FIG WORKING WEEK 2023
28 May - 1 June 2023 Orlando Florida USA
Protecting Our World, Conquering New Frontiers

Enhancement of Blended Learning Materials and Methodologies to Promote Inclusivity

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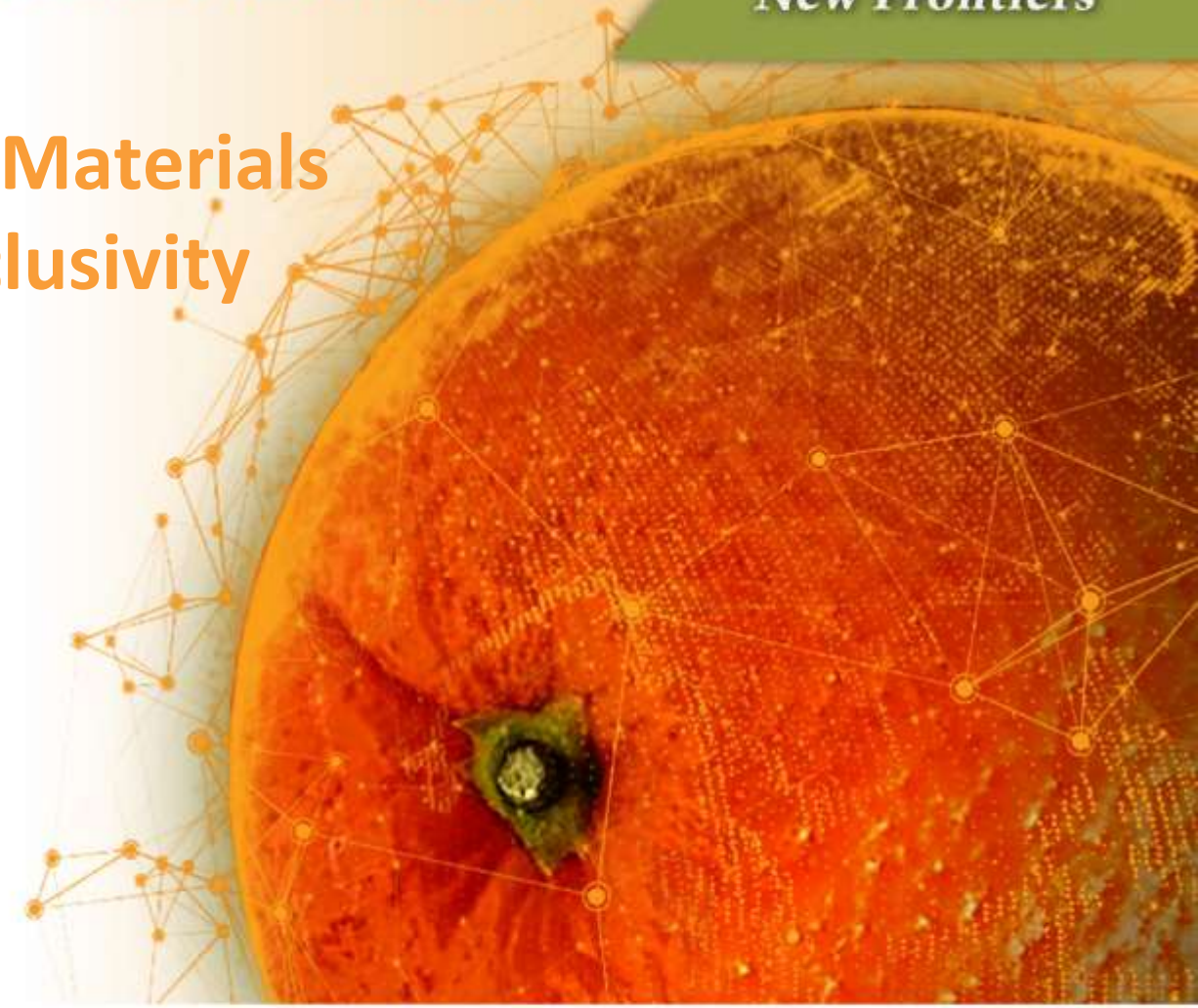
United Kingdom



