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## Training teachers in early detection of vision problems of children at risk

### Abstract

A. A Visual Skills Profile (VSP) was drafted in non-technical language during a four hour seminar presented to eleven educators from the Forest Grove, Oregon Public School District No. 15. The purpose of the seminar was to field test the VSP and to make adjustments appropriate for educators.

B. Background information on vision and its development, discussion and demonstration of vision problems, a video presentation on classroom observation of vision problems, and handouts were presented at the seminar.

C. Classroom visitations for demonstrating the use of the Visual Skills Profile and consulting about individual students were accomplished in two schools. The classroom teacher is in daily contact with students. The Visual Skills Profile would provide the teacher with a guide to observe and identify children with potential visually-related learning problems and to refer to a vision specialist for diagnostic evaluation.

### Degree Type

Thesis

### Degree Name

Master of Science in Vision Science

### Committee Chair

Anita McClain

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Optometry

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TRAINING TEACHERS IN EARLY DETECTION  
OF VISION PROBLEMS OF CHILDREN AT RISK

By

Brent C. Nielsen, O. D.

A Thesis submitted to  
Pacific University  
Colleges of Education and Optometry

For the Degree

Master of Education

in

Visual Function in Learning

May 1989

Committee Members:

Anita B. McClain, Ed.D, Chair

Nancy Nagel, Ed. D.

John R. Roggenkamp, O.D.

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OF VISION PROBLEMS OF CHILDREN AT RISK

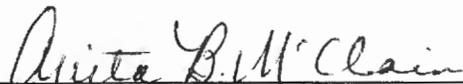
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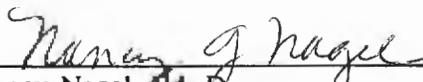
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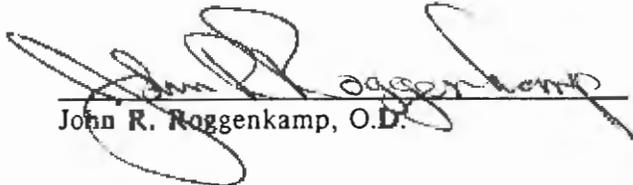
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## ABSTRACT

A. A Visual Skills Profile (VSP) was drafted in non-technical language during a four hour seminar presented to eleven educators from the Forest Grove, Oregon Public School District No. 15. The purpose of the seminar was to field test the VSP and to make adjustments appropriate for educators.

B. Background information on vision and its development, discussion and demonstration of vision problems, a video presentation on classroom observation of vision problems, and handouts were presented at the seminar.

C. Classroom visitations for demonstrating the use of the Visual Skills Profile and consulting about individual students were accomplished in two schools.

The classroom teacher is in daily contact with students. The Visual Skills Profile would provide the teacher with a guide to observe and identify children with potential visually-related learning problems and to refer to a vision specialist for diagnostic evaluation.

## INTRODUCTION

Over the years, various methods have been utilized to recognize and refer children for vision care. Presently, there is no nationwide standard to achieve this purpose. Most teacher training programs do not include course material to prepare their students to recognize vision problems. The purpose of this paper is to provide educators with a Visual Skills Profile written in non-technical language and to provide them with the necessary training in its use.

The Director of Instruction at the Forest Grove School District Administration Building was contacted by the writer. An in-service was arranged to inform educators about detection of vision problems in the classroom and to refine the VSP. The writer then visited eight classrooms in two schools for follow-up and consultations with the teachers.

The short-range purpose is for each of the informed educators to encourage their colleagues to use the VSP and to arrange educational programs for the writer to instruct other educators in the school district. The long-term goal is to inform and train all educators in the state in the use of the VSP.

## DEFINITION OF TERMS I

**Accommodative/Convergence:** the mutual interdependence of the focusing system of the eyes and the alignment ability of the eyes to see an object clearly and singly simultaneously.

**Aniseikonia:** the image from one eye may be different in size and/or shape from the image in the other eye.

**At Risk:** children in school who have vision problems not detected by the standard screening method.

**Binocular Vision:** the use of both eyes simultaneously.

**Cortical Area:** the striate area of the occipital lobe of the brain where the optical fibers terminate.

**Eye Movements:** ability to move both eyes smoothly and accurately together.

**Fusional Reserves:** ability of the visual system to maintain a single image using both eyes under all conditions.

**Hand-eye Coordination:** the integration of movement of the eyes with the movement of the hands.

**Heterophoria:** inability to keep the eyes aligned properly; the eyes may turn in, out, up, or down.

**Motor Fusion:** the neural and muscular mechanism that allows the visual system to see singly when both eyes are fixated on the same object.

**Refractive Errors:** deviations from a normal eye; e.g., nearsightedness, farsightedness, and astigmatism.

**Sensory Fusion:** the activity within the cerebral cortex of the brain that allows a single perception to be achieved.

**Stereo-acuity:** ability to focus and align the eyes to see depth.

**Suppression:** a type of cortical cancellation of the image from one eye in reaction to stress on the visual system.

**Vision Problem:** visual difficulties may result from deviations from normal in one or any combination of these categories: visual acuity, refractive conditions, coordination, perceptual, and organic.

## LITERATURE REVIEW

### BACKGROUND

Early detection of vision problems at the elementary level is important to prevent future failures. There is a need to examine the role of undetected vision impairments as a cause of reading deficiencies, poor academic performance, and low student retention. The United States Office of Education states that one out of four students nationwide has significant reading deficiencies. Since 80% of learning depends on vision, undetected vision problems can be a major factor in poor academic performance<sup>1, 2</sup>.

According to Johnson at the White House Conference on Children and Youth in 1970, up to 80% of delinquents or semi-delinquents studied exhibited Learning Disabilities, specifically reading, where poor vision was found to be a contributing factor in at least 50% of the cases<sup>3</sup>. Helbert, chief clinical psychologist at Sing Sing Prison, conducted a study that found 80% of the children in trouble having learning difficulties and that half of this group could not see well<sup>4</sup>. Dzik researched juvenile delinquency and found that 90% of the juveniles in the study were below grade-level in reading and indicated a link between visually-related learning problems and delinquency<sup>5, 6</sup>. Shearer reported that 75% of the poor readers in the United States are emotionally disturbed, and likely as a result of the reading problem<sup>7</sup>.

Betts discussed the need for techniques to detect children with vision problems by giving more attention to screening for and correcting binocular nearpoint problems that cause decreased performance during reading<sup>8</sup>. Reading requires sustained visual effort; greater attention should be given to assessing the visual system and its functions rather than using visual acuity as the only screening device<sup>9</sup>.

