Texas School for the Blind & Visually Impaired Outreach Programs

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TSBVI TETN #35073: Role of the TVI with Low Vision Students

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Table of Contents

The TVIs Role: Students with Low Vision ........................................... 2
What Are Accommodations In The Classroom? ................................. 11
Observation of Classroom Behavior .................................................. 33
Observation Notes Form ..................................................................... 37
The Role of the TVI for the Core and Expanded Core Curricula ........................................... 38
VI. Defining the Expanded Core Curriculum ..................................... 51
Samples of Goals and Objectives for Students with Low Vision ............... 57
Consultation Report for Students with Visual Impairments ...................... 63
Defining the Role of the TVI: Memo to Principals ................................. 64
Teaching Resources ........................................................................... 65
Related to Assessment and Evaluation ............................................. 65
Related to Educational and Instructional Strategies .............................. 65
References ....................................................................................... 66
The TVIs Role: Students with Low Vision

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LOW VISION STUDENT POPULATION FOR THIS PRESENTATION

- Acuity-within the 20/70-20/400 range
- Fields-normal to restricted
- Cognitive functioning-within 2 grade levels (functional academic to independent)
- School-aged students, K-12th grade

WHAT RESEARCH SAYS TVIS ARE DOING:

….teachers of students with visual impairments spend the majority of their instructional time on academics, teaching communication skills, and tutoring.


ACCORDING TO THE 2010 TEXAS VI REGISTRATION…..

30% of the population of all VI students in Texas have low vision, are in grades K-12, and are reading either LP or RP within 2 grade levels of placement (compare this to 1/10th of students who read braille)

TVI ROLE

- Assessment and Evaluation
- Educational and Instructional Strategies
Collaborating/Consulting with Educational Personnel and Families

ASSESSMENT AND EVALUATION COMPLETED BY TVI
- FVE
- LMA
- ECC

ASSESSMENT AND EVALUATION
- Interpret the eye report
- Conduct the Functional Vision Evaluation
- Conduct the Learning Media Assessment
- Modify existing assessment measures and procedures as needed (TAKS, GT, FIE)
- Conduct informal evaluation for the expanded core curriculum

FVE AND LMA
- Your ESC/university program should have a protocol for the FVE and LMA. See resource list
- For the LV student, be sure you include an informal reading inventory in your LMA. Repeat IRI annually and chart progress
- Share results with classroom teachers, parents, assessment personnel
READING FLUENCY AND STAMINA

- If IRI indicates a problem in fluency, student will need intervention
- Is it vision?
- Is the vision issue masking another diagnosis?
- Is it reading proficiency?

Who owns this?
What is your role here?

DISTURBING NOTE:
Perhaps the higher employment rate among adults who use braille in comparison to those with low vision who use print (Ryles, 2000) is more reflective of the educational support provided for braille users during their school years and the limited intervention associated with students with low vision.


EXPANDED CORE CURRICULUM ACCROSS-SI

- ASSISTIVE TECHNOLOGY
- CAREER EDUCATION
- COMPENSATORY
- RECREATION/LEISURE
- O&M
- SOCIAL INTERACTIONS
- SELF-DETERMINATION
- SENSORY EFFICIENCY
- INDEPENDENT LIVING
TOOLS FOR EVALUATING THE EXPANDED CORE CURRICULUM

- Use the ECC Screening Record in the FV-LMA notebook (APH)
- Use Evals (TSBVI Publications)
- Use the RECC on the TSBVI Website

LEARNING ENVIRONMENTS

- Student performance in environments requires periodic observations
- Assure that student has educational materials in appropriate format
- Teach student how to access information posted on walls throughout school
- Teach use of low vision devices

LEARNING ENVIRONMENTS

- Teach visual efficiency in gym, on playground, in cafeteria
- Teach use of technology (enlargement software; JAWS)
- Recommend seating/lighting
- Suggest accommodations:
  - For class work and testing procedures
  - In P.E. or on the playground
  - For science labs

ACCESSING THE GENERAL CURRICULUM

Literacy

- Fluency
Stamina
Writing (mechanics, letter formation, expedient method)
Print adaptations (font size, LV devices, contrast)
Aural learning (e.g., lectures, audiobooks)

ACCESSING THE GENERAL CURRICULUM
Mathematics
- Check for ability to see smaller print in textbooks (printed money, exponents, operation signs)
- Check for ability to see measuring devices
- Check vertical/horizontal scanning
- Visual ability to access a scatter chart
- Is it vision, or is it math aptitude?

Who owns this?
What is your role here?

ACCESSING THE GENERAL CURRICULUM
Organization and Study Skills
- Skimming print materials for format
- Searching for significant info in aural materials
- Taking notes in a read-back format
- Internet research using JAWS or Zoomtext
- Keeping papers organized (desk/backpack/lockers)

ACCESSING THE GENERAL CURRICULUM
Social Studies
- Teach efficient interpretation of maps, charts, graphs
▪ If class uses the textbook, teach how to use auditory books as a companion to print text if reading speed is slow
▪ Access to videos and presentations

ACCESSING THE GENERAL CURRICULUM

Science
▪ Check all measurement/lab devices to see if student can see and use these safely
▪ Brainstorm w/ gen. ed. for a way to include LV student in lab processes as active participant: dissecting, using a microscope
▪ Share website and APH product information with gen. ed. teachers

TEACHING THE EXPANDED CORE CURRICULUM

What does this look like?.....
Let’s look again at the TSBVI website, the RECC link: https://www.tsbvi.edu/REC2Web/

EXAMPLE OF A STUDENT-CAN YOU FIND THE ECC AREAS EMBEDDED HERE?

Junior or senior in HS, making great grades, does well on TAKS, there’s nothing left for me to do, right?.....think about these things:
▪ Does he know how to order and/or replace his preferred assistive technology?
▪ Does he know how to order books on CD?
▪ Does he know what the laws are governing his rights once in college/on the job?
- Does he know how to negotiate travel in the city, on a big campus, and/or on the job?
- Does he know how to be his own advocate on the job/at college?
- Does he realize that the average reading speed, 250 wpm, is considered too slow for college, and that 400 wpm is the minimum for effective college-reading? How will he supplement his reading to keep up??
- Does he know how to follow a simple recipe—is he safe around a stove!!??
- Does he know how to initiate casual conversation?
- Does he know about DARS-DBS caseworkers?
- Does he know about the university disability office?

Who owns this?
What is your role here?

**ANOTHER STUDENT EXAMPLE**

*Middle school student, diagnosis of retinitis pigmentosa, acuity of 20/80, with fields reduced to 10%. He’s not turning in work, very disorganized…..think about these things:*

- Does he understand RP well enough to explain it to others?
- Can he tell you the conditions under which he sees the best, and how to read efficiently?
- How is he doing in PE?
- Does he know how to communicate with his eye doctor?
- Does the faculty know that he is losing sight, and this could be a psychological and social trauma to him?
▪ Have you referred him to DARS-DBS for counseling services?
▪ Have you referred him to O&M for a night evaluation?

COLLABORATING AND CONSULTING WITH EDUCATIONAL PERSONNEL AND FAMILIES

What does this look like with the LV student?

