University of California
Tableau User Group (TUG)

Hosted by:
UCOP Institutional Research & Academic Planning
1-12-18
Agenda

- Welcome & Introductions
- A Neat Functionality
  - Linear Storyboard – Joey Van Matre – 15 minutes
- Feedback on a viz in development
  - Creating Sankey Diagrams in Tableau – Joey Van Matre – 15 minutes
- Useful Design Best Practice
  - Color Theory – Darin Jensen – 15 minutes
- Questions – 15 minutes
- Next Meeting
A Neat Functionality
Linear Storyboard Example
Feedback – Viz in Development
Creating Sankey Diagrams Using Tableau
Best Practice
Best Practice – Color Theory
Primary Colors
Primary & Secondary Colors
Complimentary Colors
Hue: A Color on the Spectrum
Color Saturation: How Much Gray is Added to a Hue

- **HUE**

Saturation: how much gray is added to hue

- No gray = high saturation/chroma
- Some gray = medium saturation
- More gray: low saturation

Achroma: no hue
Color Value: Quality of lightness & darkness

- HUE
  - High value: HUE + white = tint
  - Low value: HUE + black = shade
  - HUE + black + white = tone
Color Value: Quality of lightness & darkness

As sensation, all colors fall into one of these seven forms.

Devised by Faber Birren

Function of Color in Dashboard Design

Used as a simplifying and clarifying agent

Used for categorizing

Elicits subjective reaction and emotional response
Color discrimination is a perception - a construct of the mind. Color is a sensing and cognitive process between the eye and the brain.
Color Use: Establish figure & ground contrast

Cognitive ability to separate elements based on contrast – dark or light. When we look at something we separate out a foreground, or figure, and a background, or ground. The foreground is usually the main subject on which we will subsequently focus, whilst the background is generally ignored.
Color Use: Receding & Advancing Colors

Advancing Colors: warm colors (red/violet, red, red/orange, orange, yellow/orange, yellow). They appear to come towards you.

Receding Colors: cool colors (green, blue/green, blue, blue/violet). They appear to go away from you.
As a designer, it is essential to know when to use RGB vs CMYK. A good rule of thumb is anything dealing with the web should always be in RGB and printed material should be in CMYK.
Color Mixing: Additive & Subtractive

Additive color mixing

Additive color systems start without light (black). Light sources of various wavelengths combine to make a color.

Subtractive color mixing

Subtractive color systems start with light (white). Colored inks, paints, or filters between the viewer and the light source or reflective surface subtract wavelengths from the light, giving it color.
Conventions — Qualitative & Quantitative

- Blue: cool phenomena and air
- Red and orange: extreme or warm phenomena
- Brown: desiccated and earthen features
- Green: money and growth (extension of flourishing)

Color saturation or intensity gradations are used to denote data values. High intensity or saturation equals high data value.
Color Frequency

Too many divisions

Highest value

lowest value
Useful Links


- **Tableau Essentials: Formatting Tips – Color**: [https://www.interworks.com/blog/ccapitula/2015/02/12/tableau-essentials-formatting-tips-color](https://www.interworks.com/blog/ccapitula/2015/02/12/tableau-essentials-formatting-tips-color)


- **Sankey Diagram in Tableau**: [https://www.youtube.com/watch?v=1HwCzIA9hI4](https://www.youtube.com/watch?v=1HwCzIA9hI4)


Next Meeting

- Friday, February 9th 2018
- Presentation by UCOP Procurement