Apell stated that there is a need to consider visual difficulties in terms of development stages and appraisal of the maturity level of behavior of the growing child<sup>10</sup>. He encouraged early diagnosis and guidance reflecting the demands of an increasing technological society.

Getman discussed the need for early identification of any failure of a child during the educational process<sup>11</sup>. Testing (screening) will determine how well the child will perform reading, writing, and arithmetic<sup>12</sup>.

Harmon did extensive research into the effects of stress on posture, and he discussed the influences on the developing visual system in the school setting; e.g., illumination, glare, color dynamics, posture control, print-size, desk-angle, and desk fitting<sup>13, 14</sup>. Harmon stated that 20% of children have vision problems by age five and 40% by age eight. Results of vision screening show that younger children have a greater percentage of unidentified problems and that the percentage of children who have had previous care and need additional care, increases with age<sup>15</sup>.

Binocular vision and an adequate accommodative/convergence relationship are necessary for a child to achieve. Vision problems can be produced by suppression, heterophoria, close working distance, in-efficient eye movements, poor sensory fusion, aniseikonia, reduced stereo-acuity, refractive errors, poor hand-eye coordination, low fusional reserves, and poor posture<sup>16, 17</sup>. Dirks stated "reading requires a constant coordination of both eyes and any disruption in fusional posture results in symptoms ranging from subtle to overt."<sup>18</sup> Laudon said that students with reading delays can display symptoms of binocular stress<sup>19</sup>. Shipman stated that "stress brings up a constriction of the perceptual field, and the child observes less, sees less, remembers less, and generally becomes less efficient."<sup>20</sup>

Schools have typically relied on distance visual acuity as the standard for vision screening<sup>21</sup>. Gesell, a pioneering developmental physician, stated: "The problem of childrens' vision can not be appraised by a single criterion of acuity. All vision is mediated by an intricate functional complex. So many factors, both intrinsic and environmental, enter this disparity that every case of so-called disability needs individual analysis and appraisal."<sup>22</sup> Bing described most of the testing of school children as very limited and having little relationship to learning by means of

seeing<sup>23</sup>. Several authors presented the point that 20/20 visual acuity is not enough for the complete diagnosis of a visually-related learning problem<sup>24, 25, 26</sup>. Betts wrote that under-achievers in the classroom usually have better than average visual acuity, yet they have vision problems that go unrecognized<sup>27</sup>.

Heinsen stated that "the teacher cannot recognize a vision problem unless he has been trained to do so. Therefore, the first step in developing a good school program regarding vision care would be to instruct teachers in what constitutes a vision problem and how they can best spot those students who probably need professional care."<sup>28</sup> The training of teachers needs to address observations of such factors as abnormal reading distance, head tilts, head turns, closing or covering one eye, scanning a book with the head and neck, rather than the eyes, and eye tracking. Ludlam stated that "The clinical evidence is overwhelming that visual processing anomalies, as contrasted to eyesight or acuity problems, play a large role in the reading and spelling problems of many children."<sup>29</sup>

## **CURRENT STATUS**

There are many variations of checklists for detecting vision problems in the classroom. One of the most used forms nationally is the "Educator's Guide to Classroom Vision Problems," prepared by the Optometric Extension Program's Section on Children's Care and Guidance<sup>30</sup>. The Oregon Optometric Association has prepared a handbook for educators and parents, entitled "The Effects of Vision on Learning and School Performance."<sup>31</sup> The handbook explains vision problems, presents tables for categorizing areas of screening, and concludes with a discussion of treatment programs. Edelman, et al., wrote "The Suddenly Successful Student" as a guide to inform parents and teachers about learning and behavior problems<sup>32</sup>. Richards developed his manual, "Visual Skills Appraisal," to help educators assess visual performance and to coordinate classroom activities<sup>33</sup>. Suchoff discussed visual-spatial development in the child and its relationship to academic learning<sup>34</sup>. The American Optometric Association, the Society for the Prevention of Blindness, and the International Reading Association have also developed educator

checklists for use in the classroom. These efforts demonstrate widespread desire to detect vision problems.

## **SUMMARY**

Several studies have probed the symptoms and factors of the child visually at risk<sup>35, 36, 37</sup>. The educator's role in detecting vision problems has been the subject of many articles<sup>38, 39, 40, 41, 42, 43, 44, 45, 46</sup>. Checklists are not universally used by educators. Many schools of education have not included training in the detection of vision problems in the curriculum.

Snyder analyzed the depth of fragmented professional care and cooperation and pleaded with the professionals to reach a "fresh definition of societal responsibility" to revitalize our culture into planning programs that reflect empathetic care for the individual<sup>47</sup>. There are many sources of information about vision. Interdisciplinary sharing and cooperation are important to promote care of the total child<sup>48</sup>. Since vision is learned, early care is important and imperative<sup>49</sup>.

## **IMPLICATIONS**

The expanded training of teachers to recognize vision problems in the classroom is necessary to revitalize helping the visually at risk children to reach their potentials. A cooperative effort would improve the efforts to create educational responsibility.

## DEFINITION OF TERMS II

**Astigmatism:** the visual condition where the refracting power of the eye is different in different meridians causing blur and distortion.

**Base-in Lens:** a prismatic lens with the thickest part or base facing towards the nose when placed in front of the eye.

**Bernell Tranaglyph:** a hand-held card used to test for suppression and fusion problems; special glasses are used with a red lens in front of one eye and a green lens in front of the other.

**Hyperopia:** the visual condition where blur and visual symptoms occur at nearpoint.

**Learning Lenses:** lenses used to reduce visual stress at nearpoint by allowing easier focusing, expanding peripheral awareness, and changing the working distance.

**McDonald Peripheral Awareness Test:** a paper with a central looking point and letters varying in size from that point to the edges of the page.

**Myopia:** the visual condition where standard visual acuity has been lost in the distance.

**Oculomotor Response:** the ability of the eyes to move in various positions of gaze (circular, horizontal, vertical, or varied).

**Postural Lenses;** lenses used to effect changes in posture, working distance, and balance.

**Sight:** the ability to see letters; the response of the eye to light.

**Trial Lens Set:** a series of convex, concave, and prismatic lenses - used to demonstrate refractive errors and correction of refractive errors.

**Vision:** a complex process that enables the human organism to discriminate objects, localize, and center attention to get meaning.

