

Presently estimates from a survey of a number of leading vision specialists are that 25-30% of all students are in need of visual/functional training and that 80-90% of those who are experiencing difficulty with reading seriously need such training. Some estimates are that 60% of all students, even achieving students, could benefit from improved binocular coordination, directionality and accuracy in tracking.

One of the more primary and critical considerations in school, learning or life in general, is a student's eyesight (ability to see clearly and distinctly) and his/her visual functional skills (ability to use both eyes as a team with good binocular coordination, perform visually with ease and comfort and track rapidly and accurately across lines of print during the high speed process of reading).

It is important to realize that the visual task of reading is not a natural human task. Humans were designed fundamentally for distance viewing. Responding to the letters in words at very close reading distances is a visually demanding task but one that must be mastered for success in school or life.

Perhaps you have noted these characteristics with your child or student:

- a) tilts his/her head during reading (suggesting the use of only one eye)
- b) draws in very close to reading material (suggesting difficulty and visual stress with close work)
- c) inability to stay with reading/study tasks (suggesting a lack of visual skills and lack of comfort)
- d) evidences of visual discomfort (tendency to get tired and sleepy, eyes hurt, etc.)
- e) reports that words or letters double up or blur
- f) rotates head during reading (suggesting lack of ease with ocular fixations)
- g) experiences eye-strain (excessive blinking, tearing, encrusted lids, etc.)

If there is any doubt about a student's ability to see clearly or function visually in a comfortable manner, an examination by a qualified vision specialist is certainly recommended. You may already know of a local vision specialist in your area. (Be sure that this specialist does engage in vision therapy and does not just test vision alone.) If you need a resource guide you might use the COVD (College of Optometrists in Vision Development) Web site to find a qualified vision specialist in your area (www.COVD-org).

Helpful Resources

To help you learn more about visual/functional skills and their importance we have included some resources.

About Your Fundamental Reading Process (FRP) as background for an understanding of visual and perceptual skills and reading behavior. (www.ta-comm.com/background/pedagogy/frp.html).

Taylor Associates' Functional Readiness Inventory - for both teacher/parent and students to explore the possible need for visual/functional skill development (www.ta-comm.com/assessment/visagraph_questions1.html).

PTA Resolution by the National Parents/Teachers Associates in 1999 stressing the need for good visual skills.

PAVE (Parents Active in Vision Education) site (www.pave-eye.com).

Vision and Reading an article by Dr. Don Getz explaining the relationship of vision and success in school by a vision specialist from the "Optometrist Network." (www.child-special-needs.org).

Glossary of terms related to vision and visual skills (www.ta-comm.com/glossary.html).

The goal of this portion of the Taylor Associates' Web site is to provide you with insights that might encourage you to seek the services of a qualified vision specialist (if there is a need evidenced by your student or child) and to provide simple in-school, in-home training techniques that can be used by a parent or teacher to improve visual skills. These techniques do not replace the possible need for vision therapy by a vision specialist. However you will find these practice activities helpful when services by a vision specialist are not easily accessible and, in some instances, these activities may be used in conjunction with vision therapy procedures administered by a vision specialist.