With families

▪ Set up the home environment to foster visual exploration (EC)
▪ Encourage reading together; issue children’s books that have reduced clutter on the page (EC)
▪ Demonstrate and provide LV devices in the home
▪ Have open discussions about low vision-concerns, fears, future, etc.
▪ Share resources such as free materials, websites, listserves, etc. for their child’s diagnosis
▪ Promote independence in daily living activities
▪ Interpret eye medical information

With school personnel

▪ Establish a communication system teachers prefer (email, phone, notes in box)
▪ Provide information about the students vision, accommodations, modifications
▪ Discuss ways to adapt learning environments
▪ Provide and/or model alternative activities as needed
▪ Educate others about AT, it’s uses and abuses
Monitor grades—determine what is vision, what is not
Monitor expectations
Monitor provision of modifications
Observe periodically

SELF-TEST
1. What are the 3 primary TVI roles covered today?

2. Learning Environments, Accessing the General Curriculum, and Teaching the ECC are all part of the TVI role related to ______________ and ______________ ______________.

3. What are the 9 areas of the Expanded Core Curriculum?
1.
2.
3.
4.
5.
6.
7.
8.
9.
What Are Accommodations In The Classroom?
From Teaching the Student with a Visual Impairment, APH

Obviously, O & M issues are important considerations for entering and exiting the classroom, finding one's seat, moving from activity to activity, and finding the teacher's desk. But there are many more classroom considerations to encourage success.

Classroom Arrangements and Accommodations

First, why not give some thought to preferences and practicality of classroom furniture arrangement? What is preferred and what is practical may be entirely different. Having a student who has special needs in your room may cause you to alter your plans and compromise your preferences in order to help the student succeed. Unless you know this student personally and are familiar with his needs, you will have to rely on information from such sources as school records, the IEP, the eye report, and perhaps an interview with the student and his parents in order to acquire clues for planning an initial room arrangement. Consider again the questions at the beginning of this chapter when assigning seats. Seating is covered in greater detail later in this chapter.

Now let's think about what is meant by "classroom." In kindergarten, most activities take place in one room. Teachers set up activity centers, and small groups of students may move to reading circles or listening centers. As students progress through the elementary grades, special teachers come to the classroom, bringing with them materials and setting up activity centers such as music and art. Sometimes elementary students do move to other areas of the school for special instruction, such as P.E. or art. In each of these subject areas, ask yourself if the student is able to find the center of activity easily and safely.

When students enter middle or high school, they generally move to different rooms for different subjects. It is not uncommon to
have classrooms in which students are required to move from lecture areas to lab stations. There may be an assigned work station, but tools and materials must be retrieved from some other location. Frequently then, there are two or more separate environments within one classroom and each may present unique problems for a student with low vision.

**TIP**
When setting up a classroom, ask the student with a visual impairment what she needs to feel safe and comfortable

A classroom used by this student may require a few special arrangements or accommodations. These may be as simple as being certain that there are no cords on the floors and that the student does not face the sun streaming through windows. Many accommodations can be grouped in the following categories:

- Lighting
- Filters
- Color
- Contrast
- Optical devices
- Labels
- Seating

**Lighting**

Elementary science defines a rainbow as sunlight split into bands of light waves traveling at different rates of speed with different wave lengths. These bands of waves are perceived as different colors. In simple terms, when the fast waves, ultraviolet and blue light waves, reach the retinas of the human eye, they bombard the retinas very rapidly, increasing the problem of glare and contributing to eyestrain and fatigue. Blue light is the main
component of light emitted by standard cool-white fluorescent tubes which illuminate so many classrooms.

Everyone is affected, to some extent, by the effects of ultraviolet and blue light, but the effect is more intense and presents a greater problem for students with low vision. These individuals react with greater sensitivity to ultraviolet and blue light. Therefore, problems with glare and eyestrain are far more serious and affect daily activities of students with low vision to a greater extent than they do for typical students. Seating that faces a window, fluorescent lighting, and blue backgrounds on computer screens are some of the common sources of UV and blue light interference. They can cause intense eye fatigue and eyestrain.

**TIP**

If "normal" lighting is a 50-watt bulb, the person with low vision may require a 150-watt bulb for comparable illumination.

Individuals with low vision still need light! In fact, it is estimated that, in general, they need three times more light than individuals with "normal" vision. While this rule of thumb is a good general guide, there are some exceptions. Some students with certain eye conditions, such as retinitis pigmentosa, albinism, achromatopsia, and photophobia are extremely sensitive to light (Kitchel, 1994). The problem is in getting the right kind of light, angled properly, from the right direction. Natural sunlight is usually acceptable, but looking into sunlight shining through a window is not wise. Ideally, students should have their backs to the window, with light streaming over their shoulders. Adjustable blinds work well. Light should not shine directly into the eyes. Glare from windows can also be reduced by applying a colored UV filtering film over the window panes. This works like the tint on the windshields of automobiles. Use glass companies or auto parts stores as resources. Incandescent (standard light bulbs) lighting also
provides good task lighting for most students with vision impairments.

**TIP**
A small light, such as a penlight or clip-on light, may be very helpful when overhead lighting is insufficient for this student.

Blue light contributes little to visual acuity and visual perception. Images may actually lose sharpness and appear more blurred. There is increased energy expenditure when eyes are exposed to blue light and "there is mounting medical evidence that prolonged exposure to blue light may permanently damage the eyes, contributing to the formation of cataracts and to the destruction of cells in the center of the retina" (Kitchel & Evans, 2000). Every effort should be made to provide the student with adequate safe light and limit his exposure to sources of blue and UV light.

Despite research which suggests that fluorescent lighting has problems associated with it, this type of lighting, which utilizes "cool white" tubes that emit mostly UV rays and blue light, continues to be the most widely used source of lighting in schools, stores, and public places. Fortunately, there is help. It is easy to replace the "cool white" fluorescent tubes with General Electric's SPX30, Sylvania's SP30, or Philips' P30. These tubes reduce photo stress and eye discomfort by emitting light rays from a different part of the color spectrum. Making this change may be helpful to others in the room as well as your student with low vision. Teachers, classroom aides, and other students who experience frequent headaches, including migraine, and persons who have multiple sclerosis, lupus, or epilepsy often benefit from the altered light.

Paracube, or egg-crate-style covers for fluorescent fixtures recessed in the ceiling, are also available and recommended.
These covers direct the lighting down onto tasks and help reduce glare effects of light reflected off walls and windows.

Because many students with low vision need additional light, auxiliary lighting may be advisable. A variety of task lamps are available which may be useful in supplementing light in his immediate work area. Look for lamps with a weighted base or for styles that clamp on securely. They should be adjustable so that the light may be directed onto the task and not shine into the eyes. Shades should be vented to avoid burns. Pay attention to the bulbs used in these auxiliary light sources. Substitute "warm white" or "dawn pink" incandescent bulbs for "cool white" fluorescent bulbs. Because of the heat produced, most halogen lights are not recommended for students.

Filters

In situations where little can be done to alter the light source, filters may be used to alter the way eyes receive the light. Filters are often little more than colored glasses which may fit over regular eyeglasses or are worn alone. The resource section of this book lists a few of the companies that manufacture and sell filters. They are usually worn to combat the effects of direct lighting. Most colored filters are available in a variety of colors as well as a range of shades (light, medium, dark). Light shades are often helpful indoors. Medium and dark shades are usually worn outdoors and in extremely bright light.

Filters eliminate most of the harmful rays, especially ultraviolet and blue light. It's important to acquire filters that eliminate or significantly reduce harmful rays and glare. These filters are NOT the same as look-alike "wraparound" styles available commercially in many outlets. Desirable filters resemble sunglasses but have special filtering properties. Be aware that the
student who wears filters will not see colors accurately when using them.

**TIP**

Yellow colored filters may brighten images on a cloudy day and in low light situations. Yellow filters provide excellent contrast.