**Visual Balance:** the ability of the body to maintain postural alignment through the visual system.

## METHOD

### IN-SERVICE

#### Lecture

Educators from Forest Grove were contacted to participate in a in-service on Training Teachers in Early Detection of Vision Problems of Children at Risk. Packets were sent to them to explain the purpose of the in-service and to help them prepare for it. The packets included a cover letter (see Appendix A) and three pamphlets - "Educator's Guide to Classroom Vision Problems," "The Effects of Vision on Learning and School Performance," and "Does Your Child Have a Learning-related Vision Problem?" (printed by the Optometric Extension Program Foundation, Inc., 2912 S. Daimler St., Santa Ana, CA 92705).

The in-service was presented in April, 1989, to eleven educators and two interested observers. The teachers represented Kindergarten, second grade, fourth grade, special education, and high school areas. The participants were given another packet containing the agenda, a glossary of terms, a definition of terms (see Appendix A), and additional handouts. The goals, objectives, and procedures were presented and discussed. The main purpose was to field test the Draft VSP during the meeting and in the follow-up.

The lecture started with a discussion of the background of vision and its development. A video-tape VISION IN THE CLASSROOM (created and filmed jointly by the Optometric Extension Program Foundation, Inc. and the Kansas Optometric Association) was presented to acquaint the participants with the development of vision in the growing child and with the development of vision problems in the classroom. Terminology was then defined. Various studies were then read to describe and illustrate the results of stress on the visual system.

Facts were given and reinforced several times during the meeting. The first is that we see with our brain, not our eyes. The second is that 80% of learning comes through vision. The third fact is that 80% of the visual fibers from the retina end up in the visual cortex and the other 20% distribute to the shoulders and the neck. Demonstrations illustrated the above to help the participants in understanding the complexity of the visual process and that the whole body is involved in vision.

## Demonstrations

Visualization: (1) each person was asked if they could or could not picture a gold Cadillac with red wheels; (2) one person was given four numbers verbally and was asked to repeat them backwards; (3) one person was given a paper bag with a small screw, lock, battery, Hi-Lite pen, and eye patch inside, and then asked to describe and name the articles by only touching them. The purpose of the demonstrations was to illustrate the ability of the brain to see without the eyes actually looking at something.

Effects of postural stress on seeing (visual acuity): each person was asked to slouch down in their chairs, fold their arms tightly across their chests, cross their ankles, and look at the letters on the paper held in front of them. They were then asked to sit up straight and to discern the difference in the letters. The responses were that the letters appeared larger and/or clearer.

Effect of base-in prism on reading: each person placed a six prism diopter base-in lens in front of one eye and read some material. The responses ranged in degrees of difficulty in comprehension. Discussion followed on the various effects of muscle imbalance on reading comprehension.

Fusion and suppression: The Bernell Tranaglyph was circulated for each person to test for any evidence of suppression or inability to maintain fusion. Many responses demonstrated the presence of suppression. All responses demonstrated the ability to maintain fusion.

Eye movements: two participants were asked to follow a pen. One person followed the pen by moving her head; the other person used her eyes. Discussion ensued how students can reverse words due to poor eye movements; when these students reread, their eye movements retrace the line backwards, thus causing "WAS" to be read like "SAW".

Oculomotor response: One teacher was asked to follow a pen with her eyes and simultaneously count backwards verbally starting at 31 and subtracting 3 each time. Then, at one point, the lecturer interjected 77; the person was still able to continue the proper sequence. Discussion centered around the child who cannot process visually when stimulated auditorily. This child can perform well in a silent place and perform poorly in a noisy classroom.

Learning lenses: a pair of low power convex lenses was placed in front of one teacher while she attempted to read. Her voice became hesitant and she felt uncomfortable. Other lenses of a slightly different power were used. Her performance improved. A second teacher responded that she could see much more of the page with lenses. Peripheral awareness was discussed.

Soldier walk: a teacher was asked to simply walk from one place to another. Her arm and leg movement was observed. She did not synchronize her left arm with her right leg. Discussion followed about the general absence of children being taught the mechanics of walking. Self confidence and balance can be acquired by learning the proper mechanics. Motor movements are important in visual development.

Penguin walk: one person was asked to raise the left arm and the right leg at the same time, then reverse limbs. Many children are unable to do this bilateral movement. This was a variation of the previous demonstration.

Ball catch: one teacher was asked to catch a beanbag with one hand. The bag was thrown into the air towards the person; then the direction was verbally given as to which hand to use. Discussion centered around directionality.

Chalkboard activities: each person was asked to pretend that there was a chalkboard in front of them. Each one was asked to write their name and to draw a circle on the simulated chalkboard. Then, each one was asked to write bilaterally (write their first name forward with the right hand and backwards with the left). The purpose was to illustrate peripheral awareness, bilateral movement abilities, binocularity, and hand-eye coordination.

Pencil/chalk grip: this was discussed because many children do not use the correct pencil grip. Most of the teachers stated that they do not teach students how to hold their pencils. Many students develop poor motor habits that create stresses on the visual system, resulting in astigmatism, poor posture, differences in the refractive condition of each eye, and cramped muscles. Proper pencil grip allows an easier writing flow.

### **Conclusion**

The in-service concluded with discussion on the completion of both the VSP and the evaluation of the presentation. Each participant forwarded the completed material through the Office of Instruction at the School District Administration Center. The forms were then sent to the writer for compilation.

### **FOLLOW-UP**

The Draft VSP with suggested changes and the evaluations were received (see Appendices B and C). Eight different classrooms were visited by the writer for the purposes of consulting with the teachers on the use of the VSP. Several students in each classroom exhibited several of the symptoms listed on the VSP. Each teacher was informed that a copy of the final VSP would be distributed when completed.

### **DISCUSSION**

The purposes of this paper was to draft a Visual Skills Profile in non-technical language for use by the classroom teacher and to field test it. The method selected was an in-service presented by the writer. The results of the in-service indicated an interest by the educators to utilize the VSP and to have more information disseminated to the rest of the school district. Informed teachers can observe their students utilizing the VSP.

The cooperative approach between education and optometry is important to the recognition of childrens' vision problems and appropriate professional care. The demonstrations of the various vision problems were a valued part of the meeting. The teachers felt their experiences would benefit their understanding of the students' visual problems.