I. WIDE EYE STRETCHES

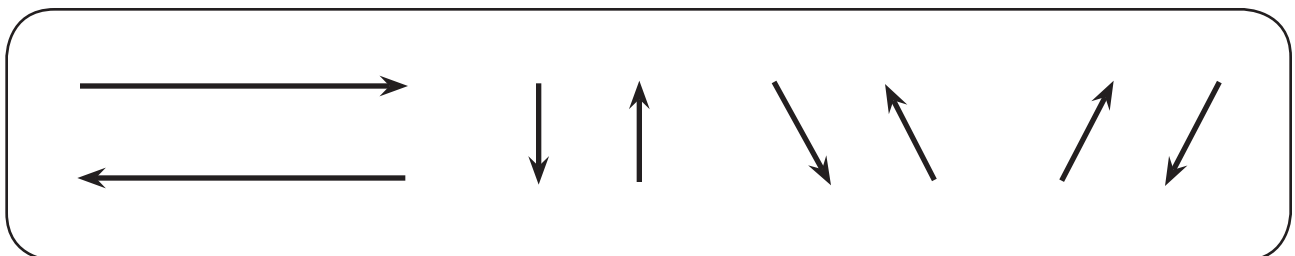
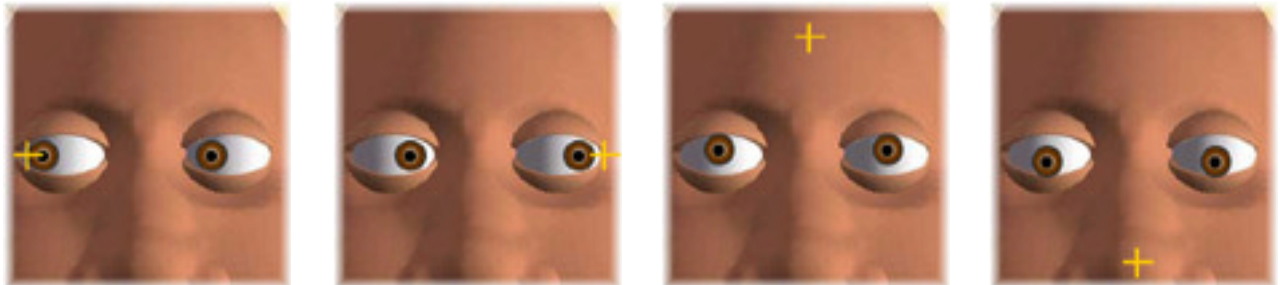
Home or School Activity

Goal: To increase eye rotation comfort

Equipment - None

Schedule - Appropriately 1 or 2 minutes, several times a day for about 2 weeks (typically done before other Eyes Plus activities)

Activity - Have the student look as far to the right as possible and hold this position for several seconds. Then have the student look to the left, again holding for several seconds. Then continue looking up, down and in oblique locations. Try to have the student “stretch” as far as possible. It may be uncomfortable at first, but improvement will be noted with time and practice.



II. FOCUSING

Home or School Activity 1

Goal - To immediately see each near or far target clearly. Students should ultimately be able to copy their spelling words or other material from the chalkboard or screen accurately and efficiently.

Equipment - Pencil, pen or thumbnail with a letter on it.

Schedule - Approximately 1 or 2 minutes, several times a day for about two to three weeks.

Activity - Students look at a letter on a pen or pencil (or thumbnail) they are holding, then look at a number on a clock across the room. Have them look back and fourth quickly getting a clear image each time, about ten to fifteen times.

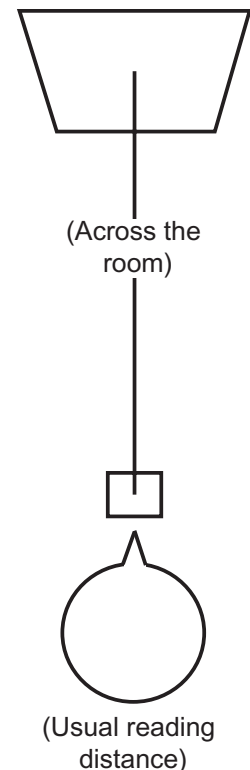
School Activity 2

Goal - Students should immediately see each word clearly at each distance as they look back and forth. The rewards are great when students can copy their spelling words (math problems, class notes) efficiently from a distance.

Equipment - Paper and transparency with identical word list (in groups of three) and an overhead projector. The list of thirty words may be taken from Taylor Associates' Core Vocabulary (Levels 1-3), the Dolch list or any word list of your choice.

Schedule - Five to twenty sessions with approximately 3-5 minutes per session.

Activity - Children alternately read three words from their hand held paper, then three words from across the room, then from the paper, etc. The words should be known by the children. Often the first words known by kindergarten students are their classmates names. Take note if the child requires more time than 1 second to focus the eyes and see clearly. The goal is to achieve instantaneous change of focus.



