in the templates to match the student results for each test administered. Placed in the final report where appropriate and summarized student performance based for all visual field assessment results.

_____ (5) Oculomotor function - Described materials used for oculomotor functions. Used the categories provided on report to summarize student performance. Summarized student performance for all oculomotor areas

_____ (6) Summary of results. Provided a “picture” of how the student uses vision per the functional vision assessment results, highlighting strengths in visual abilities and function. Stated use of visual function needs in last few sentences as a segway for educational recommendations.

_____ (6) Educational recommendations. Listed recommendations into the three categories of referral for further evaluations, adaptations, and instructional strategies **BASED UPON THE RESULTS OF THE ASSESSMENT RESULTS. BE CAREFUL **NOT** TO RECOMMEND ANYTHING YOU THINK MIGHT BENEFIT THE STUDENT BUT WAS NOT A DIRECT RESULT OF THE FVA.**

____40 (TOTAL)

Comments: