

TABLE 1-1. CROSS SECTION OF THE HUMAN EYE

	YES	NO
Do you skip words or lines when reading?		
Do you reread lines?		
Do you lose your place?		
Are you easily distracted when reading?		
Do you need to take breaks often?		
Do you find it harder to read the longer you read?		
Do you get headaches when you read?		
Do your eyes get red and watery?		
Does reading make you tired?		
Do you blink or squint?		
Do you prefer to read in dim light?		
Do you read close to the paper?		
Do you use your finger as a marker?		
Do you get restless, active, or fidgety when reading?		

The results showed that the red overlays did not consistently impede or help. The blue overlays had a significant effect on reading comprehension but resulted in slower reading rates (Solman, Cho, & Dain, 1991). Improvement in reading comprehension with decreased reading rate may reflect the operation of other factors, such as increased attention to the text (Iovino et al., 1998). To give another side of the story, a study published in 2005 showed that reading-impaired children had significant gains in reading after wearing yellow filters for 3 months (Ray, Fowler, & Stein, 2005), the theory being that it improved the M pathway.

### Does Color Help AD/HD Children?

Hyperactive children are viewed as being less tolerant of situations involving minimal stimulation, thus explaining their exacerbated symptomatology in overly familiar contexts. Added stimulation has been shown to be most beneficial for hyperactive children during those tasks that involve considerable repetition and monotony (sustained attention). Previous research had shown improved performance for young normal children by adding discriminative stimuli to letters (e.g., dots to b and p). This research did things such as widening the black or colored ink line of certain letter parts that had been documented to be important for legibility (e.g., closing tops of letters) in order to increase attention to this relevant letter detail. In a task that involved copying words, the added color greatly helped the AD/HD

children in the beginning, but by the second page of copying, the novelty had worn off, and the error rate was noted at their previous rate. It had no effect on the control group. It appears that color did initially help AD/HD adolescents perform better (Zentall, Falkenberg, & Smith, 1985).

### Can Color Be Used to Improve Attention?

In normal children, this research showed that the P pathway (central vision) is capable of automatic attention capture. Hence, color vision not only aids target identification, but is also a strong aid for target detection and localization (Snowden, 2002). Therefore, color does seem to improve attention. In another study, it was found that by decreasing visual similarity between target and background items, there will be an improvement in performance for measures of reaction time. It was found that search time increased as a function of color size (number of colored items in the display) in comparison to using just one color. Therefore, using just one color (one time) helped in reaction time, but using too many colors slowed reaction time (Farmer & Taylor, 1980).

### Is a Certain Color Better for Print Color?

Research has shown that the legibility of text was determined primarily by the luminance contrast between the text and the background rather than the specific color