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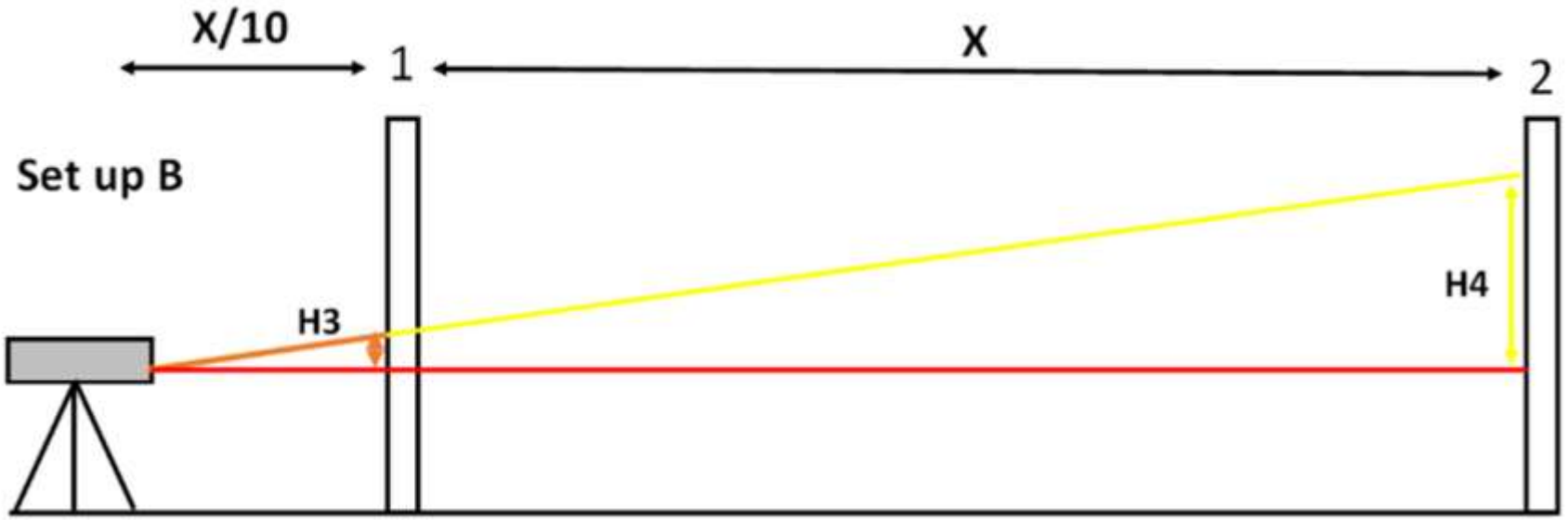
Background



Per Unit

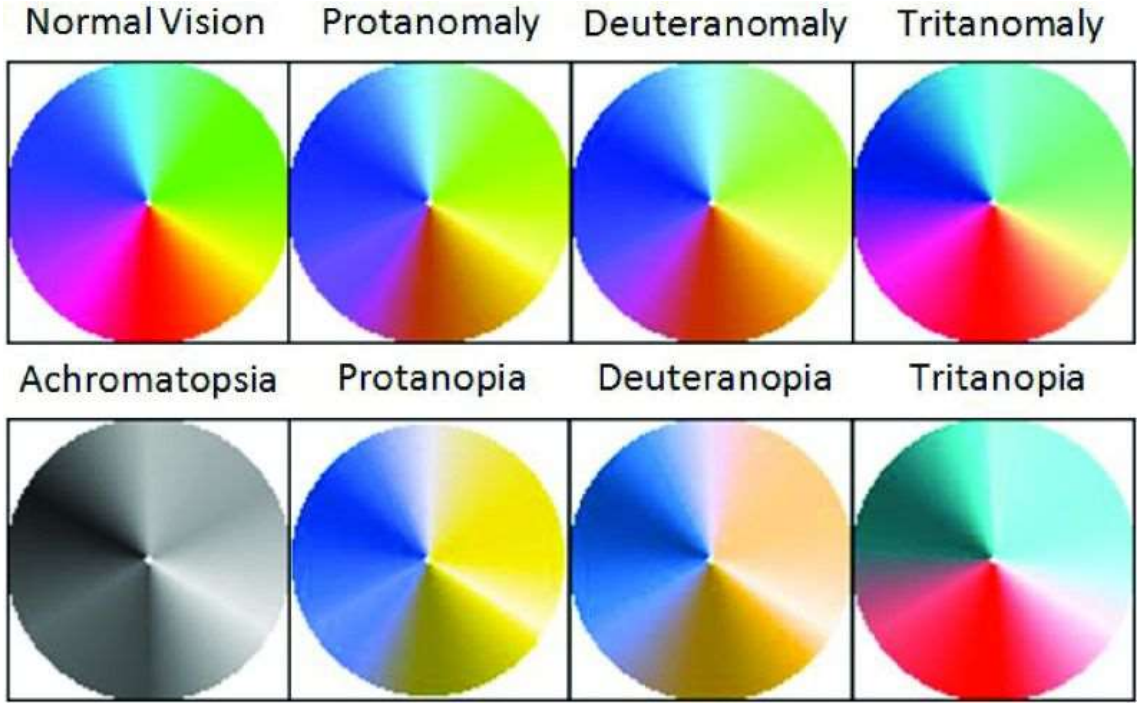
- Unit Aims and Objectives
- Unit Content :
  - 5 x Media Elements: Combination of: Video, Audio, Images, Diagrams
  - 2 x Interactivity: Templated options, Bespoke development, External technology
  - Collaborative Activity: Community Space, Wiki
  - Reflective Activity: Personal Blog, Learning Journal
  - Existing Academic Content: Case studies, books chapters, websites, journals, blogs, papers, research, etc
  - Underpinned by Activity Based Content: Provide a narrative to the elements utilised, Not re-writing a book (max. 2,000 words), Including optional tasks and activities
  - Live Classroom: Managed by tutors *
  - Timely ad-hoc content: Guest lectures, Expert interviews
- Unit Reference List
- End of Unit Activity

Why inclusivity?