The follow-up was important for both the educators and the writer. It allowed active observation and consultation. The teachers felt that more in-services should be given to the educators in the school district. This will allow refinement of the presentation format and the VSP. Following a successful local program, use of the VSP could then be extended statewide. The teachers also suggested that one addition to the VSP should be two separate columns for checking either "Yes" or "No" for each line.

### RECOMMENDATIONS

The goal of the VSP is to find visual problems in school children. The first step would be to educate the local school system through education programs and active follow-up by the writer. A larger objective would expand the program to all the schools in the state. The VSP would become part of a statewide vision screening program. The Forest Grove school district would be contacted for a presentation to all the teachers. The subsequent district-wide use could be monitored by a future candidate for the Master in Education program. One addition to the VSP should be two separate columns for checking off a "Yes" answer or a "No" answer for each of the lines.

An important step would be to create a position in the Education Department at Pacific University to present a post-graduate course and to lecture and train the education majors in the use of the VSP. This can be expanded to other institutions in the state that have teacher education programs.

A related study could be a state-wide survey of the various methods that each school district uses to teach its educators how to detect vision problems and to recommend the use of the VSP as an adjunct to currently used screening programs. The results should be examined to determine the effectiveness of the combined methods. Positive results in these efforts would lend an effort to addressing visually the education of children confronting an advancing technological world.

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APPENDIX A  
IN-SERVICE PACKET

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**TRAINING TEACHERS IN EARLY DETECTION  
OF VISION PROBLEMS OF CHILDREN AT RISK**

**APRIL 5, 1989**

**WELCOME**

**INTRODUCTION** -- who I am -- who you are

**GOALS AND OBJECTIVES:**

1. To improve the effectiveness of classroom teachers working with at-risk children through teacher training in early detection of vision problems affecting reading and academic performance.
2. To help in development of interdisciplinary teaming.
3. To develop, print, and teach the Visual Skills Profile, utilizing educator-level language.
4. To field test the Visual Skills Profile and the teaching methods on an in-service basis with supervisory follow up.
5. To produce an appropriate referral form.
6. To assess the visual portion of the project after the initial phase.

**PROCEDURES:**

1. Prepare draft of Vision Skills Profile for submission to the teachers to be trained to translate into education language. This will offer teachers and vision care professionals an effective tool in recognizing early signs and symptoms. (Pull out draft of V.S.P. at this time.)
2. Prepare referral form.
3. Distribute parent education material.
4. Conduct the Vision Screening Testing to prepare the teachers for their role of active in the classroom.
5. Monitor the progress of the teachers and the assessments of the children.
6. Assess and critique the program as initiated. Supply recommendations for the continuance of the program.
7. Prepare material for a pamphlet to be completed by the next candidate in the Master of Education Program for distribution to educators.

**BACKGROUND:**

1. "Sight" vs "Vision" -- pull out the card with the picture and guess what it is. Discuss.

2. Definition of "Sight": the ability to see letters; the response of the eyes to light. Simply, light goes into the eyes.
  
3. Definition of "Vision": "a complex process that enables us to discriminate objects, localize, and center our attention to get meaning" (Forrest). Simply, it is what we do with what we see.
  
4. VISION IN THE CLASSROOM --PART ONE -- Emphasis on the development of vision.
  
5. Gesell -- said that what the infant sees depends on what he does. So-called visual perceptions are really visual- motor perceptions. He grasped that seeing is not a separate function, but one that is involved in the total action system of the child, including posture, manual skills, coordination, intelligence, and personality.
  
6. Baldwin -- gave 5 essential criteria for a child to have full representation of the external world:
  - A. The child must deal with an object as a permanent item that exists externally.
  - B. Distinguish between the properties of an object and its position in space.
  - C. Apply movement principle in space and integrate sensory behavior to function as information around a single item.
  - D. Recognize that objects and movements may occur outside of one's own self.
  - E. Realize himself as one of the objects that might be called his "cognitive map."
  
7. Weymouth -- stated that there are 3 phases in the visual process:
  - A. The optical senses producing images - the eyes.
  - B. The physiological phase including stimulation followed by neural interaction and conduction from the retina to the visual pathways.
  - C. The perceptual or psychological phases occurring in the cortical areas.

8. Areas of visual performance:

Child developmental sequence:

1. Movement patterns

A. General -- primary process aided by steering eyes.

B. Special -- hand-eye - visual/tactual integration.

2. Eye movement patterns -- visual information to reduce action of the body and a guide for hand movements (copying).

3. Communication patterns -- language development and eye movement abilities are related.

4. Visualization abilities -- recognizing likenesses and differences in objects, numbers, and words; coordinating with past experience (visual memory); ignores time and space - can you picture a gold cadillac with red wheels?

5. Visual integration -- describing something without looking at it; interpret maps, symbols, etc.

Explanation of terms:

1. Muscle Balance: all eye muscles functioning normally; ability to keep the eyes aligned properly and move them in all directions; no eye turn or wandering eye.

2. Visual Fixation Skills: ability to point the eyes accurately and keep them on target.

3. Accommodation Skills: ability to focus the eyes accurately and change focus easily from on distance to another.

4. Binocular Fusion Skills: ability to use the eyes to see one single image; no suppression of vision in one eye; no double vision.
  
5. Convergence Skills: ability to turn the eyes in accurately for close work (reading, writing, etc.).
  
6. Stereopsis: ability to focus and align the eyes in accurately to see depth.
  
7. Motility: ability to move both eyes smoothly and accurately as a team.

**DISCUSSION:** Vision is learned; therefore, parents have a responsibility to give the child enough experiences in the pre-school period. Unfortunately, today's modern child frequently does not have the necessary amount to be visually ready for the new experience of school. There is no national policy for compulsory vision examinations prior to entering school or in the first, fifth, and ninth grades (as are medical and dental examinations). Today, TV has created a situation where there is less skill development in a technological world. Our advanced civilization has not allowed many children the freedom to explore the simple things and learn. There are too many toys and passive experiences.

1. Gesell and Ilg: studied the variation of behavior in the early school years. Tension is minimal at age 5; tension is higher between 5 1/2 and 7, with outward manifestations of behavior, including nail-biting, pencil chewing, inability to sit still, etc. At age 7, tension signs switch from mouth-involved to hand-related ones. Age 8 brings greater varieties of tension behavior that is less obvious due to the fluidity of change., Behavior at 9 and 10 quiets down somewhat (unless there is trouble).

2. Harmon: studied 160,000 school children in Texas. At age 5 - 20% had vision problems; at age 8 - 40% had vision problems. This indicates that so-called "eye defects", such as myopia, hyperopia, and astigmatism are related to a child's learning to use the visual mechanism inadequately in the first 8 years.