III. EYE MOVEMENT

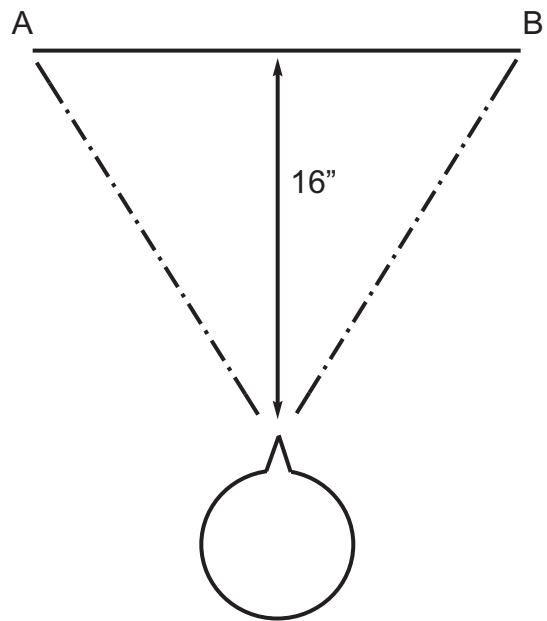
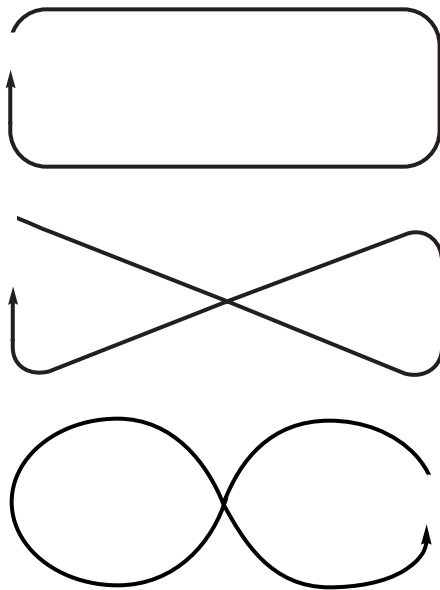
Home or School Activity 1

Goal - To follow a moving target while thinking (similar to moving eyes while reading with comprehension) maintaining clear single vision at all times.

Equipment - Pencil

Schedule - Approximately 1-3 minutes daily for two to three weeks (10-20 sessions) or until the task is performed easily and well.

Activity - Hold the pencil about 16" from the child's nose, then move it in all directions (straight lines, diagonals, figure eight, etc.). Each revolution should take about 4 seconds.



The child follows the tip of the pencil with his eyes while spelling words or doing math facts.

III. EYE MOVEMENT

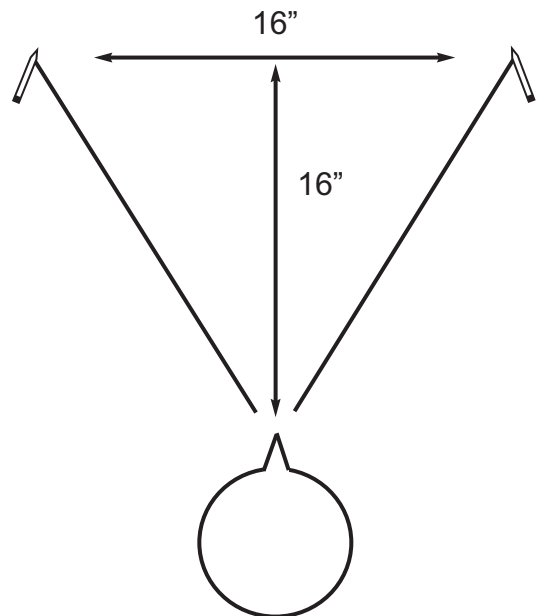
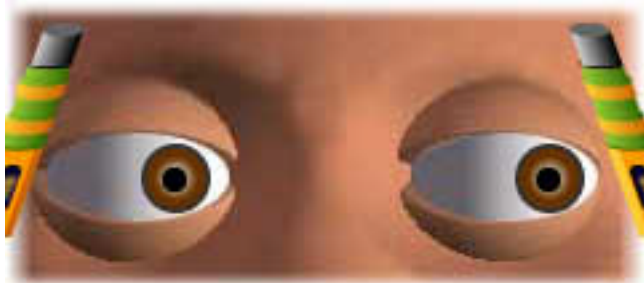
Home or School Activity 2

Goal - Move eyes directly and quickly from target to target efficiently.

