**Functional Vision Assessment**

**STUDENT DATA**

Name: ####

D.O.B.: ####

Parent: ####

Address: ####

####

Phone: ####

Parent: ####

Address: ####

####

Phone: ####

School: ####

Grade: 10

Teacher: ####

Contact Phone: ####

Assessed by: Joe Kowsky, Teacher of the Visually Impaired/Orientation & Mobility Specialist

Report Written by: Joe Kowsky, TVI/OM

Date: January 28, 2016

***Purpose of Assessment***

A Functional Vision Assessment and Learning Media Assessment were conducted to prepare for an IEP requested by the mother for the end of January in preparation for a possible placement for the student at the ######################## School District.

#### is currently receiving instruction in assistive technology and orientation and mobility however she is uncomfortable in utilizing her cane in the high school setting. She prefers print but the degeneration of her vision has made it difficult for her to keep up with her school work. These assessments will determine the correct reading medium and services to assist #### in accessing the core curriculum and provide more feedback for the parent-requested IEP meeting.

**VISUAL INFORMATION**

Visual Diagnosis: Retinitis Pigmentosa (progressive retinal degeneration in both eyes), Nephronophthisis (progressive tubulointerstitial kidney disease with an autosomal recessive mode of inheritance, linked to RP) & Rod-Cone Dystrophy (primary loss in rod photoreceptors and later followed by the secondary loss in cone photoreceptors).

Visual Acuity: With correction: right eye 20/200, left eye 20/200.

Onset of Loss: Exact onset unknown

Prognosis: Progressive degeneration of rods & cones.

Visual Aids Used: Prescription glasses, large print text, CCTV, laptop with Zoom Text, audio books via Learning Ally & Bookshare,

PlexTalk electronic book reader.

Source of Info.: 10/23/15 results from Dr. ####, MD, PhD

Children’s Eye Institute of Milwaukee.

***Background Information***

#### is enrolled in four general-education courses and two supported-studies classes at Franklin High School. VI services are offered during her supported studies time on campus. With correction, her acuity in her: right eye is 20/200, left eye 20/200. Her recent ERG report indicated Retinitis Pigmentosa associated with Nephronophthisis as well as Rod-Cone Dystrophy. Her visual efficiency has deteriorated in the last six months to the point that it is becoming more difficult for her in school, requiring modifications and adaptations in the classroom. She has been provided a CCTV with a large monitor at school and a CCTV at each of her households. #### also has been provided a Plextalk (electronic book reader), and a laptop with ZoomText to enable her to conduct research on the Internet as well as write in Microsoft Word/PowerPoint and use her Gmail email and calendar. She has been provided a CD to enable electronic access to her math textbook with ZoomText. Additionally, she has a Learning Ally subscription and Bookshare account to enable her to download textbooks and literature books. #### complains of stinging pain and pressure to her eye. Her eye pain has affected her ability to attend in class. She also has kidney issues (Nephronophthisis) that is currently being treated with medication. The kidney issue has affected her stamina and stability. She is not currently enrolled in physical education classes at the high school.

**ASSESSMENT DATA**

Assessment Tools: Observation, student and parent interview, Ishihara Test (tests for color deficiency), Fonda 20 Foot Low Vision Chart (distance vision chart with letters), Random Dot Stereo Butterfly test (determines stereoscopic depth perception), Sloan Reading Cards (near vision chart with paragraphs), Johns Basic Reading Inventory (to determine independent reading level) and font size samples.

Assessment Dates: 1/7/13, 1/8/13, 1/15/13, 1/22/13, 1/23/13, 1/24/13

Language Used: English

Behavior: Very cooperative & happy when present. She was absent on many assessment

dates making repeated trips necessary. Assessments were limited due to ####'s availability. Additionally, in order to avoid eye fatigue, the assessment time was limited to 10-15 minutes per setting.

**The functional vision assessment tools that were used are appropriate based on current vision program guidelines. The results are reliable as many of the tests are specifically designed for visually impaired students.**

**RESULTS**

Visual Behaviors:

Convergence was present when a brightly colored pen was moved toward ####’s face. She was also able to track horizontally and vertically crossing midline with no difficulties following the brightly colored pen. #### also tracked circularly without disengaging. The Random Dot Stereo Butterfly test was presented to #### but she replied that she could not see a thing. I asked her to take a minute and then try again but she still reported that she could not see anything. This test establishes gross stereopsis. Her inability to indicate the butterfly shape could signal problems with depth perception. ####’s left eye is dominant as indicated by the triangle test. She reports that she prefers to view materials straight in front of her, no eccentric viewing posture was observed.