3. Definition of Vision Problem: caused by an inadequacy in the total visual process (sensory - integrative - motor)
  
4. How we blur and how we see double: The visual system brings the skeletal system (convergence, extra-ocular muscles) and the autonomic nervous system (ciliary muscles; accommodation) together to precisely maintain single, clear vision. Stress acts on the focusing system first, and then the convergence system. If there is a problem in the relationship of the 2 systems, then an over-reaction on one system will cause an increased response in the other. Convergence stimulation can create blur; accommodation stimulation can cause visual discomfort or double vision.
  
5. Shipman: stated that "stress brings up a constriction of the perceptual fields, and the child observes less, sees less, remembers less, and generally becomes less efficient."
  
6. Every child needs an individualized analysis and appraisal.
  
7. What about the 20/20 child? This is the child who says: "I have 20/20 vision, but I read slowly." Many estimates of over 25% of children are functioning below their potential. No one has come up with a solution to effectively help this mass of students.
  
8. Forrest: reported that visual tracking skills are related to figure-ground organization; central fixation ability to visual pursuits; peripheral computing ability is basic to saccadic fixation; near to far fixation skills need bilateral symmetrical action.
  
9. "Practice makes tired" -- one adaptation to excess remedial work; another is avoidance; others are headaches, blur, doubling, nausea, and dizziness.
  
10. Our society starts children in school earlier than some school systems in Western Europe. Readiness may not occur until 7 or 8.
  
11. VISION IN THE CLASSROOM -- PART TWO -- observing children with vision problems. This is the second half of the video-tape presentation.

## DEMONSTRATIONS OF VISUAL CONCEPTS AND VISUAL PROBLEMS

According to many authorities, 80% of learning is done through the visual system.

We see with our brain, not our eyes. 80% of visual nerve fibers go to the visual cortex of the brain and 20% go to the neck and shoulders. Demonstrate the effects of lenses on the back.

Visualization:

Effects of postural stress on seeing (visual acuity):

Effect of base-in prisms on reading:

Simulate nearsightedness:

Simulate farsightedness:

Simulate astigmatism (postural warpage):

Fusion:

Suppression:

Eye movements:

Oculomotor response - with auditory feedback and auditory overflow. Discuss child doing great at home and poorer at school:

Learning lenses (reading distance, voice inflection, speed, and excess motor flow):

Soldier Walk:

Penguin Walk:

Ball Catch:

Class Stand-up:                      Results                      Feeling

Chalkboard activities - circle -- name -- 1-10 -- bilateral writing:

Pencil/chalk grip:

Some final insights:

Students with vision problems will not read for pleasure.

Seat left hand students on the left side facing the chalkboard and the right handers on the right side to allow the body to center more effectively when writing.

Certain students with a "C" grade may have the potential to be better when vision problems have been remedied.

**THANKS FOR COMING !**

**EVALUATION OF IN-SERVICE**

What was most helpful?

What was least helpful?

Were things clear?

Did you feel a part of the program?

Did the demonstrations give insights into vision problems?

Do you feel confident enough to use the Visual Skills Profile ?

Was there enough variety to the program?

Was there too much presented for proper digestion?

Would you like more of this?

Would your fellow teachers benefit from a similar program?

Are there additional things you would like to know?

Personal comments:

**INFORMATION: TERMS AND TESTS**

**Visual Perception:** A practical definition of visual perception is the capacity to interpret or give meaning to what is seen. This definition includes recognition, insight, and interpretation at the higher levels of the central nervous system of what is seen

**Visual Discrimination:** The ability to match or determine exact characteristics of two forms when one of the forms is among similar forms.

**Visual Memory:** The ability to remember for immediate recall (after four to five seconds) all of the characteristics of a given form, and be able to find this form in a group of similar forms.

**Visual-Spatial Relationships:** The ability to determine, from among five forms of identical configuration, the one single form or part of a single form that is going in a different direction from the other forms.

**Visual Form Constancy:** The ability to see a form and be able to find that form, even though the form may be smaller, larger, rotated, reversed, and /or hidden.

**Visual Sequential Memory:** The ability to remember for immediate recall (after four or five seconds) a series of forms from among four separate series of forms.

**Visual Figure-Ground:** The ability to perceive a form visually, and to find this form hidden in a more complicated picture.

**Visual Closure:** The ability to determine, from among four incomplete forms, the one that is the same as the stimulus form (i.e., the completed form)

## GLOSSARY

**Accommodation (ocular):** The dioptric adjustment of the eye to obtain maximal sharpness of the retinal image of an object of regard; the changes in the crystalline lens of the eye to gain a clear focus.

**Amplitude of Accommodation:** The difference expressed in diopters between the farthest point and the nearest point of accommodation (focusing).

**Auditory-Motor Function (syn. Auditory Perception):** The ability to receive and understand (at the brain or cortical level) sounds and their meaning.

**Balance:** A state of equilibrium between opposing forces. Example: body movement against gravity.

**Binocular:** The use of both eyes simultaneously in such a manner that each retinal image contributes to the perception of a single image.

**Body Image:** The picture or mental representation one has of one's own body at rest or in motion at any moment; deprived from internal sensations, postural changes, contact with other people, emotional experiences, and fantasies.

**Constancy of Shape:** Refers to the relative apparent stability or lack of perceived changes in the shape of an object, despite a change in the direction or angle of view.

**Convergence:** The turning inward of the lines of sight toward each other.

**Development:** An ordered, sequential, chronological process characterized by (1) maturation of stature (anatomy of an individual), (2) sequential emergence of function (physiological, voluntary and involuntary use of maturing structures and refinement of performances), and (3) interaction with the environment.

**Differentiation:** The ability to sort out and use independently different parts of the body in a specific and controlled manner. Example: the ability to innervate the muscles of one arm without innervating in a similar fashion the muscles of the other arm or any of the parts of the body not required by the task.

**Directionality:** The ability to project the internal awareness of the two sides of the body into extrapersonal space (the spatial world of the individual).

**Divergence:** The deviation of the lines of sight of the two eyes outward from parallelism.

**Dysfunction:** Refers to abnormal or imperfect functioning.

**Eye-Hand Coordination:** The relationship between the visual and kinesthetic clues that results in accurate (manual) spatial localization.

**Figure-Ground Discrimination:** The process of detecting a difference between the stimulus in the foreground (the object) and the stimulus or stimuli in the background.