Low vision clinicians usually have a variety of sample filters for their patients to try, and they make recommendations for colors and shades most suitable to the patient's eye condition and needs. Some rehabilitation teachers have a variety of filters in demonstration kits, as do many agencies and organizations that provide services for the blind and visually impaired. When students try the filtered glasses, they should judge them on eye comfort and enhanced contrast.

Certain colors of plastic acetate sheets may also provide a good light filtering system. Yellow seems to be the most widely used color, and packets of the yellow acetate sheets may be purchased through office supply sources. You and your student may wish to experiment with other colors. The see-through plastic side of common report covers can be used. Place these colored acetate sheets over a printed page or drawing to increase contrast and reduce glare.

**TIP**

If no tracking line appears on the acetate sheet, make one with permanent marker using a ruler to guide you.
Color

Color plays a role in most areas of education. Some aspects of color are also discussed in the sections on Lighting, Filters, and Contrast.

First, a cautionary note. Not all persons with low vision can identify every specific color or all color ranges. Some of your students who do not have significant vision problems may be color-blind. It is important to know about your student's ability to distinguish colors. Color-coding will probably have little value for someone who cannot identify colors. Colors on graphs and colored photographs in textbooks and art work involving color may be less meaningful when a student has little ability to distinguish colors. Many students with central vision problems will be red-green or blue-green color-blind. Most will be able to see dark blue and yellow, and these are recommended colors for displays and posters.

Another aspect of color is the influence it has on how well a student sees. White paper often produces glare. This problem, in turn, makes the print seem to blur against the background. Encouraging your student to use off-white or colored paper for class assignments, tests, and homework may make a significant difference for him. Reducing glare usually helps the student work longer, with less eye strain and more comfort. So stock up on pastel-colored paper.

**TIP**
Scented markers can help students identify colors for classroom use.

Yellow, used in legal tablets, and light pink are two of the most preferred colors for paper. But whatever color is used, it should
provide good contrast for the print or handwriting on the page. For this reason, it is best to avoid bold and dark colors such as red or blue for writing paper.

**Contrast**

Good contrast is a constant and essential need for persons with low vision. Dark objects are seen more easily against light backgrounds; and conversely, light objects are better seen against dark backgrounds. There are many applications of this simple principle to help your student, including these examples:

- The level of milk can be seen better in a dark-colored beverage glass than in a clear one.
- A dark-colored marker can be seen better on a light-colored writing or drawing surface.
- A teacher wearing light-colored clothing is more easily seen against a dark chalk board or display.
- Dark-colored door frames against a light wall make the doorways easier to identify.
- Switch plates outlined with contrasting tape are easier to locate.

**TIP**

Help the student organize class work by color codes. Ex: a blue folder for math, yellow for reading, orange for science.

Difficulties that may be encountered as a result of low visual contrast may slow educational progress. Some examples are these:

- In art, the student may have difficulty distinguishing among various light-colored pastel shades or in
distinguishing dark-colored shades such as navy blue from black, or black from purple.

- In P.E., the student may not see a light-colored ball against a light-colored sky or gymnasium ceiling. He also may have some difficulty in discerning the colors of uniforms, making it more difficult to identify team members.

- Light-colored trash or obstacles on a light-colored floor may be unseen by this student, perhaps causing an accident.

- A dark-colored cafeteria tray against a dark tabletop may be hard to distinguish.

- Figures approaching against a similarly-colored background may not be seen by the student.

- In science lab, the various chemicals in clear tubes may not be seen if pale in color. Granules and powders may not be visible in liquid.

Awareness and sensitivity will usually lead to practical solutions for problems involving contrast.

**TIP**
Create a master template for writing paper by using a white piece of paper. Line the paper in bold lines set 5/8 of an inch apart. Using pale yellow or pink copy paper, make copies for the student's use.

**Optical Devices**

Eyeglasses and optical devices are generally prescribed by a low vision clinician. Although any informed professional, including the classroom teacher, may initiate a referral, the student is usually referred to a low vision clinician by the Teacher of the Visually
Impaired, the ophthalmologist or optometrist. In turn, the low vision clinician will prescribe the necessary low vision devices or special eyeglasses needed by the student. The teacher is concerned with four issues:

- What glasses or optical devices does the student have?
- What optical devices or aids does the student need?
- Where does the student store his devices safely with easy access?
- Does the student know how to use his optical devices?

What has been prescribed will be in the eye report as covered in Chapter 2. The teacher's role is especially important in noting behaviors which would indicate changing vision in the student as the school year progresses. The teacher also plays a critical part in facilitating the adjustment period for those students newly-diagnosed with low vision. Keep in mind that the information you collect will affect the future of the student beyond the time he is in your classroom.

As technology advances, a greater variety of devices has become available, and far more people are able to compensate for vision loss to a greater degree than ever before. The teacher need not be an expert in optical devices. It is important, however, to know that devices can help the student only if certain conditions exist:

1. The devices are prescribed appropriately by a low vision clinician.
2. The student has been provided with thorough instructions and training regarding the use and care of his optical devices.
3. The devices are used.
4. The use of the devices is initiated with sensitivity to related issues such as:
- Peer reactions.
- Comfort and convenience of student use.
- Patience through initial difficulties.
- Positive reinforcement and encouragement for the student.

Chapter 2 included a brief discussion about eyeglasses and optical devices. Sensitivity training may be beneficial to make the student with low vision and his classmates more accepting of unusual devices. Teachers can provide a service by helping the student determine how to keep devices such as magnifiers, minifiers, and monoculars safe from falls. Teachers who need assistance in teaching the use of optical devices may wish to use the ENVISION program, which provides an array of devices and curricula for this purpose. The ENVISION program is available from APH.

Although the ENVISION program is designed primarily for use by the low vision clinician and the Teacher of the Visually Impaired, it contains many enrichment activities for use by the classroom teacher or parent. These enrichment activities reinforce the skills taught by the vision professionals and give additional practice time to the student. No particular expertise is needed to guide the student in the enrichment activities, and nearly all the enrichment activities may be enjoyed by the entire class without their using optical devices. The ENVISION program is available from the American Printing House for the Blind.

TIP
The RollBuster II, available from APH, can help keep optical devices from rolling off the desktop.

Many low vision devices are based on the principle of magnification. Magnifiers as powerful as microscope lenses may...
be built into eyeglass lenses. There are handheld magnifiers of all types, some of which are lighted. There is a huge range in power or strength of magnification. Interestingly, magnifiers get smaller as the power of the magnification increases. The most powerful magnifiers then, have small lenses and the field of vision is greatly reduced. Unfortunately, there is no getting around this principle of optics. This principle sometimes makes reading and examining objects slow because only a small portion can be seen at one time. In general, hand-held magnifiers provide valuable aid in reading.

Telescopes, often called "monoculars" provide the student with access to viewing the chalkboard, the speaker at an assembly and a wide range of other targets. Telescopes are usually essential for outdoor travel.

Minifiers do the opposite task of magnifiers. This small device, which looks similar to a small telescope, may be either hand-held or inserted into the glasses. As its name suggests, a minifier "minimizes" the field of vision being viewed. This allows those students with poor peripheral vision to see a wider area.

CCTVs (Closed Circuit Television) systems are electronic magnification systems. Traditionally they are large, about the size of a personal computer. Users place reading materials on an X-Y axis table that moves from side-to-side or forward and backward. A closed circuit television camera focuses on the material, magnifies it, and projects it onto a monitor. The field of vision is as large as the monitor. Magnification capabilities are tremendous. Newspaper print may be magnified to headline size. Reading, writing, looking at photographs, and producing graphics are possible for many students with low vision when using this device.