- In the United Kingdom 16.5% of all students have a registered Special Educational Need **Department for Education (2022)**
- As many as 15–20% of the population as a whole **International Dyslexia Foundation (2017)**
- 1 in 12 men (8%) and 1 in 200 women are classified as colour blind **Faruqui et al (2022)**
- 3.7% of the population suffer dyscalculia **National Institute of Health (2019)**

Indiviual needs

- Difficulties present in a multitude of ways
- By higher education coping mechanisms are formed
- Individuals with the same difficulty may have very different requirements



National Eye Institute (2019) Types of Colour Blindness

Focus Groups

Members

- Academics
- Technical Staff
- Vice president of Inclusivity
- Students with support plans
- Learning and technology specialists

Outcomes

- Clarity of Instruction,
- Ease of use for materials,
- Level of accessibility,
- Level of interaction from materials,
- Overall satisfaction.

What we did- Digital Resources

- Enhanced levels of interactivity
- Greater levels of customisation
- Increased levels of media options
- Improved data logging capabilities

Handheld Group (2022) Algiz 10x

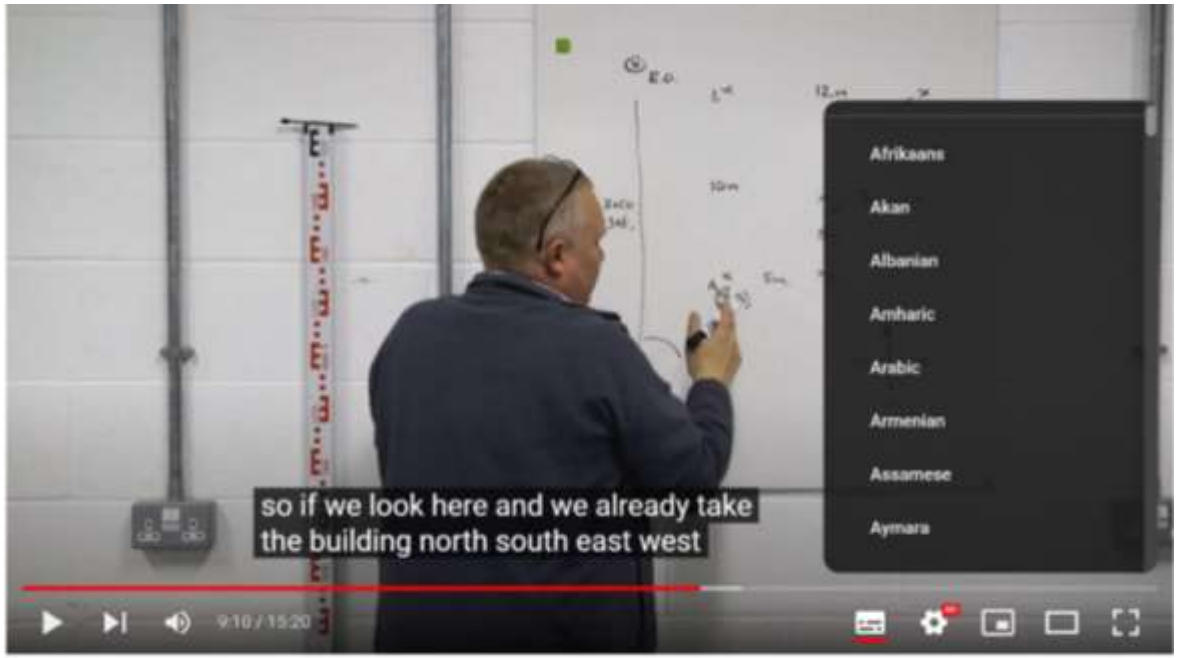
What we did- Media Improvements

Videos

- Captions
- Translations

Images

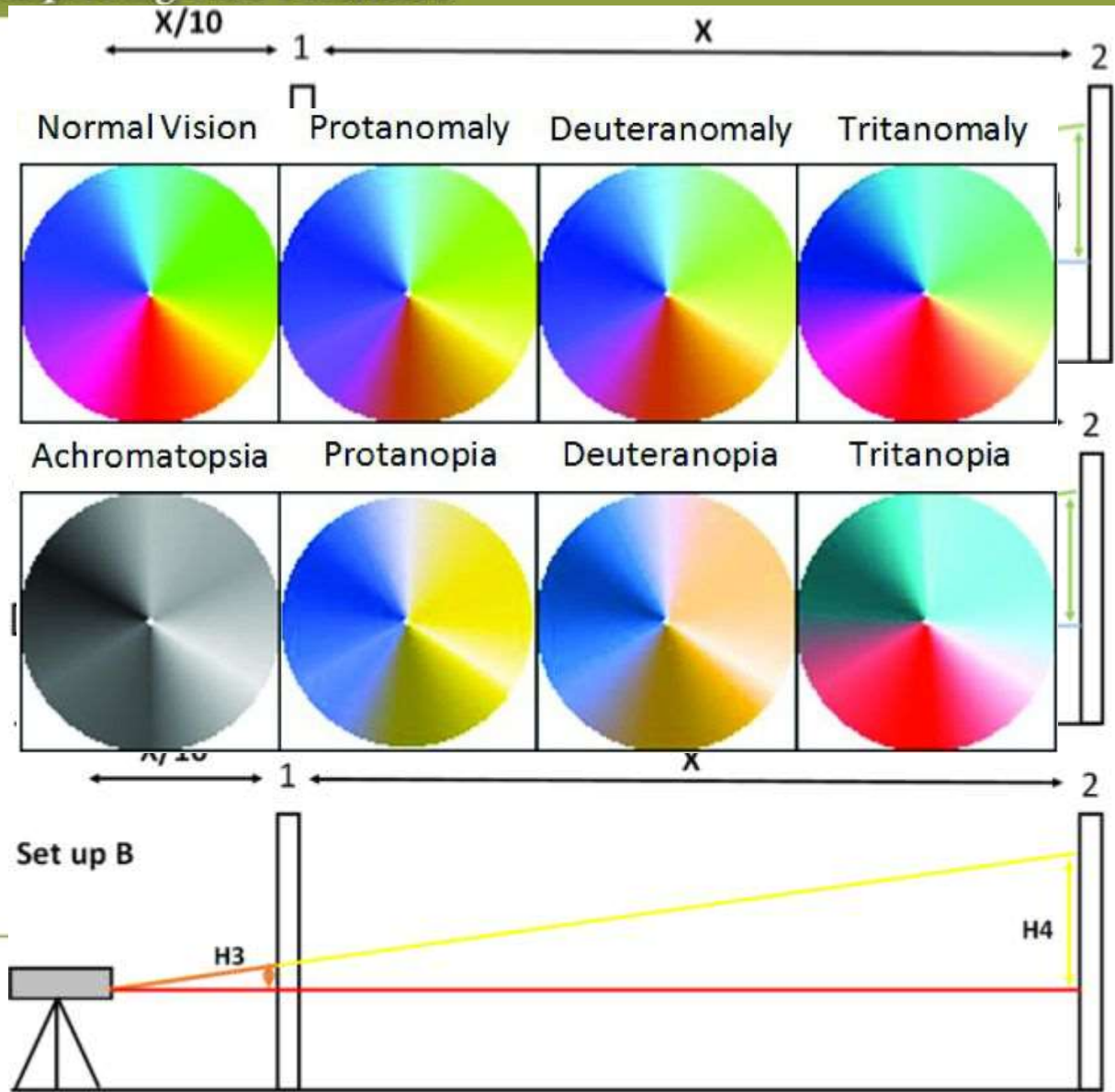
- Alternative text
- Customisation of colour



Setting Out an L-Shaped Building

What we did- Colour Detection

- CVD affects whole spectrum of colour
- What is the correct option for colour choices to suit all?
- Customisation



What we did- Web improvements

- Dyslexia fonts
- Reduced blocks of text
- Balance of media
- Increased interactive elements

Compare the Pair

Arial font

Davey Warner gripped the worn red cricket ball in his hand. His thumb traced the rough seam in the cracked leather before he found the right grip. He gave his shoulders a stretch and jogged lightly on the spot.

Open Dyslexic font

Davey Warner gripped the worn red cricket ball in his hand. His thumb traced the rough seam in the cracked leather before he found the right grip. He gave his shoulders a stretch and jogged lightly on the spot.

Activity 1- Two Peg Test

The two peg test is a simple method for calculating the accuracy of an automatic of digital level, by calculating its collimation error. When the circular bubble is placed in the center, the line of collimation should be on a horizontal plane, the amount of deviation from this plane is the collimation error within the instrument. All instruments have some level of collimation error, but due to knocks on the instrument, the error may become larger and the two peg test is used to determine whether an instrument is within an acceptable tolerance.

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Conclusions

- There is no one size fits all
- Small changes make a big impact
- More customisation more inclusion


Thank You