**Fixation:** The process, or act of directing the eye toward the object of regard, causing in a normal eye, the image of the object to be centered on the fovea.

**Form Perception:** The ability to visually see (at the brain or cortical level) a form.

**Fusion:** The act or process of blending, uniting. In vision, the process by which a single cortical image is perceived as a result of two separate ocular ones.

**Gross-Motor Function (syn. Motor Skill):** The process by which the person innervates a muscle or a set of muscles and causes a limb or a set of limbs to move.

**Inter-modal Integration (syn. Intersensory Transfer):** The ability to transfer a stimulus from one sensory modality to the other.

**Integration (Motor):** (a) the pulling together and organizing of all of the stimuli which are impinging on the organism at a given moment. It also involves the tying together with the present stimulation, experience variables retained from past activities. (b) The organizing of many individual movements into a complex response.

**Kinesthetic:** An act that involves body movement.

**Laterality:** The internal awareness of the two sides of the body.

**Monocular:** The use of one eye while the other eye is shut or covered.

**Near Point of Convergence:** The point of intersection of the lines of sight when the eyes are in the position of maximum convergence.

**Ocular Motility:** Refers to the ability of the extra-ocular muscles to move the eye through the various positions of gaze in response to stimuli.

**Perception:** The mechanism whereby the organism or intellect recognizes a stimulus and makes sense out of it so that it can be utilized by the integrative systems.

**Position in Space:** Of or relating to the direct awareness of the spatial properties of an object, especially in relation to the observer.

**Posture:** Relative arrangement of the different parts of the body; the position or bearing of the body as a whole.

**Rhythm:** Regularity or flow of movement to time.

**Size Constancy:** The apparent relative stability or lack of perceived change in the size of an object, despite a change in viewing distance, viewing angle, actual size, or other related stimulus factors.

**Span of Recognition:** The number of words, symbols, or digits, or the size of the field in which they are contained, that can be correctly identified or perceived during a time exposure sufficiently brief to exclude eye movement.

**Spatial Organization:** The arrangement or constitution of interdependent parts in space. Example: The printed page reads left to right.

**Spatial Relationships:** The connection of interdependent parts in space.

**Speed of Recognition:** The time rate at which symbols, digits, or words, of a specific angular subtense at the eye, can be correctly perceived or identified without eye movement.

**Stereopsis:** Visual perception of depth or three-dimensional space, the ability to distinguish disparity in locus of two objects by virtue of the parallax angle of the two images upon the two retinas; binocular depth perception.

**Symmetry:** Correspondence in size, shape, relative position, and motility on opposite sides of a dividing line or median plane in the body.

**Synchrony:** A controlled simultaneity of integrated movement designed for a purpose.

**Vision Therapy:** Refers to the arranging of conditions whereby a child or adult may learn adequate degrees of freedom of movement to permit efficient visual functioning for the interpretation of light energy patterns.

**Visual Ability:** A visual skill relating to the function of the intrinsic and extrinsic eye muscles.

**Visual Acuity:** To look at; to see; the measurement of the threshold of discrimination; the smallest letters or symbols seen at a specified viewing distance. The ratio 20/20 refers to the average sight at twenty feet. The upper number is the testing distance and the lower number is the symbol size. The ratio 20/40 means the symbol must be twice as large to be seen.

**Visual Perception:** The ability to retain the mental impression of a retinal image after a period of time has elapsed.

**Visual Motor Function (syn. Visuo-Motor Skill):** Refers to the ability to correctly copy that which has been seen. It involved visual discrimination, perception and integration, motor planning, visualizing, and motor skill.

## TABULATION OF EVALUATION RESULTS

### What was most helpful?

1. Demonstrations of visual behaviors and experiencing them.
2. Organization.

### What was least helpful?

Videos - repetitive.

### Were things clear?

Yes - all responses.

### Did you feel a part of the program?

Yes - all responses.

### Did the demonstrations give insights into vision problems:

Yes - all responses.

### Do you feel confident enough to use the Visual Skills Profile (loaded question!)?

Yes - all responses (qualified by statements about lack of experience).

### Was there enough variety to the program?

Yes - all responses.

### Was there too much presented for proper digestion?

No - all responses (qualified by suggestions for follow-up).

### Would you like more of this?

Yes - all responses.

### Would your fellow teachers benefit from a similar program?

Responses were yes, definitely, in a school staff meeting.

### Are there additional things you would like to know:

1. How to screen.
2. How can I convince parents?
3. Is there a list of certified optometrists?
4. How to design work for perceptual problems.

### Personal comments (quotations taken from participants' evaluation forms):

1. "Informative and very interesting - well presented."
2. "We need to do more than pass out a pamphlet. How can we be sure that teachers become involved?"
3. "Well-prepared." Two pages of suggestions followed to implement the VSP.
4. "I loved it, but I'm bogged down with paper work."
5. "We just can't pass out a pamphlet. It will be filed and not used!"
6. "All districts should mandate this as an In-service for all the staff from Pre-K to 12."

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**APPENDIX B**  
**DRAFT OF VSP TO BE FIELD TESTED**  
**DURING THE IN-SERVICE AND SCHOOL**  
**VISITATIONS**

## **DRAFT VISUAL SKILLS PROFILE**

**PURPOSE:** To acquaint you as educators and school nurses with the basic knowledge to provide improved observation of vision behavior in school.

### **LOOKING AT THE EYES:**

One eye appears to turn out or in  
Red eyes  
Red lid margins or styas  
Frequent tearing

### **WHEN A CHILD COMPLAINS WHILE DOING CLOSE WORK:**

Headaches - forehead area or temple area  
Eyes burn, itch, tire, light sensitivity  
Dizziness, nausea, stiff neck or shoulders

### **WHEN A CHILD HAS EYE MOVEMENT DIFFICULTIES -- LOOK FOR**

Turning of head while reading instead of eyes  
Reversing words (not letters) while reading orally  
Using finger or marker to stay in place  
Inability to follow in place all the time  
Short attention span  
Skipping words, especially small ones  
Skipping of lines  
Rereading of lines  
Difficulty in drawing orientation of paper  
Closeness to material  
Slower reaction time in sports  
Lower comprehension  
Poor judgments in play and sports

**WHEN A CHILD HAS EYE TEAMING DIFFICULTIES (CONVERGING, DIVERGING) -- LOOK FOR:**

- Head tilts at odd or large angle
- Skipping lines up or down
- Math column digits not aligned properly
- Postural warpage
- Covering one eye or shutting one eye
- Skipping or repeating letters, numbers, or words
- Complaining of seeing double