Technology is changing the look of CCTVs. Many more models are available, and predictably, there are advantages and
drawbacks to each model. They are not a custom-ground optical device, so they are usually purchased from sources other than a low-vision clinician. However, low vision clinicians are excellent resources as providers and as sources of information. Some models are portable, some can be worn on the head, some are for reading only, some are full color, others are black and white only. When choosing a CCTV, consider the following:

- How will the student best be able to use this device?
- Is one needed both at school and at home?
- Can it be moved from room to room at school or home?
- Will color benefit the student?

A student who does not have a color perception problem probably still needs color on the CCTV. This allows the student the full impact of the material being placed on the CCTV. Remember also that many models are large. But, no matter what size or what color availability, all of them represent a significant financial investment.

Where to locate such devices is an important consideration. Plan so that the line of vision for your student and his classmates is not blocked. CCTV's should be located where the cords will not cause any problem for student traffic flow. Most models have a useful tracking line or lines on the screen.

Computers and Accessories system may also function as low vision devices for a student. Using a computer with assistive technology hardware and specialized software can help a student who has a visual impairment accomplish many reading and writing tasks that poor eyesight makes difficult. Computers and accessories are discussed in much greater detail later within Chapter 4.
Labels

School may be an adventure for many students, but it may present an overwhelming number of adventures and challenges for the student with low vision. There are many unknowns for all students, and, without the benefit of good eyesight, there are so many more! It is easy to overlook the need for accessible signage and labeling, but they are important. Much progress has been made in recent years in the production and use of internationally recognizable symbols on signs, such as female and male figures on restroom doors and the figure in a wheelchair, which represent areas adapted to accommodate persons with disabilities. Unfortunately, most of these are visual. In order to accommodate people with low vision, it is advisable to add tactile markings.

Tactile markings may take on many forms. Braille, of course, is commonly associated with blindness and low vision. It is an effective form of communication and since the introduction of ADA, the Americans with Disabilities Act, braille signage has been installed in many public areas, such as restrooms, elevators, and doorways. Braille signs and labels may be purchased through distributor catalogs or a braille label machine may be used. Perhaps a local person who uses braille proficiently will make braille labels on adhesive-backed tape or magnetic tape to apply on existing print or picture signs. The problem is that not every person who would benefit from using braille has, in fact, learned it. This is a consideration for schools, particularly in kindergarten and early primary grades when students with low vision may have neither the language nor the braille skills to identify certain signs. Voice chips on which messages may be recorded are available. One such device, Motion Pad, is available from APH. This product can be activated by a motion sensor.

**TIP**

Paint for making serviceable tactile markings is often found...
locally in hobby and craft shops, usually in a variety of bright colors. Use colors if the student retains color discrimination ability.

"Puffy" paint or sponge paper may be used to produce raised-line drawings, figures, and letters. Distributor catalogs offer paints for sale with names like "Spot 'n Line" and "Hi Marks," which produce durable raised tactile marks. These are usually available in a variety of colors. The tip of the paint tube or bottle is designed to allow the user to draw or trace figures, symbols, or letters. You can also create your own marking symbols, such as the following:

- Make a raised plus or minus to indicate in which direction batteries should be inserted.
- Put a raised paint dot on the number "5" of a calculator key pad to help a student learn the arrangement of the number keys. Similarly, mark the "home row" keys on his computer or typewriter.
- Mark the math signs on a calculator to indicate addition, subtraction, multiplication, and division.
- Trace the figures on restroom doors, then outline them with the special paint. Tape them to the doors at appropriate heights so that the student can actually touch them in order to verify that he is entering the appropriate place. Be sure to include the words "Men" or "Women."

Raised-letter labels may also be produced on magnetic tape or adhesive-backed vinyl tape, using a special labeling device. Typically, raised letters are not easily distinguished tactually.

A label near an on/off switch may be an important indicator. If the student helps put away clean flatware in the cafeteria, taping a spoon to the front of the spoon drawer may help him find the drawer easily and work more efficiently.
There are simplified recording devices which may be used to record identification and brief instruction information on cards. The cards may then be kept near or attached to the objects. Examples are the "Can-Do" recorder from Independent Living Aids and the "Magnetic Card Reader" from Maxi-Aids.

**TIP**
Use pieces of tape, Velcro® shapes, buttons, miniatures, or actual items taped on the outside of storage areas to create labels.

It is hoped, you are inspired to be creative in labeling. Be inventive in using whatever works. So let's think about what needs to be labeled. If you understand the student and the nature of his vision impairment, you should have a pretty good idea about what kinds of problems might arise. Undoubtedly, you have certain age appropriate behaviors in mind and expectations for the level of independence you wish all the students in your class to achieve. While the standards are probably equally appropriate for your student with low vision, the fact is that the student may need some special accommodations in order to function at the same rate as his peers. Usually, even a young student can identify a softball from a basketball, but will he remember which cupboard contains the sports equipment? How can he tell the difference between the art supply cupboard and the science supply cupboard? How can he identify which locker in the hallway is his?

**TIP**
For everyone's safety, be certain that no cords from any devices will trip anyone. This is also true for all devices used in your classroom, whether it is related to low vision or not.
Most students with visual impairments want to assume the same responsibilities as other students for accessing equipment or books, and putting them away. However, given his disability, how can that happen without wasting time, creating a disturbance, or embarrassing the student? Anticipate the difficulties as you try the simulations. Remember, individual differences among students with low vision will dictate how much and what kind of labeling is necessary. Teacher and student together can "fine-tune" the system.

- Usually a young child requires more information and more labels than an older student in order to operate independently. Tactile marks that have a close association to the object are best. Remember the individual's self-esteem, however. Don't make the marks weird or embarrassingly large! Put big letters, B and G, on bathroom doors, or again, use the tight rubber band on the door handle to distinguish a specific door from others.

As a student matures and gains more experience in his school environment, he will probably not need to rely on so many labels. He will probably remember the basic shape and layout of classrooms in his school. Equipment that other students routinely handle should be made familiar to him, too. He knows what kinds of materials are expected for various subjects. After proper orientation, practice, and perhaps, a few reminders, his memory may suffice. Keep in mind, however, that rearrangement of seating, or a re-ordering of materials storage may disorient your student and another orientation will be necessary. All students experience some anxieties and need some orientation as they transition from primary grades to middle school, and on to high school. To "even the playing field" for a student with low vision, some extra attention to details, such as signage and labeling, can
make an enormous difference in your student's ability to function independently and with dignity.

**TIP**
Awareness of the student's most beneficial seating will carry over into other areas, such as field trips to concerts, the theater, and museums.

**Seating**

Where your student sits in the classroom is also very important. As with any student, consideration of the best seating arrangement for education must be part of your planning. Earlier, you read that understanding the student's near and distance vision and his peripheral or central visual abilities is important in planning for the total educational process. Seating directly affects this student's ability to use his functional vision. Whether you know the student personally or not, ask yourself these questions:

- Does my student have good or poor near vision?
  If poor, the student may have to sit in the front.
  If poor, the student will benefit from sitting near the "action," the teacher's desk or the center of activity.

- Does my student have good or poor distance vision?
  If good, the student may be able to sit anywhere in the classroom. If poor, the student will again benefit by sitting near the "action."

- Does my student use a telescope?
  If so, it is possible he may be able to sit anywhere in the class and still access information on the chalkboard.

