WILEY

Color Contrast

Version 1.0

Color contrast

Color contrast refers to the difference in brightness between two colors and is expressed as a ratio ranging from 1:1 to 21:1. The higher the ratio, the higher the difference between the colors, and the easier it is for everybody to perceive this difference:

- 1:1 (e.g., white on white)
- 21:1 (e.g., black on white)

Some people with vision disabilities find it harder than other people to distinguish between colors. They may not be able to read text that has a poor color contrast with the background color. But strong color contrast does not benefit people with disabilities only. It makes it easier for everybody to perceive content while sitting outdoors in bright sunlight, for example.

All elements within artwork, text and non-text content, must pass WCAG AA color contrast ratios, defined as:

- 4.5:1 for standard text (less than 18 point)
- 3:1 for large text
- 3:1 for meaningful non-text content (like lines in a graph)

A common color contrast challenge is when images contain multiple foreground colors that must be compliant against a single background. This occurs frequently with graphs and charts. Remember, not everyone can perceive a single color, or all colors. For this reason, you must not rely on color alone to convey information. Instead, rely on a variety of visual cues to be used in addition with the color, including:

- Text
- Pattern
- Icons
- Symbols
- Text styles

How to check color contrast

To check the contrast ratio between colors, you can use one of several free tools, such as:

- Colour Contrast Analyser
- Online checkers:
  - WebAIM Contrast Checker
  - Luminosity Colour Contrast Ratio Analyser