**WHEN A CHILD HAS EYE-HAND COORDINATION DIFFICULTIES -- LOOK FOR:**

- Use of touch to aid visual activity - fingers, hand
- Lack of eyes steering hand movements in all activities, especially paper ones
- Writing that is crooked, spaced poorly, and not straight
- Left - right confusion
- Numbers lines not straight

**WHEN A CHILD HAS VISUALIZATION (VISUAL FORM PERCEPTION) DIFFICULTIES -- LOOK FOR:**

- Word mistakes - those with the same or similar beginnings
- Inability to recognize the same word when repeated
- Confusion of similar beginning and ending of words
- Inability to visualize (picture) reading material
- Subvocalizations while reading
- Tactual reinforcement of likenesses and differences

**WHEN A CHILD HAS THESE BEHAVIORAL SIGNS -- LOOK FOR:**

- Trouble sitting still
- Starting to let work go (and not complete it)
- Grades dropping

Decrease in attention and motivation  
Difficulty in concentrating  
Avoiding close work  
Overt and disruptive behavior  
Blinking and rubbing eyes  
Reading in monotone  
Tiring quickly while reading  
Excessive motor overflow while doing close work and reading  
Reading very close  
Spelling ability dropping  
Smart in everything but school

**WHEN A CHILD HAS REFRACTIVE DIFFICULTIES -- LOOK FOR:**

Reduction in comprehension as work goes on - loss of interest  
Blinking a lot when only doing close work  
Holding a book too close  
Placing head near the desk to work  
Putting off or avoiding close work  
Complaints when doing close work  
Blocking or closing of one eye during close work  
Errors in copying from chalkboard, other references  
Squinting of eyes, bringing shoulders forward, tightening of posture, asking others  
"What's on the board?" or "Can I get closer to the board?"  
Rubbing of eyes during close work  
Frequent fatigue during close work

**THE BEST USE OF THE VISUAL SKILLS PROFILE:**

1. Consultation with fellow teachers or learning specialists
2. Consultation with school nurse

3. Consultation with parents about the need to seek professional help to rule out any VISION and/or SIGHT problems
4. Consultation with eye care professionals or other professions to assess the areas of concern

**TO THE PARENT:** Some areas above have been checked off while observing your child in the classroom. It may indicate that a vision or sight problem may be affecting your child in school or may lead to a future difficulty. You are encouraged to seek professional eye care to rule out any problems. Please contact me if you have any questions.

**APPENDIX C**

**REVISED VSP - CHANGES RESULTING  
FROM TEACHER INPUT AT THE IN-SERVICE  
AND SCHOOL VISITATIONS**

## REVISED VISUAL SKILLS PROFILE

*(All changes are italicized)*

**PURPOSE:** *To acquaint educators and school nurses with the basic tools and knowledge to discover vision problem areas and the steps that can be taken to correct those areas.*

### LOOKING AT THE EYES:

One eye appears to turn out or in

Red eyes

Red lid *edges* or styes

Frequent tearing

### WHEN A CHILD COMPLAINS WHILE DOING CLOSE WORK:

Headaches - forehead area or temple area

Eyes burn, itch, tire, light sensitivity

Dizziness, nausea, stiff neck or shoulders

### WHEN A CHILD HAS EYE MOVEMENT DIFFICULTIES -- LOOK FOR:

Turning of head while reading instead of eyes

Reversing words (not letters) while reading orally

Using finger or marker to stay in place

Inability to follow in place all the time

Short attention span

Skipping words, especially small ones

Skipping of lines

Rereading of lines

Difficulty in drawing orientation of paper

Closeness to material

Slower reaction time in sports

Lower comprehension

Poor judgments in play and sports

**WHEN A CHILD HAS EYE TEAMING DIFFICULTIES (CONVERGING, DIVERGING) --  
LOOK FOR:**

Head tilts at odd or large angle

Skipping lines up or down

Math column digits not aligned properly

*Poor posture*

*Covering or shutting one eye*

Skipping or repeating letters, numbers, or words

Complaining of seeing double

**WHEN A CHILD HAS EYE-HAND COORDINATION DIFFICULTIES -- LOOK FOR:**

Using fingers or hand touch to aid visual activity

Lack of eyes steering hand movements in all activities, especially paper ones

Writing that is crooked, spaced poorly, and not straight

Left - right confusion

*Numbers' lines not straight*

**WHEN A CHILD HAS VISUALIZATION (VISUAL FORM PERCEPTION) DIFFICULTIES --  
LOOK FOR:**

Word mistakes - those with the same or similar beginnings

Inability to recognize the same word when repeated

Confusion of similar beginning and ending of words

Inability to visualize (picture) reading material

*Whispering* while reading

*Touch* reinforcement of likenesses and differences

**WHEN A CHILD HAS THESE BEHAVIOR SIGNS -- LOOK FOR:**

Trouble sitting still

Starting to let work go (and not complete it)

Grades dropping

Decrease in attention and motivation  
Difficulty in concentrating  
Avoiding close work  
*Observable* disruptive behavior  
Blinking and rubbing eyes  
Reading *with no expression*  
Tiring quickly while reading  
Excessive *body movement* while doing close work and reading  
Reading very close  
Spelling ability dropping  
"Smart in everything but school"

**WHEN A CHILD HAS REFRACTIVE DIFFICULTIES -- LOOK FOR:**

Reduction in comprehension as work goes on - loss of interest  
Blinking a lot when doing close work only  
Holding a book too close  
Placing head near the desk to work  
Putting off or avoiding close work  
Complaints when doing close work  
Blocking or closing of one eye during close work  
Errors in copying from chalkboard, other references  
Squinting of eyes, bringing shoulders forward, tightening of posture, asking others  
"What's on the board?" or "Can I get closer to the board?"  
Rubbing of eyes during close work  
Frequent fatigue during close work

**THE BEST USE OF THE VISUAL SKILLS PROFILE:**

Consultation with fellow teachers or learning specialists  
Consultation with school nurse  
Consultation with parents about the need to seek professional help to rule out any VISION  
and/or SIGHT problems  
Consultation with *vision specialists* or other professions to assess the areas of concern

POSTSCRIPT: The participating teachers advised the use of a consent and referral form.

