Closing The Gap

Computer Technology in Special Education and Rehabilitation

Do your students see it right? Use color to increase reading skills

By Dorothy Henson-Parker

Red, yellow, blue and green, part of a rainbow? Yes, and just a few of the many colors that might help that student who does not see correctly what's on the page. The student may see letters that are blurry or moving or reversed, or have difficulty looking at the page because it's too bright.

A simple piece of transparent colored plastic, placed over the page, may allow the student to see the print clearly, correctly and with comfort. It sounds simple. And . . . if you know how to use color as a tool, it can be.

See it Right! is a classworkbased screening device developed to identify a specific visual-perceptual problem caused by a sensitivity to light. Glare or movement on the page causes many problems: the letters may appear to change places in the words or disappear altogether. The letters may look hooked together or space may appear in the middle of words. Students are very creative in describing all the things that happen for them on the page that make it hard for them to read. Symptoms can be mild to very severe. This set of symptoms was labeled Scotopic Sensitivity Syndrome by H. Irlen from the Irlen Institute in Long Beach, CA., who calls it "a perceptual dysfunction associated with the brain's ability to accurately process visual information." Her definition includes the following, "Looking through color may correct this difficulty by altering the timing by which the visual information is received and processed."

Seeing versus reading

Seeing (correct visual input) needs to come before reading is possible, except when using Braille, of course. See it Right! is a system to help the educator find and correct a "seeing" problem. If you can't see the letters and words, you really can't read them. If you see only part of the letters or see them in the wrong order, you probably will also have difficulty reading them. The student cannot get meaning from letters and words that do not make sense.

A four-step method of screening

To screen your students, you will use the students' own books and copies of written work, and 20 transparencies of different colors. There are forms to guide you through each step.

Step 1 - Review the work

Look at the student's reading, writing, and behavior in the classroom.

Step 2 - Interview the child

Find out what the student sees. Students will tell you many things, i.e., the letters look ugly, messy,



Low-tech assistive technology: Colored transparencies

crinkly, or like they've been erased, etc.

Step 3 - Color testing

Set the purpose and present the colors. The student looks through each colored transparency as you find what helps. Check your results.

Step 4 - Follow-up

Inform parents and staff of results, train the student, adjust color. Many practical classroom uses are included in the assessment kit.

How many students have this problem?

There is a significant number of students in our schools who have some problem with light sensitivity. In order to try to help more students, a group screening was developed and used over the past eight years in the Pomona USD, in Pomona, CA. More than 55 classes have been screened (some in other

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JUAN - fourth grade boy

ACTUAL TEXT COPIED: Ma finished mending the shirt. Laura saw her fold it slowly and carefully. She smoothed it with her hand

1. STUDENT COPIED WHILE LOOKING AT THE WHITE PAGE:

Me fanished nandingtle shirt, she't sew har fold it slawly and cerafully. Lhe smaathad it with har

2. STUDENT RECOPIED TEXT WITH PLASTIC FILTER OVER PAGE:

Ma finished mending the stirt, Laura saw her fold it slowly and carefully. She smoothed It with her handy

Juan, a fourth-grade boy, sees improvement.

districts). More than 50 percent of the students in each classroom have reported benefits from color over the page. Most had problems with glare, unclear letters or keeping the place when reading. Color provided more comfort and clarity to these students. Most visual acuity results were normal. Research on this is available from the author by request.

How can my students benefit?

Performance and comfort

Linda Powell, a third grade teacher in Whittier City School District in Whittier, CA, reports, "It's 'doable' in the classroom. Those students that felt the benefit of it stayed with it and used it religiously. Those children felt much better, more comfortable reading, and as a result, they read more and were able to read longer. The Resource Specialist and psychologist totally support it."

Increased achievement

In three studies in the Pomona USD the reading increases were significant. In our original study of seven classrooms of students in first through third grade over a two year period, the number of students who tested below grade level on an individual achievement test was reduced by about 22 percent. These students either performed at or above grade level. All studies showed positive results over time.

Affective intervention at SST level

Romy Sperling, the Resource Specialist at Melvin Avenue School in Los Angeles USD, says that color is given as needed at the level of the Student Success Team. She uses it for all her initial assessments and then uses it on her testing as needed. Some students don't need to go further in the special education referral process.

Daily classroom use

Romy Sperling also reports, "It's part of what I do and part of my classroom. Students use them with all their reading assignments. I do all of the Resource Specialist Program students and put it on the IEP as assistive technology."

Assistive technology

This device is simple. It has no moving parts and needs no electricity. It is definitely low tech. You simply need to know what to do with it i.e., the questions to ask, what the answers mean, why you are using color and what you are changing when you use it. Simple and low tech, yes, but the effect on the student can be very dramatic, as dramatic as any high technology device. It can completely change what the student sees so that he can understand the print. He is no longer confused by what is on the page. The ability to learn and achieve is often greatly improved.

Using color is a new approach for students with learning disabilities who have not made progress and for students who have visual processing, visual memory and/or visual motor problems may have this problem that has not been found previously.

Author's experience

When I was in school, I hardly ever read anything. I listened very carefully and was never absent, but reading was always difficult and time consuming. I know now that the letters weren't supposed to be blurry (even with my glasses on) and the page wasn't supposed to blink at me. The letters should not have been changing around, but they did. All that changed when I began to use color. Now the letters are clear and the page is easy to look at. Using color has made a reader out of me.

What can I do right now?

Most of us are somewhat sensitive to light and wear sunglasses when we are outdoors. Some of us also have problems with the glare on our computer screens. This sensitivity to light is made worse by the fluorescent lights that most of us work under. If you want to find this problem in your students, look, listen, and ask.

Look at the student's work and behavior. Reading is not fluent? Writing is messy, has spelling and spacing errors? Behavior is restless and inattentive.

Listen to any complaints of headache and eyes that hurt, etc.

Ask these questions: "When you read do you get headaches? Do your eyes hurt? Do the letters ever get blurry or move?"

If you see the behaviors listed or guestions are answered yes, here are some things to try:

- 1. Enlarge the print. If the student can read the print when it is bigger, the problem may not be in reading but in seeing. You might be able to use a magnifying bar for this student.
- 2. Change the student's seating. If the harsh lighting is producing the headaches and/or pain, moving to a darker area may help.
- 3. Try reproducing the student work on pastel colors of paper and then ask the students about any increases in comfort or clarity.

And ...

4. Learn how to use color.

Summary

See it Right! is a curriculum-based assessment to help educators find and remediate

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See it Right Complete Assessment Kit

visual-perceptual problems due to a sensitivity to light. Colored transparencies are used to allow the student to see letters and words on the page clearly, accurately and in comfort. Then the student is able to get meaning from the words and make progress in reading skills.

Materials and services available:

Complete Assessment Kit - \$299

Includes: complete assessment manual (231 pages with specific examples and graphics.), two sets of 20 colors, forms, holders, student supplies (124 pieces) in plastic carrying case. Reproducible forms.

Short Form Assessment Kit - \$99

Includes condensed manual (97 pages), one set of 20 colors, reproducible forms.

See it Right! seminars are given across the US and inservice training can be scheduled by school districts or other education agencies.

For more information, contact Dorothy Hensen-Parker, Licensed Education Psychologist, at See it Right!, P.O. Box 1117, Rancho Cucamonga, CA 91729; Phone 626-337-3713; Fax 626-337-6443; E-mail: <seeitright@

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New prices 951-272-6700 or check seeitright.com