When working with ####, it has become more apparent that she could not recognize colors. When presented with the Ishihara Color Test plates, #### could not see the numbers in any of the plates. She reported that she could tell there was a large circle with smaller circles inside but could not pick out any pattern or number due to color. Therefore, the Red-Green Three Character Test was not used. Additionally, while conducting reading assessments, #### could not distinguish between the buff colored paper and white paper, nor could she indicate the colors of enlarged cursors on her laptop. While using the laptop planning routes with maps, #### had difficulty finding requested landmarks due to lack of contrast.

#### exhibited prompt blink responses in both eyes. However, she did not show normal pupillary reaction when a penlight was directed towards either eye. No muscle imbalance was observed. When tiny, brightly colored candy toppings were sprinkled over the desktop, #### could not isolate the items to pick them up due to size and contrast issues. Instead, she used an open hand to pat the desktop and then scraped items toward her in large group. Visually directed reach was therefore not demonstrated. Due to absences and time constraints, peripheral fields were not assessed but previous eye reports indicate visual field constriction of 10-20 degrees.

#### has been experiencing eye pain that significantly affects her ability to perform in class. She described the pain as an unbearable stinging. She also said that occasionally she feels like someone is pushing on her eyeball. This pressure adds to her fatigue. #### described great difficulty in seeing in the dark. She said that she is uncomfortable walking in the early morning or at night and especially on dark stages. When transitioning between classes, #### often leaves class early so that she can avoid the crowds on the stairs. She has been observed counting the stairs as she ascends/descends so that she knows where the landing is. #### has had cane instruction but stated that she feels uncomfortable using the cane in the high school setting due to peer pressure. She also recently described her stubbornness to learning Braille was because she did not want to look different.

Near Vision:

When using the laptop with ZoomText at 2x, #### still leaned forward to see the screen. She was most comfortable within 6 inches of the screen. Using the Sloan Reading Cards, #### was able to read the 20/250 line without correction from 16 inches. This is equivalent to 5M or 40 point font.

Distance Vision:

When presented with the Fonda Low Vision 20 foot acuity chart under standard overhead fluorescent lighting, #### was able to read the 20/200 line without correction from a distance of 20 feet. When discussing her vision, #### reported that from that same distance, she probably could not recognize my face without hearing my voice. This is understandable due to contrast issues at that distance.

**Learning Media Assessment**

A reading and learning media assessment was conducted as part of ####’s evaluation. The California Education Code requires all visually impaired students to have a current learning media assessment which should be updated and/or reviewed every three years.

This assessment is designed to determine the most effective method for teaching an individual student, or to ensure that the method being used is the correct one. For example, some students, although visually impaired, continue to use remaining vision as their primary method for learning. Other students may utilize tactile learning (Braille), auditory learning (recorded or taped materials), or a combination of media.

**Use of Sensory Channels**

Observation forms from Koenig & Holbrook and Texas School for the Blind were used in collecting data. Three attempts were made to observe #### in her English class but she was absent from class on all three days. #### was able to complete a sensory channels self-assessment on 1/7/13. Describing learning behaviors common in a high-school setting, ####'s probable primary channel is visual and her probable secondary channel is auditory. Notably, #### described relying primarily on her laptop to complete her school work. She uses Zoom Text at the 2x setting to conduct Internet research, write essays in Word, and access PowerPoints. #### prefers to have PowerPoint presentations enlarged and printed before the class lectures so she can follow along with the class. When writing in Word, she had found that enabling the doc reader function helps her ensure that her writing is accurate. Additionally, #### prefers to use Victor Reader to the Learning Ally software for reading as it helps her to keep track as she reads. Victor Reader has an audio book function but also has print that is highlighted as the program reads aloud. #### says this tracking function helps her to follow along and not wander off.

####’s parents also observed their child and completed the Use of Sensory Channels form. At home, #### was observed in three different settings. The parent findings find that her primary mode of taking in information appeared to be vision and the secondary channel was the tactile mode. This differs slightly from ####’s self-assessment but is in line with her changing vision and her need to adapt.

**Reading Efficiency**

#### was given high school print samples to determine the most comfortable (critical) print size (18, 20, 24, 30 and 36 pt.) for her to read at a working distance of 6-9 inches without inducing fatigue. While #### can read 30 pt. print, it was determined that 36 pt was the critical print size and that it did not matter if the print was on white or buff colored paper. With this print sample, #### was able to read 58 wpm without glasses and 57 wpm with her glasses. #### reported that her biggest problem in reading was losing her place. We adjusted the location of the sample by shifting it to her left to try to determine if she was reading into a blind spot. This was more difficult for her as #### read 46 wpm with the sample in this location. Shifting to the right, #### could read 54 wpm. The placement of the sample right in front of her produced the highest wpm.

