Using the think-aloud method to evaluate the regional atlas

Tomáš Vaníček

The think-aloud method is one of the methods applied in usability studies. This paper presents the method as a whole and its application to certain cartographic products, as well as specifically proposed solution and evaluation procedures for map optimization (not only) in regional atlases. The basic principle of the method is that the respondent verbalizes aloud all his/her thought processes during testing. The obtained recordings are qualitatively or quantitatively analyzed by the researcher. The results of the analysis are then used to improve the usability of the product. At the Department of Geoinformatics of UP Olomouc, experiments were conducted in two studies using the think-aloud method. The first pilot study served to verify the given principles of the method and also to determine whether the method can be effectively applied to cartographic products. The second main study was focused on the evaluation of a regionally focused Atlas of the Moravian-Silesian Region. On the basis of the results found, the problematic parts of the atlas were identified and solutions for its improvement were proposed. In the course of the study, three directions were proposed on how to evaluate the think-aloud experiments. The first option is to separate the record into individual annotations and analyse them. Another possibility is to convert the recording into text and perform a linguistic analysis. A third additional option is

to use all the material generated and to analyse it subjectively retrospectively from the researcher's perspective. The final output of the study was both a concrete evaluation of the Atlas of the Moravian-Silesian Region and a structured manual with insights from the studies conducted to implement usability testing using the think-aloud method for other researchers.