- Does my student have good or poor peripheral vision?
  If good, the student might be able to sit anywhere in the room. If poor, try to place the student near at least one wall. This reduces the area the student must continually examine...
visually. If, for example, your student has poor peripheral vision on the left side, have him sit near a left wall.

- Does my student have good or poor central vision? Although the student may have good peripheral vision, he may have poor central vision. Likely, the student will benefit from being near the "action" at the front of the classroom, if he does not use a telescope. If the student has good central vision, or uses a telescope, he probably can sit anywhere.

- Does my student use assistive technology? If so, he will need to sit near a wall plug to use the large devices. If he uses a CCTV or computer, he may have two seats: One in the regular seating formation of the classroom and the other probably along a wall where the large technology can be kept for his use. Placing the two seats near each other will reduce the amount of movement required, the distraction to other students, and the possible embarrassment involved in being "different."

The student's desk, remember, may need to have a dark color to contrast with the light-colored paper in textbooks, worksheets, and other materials.

In arranging the classroom environment, you are already aware of potential hazards for all students and have plans to minimize them. The same is true for your student with low vision. You may use the simulations from the last chapter to explore your classroom physically. Whatever problems you have in navigating the classroom will most likely be present for the student with low vision and very likely for all students. For example:

- Is there a pattern to the seating arrangement that can be explained orally to the student?
- Does this pattern change occasionally? If so, for what purpose? Again, oral instructions will help.
• Are there any cords on the floor? Get rid of them. The assistive technology the student is using can be placed close enough to a wall plug so no one can venture between and trip over the cord.
• Are there any cords dangling from window blinds, door blinds, maps, walls and charts? If so, tape these together or place them high enough to remove the obstacle.
• Is your student's back to the window? Is the lighting adequate for his needs?

With good mobility skills and a safe, ergonomically sound environment, your student will navigate your classroom with ease and confidence.
CHAPTER 3 SYNOPSIS

What is Orientation and Mobility (O & M)?

- Sighted Guide: graceful leading
- White cane travel, including "trailing"
- Dog guides are not for everyone
- Electronic travel aids (ETAs)
- Devices
- Related O & M issues
- Sensory awareness
- Spatial relationships

What orientation is necessary outside my classroom?

- The school building: a mysterious place without orientation
- Bus rides
- Field trips
- Other school areas
- Cafeteria: a particularly difficult place to navigate
- Playground
- Avoiding accidents in hallways
- Restrooms
- Gymnasium

What are accommodations in the classroom?

- Lighting can really enhance my student's visual experience
- Filters can control unwanted light
- Color is important to visual discrimination tasks
- Contrast: the most important visual cue
- Optical devices can be very useful
- Labels are necessary
- Seating can have an impact upon success
What works for the student?

- Tactile ID for classroom door
- Tactile ID for restrooms
- Sighted Guide travel
- White cane, international symbol
- White cane, easily accessible
- Tactile and talking directional compasses
- Simulations
- State and end points for specific routes
- Tape record route plan
- Differences in bus travel
- Sighted Guide aid exiting in emergencies
- Sighted Guide language skills
- Challenge of "pull-out" bleachers
- Different lighting needs for different conditions
- Small individual lights
- Yellow filters
- Tracing lines on acetate
- Scented markers
- Color-coding
- Formats for bold-line writing paper
- Anchoring optical devices on desk
- Safety in managing electrical cords
- Paint for raised marks
- Materials for tactile marks
- Student's most beneficial seating arrangement
OBSERVATION OF CLASSROOM BEHAVIOR

Student:_______________  Subject:________________
Teacher:_______________  Time: From_____ To_____

I. Please check applicable blanks for the following:

A. Grouping

- Independent seat work
- Independent work in center
- Small group
- Entire class or large group
- Working with another student
- Other (specify)

B. Task

- Reading activity
- Writing activity
- Listening activity
- Special material (e.g., audio-visual)
- Other (specify)

II. Please rate the following items:
1 = Never Observed  
2 = Seldom Observed  
3 = Frequently Observed  
4 = Continuously Observed

A. Student Behavior: (Circle one)

1. Pays attention to teacher  
   1 2 3 4
2. Pays attention to classmates  
   1 2 3 4
3. Follows classroom rules  
   1 2 3 4
4. Keeps desk well organized  
   1 2 3 4
5. Gathers and returns needed materials  
   1 2 3 4
6. Stays on task until it is completed  
   1 2 3 4
   Produces quality work comparable to peers  
   1 2 3 4
7. Requests help when needed  
   1 2 3 4
8. Accepts or declines help courteously  
   1 2 3 4
9. Raises hand to ask or answer questions  
   1 2 3 4
10. Travels around classroom independently  
    1 2 3 4
11. Interacts positively with peers  
    1 2 3 4
12. Responds to corrective feedback without becoming defensive  
    1 2 3 4
13. Responds to praise  
    1 2 3 4
14. Participates in classroom discussions (large group & small group)  
    1 2 3 4
15. Calls out answer or other comments  
    1 2 3 4
16. Distracts others-by talking, entertaining, joking, etc.  
    1 2 3 4
17. Exhibits distracting mannerisms (fidgets, taps, rocks)  
    1 2 3 4
18. Is teased by others.  
    1 2 3 4
19. Teases others  
    1 2 3 4
20. Uses inappropriate language  
    1 2 3 4
21. Appears listless or lethargic  
    1 2 3 4
22. Stares into space or closes eyes  
    1 2 3 4
23. Leaves room without permission  
    1 2 3 4
24. Other (specify)  
    1 2 3 4
B. Teacher Behavior:

1. Has appropriate materials available to VI student 1 2 3 4
2. Knows and uses modifications for VI student 1 2 3 4
3. Expects student to respond or participate 1 2 3 4
4. Checks for student understanding 1 2 3 4
5. Calls on student for attention or to return to work 1 2 3 4
6. Praises VI student about as often as others 1 2 3 4
7. Helps individual students 1 2 3 4
8. Works with small group, student not included 1 2 3 4
9. Works with small group, student included 1 2 3 4
10. Reads aloud information on overhead/chalkboard 1 2 3 4
11. Other (specify) 1 2 3 4

III. What types of instructional materials or special equipment does the VI student use?

- Regular Print
- Large Print
- Braille
- Audio
- Special paper (bold-line, raised-line)
- Computer
- Braillewriter
- CCTV
- Slate and Stylus
- Abacus
- Calculator
- LP or Braille ruler
- Other ____________________________________________
IV. What types of Low Vision Devices are used?

V. Other Relevant Questions:

1. How often does student need breaks due to fatigue?
2. How much extra time is needed to complete work, if any?
3. Are there any special needs for lighting?
4. Approximate distance for reading materials?
5. Does student follow generally accepted norms for behavior and dress?
6. What work assignments does the student diligently try to do well?
7. What activities does the student select if given a choice?

______________________________  __________________________
Signature of Observer           Date

______________________________
Position

Taken from Assessment KIT, Kit of Informal Tools for Academic Students with Visual Impairments, TSBVI, 1997
Observation Notes Form

Student:_________________________
Subject/Class:____________________
Date:___________________________

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Problem Areas:
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Follow Up:
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____________________________________________________
The Role of the TVI for the Core and Expanded Core Curricula

EXCERPTS FROM FOUNDATIONS OF EDUCATION, VOL. II, KOENIG, A.J., & HOLBROOK, M.C., 2000 (EDS.)


