

DATA VISUALIZATION DESIGN

EXERCISES

DESIGN EXERCISE 6



Evaluating and communicating the design

Design Exercise 6: Evaluating and communicating the design

14.15-14.25: Introduction to today's exercise (2A52)

14.25-14.40: In your group: Evaluating your work using the heuristics

14.40-15.00: Evaluating your work with another group

15.00-15.15: Break

15.15-16.00: Continue your work with Altair and your exam project

A heuristic

"Heuristic evaluation involves having a small set of evaluators examine the interface and judge its compliance with recognized usability principles"

14.25–14.40: In your group: Evaluating your work using the heuristics

We have chosen 3 heuristics you need to consider:

- Confirm hypotheses
- Consider Gestalt Laws
- Provide multiple levels of detail

Choose 2 additional heuristics (next slide)

- Analyze your visualizations using the 5 heuristics

Remember: to take pictures and document your process —> useful for your hand-in (4/5)!

Heuristics a Heuristics applied in evaluation

Table 1: Heuristics applied in evaluation.

Set	Heuristics
Zuk and Carpendale's <i>Selection of perceptual and cognitive heuristics [26]</i>	Ensure visual variable has sufficient length [3][25][26] Don't expect a reading order from color [3][25][26] Color perception varies with size of colored item [25][3][26] Local contrast affects color & gray perception [25][26] Consider people with color blindness [25][26][22] Preattentive benefits increase with field of view [3][25][26][11] Quantitative assessment requires position or size variation [3][26] Preserve data to graphic dimensionality [24][3][26] Put the most data in the least space [24][26] Remove the extraneous (ink) [24][26] Consider Gestalt Laws [25][26] Provide multiple levels of detail [24][25][26] Integrate text wherever relevant [24][25][26]
Shneiderman's <i>"Visual Information-Seeking Mantra"[20]</i>	Overview first [20] Zoom and filter [20] Details on demand [20] Relate [20] Extract [20] History [20]
Amar and Stasko's <i>Knowledge and task-based framework [1]</i>	Expose uncertainty [1] Concretize relationships [1] Determination of Domain Parameters [1] Multivariate Explanation [1] Formulate cause & effect [1] Confirm Hypotheses [1]

14.40-15.00: Evaluating your work with another group

Present your heuristics to the other group

Discuss the presented heuristics with the other group

Thank you!

HAND-INS

~~HAND-IN 1: 23/02~~

~~HAND-IN 2: 02/03~~

~~DESIGN BRIEF: 03/03~~

~~HAND-IN 3: 09/03~~

~~HAND-IN 4: 16/03~~

~~HAND-IN 5: 23/03~~

HAND-IN 6: 04/05