



Context

Creating accessible content is a lengthy process that involves thinking beyond our own capabilities. When it comes to online learning especially, a key element that often goes unnoticed is the screen. Indeed, visual accessibility is key for learners, whether they present visual impairments or not. For students with SLDs, working with colour and contrast can prove really useful, as it provides support for structure and understanding.



Colour and Contrast

Contrast

Contrast sensitivity is the ability to perceive the difference in brightness between a foreground and background color.

The size, distance and illumination of the object will vary depending on the contrast. Contrast sensitivity is important for reading text and seeing visuals.

Make sure that graphical and textual elements have sufficient contrast with the background.

Be especially careful with patterned or picture background that can interfere with the legibility of text.

Colour

Colours convey information about the world. They are usually detected by the eyes, but can be perceived differently depending on specific impairments.



Design principles

Background colour

To get the best contrast possible, use **dark text on light backgrounds**. When tinting a background, try to use tints between 10 and 15%. Text should **never** be used as a 10 to 15% tint of a solid colour over a white, cream or pastel background. It will be basically impossible to see.

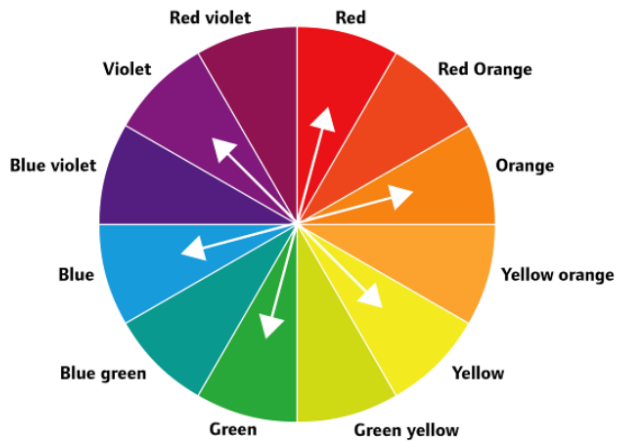
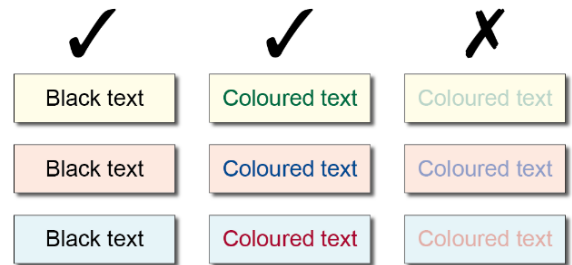
If you wish to use a dark background, the text should be in **white or very pale tone**. Avoid using colour on colour, the overlay is unsuited for people with vision issues.

Tint (%)	Pale yellow	Pale orange	Pale blue	Pale pink	Pale green
10					
15					

		
--	---	---

Text colours

Using black text is usually the most accessible. You can also use dark colours such as red, green or blue, but keep in mind that a dark burgundy red is easier to see than an flashy red. Never use yellow as a background, it is virtually impossible to see. Avoid using pale text on pale backgrounds.



Complementary colours

When using colours, avoid using complementary colours together. These are hard to see for people with colour vision deficiency. Some difficult combination to see are red/green and yellow/purple.



Examples

Look at the example below. Which colour combination work best for your eyesight?



This is same image with low contrast. Do you see the difference?



Resources

University of Cambridge, Inclusive Design Toolkit.

<http://www.inclusivedesigntoolkit.com/UCvision/vision.htm>

Royal National Institute of Blind People, 2015 'How to choose colour and contrast for printed materials that benefits people with sight problems'.

<http://scdg.org.uk/wp-content/uploads/2019/02/Colour-information-with-header-sheet-2.pdf>

Contrast checker for your texts and visuals:

<https://colors.co/contrast-checker/112a46-acc8e5>