APPENDIX D

FINAL VSP - PREPARED FOR USE BY EDUCATORS

# VISUAL SKILLS PROFILE

STUDENT: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

Grade: \_\_\_\_\_ School: \_\_\_\_\_

Teacher: \_\_\_\_\_ Date of Evaluation: \_\_\_\_\_

**PURPOSE:** To detect vision problems in children at risk. Please observe each student and check each response.

## LOOKING AT THE EYES:

YES NO

- \_\_\_ \_\_\_ One eye appears to turn out or in
- \_\_\_ \_\_\_ Red eyes
- \_\_\_ \_\_\_ Red lid edges or styes
- \_\_\_ \_\_\_ Frequent tearing

## WHEN A CHILD COMPLAINS WHILE DOING CLOSE WORK:

- \_\_\_ \_\_\_ Headaches - forehead area or temple area
- \_\_\_ \_\_\_ Eyes burn, itch, tire, light sensitivity
- \_\_\_ \_\_\_ Dizziness, nausea, stiff neck or shoulders

## WHEN A CHILD HAS EYE MOVEMENT DIFFICULTIES -- LOOK FOR:

- \_\_\_ \_\_\_ Turning of head while reading instead of eyes
- \_\_\_ \_\_\_ Reversing words (not letters) while reading orally
- \_\_\_ \_\_\_ Using finger or marker to stay in place
- \_\_\_ \_\_\_ Inability to follow in place all the time
- \_\_\_ \_\_\_ Short attention span
- \_\_\_ \_\_\_ Skipping words, especially small ones
- \_\_\_ \_\_\_ Skipping of lines
- \_\_\_ \_\_\_ Rereading of lines
- \_\_\_ \_\_\_ Difficulty in drawing orientation of paper
- \_\_\_ \_\_\_ Closeness to material
- \_\_\_ \_\_\_ Slower reaction time in sports
- \_\_\_ \_\_\_ Lower comprehension
- \_\_\_ \_\_\_ Difficulty judging where things are at in play and sports

## WHEN A CHILD HAS EYE TEAMING DIFFICULTIES (CONVERGING, DIVERGING) -- LOOK FOR:

- \_\_\_ \_\_\_ Head tilts at odd or large angle
- \_\_\_ \_\_\_ Skipping lines up or down
- \_\_\_ \_\_\_ Math column digits not aligned properly
- \_\_\_ \_\_\_ Poor posture
- \_\_\_ \_\_\_ Covering or shutting one eye
- \_\_\_ \_\_\_ Skipping or repeating letters, numbers, or words
- \_\_\_ \_\_\_ Complaining of seeing double

## WHEN A CHILD HAS EYE-HAND COORDINATION DIFFICULTIES -- LOOK FOR:

- \_\_\_ \_\_\_ Using fingers or hand touch to aid visual activity
- \_\_\_ \_\_\_ Inability of the eyes to coordinate hand movements in all activities, especially paper ones
- \_\_\_ \_\_\_ Writing that is crooked, spaced poorly, and not straight
- \_\_\_ \_\_\_ Left - right confusion
- \_\_\_ \_\_\_ Numbers' lines not straight

**WHEN A CHILD HAS VISUALIZATION (VISUAL FORM PERCEPTION) DIFFICULTIES -- LOOK FOR:**

YES NO

- |     |     |   |
|-----|-----|---|
| ___ | ___ | Word mistakes - those with the same or similar beginnings |
| ___ | ___ | Inability to recognize the same word when repeated        |
| ___ | ___ | Confusion of similar beginning and ending of words        |
| ___ | ___ | Inability to visualize (picture) reading material         |
| ___ | ___ | Whispering while reading                                  |
| ___ | ___ | Touch reinforcement of likenesses and differences         |

**WHEN A CHILD HAS THESE BEHAVIORAL SIGNS -- LOOK FOR:**

- |     |     |  |
|-----|-----|--|
| ___ | ___ | Trouble sitting still                                      |
| ___ | ___ | Failure to complete assignments                            |
| ___ | ___ | Grades dropping  |
| ___ | ___ | Decrease in attention and motivation                       |
| ___ | ___ | Difficulty in concentrating                                |
| ___ | ___ | Avoiding close work  |
| ___ | ___ | Observable disruptive behavior                             |
| ___ | ___ | Blinking and rubbing eyes                                  |
| ___ | ___ | Reading with no expression                                 |
| ___ | ___ | Tiring quickly while reading                               |
| ___ | ___ | Excessive body movement while doing close work and reading |
| ___ | ___ | Reading very close   |
| ___ | ___ | Spelling ability dropping                                  |
| ___ | ___ | "Smart in everything but school"                           |

**WHEN A CHILD HAS REFRACTIVE DIFFICULTIES -- LOOK FOR:**

- |     |     |  |
|-----|-----|--|
| ___ | ___ | Reduction in comprehension as work goes on - loss of interest  |
| ___ | ___ | Blinking a lot when doing close work only  |
| ___ | ___ | Holding a book too close   |
| ___ | ___ | Placing head near the desk to work   |
| ___ | ___ | Putting off or avoiding close work   |
| ___ | ___ | Complaints when doing close work   |
| ___ | ___ | Blocking or closing of one eye during close work   |
| ___ | ___ | Errors in copying from chalkboard, other references  |
| ___ | ___ | Squinting of eyes, bringing shoulders forward, tightening of posture, asking others "What's on the board?" or "Can I get closer to the board?" |
| ___ | ___ | Rubbing of eyes during close work  |
| ___ | ___ | Frequent fatigue during close work   |

**THE BEST USE OF THE VISUAL SKILLS PROFILE**

Consultation with fellow teachers or learning specialists

Consultation with school nurse

Consultation with parents about the need to seek professional help to rule out any VISION and/or SIGHT problems

Consultation with vision specialists or other professions to assess the areas of concern

TO THE PARENT/LEGAL GUARDIAN: Some areas have been checked while observing your child in the classroom. It may indicate that a vision or sight problem may be affecting your child in school or may lead to a future difficulty. You are encouraged to seek visual care with a professional who specializes in children's visual problems. Please contact me if you have any questions.

Signature: \_\_\_\_\_  
(Observer)

I consent to sharing information about \_\_\_\_\_ for up to one year from this date. I understand that the information may include diagnosis, records of any previous examination or treatment and any additional facts or observations related to vision care, other health services, social services, or education, depending on which services are being provided. I also understand that this information cannot be released without my consent (except in a medical emergency, for an audit, or with a court order) and that I have the right to revoke my consent at any time.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
(Parent/Legal Guardian)