#### was given a portion of the Johns Basic Reading Inventory in order to determine her independent reading level (IRL). Using the Johns reading samples, the largest print size possible (enlarged onto 11 x 17 paper) was 30 point. It should be noted that at this point size, the sample overspread the entire width of the ledger-size paper requiring #### to track across a larger width than normal text. The reading samples were presented to #### right in front of her and were printed on white paper. The overhead lighting was normal school fluorescent lighting. With correction, #### could read orally independently through the grade 5 sample. Her working distance was 8” but she leaned in closer to the right of the page. Her oral reading fluency at grade 6 was at the independent/instructional level. She was able to read at 43 wpm at grade 6 and 44 wpm at grade 5. ####'s comprehension however was independent at both grade levels. A non-visually impaired student should be able to read orally 151 wpm in the 8th grade which is over 3 times ####’s wpm. Therefore, it would take #### 3 times as long to read and complete assignments as her non-visually impaired peers. She demonstrated excellent comprehension skills despite the speed that she is currently reading at.

**Handwriting**

Two writing samples (vocabulary lists) were collected, one before the Christmas break and the other after. #### utilized the CCTV to complete her vocabulary lists. #### marked the beginning of the line with a dash to begin her writing. Her writing typically began above the mark and tracked upward across the page. Spacing between words was problematic with letters overlapping on occasion. She is capable of reading what she has written using the CCTV. Writing is a time consuming task for #### and she appeared stressed during the task and tired afterward.

**Summary and Recommendations**

#### is a print reader and relies on her vision in order to take in information in her environment. As her vision has deteriorated, #### has learned to also take in information through auditory channels. Auditory skills will become increasingly important, therefore, more instruction is necessary to build this skill set for her in a timely manner. This will enable her to access the Internet through the future. Additionally, due to the very slow reading speed, #### would benefit from intensive Braille instruction as a means to access written material. #### prefers to use her vision to take in information but is adding auditory and tactile skills to accommodate her vision deficiencies. While her current services can be expanded to accommodate her needs, the intensity required may impact her academic progress. Additionally, daily living skills is taught as part of the extended school year program provided by vision services not through the regular school year.

####’s social and emotional needs also have to be considered. Over and over again, #### described the need to not be perceived different by her peers and her concerns over bullying. #### could benefit from the inclusive environment and intensive instruction in assistive technology, Braille, and daily living skills in an immersive environment such as the California School for the Blind.

Some recommendations that may assist #### in the classroom and on the campus are:

* • Give copies of materials to the VI teacher to adapt as far ahead of time as possible, or email when appropriate.
* • When addressing other students in the classroom, call on them by name so #### knows who raised his/her hand or to whom you are speaking.
* • Say notes aloud as you are writing them on the board or as they are projected on the screen. When possible, try to speak slowly so that #### can follow along as it takes her longer to track across the screen visually which she still prefers to do.
* • Use dark black markers that present high contrast against a white board when writing on a board or under a document camera.
* • Substitute “here, there, it, this and that” with real labels in a sentence. Instead of, “It’s here,” say, “The book is on my desk.”
* • Feel comfortable using words such as “see” and “look”.
* • Allow #### to sit up front near the screen or to stand near a science demonstration. Use high contrast materials whenever possible for the presentation.
* • Since glare or dim light may cause discomfort or an inability to read, #### may prefer a seat away from the window with the sun behind her back. Overhead lighting may be augmented by task lighting at her desk.
* • #### may use adapted devices and assistive technology in the classroom. Encourage their use and watch that others do not play with the equipment.
* • #### needs extended time to complete tests. Standardized tests should be ordered in large print until Braille is mastered. She can use the CCTV to read and mark tests but she also benefits from a reader when there is a time constraint. When Scantron answer sheets are required, an aide will need to mark the answer sheets as they are not enlarged.
* • #### needs extended time to complete assignments and some assignments should be modified. When assignments require re-copying of material (PowerPoint notes, dictionary meanings, quotations etc.) that would induce eye fatigue, it would be more beneficial to #### to have these enlarged and printed for studying purposes rather than have her write them out. The time required and eye fatigue would be counter-productive in a fast-paced academic setting.
* • Modifying assignments so as to check understanding on specific concepts would be beneficial. As it takes her longer to re-copy, read, and write, extra practice should be used judiciously. For example, in math, she could complete problems in different sections showing her command of a concept instead of completing an entire page.