

Comparison of map reading by teachers and students

Marketa Beitlova
Palacký Univerity Olomouc, Czech Republic
marketa.beitlova01@upol.cz

Abstract

I am investigating map reading of students and their teachers using eye-tracking and I am comparing their reading strategies.

1 Motivation

In my Ph.D. thesis, I am investigating map reading of students and their teachers using eye-tracking and I am comparing their reading strategies. Eye-tracking is a technology that allows the recording of the human gaze. It is widely used in many fields of research, including GIS and cartography. Eye-tracking data is spatial-temporal data because eye movements are recorded over time in relation to space (screen or map).

The main aim of my Ph.D. thesis is to compare eye-movement trajectories of different groups of users - teachers and their students. I already have an experience in analyses and visualization of eye-tracking data using V-analytics tool (space-time cube and other). It can be used for eye-tracking data as well as for geospatial data.

2 Visualization

I learned about the possibilities of how to visualize some kinds of data and how to do it quickly and attractively. But for my research, I need a little bit different kind of visualization as scientific visualization. I need to analyze the data, not visualize them only.

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In: A. Kmoch, E. Uemaa, D. Nüst (eds.): Proceedings of the 5th AGILE PhD School 2019, Tartu, Estonia, November 2019, published at <https://doi.org/10.5281/zenodo.3835767>.

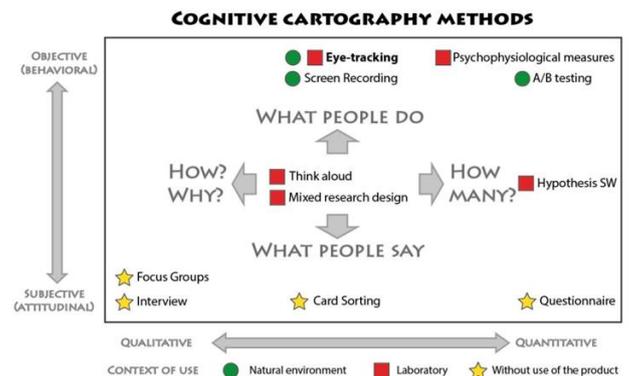


Figure 1: cognitive cartography methods

3 Reproducibility

The reproducibility topic was much more interesting for me. Reproducibility is essential. I'll try to put some of these ideas into my research. Firstly, I will try to write my papers as reproducible as possible.

The practical part of this topic was exciting. I hope that we will use that for the management of our eye-tracking data.

4 Science communication

Probably the best part of the Agile Ph. D. school. I realized how important it is to think about the audience, about the whole story of the paper, what I need to say, what I need to reach, etc. It's necessary I will use these ideas in my next articles.