The following pages are intended to be used as a quick reference when determining the role of the teacher of students with visual impairments across the core and expanded core curricula. More detailed information can be found in the resource cited above.
Physical Education and Health

Providing consultation to the physical education teacher on the student's eye condition, functional vision skills, restrictions on physical activities, and other factors that will affect the student's involvement in physical education;

- Recommending modifications of physical activities that will allow full or, when appropriate, partial participation of the student in physical education;

- Providing direct instruction (using appropriate special training methods) in prerequisite or disability-specific skills that the student needs to acquire before he or she can be fully involved in physical activities;

- Supplying adapted physical education equipment or information on where the equipment can be obtained;

- Advocating for a student's active and sustained involvement in physical education programs;

- Providing consultation to health education teachers on modifications needed for a student;

- Instructing a student in a separate setting for sensitive health topics (such as some aspects of sexuality education and personal hygiene); and

- Informing parents about the strategies that will be used to instruct the student in sensitive health topics.
Mathematics

- Use formal and informal strategies to assess mathematics concepts and skills, particularly those that are unique to students who are visually impaired (such as calculation with an abacus or braillewriter and the use of tactile displays);

- Teach students specialized computation methods, using an abacus, braillewriter, talking calculator, and mental math;

- Teach students the Nemeth Code sequentially and in meaningful contexts;

- Teach students to interpret and use tactile graphs, charts, and other displays;

- Provide consultation to general education teachers on appropriate methods for teaching mathematics to students who are visually impaired; and

- Provide general education teachers and students with appropriately modified learning materials and equipment for mathematics instruction, including tactile graphics.
Independent Living Skills

- Conduct assessments of independent living skills to determine skill areas that need to be included in a student's Individualized Education Program (IEP);

- Collaborate with a student's parents and other caregivers, other specialists, and general education teachers to develop strategies for teaching independent living skills;

- Provide direct instruction in independent living skills in natural environments as specified in a student's IEP;

- Gather resources and adapted materials for teaching independent living skills to share with the parents and other members of the student's educational team; and

- Explore and plan additional opportunities to expand a student's opportunities for instruction in independent living skills, such as home-based instruction and attendance at a summer camp.
**Literacy**

- Provide initial and ongoing assessments of students' needs for literacy media;

- Collaborate with and model for family members and others the strategies needed to facilitate the development of emergent literacy in students who are blind and students with low vision;

- Provide direct, consistent, daily instruction in prebraille skills and beginning, braille literacy skills throughout preschool and the early elementary grades;

- Provide direct instruction in unique literacy skills, including slate and stylus skills, signature writing, aural reading (gathering information from audio taped materials), live reader services, keyboarding, word processing, and technology skills;

- Provide direct instruction in braille reading and writing for students who are learning braille as a complementary medium to print or who are moving from print to braille;

- Teach the integrated use of vision skills and the use of optical and nonoptical devices to students with low vision; and

- Collaborate with general education teachers and others to integrate students with visual impairments in literacy instruction within general education classrooms.
Arts Education

- Advocates with other members of the educational team, administrators, and teaching staff for the appropriate participation of students with visual impairments in all arts activities.

- Collaborates with art teachers to adapt lessons and decide on possible modifications of instruction.

- Ensures that the art teachers and students have the appropriate materials, resources, and adaptations to allow the students to participate in arts activities.

- Exposes students to ideas, concepts, activities, and experiential learning that will enhance their understanding of the arts.

- Pre-teaches art skills (such as a dance step or the use of a tool) or specialty skills (such as braille music notation) as needed to prepare students for lessons in art disciplines.

- Narrates or describes performances and works of art.
Social Studies and Science

- Collaborate with general education teachers and content-area teachers in science and social studies to provide guidance on including students with visual impairments in their classes;

- Provide adapted materials, models, and equipment for the students to use;

- Prepare tactile maps, charts, and diagrams when these materials are unavailable from other sources; and

- Teach the prerequisite skills and compensatory academic skills needed in science and social studies (such as reading a tactile map or using adapted measuring devices) before lessons are taught in the content-area classroom.
Career Education

- Work with parents of young students to encourage household responsibilities;
- Assess each student's awareness of occupations;
- Provide opportunities for a student to explore a variety of jobs and to meet adults with a visual impairment who are employed;
- Assist the student in keeping a portfolio that includes interest inventories and information on a variety of career paths;
- Participate in the ITP team;
- Collaborate with the rehabilitation counselor for students with visual impairments; and
- Collaborate with the school job coach and/or orientation and mobility specialist for on the job training opportunities.
Early Childhood

- Participate in and facilitate the initial screening, comprehensive assessment, and ongoing assessments;

- Participate in the development of the child's Individualized Family Service Plan (IFSP);

- Collaborate with families and other caregivers, early childhood intervention specialists, medical personnel, and others concerning the impact of a visual impairment on development and learning and concerning appropriate intervention strategies;

- Provide resources, information, and referrals to families and others who are involved in the child's early education;

- Provide direct instruction in areas of the expanded core curriculum (such as concept development and prebraille skills) as appropriate; and

- Ensure a coordinated transition from home to school-based programs and from preschool to kindergarten.
Social Skills

- Work with parents of infants and preschoolers in their homes and in school programs to promote early social behaviors and skills;

- Assess each student's social skills using a variety of strategies to determine areas in which instruction is needed;

- Work with the other members of a student's educational team to design and plan an intervention program for increasing social skills;

- Provide direct and targeted instruction in social skills;

- Provide accurate and constructive feedback on each student's social skills and competence to the student and his or her family;

- Implement strategies to ensure that social skills that are learned in specialized settings will generalize to other environments (school, home, and community);

- Work with other members of the educational team, including the family to facilitate and reinforce appropriate social skills in all environments;

- Provide opportunities for a student to meet and interact with role models and mentors who are visually impaired; and

- Ensure that social skills instruction is written into a student's educational program.
Visual Efficiency

- Conduct functional vision assessments to determine students' levels of skill and to identify the types of instruction that students need to increase their visual efficiency;

- Provide direct instruction in the use of optical low vision devices;

- Provide instruction and consultation in the use of nonoptical devices, environmental modifications, and other techniques;

- Ensure that visual skills instruction is integrated, as appropriate, throughout students' educational programs;

- Promote, provide corrective feedback on, and reinforce students' choices in using a visual approach, nonvisual approach, or a combination of approaches to perform tasks; and

- Continuously monitor and evaluate students' use of visual skills and future needs.
Recreation and Leisure

- Expose students to a variety of recreation and leisure activities so they can choose those that best match their individual interests;

- Provide direct instruction in recreation and leisure activities or their prerequisite skills, as appropriate;

- Provide consultation to recreation, specialists that will allow the students to participate in regular, community recreation programs; and

- Create meaningful links with the academic curriculum to foster the development of enjoyable recreation and leisure skills.
**Assistive Technology**

- Guide the provision of assistive technology services with the assistance or collaboration of general technology specialists or assistive technology specialists in the schools;

- Advocate for the provision of various types of technology and technology instruction for all students on their caseloads;

- Conduct appropriate assistive technology assessments with the assistance or collaboration, if necessary, of the schools' technology specialists or specialists in assistive technology;

- Advise school district officials on the purchase of appropriate assistive technology;

- Guide the IEP team in determining the appropriate goals and instructional benchmarks with regard to assistive technology;

- Design and provide direct instruction in the use of the chosen assistive technology or train other school staff (such as a general technology specialist, assistive technology specialist, or paraeducator);

- Provide ongoing assessment of a student's skills, as well as changing needs; and

- Consult with the general education teachers to facilitate the inclusion of assistive technology in the general curriculum.
VI. Defining the Expanded Core Curriculum


Guideline/Standard #3:

Evaluations of all areas of the expanded core curriculum are used to determine individual student programs.