Equipment - Pencils.

Schedule - Approximately 2-3 minutes daily for 1 week.

Activity - Have the student hold two pencils about 16 inches apart and 16 inches from the eyes. Have him look quickly from one to the other.



IV. EYE ALIGNMENT

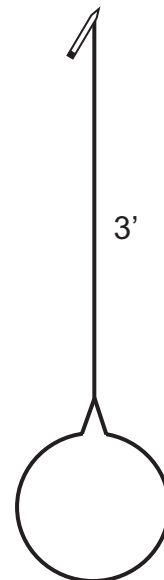
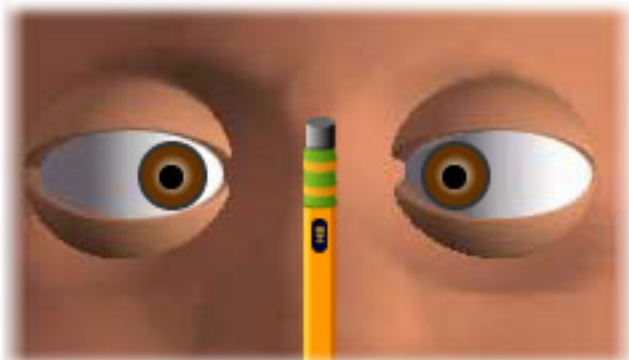
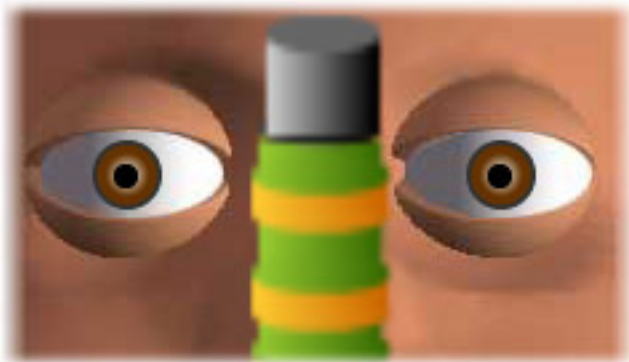
Home or School Activity 1

Goal - To see a clear, single image at all distances.

Equipment - Pencil.

Schedule - Approximately 3 minutes per day and continued until the goal is achieved with this activity a number of times. Then proceed to Activity 2. Be sure student is using both eyes. (Both eyes directed toward pencil.)

Activity - Move pencil eraser toward the nose from 3 feet to 2 inches (about 4 seconds per cycle). Have child tell you if he sees two. (Usually you can see one eye “kick out.”) If he sees two, move the pencil out again until the pencil is single again. Repeat the activity of moving the pencil from 3’ to 2” a number of times for about 3 minutes.



