

Functional Vision Evaluation/Assessment
(FVE/FVA)
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Why, What and Where - THE FVE/FVA

IDEA & numerous parent sites – “Family Connect” AFB – National Ass. For Parents of Children With Visual Impairments.

“Comprehensive Evaluation: Evaluation is the process used to determine whether a child has a disability and needs special education and related services. Although your child's visual impairment may seem obvious to you, she needs an evaluation to formally document her disability in order to start the special education process.

- an eye report from your child's eye care professional
- functional vision assessment, to see how your child uses any vision she/he has
- learning media assessment, which determines the primary way in which your child gathers information and the literacy tools and medium appropriate for her instruction
- orientation and mobility assessment
- functional, developmental, and academic assessments as appropriate

A functional vision assessment measures how well a child uses vision to perform routine tasks in different places and with different materials throughout the day. The functional vision assessment “paints a picture” of how a child uses vision and what visual skills the child needs to develop further

- The goal of a FVA is to determine what and how the child sees, and what can be done to best facilitate learning through the visual sense.
- The FVA should occur over several sessions*(CI/POHI/CVI/etc.)
- A FVA must be based on observations of a child in a variety of settings, both indoors and out. It should be conducted at different times of day, across different environments, in the situations where the child is going to be asked to learn.
- These observations can take place at home, school, or in the community and vocational settings.

The 9 – 10 steps process - Things to do prior to and during the actual FVE

Truly the TCVI is the person to conduct a FVE/LMA for a student to help in determining if they have the vision to perform the tasks/activities in the school, home, community, vocational setting.

*** The information/data gathered, how you interpret it and what recommendations you make will impact what teachers, parents, others expectations for that particular student.**

Observation

1. Collection and Analysis of Relevant Information

- Medical Information
- Eye Report –
- Low Vision Evaluation
- This information may also serve as a guide for selecting functional vision assessment procedures.

The eye report, which should always be available before a functional vision assessment, is one of the most important records. When there is no eye report in the records, a functional vision assessment can be the first step toward pointing out the necessity for an examination by an eye doctor.* (what is your district's policy)

2. Parent Interview

3. Teacher Interview

4. Student Interview

5. Observations (three 45 minute observations)

- The process can be quite straightforward for updating information on a familiar child whose vision is stable.
- However, repeated sessions over time may be required for new referrals, very young children, or children whose vision seems to be inconsistent. For students who transition to a new school or program, whose parent/teacher has noted a change in their functioning?
- In 3 different environments, school, home, community, indoors/outdoors, vocational setting.
- The optimal FVA occurs over several sessions and possibly involves more than one environment

6. Initial FVE/LMA Protocol (Commerical or Homemade)

Selecting your protocols - *Generally the selection of the protocols is tied to the personal preference of the TCVI. You may need to pull from a variety of tools to make you kit. It will depend on several elements such as; the student's age, cognitive, physical, medical, and the setting. (developmental and chronological age of the student).

* User friendly – you know how to use it- not always referring back to it

**Child friendly – is not restricted to the baseline examples given in the protocol, but rather can be expanded to the repertoire of the many ways the skill can be functionally demonstrated.

FVE Protocols

- APH – Functional Vision and Learning Media Assessment for Students Who are Pre-Academic or Academic and Visually Impaired in Grades K-12
- APH -TOAD – Tools for The Assessment and Development of Visual Skills
- APH - ISAVE- Individualized Systematic Assessment of Visual Efficiency
- FVE – Mercier - handout

Commercial Tests to Measure Visual Acuity

- The LEA Symbol - The child identifies the symbol on the card by pointing, matching or naming. (Editor's Note: The LEA Symbol acuity tests are used with high frequency for acuity testing).
- The Forced Preferential Looking Tests (FPL) - a set of cards with a variety of pattern lines based at different distances within a square. The child looks toward the square with the lines on it. The smallest pattern of lines the child can see provides a measure of near visual acuity.
- Stycar - a set of balls placed at varying distances from the child. Distance acuity is measured by determining the smallest ball the child sees at the greatest distance.
- HOTV Charts - a chart with lines composed of the letters H, O, T, and V in varying combinations and in different sizes. The smallest line of print the child can read at 10 feet provides a measure of distance acuity.

7. Direct Assessment –

What you're looking for here is how the student functions visually in their most common environment using their most common visual skills and patterns

Conducting the FVE – General components

- Visual Acuity at Near Distance - (16 inches) with and without correction.
- Visual acuity at Far Distance - (10 feet) with and without correction
- Visual Fields - seeing objects to the sides, above or below the eye level
- Localizing - spotting or finding the visual stimulus.
- Fixating - maintaining gaze directly on the object, person or event.
- Scanning - systematically examining an area when completing a task.
- Tracking - following the movement of an object, person or event.
- Shifting Gaze - looking back and forth from one object or person to another.
- Eye Preference - using one eye more frequently than the other.
- Eye-hand Coordination - reaching out to touch something or to pick up an object. (shape container, crayons in a case, money in a change purse/wallet)#6
- Color Vision - ability to perceive color out of the context of a functional task

Some Formal assessments will include tests to assess

- visual acuity, or how clear and sharp your child's vision is. It is likely that both your child's near and distance visual acuity will be measured.
- visual field, or the area your child sees to the sides, above, and below (known as the peripheral area of vision)
- contrast sensitivity, or the ability of your child to detect differences in grayness and between objects and their background—that is, how clearly your child can see the elements of an image
- color vision, or the ability to detect different colors and also hues within a color
- light sensitivity, or response to light (sunlight or artificial light), which can be extreme for some children with eye conditions such as aniridia and albinism

8. Completion of FVE/LMA Protocol – no standard way to completing

Once you've finished filling out the FVE/LMA Protocol, go through the instrument and make a list (or just mark with a different colored highlighter) the findings that seem the most important to you.

9. Recommendation Writing

The recommendations section of the functional vision assessment report presents guidelines on programming. It discusses the kinds of adaptations and modifications which will most impact learning.

10. Report Writing – What to include

An infinite number of factors within the environment will almost certainly impact the student's ability to utilize their vision efficiently.

- The functional use of vision is dependent on many factors in addition to the medical cause of impairment. Medications, the presence of other disabilities, positioning, the type of school and classroom setting, expectations for demonstrating skills both in and out of school, motivation, age, and overall health can all be factors
- What information should be summarized on the FVA report?
- You need to include educational implications.
- Pay attention to what you noted in the protocol.
- Pay attention to the concerns during the interviews.
- Include the medical information.
- What's the difference between Educational Implications and Recommendations:
 - Educational Implications are the answer to the question "How does this visual challenge affect the student's ability to function like their peers."
 - Recommendations answer the question, "What should we do to help level the playing field so that students with visual impairments can participate/function more like or like their peers"

Challenges to the process: Time, Training, Forms, Reports, People, ...

References:

Anthony, Tanni L., Ed.S , Functional vision assessment for children who are young and/or multi-disabled, (Partial Reproduction of the Full Paper) Colorado Department of Education 1993.

Fact Sheets from the Colorado Services to Children and Youth with Combined Vision and Hearing Loss Project 11/09

Miller, Cyral, TSBVI, Outreach Director, On the LOOK OUT for Functional Vision Assessment/Evaluation

A PRCVI Professional Development Workshop with Darick Wright Coordinator of the New England Eye Institute Clinic Perkins School for the Blind, Boston, Mass. October 22, 2004 in Vancouver, BC.

Topor, Irene L., Dr., Functional vision assessment, University of Arizona, Tucson

Texas School for the Blind – website