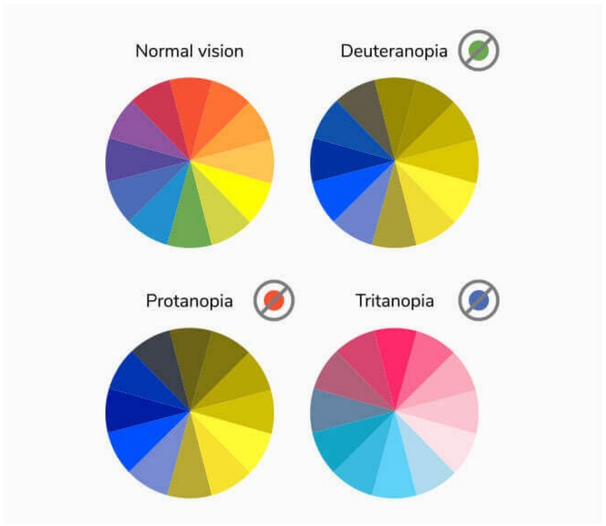
Usability InSights

Considering users with low to no vision when designing POC diagnostics

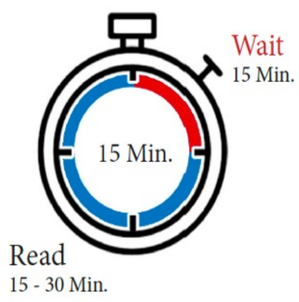
Use of Color

Color is an important asset in design, but not everyone can perceive it in the same way. Color should be a redundant source of coding – red warning text is great, but text or images should be able to convey their message without the use of color.

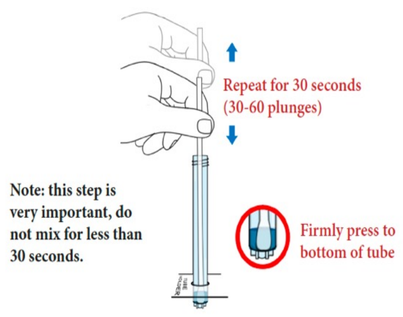


https://www.medicalnewstoday.com/articles/319115#The-many-shades-of-color-blindness

Poor Design: Reliance on Color Alone

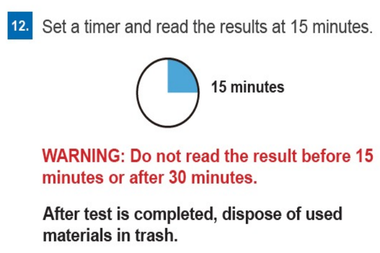


This timer image is difficult to understand without the use of its red font (or even with it).



The text in this mixing step is red – without this color, there is no indication that this step is important.

Good Design: Multiple Indicators



Both of these instructions use the text 'WARNING' as well as bold or CAPITALIZED features to denote important information. Also, the timer image is simpler and clearer.

Best Practices

For users with low/no vision, including individuals with reduced visual acuity and reduced contrast sensitivity:

- Minimum font size of 14pt
- Streamlined protocol
- Pre-filled buffer tube to eliminate additional dispensing or measuring steps.
- Tethered dropper caps
- Tactile feedback when dropper cap placed
- Well-labeled packaging and instructions with high contrast; eye catching labeling
- QR code with additional instructional formats
- For mobile applications or digital QRIs, ensure screen reader compatibility

Color Blindness Simulator

Color blindness can be simulated using the QR code shown here.

Diagnostics for at-home users range in complexity, but a test, no matter how simple or sophisticated, is only as good as the user's ability to complete it. Protocols designed with accessibility in mind improve the experience & efficacy for ALL users, not only those with disabilities.

https://www.access-board.gov/tad/radx/

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HomeLab