

Confirming cross-cultural differences in map design perception

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Abstract:

Zhunis et al. (2021) reported on an experiment on detecting cross-cultural differences in map design perception by replicating the topographic map design style of two national mapping agencies, the Federal Office of Metrology and Surveying of the Federal Ministry of Digital and Economic Affairs of the Republic of Austria and Committee of Geodesy and Cartography of the Ministry of Digital Development, Innovation and Aerospace Industry of the Republic of Kazakhstan. The two different map style on the exact same map content and data have then been tested against experiment participants of different cultural background, thus Austrian and Kazak users have been exposed to both Austrian and Kazak Map Styles. The results of the study pointed towards the idea that cross-cultural differences in map design perception exist.

However, the question remained unclear, in which way these results might be applicable in different cross-cultural comparisons. In order to be able to answer this question, a further study was conducted, this time the Austrian map style was compared with a Bulgarian map style of an exact same map content and data (Pühringer 2022).

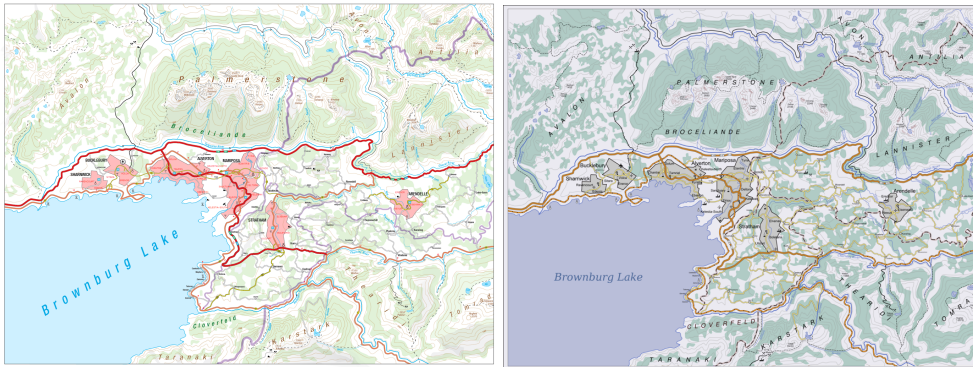


Figure 1: Fictitious map with official Austrian map style and official Bulgarian Map Style

In the study interviews with Austrian and Bulgarian participants were carried out. The interviewees were divided into two groups and “Thinking aloud” interviews were carried out online due to the diverse location of the participants and current pandemic situation constraints. A hybrid (both qualitative and quantitative) approach was applied to focus on current research questions. Quantitative measurements were intended to examine the state of cognitive abilities like attention, perception, and learning between two user groups by recording the time needed to solve the map-reading tasks in finding a labelled place on two map samples. In the second part of the experiment, participants were invited to assess the design/aesthetic component of two distinct map samples and subsequently share their opinion, associations, logical strategies, and feedback during the whole session.

The main findings of the think-aloud procedure highlighted a significant difference between the given ranking values using the aforementioned qualitative evaluation method for both maps. It also verified the main theory “the more

familiar to the user the map is, the higher it will be assessed". Thus, participants from Austria ranked the Austrian map higher than the Bulgarian map and vice versa. Taken as a whole, the resulting outcomes corroborate with the main hypothesis that the level of familiarity plays a crucial role in such types of ratings as evaluation of attractiveness, usability and trustworthiness (Gartner, 2023) and confirm the findings of Zhunis et al. (2021).

References

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