# Data Viz Cheat Sheet for ICaP Instructors and OWL Tutors

This page will help you to think productively about how to visually represent your course evaluations data by providing helpful principles and resources. Keep in mind there are multiple ways to frame your evaluation scores through a combination of narrative, explanatory text, and charts and graphs.

**Tufte’s Principles of Graphical Design\***

1. Show comparisons, contrasts, differences
2. Show causality, mechanism, explanation, systematic structure
3. Show multivariate data, that is show more than 1 or 2 variables
4. Completely integrate words, numbers, images, diagrams
5. Thoroughly describe the evidence. Provide a detailed title, indicate the authors and sponsors, document the data sources, show complete measurement scales, point out relevant issues
6. Analytical presentations ultimately stand or fall depending on the quality, relevance, and integrity of their content

**Other Important Ideas in Data Visualization\*\***

1. Provide context for your visualizations
2. Think rhetorically about what story you want your data to tell
3. Use labels strategically to focus your audience’s attention where you want it
4. Avoid clutter at all costs

**Helpful Resources for Anyone Looking to Learn More About Data Visualization**

* [Storytelling with Data by Cole Nussbaumer Knaflic](https://www.storytellingwithdata.com/)
  + Provides clear guidance on selecting the best type of visualization for your data
* [Multiple texts from Edward Tufte](https://www.edwardtufte.com/tufte/)
  + Tufte is the canonical name in data viz
* [Information is Beautiful by David McCandless](https://informationisbeautiful.net/)
  + Focuses on how to make sleek, modern visualizations

**Tools for Visualizing Your Data**

* Google Slides & Sheets
* Microsoft Excel
* Canva

\* Adapted from Tufte’s *Beautiful Evidence*\*\* Adapted from Knaflic’s *Storytelling with Data*