IV. EYE ALIGNMENT

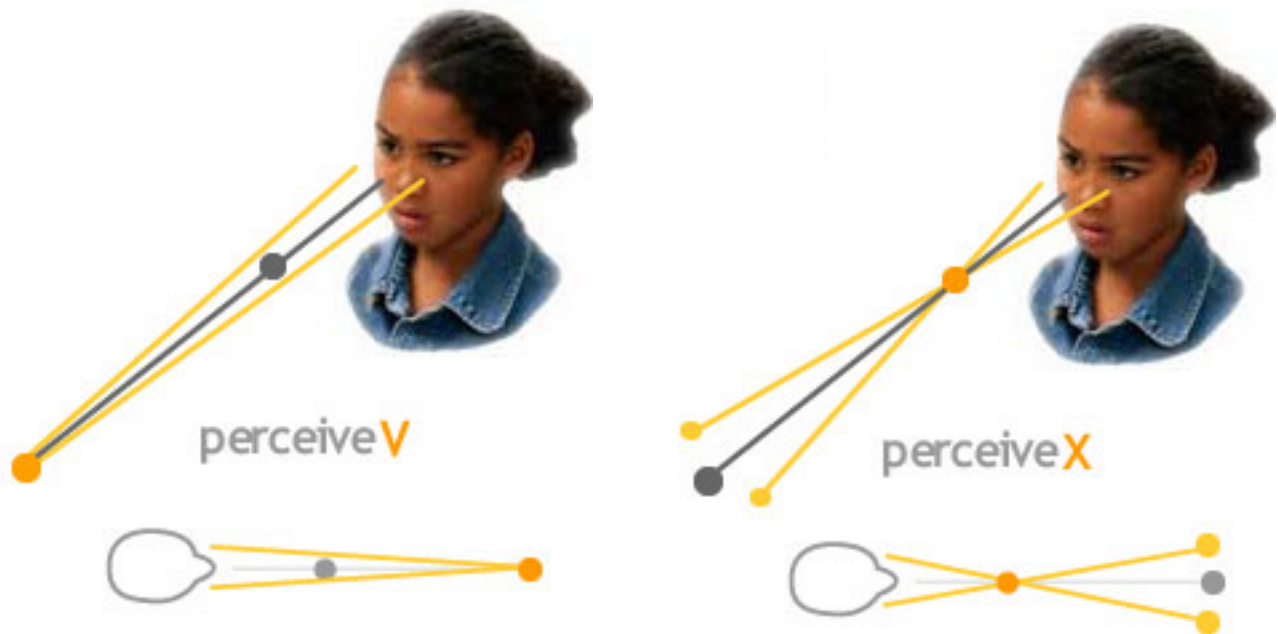
Home or School Activity 2

Goal - To see a clear single image at all distances

Equipment - Brock String with 2 beads

Schedule - Activity 2: Approximately 3 minutes per day and continued until the goal is achieved.

Activity - Look at close bead, then far bead, then close, etc. (Time to change distances about 1 second intervals or less.) When the child looks at the bead 3' away, he/she should report 2 strings and 2 close beads. The string should appear to be a V looking at the far distance. Looking at the bead at the 1' distance the strings should make an X and 2 beads will be seen at the 3' distance.



Progress Check

Following the use of these suggested home or school training activities you might administer the Functional Readiness Question to determine whether adverse symptoms previously reported have now vanished.

Following these forms of training, a child should be symptom free, reading for pleasure and better prepared for TA's Guided Reading program and PAVE: Perceptual Accuracy/Visual Efficiency training in school which will help fine tune the child's visual system and increase his efficiency in reading so that he can be more competent in the classroom and life. If at any time the child does not make significant gains each week from training, all activities should be stopped and the child referred to a vision specialist to determine what needs to be done to improve vision or visual/functional skills. Contact COVD (888) 268-3770, (www.COVD.org) or OEPP (714) 250-8070 for the nearest behavioral optometrist.

Follow-up Check

Several months following the visual/functional training described in this site, it may be advisable to re-administer the Functional Readiness Questions again to ensure that children are symptom free. Some children may need a follow-up program or additional training. However, this additional training may require far less time than the initial training.

Visual/Functional Training Progress Chart

I Wide - Eye Stretches			II Focusing			III Eye Movement			IV Eye Alignment	
Session	Time	OK	Activity 2 Session	Time (30 words)	Av. time to clear	Activity 1 and/or Activity 2			Activity 1 or 2	
						Session	Time	OK	Session	Time
1	<input type="text"/>	<input type="checkbox"/>	1	<input type="text"/>	<input type="text"/>	1	<input type="text"/>	<input type="checkbox"/>	1	<input type="text"/>
2	<input type="text"/>	<input type="checkbox"/>	2	<input type="text"/>	<input type="text"/>	2	<input type="text"/>	<input type="checkbox"/>	2	<input type="text"/>
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