



Website context: Thinking about Dyslexia → Teaching

Why colour matters

‘Visual disturbance’: what does it mean?

- Students may experience glare and be extra sensitive to the contrast between black text and white paper.
- The image may move, causing text to blur, double, flicker, take on a 3-D effect.
- There may be difficulty in maintaining focus, and eyes may hurt.
- The amount of text taken in at one fixation may be reduced, which slows down comprehension.
- There may be general eyestrain, after only a short time reading and concentration is affected.

Colour makes a difference

It is known that placing a coloured filter over the page reduces the symptoms and usually allows someone to read for longer with less fatigue. Some may go on to wear glasses with coloured lenses. Academic Support tutors have a range of coloured filters to do an initial screening for the most appropriate colour. Students can usually be quite specific about which colour stops symptoms occurring. This can be followed up with more specialist assessment or by visiting an optician with an intuitive colorimeter, which gives a more sophisticated assessment of the appropriate colour.

It is often referred to as Meares-Irlen Syndrome. It is not known for certain why coloured filters help. Evans (2001) suggests there is a strong link between Meares-Irlen Syndrome and hyper-sensitivity to pattern glare. This in turn may be linked to the magnocellular pathway in the brain’s visual system, which is one of number of lines of research into dyslexia.

Links to dyslexia

Irlen stated that Meares-Irlen Syndrome affects 12% of the general population and 65% of those with dyslexia (Evans 2001). Not all dyslexic students experience these symptoms and it cannot account for all the effects of dyslexia. What the causal relationships are and the direction of them is still unclear. The use of a coloured filter reduces symptoms when reading, but is not a ‘cure’ for dyslexia.

For a detailed explanation and overview of the research field see:
Evans, B. (2001) *Dyslexia & Vision*. London and Philadelphia; Whurr Publishers.
Evans is an optometrist and leading researcher in this field

For an overview of all the strands of research into this with follow up references, see:
<http://www.dfes.gov.uk/readwriteplus/understandingdyslexia/resources/theorytables/cognitive/>