For children who are blind or visually impaired, evaluations to document the present level of academic and functional performance for the development of the individualized education program (IEP) are required by the federal Individuals with Disabilities Education Act (IDEA). (34 CFR § 300.320 (a)(1)) The term expanded core curriculum is used to define concepts and skills typically learned incidentally by sighted students that must be sequentially presented to the student who is blind or has low vision. The expanded core curriculum areas include (A) needs that result from the visual impairment to enable the student “to be involved in and make progress in the general education curriculum; and (B) other educational needs that result from the child's disability” as required by IDEA. (34 CFR § 300.320 (a)(2)(A)(B)). The presence of a visual impairment requires that these skills be thoroughly evaluated and systematically taught to these students by teachers with specialized expertise. Without specialized instruction, children with vision loss may not be aware of the activities of their peers or acquire other critical information about their surroundings. (NASDSE, 1999, p. 70).

As the IFSP/IEP is being developed, the following unique skills related to the expanded core curriculum should be considered:
• **Compensatory Skills** needed to access the general curriculum, including:

  o Access to literacy through Braille and/or print, handwriting skills and auditory skills. Texas House Bill 2277 (1991) assumes that all functionally blind students are to be taught Braille unless their learning media assessment recommends different literacy media. (TEC §30.002 - [http://tlo2.tlc.state.tx.us/statutes/docs/ED/content/htm/ed.002.00.000030.00.htm#30.002.00](http://tlo2.tlc.state.tx.us/statutes/docs/ED/content/htm/ed.002.00.000030.00.htm#30.002.00)) Many students with low vision use regular print with magnification devices. Some students need both print and Braille. Students with multiple disabilities, including deafblindness, may use a tactile or object symbol system for literacy.

  o Communication needs that will vary depending on degree of functional vision, effects of additional disabilities and the task to be done. Students with deafblindness and others may have alternative communication systems such as tactile sign language, symbol or object communication, or calendar boxes.

  o Specialized instruction in concept development that may be significantly impacted when visual observation is limited. It is essential to offer specific and sequential hands-on lessons to build a broad base of experiences. In higher grades, there are many mathematical, geographical and scientific concepts that must be taught with adapted materials and strategies for students unable to learn from pictures and visual diagrams. A child with little or no vision may have fragmented understandings of the world without systematic tactile exploration and clear verbal explanations. Some concepts are totally visual, such as colors, rainbows, clouds, and sky. Some are too large to experience completely, such as a building, mountain
ranges, and oceans. Other items are too tiny or too delicate to understand through touch, including small insects, a snowflake, or an item under a microscope. Fragmented concepts can impede social, academic, and vocational development.

- **Sensory Efficiency (includes visual, tactual and auditory skills):** Students who are blind and students with low vision need systematic instruction to learn efficient use of their senses.
  - Instruction in visual efficiency must be individually designed and may include using visual gaze to make choices, tracking car movements when crossing the street, responding to visual cues in the environment, and/or using optical devices such as magnifiers and telescopes.
  - For most students with visual impairments, an increased reliance upon tactual skills is essential to learning. These skills should be considered as part of the IEP development. It takes more detailed “hands-on” interaction and repetition to tactually understand a concept, such as relative size, that may be readily captured with a glance.
  - Systematic instruction in auditory skills is critical for successful mobility and learning. Students must learn to effectively use their hearing to respond appropriately to social cues, travel safely in schools and across streets, learn from recorded media and use echolocation for orientation.

- **Orientation and Mobility (O&M):** Safe and efficient travel throughout the environment is a critical component in the education of students with visual impairments. O&M evaluation and instruction should begin in infancy with basic spatial concepts, purposeful and exploratory movement, and
progress through more independent age-appropriate motor and travel skills in increasingly complex environments. Vision provides the primary motivation for infants to begin to move their bodies, to raise their heads to see people, to reach toward objects, to move through the environment and to begin to play. Significant delays and differences in meeting motor milestones can impact overall development. The blind child needs to know how classrooms or other environments are arranged in order to independently move with confidence. Systematic orientation to a space may be needed before the placement and function of furniture and objects is understood. More advanced age-appropriate travel skills such as street crossings, bus travel and community experiences are needed, as the student gets older.

- **Assistive technology**: Technology permits students with visual impairments to access the general curriculum, to increase literacy options and to enhance communication. There are a variety of high and low-tech assistive technology tools designed specifically for students with visual impairments that require specialized instruction. These devices include, but are not limited to: electronic Braille note takers, yellow transparencies, tactile symbols, calendar systems, video magnifiers, screen reader software, screen enlarging software, and magnification devices.

- **Social skills**: A visual impairment can socially isolate a student, impede typical social interactions or limit social skill development. A student with a visual impairment may not be able to see facial expressions and subtle body language to participate in conversations and activities. Social skills that sighted children are able to observe and imitate may need to be taught to a child with a visual impairment.

- **Independent living skills**: Personal hygiene, dressing, food preparation, money management, housekeeping, and organization skills are critical skills for successful transition
from school to independent living. Young children begin learning basic skills in independent living from visual observation and imitation. Most students with visual impairments, however, will need systematic instruction and adaptations to standard equipment, such as modifications to read oven markings and to cook independently and safely. Depending on the level of vision, cognition and other individual characteristics of a student, adaptations may range from minor highlighting to tactile clues for matching clothing. Students can learn to apply make-up and perform other grooming activities with magnifying lenses, specially marked containers and highlighted dials on electric shavers. These skills are not typically evaluated or taught in a sequential and systematic basis in general education settings. Family members may require assistance and guidance to implement the proper adaptations that will permit practice and mastery of new independence skills within the home.

• **Recreation and leisure skills**: Students with visual impairments need to be exposed to and taught recreation and leisure activities that they can enjoy as children and throughout their lives. They are often not aware of the options or the possible adaptations that would allow them to participate in these activities. Such skills include both individual and organized group activities for students at all ages and levels.

• **Career education**: Students with visual impairments need to be taught about the variety of types of work and career options that are available since they cannot casually observe people in different job roles. They need opportunities to explore their strengths and interests in a systematic, well-planned manner. This training may include the acquisition of specialized skills and equipment to compete in the job market. Students must be prepared for a wide range of
vocational choices and the adaptations, including technological devices, which make them attainable. It is important to have opportunities to job shadow for concrete experience of different career choices and to learn about other persons with visual impairments who have successful vocational outcomes.

- **Self-determination**: Self-determination includes personal decision-making, self-advocacy, and assertiveness. These skills lead to competence, as opposed to learned helplessness, and are important components of positive self-esteem. Generally, low societal expectations for people who are blind can be overcome with specialized instruction in developing self-determination skills so that students can meaningfully participate in their educational and transition planning and make positive adult lifestyle, job and other life choices upon graduation.
SAMPLES OF GOALS AND OBJECTIVES FOR STUDENTS WITH LOW VISION

SAMPLE OF A STUDY SKILLS/LITERACY GOAL

Goal:
Jeff will use audio textbooks in conjunction with printed textbooks in 2 classes by the end of the fall semester.

Objectives:
1. Jeff will operate the controls of a DAISY player with 100% accuracy.
2. Jeff will listen to short passages in the history or science text and answer comprehension questions with 75% accuracy.
3. Jeff will visually scan a chapter in his (print) history or science textbook to locate section headings, relate photo details, and identify information on charts, maps, and graphs.
4. Jeff will locate the starting point of units, chapters, and page numbers on an audio textbook for history or science.
5. Jeff will listen to short passages as he visually follows in the same printed textbook and be able to answer comprehension questions with 75% accuracy.

