1) To what extent are people able to interpret data and geography in a spatially ordered treemap (SOT) by performing complex graphical perception tasks?

Which of the 4 maps to the right shows the geographic distribution of the map to the left?

2) Tasks

- Locate
- Compare
- Distribution

3) Hypotheses

HYPOTHESIS ONE: Statistical tasks
H₀: Choropleth (CHO) maps will perform better than SOT on statistical tasks; H₁: SOT will perform better than CHO on statistical tasks.

HYPOTHESIS TWO: Geographical tasks
H₀: CHO maps will perform better than SOT on geographical tasks; H₁: SOT will perform better than CHO on geographical tasks.

HYPOTHESIS THREE: Statistical Geographical tasks
H₀: CHO maps will perform better than SOT on statistical geographical tasks; H₁: SOT will perform better than CHO on statistical geographical tasks.

HYPOTHESIS FOUR: Hierarchical tasks
H₀: CHO maps will perform better than SOT on hierarchical tasks; H₁: SOT will perform better than CHO on hierarchical tasks.

HYPOTHESIS FIVE: Effects of spatial ability
H₀: Subjects with better scores in the spatial ability test will outperform subjects with poor scores in the spatial ability test in the perceptual tasks; H₁: Spatial ability has no effect on perceptual tasks.

References