SAMPLES OF CAREER AWARENESS GOALS

Goal:
By the end of the first semester, S. will task analyze 4 jobs and list potential job accommodation needs for his/her vision.

TEKS 127.2 (c)(1)(B), 127.2 (c)(2)(C), 127.2(c)(3)(A)
TEKS 127.12(c)(1)(B), 127.12 (c)(2)(C), 127.12(c)(3)(A)
Objectives:
1. By the end of the first grading period, S. will document a task analysis of 2 jobs by listing duties required and skills needed to do these jobs.
2. By the end of the first grading period, S. will list the visual accommodations needed to complete the skills needed for the same two jobs used in the first objective.
3. By the end of the second grading period, S. will document a task analysis of 2 additional jobs by listing duties required and skills needed to do these jobs.
4. By the end of the second grading period, S. will list the visual accommodations needed to complete the skills needed for the same two jobs used in the objective #3.

Goal:
By the end of the first semester, S. will complete a job bank with profiles of a minimum of five community workers.

TEKS 127.2(c)(2)(A)(B)(C)
TEKS 127.12(c)(2)(A)(B)(C)

Objectives:
1. At the end of the first grading period, S. will use a word processing program to store information pertaining to 2 individual community workers derived from one telephone interview and one print or on-line resource to establish a “job bank”.
2. By the end of the third grading period, S. will store information pertaining to 3 additional individual community workers derived from one telephone interview, one study tour, and one print or on-line resource to add to a “job bank”.
3. By the end of the fourth grading period, S. will prepare a list of questions to ask of a community worker and visit the job
sites involved in at least 2 of the community occupations previously researched.

SAMPLES OF LOW VISION DEVICE GOALS

**Goal:**
Jeff will use a monocular to copy notes from a distance in 5 classes on a level commensurate with same-age peers by the end of the second semester.

**Objectives:**
1. Jeff will use a monocular to copy up to 2 sentences per glance during 1:1 weekly instructional sessions with his VI teacher during the first 12 weeks of the semester.
2. Jeff will use a monocular to copy up to 20 words per glance with 90% spelling accuracy in at least 3 classes daily by the end of the 4th 6-weeks grading period.

**Goal:**
Jane will use a stand magnifier to read continuous text at the rate of 100 words per minute by the end of the first semester.

**Objectives:**
1. Jane will build speed as she tracks lines of print following the left to right tracking pattern with 75% accuracy.
2. Jane will read and re-read short paragraphs with the magnifier up to 3 times each and build speed with each consecutive reading.
3. Jane will read one page of double-spaced text from a chapter book with a comprehension score of 75%.
SAMPLE OF SELF-ADVOCACY GOAL

Goal:
Melody will meet with her 7th grade team of teachers during the August in-service week to explain her eye condition and preferred accommodations for her vision.

Objectives:
1. Melody will read and summarize information from her eye report and low vision evaluation.
2. Melody will prepare a list of accommodations for her vision as these relate to print materials, materials presented at a distance, and testing preferences.
3. Melody will prepare a PowerPoint presentation of her vision diagnosis and preferred accommodations by May in her 6th grade year.

SAMPLE OF A VISION EFFICIENCY GOAL (KINDERGARTEN)

Goal:
Abby will make at least 2 experience books using digital photos of objects viewed in 2 different environments.

Objectives:
1. On a visit to the grocery store, Abby will take photos of at least one employee, 2 of her favorite foods located on shelves, and 2 of her favorite fruits or vegetables.
2. On a visit to the playground, Abby will take photos of bugs, flowers, playground equipment, etc.
3. Abby will print out her photos and relate picture detail using a stand magnifier.
4. Abby will make experience books with her photos and dictate stories to go with these.
A Note on IEPs for Consult Student

If you have a VI student who receives NO OTHER SPECIAL EDUCATION SERVICE but VI, you MUST write an IEP goal. Since these tend to be high academic low vision kids, the goal might look like one of these examples:

EXAMPLE 1

Goal 1: The student will master 5th grade course work as measured by classroom criterion referenced tests, while addressing these specific identified educational needs, using modified techniques to access print and classroom learning materials.

- **Objective 1.1:** The student will use a monocular to read information on the overhead and chalkboard well enough to complete daily assignments in 3 classes by the third report card period.
- **Objective 1.2:** The student will use a laptop computer to complete one daily assignment in 4 classes by the second 6-weeks report card period.

EXAMPLE 2

Goal 1: The student will participate in a Circle of Friends meeting monthly.

- **Objective 1.1:** The student will organize a minimum of three meeting dates for up to a semester on a calendar.
- **Objective 1.2:** The student will plan an activity or topic for discussion for 2 meetings during the first semester.
EXAMPLE 3

**Goal 1:** The student will prepare a variety of up to 5 after-school snacks by the end of the first semester.

- **Objective 1.1.:** The student will prepare 2 snacks weekly using a microwave oven by the end of the second 6 weeks grading period. (e.g., popcorn, nachos)
Consultation Report for
Students with Visual Impairments

Student: ________________

Date: ________________

Teacher/Parent: ________________

Discussion/Activities:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Materials Issued:

________________________________________________________________________

Date of next visit:

________________________________________________________________________

Agenda for visit:

________________________________________________________________________
Defining the Role of the TVI: Memo to Principals

TO: Principals
FROM: Teacher of Students with Visual Impairments (TVI)

The student with a visual impairment attends the same school as the other neighborhood children and is programmed into a general education classroom.

While the child remains the responsibility of the local school and the classroom teacher, support services will be forthcoming from the Vision Program. Materials normally provided for other students should also be provided for the visually impaired student by the local school.

Some children with visual impairments will need special equipment (i.e. specialized CD players, note taking devices, low vision devices) which will be provided by the Vision Program. Materials normally provided for other students should also be provided for the visually impaired student by the local school.

A TVI is required to attend all local staff planning meetings for a visually impaired child concerning placement and educational planning. If this student requires orientation and mobility training, the Vision Program also provides a certified orientation and mobility specialist (COMS), who will teach the student to travel throughout the school and community settings.

Services available through the TVI include:
- Evaluation of visual functioning
- Collaboration with assessment personnel on special accommodations to eligibility and statewide assessments
- Consultation to school staff
- Ongoing observation of identified visually impaired children
- Specialized skill instruction
- In-service training to staff
- Coordination of involvement of other agencies/doctors
- Provision of adapted materials and/or devices
Teaching Resources

RELATED TO ASSESSMENT AND EVALUATION


• Learning Media Assessment, found in FV-LMA, American Printing House for the Blind. www.aph.org

• Jerry Johns Basic Reading Inventory, available as part of The Kit, TSBVI Publications. http://www.tsbvi.edu/publications/index.htm

• Expanded Core Curriculum Screening Record, found in FV-LMA, www.aph.org


• Student Performance Indicators (SPI), Supplies the VI program with information about student performance across areas outlined on the IEP Addendum for Students with Visual Impairments. http://www.tsbvi.edu/Education/spi.rtf

RELATED TO EDUCATIONAL AND INSTRUCTIONAL STRATEGIES

• Teaching the Student with a Visual Impairment: A Primer for the Classroom Teacher, (2002) American Printing House, available on quota funds

• Websites for science suggestions and lessons:
  – http://www.as.wvu.edu/~scidis/vision.html
  – http://perkins.pub30.convio.net/accessiblescience/


References

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