

FURTHER RESEARCH ON CHERNOFF FACES - A SURVEY IN HUNGARY AND AUSTRIA

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Chernoff faces, a method for data visualisation was originally created for the graphic representation of statistical data that Hermann Chernoff published in 1973. The research on the map use of this method began later, starting from the 90's. However, its use in cartography was rare and did not concern school cartography. From this point of view, the Hungarian-Argentinean projects in 2004–2005 and in 2008–2009 can be considered as pioneer projects. These were done in connection with "Map reading by children in school age: Cartographic education and practice in Hungary and Argentina" (<http://lazarus.elte.hu/hun/dolgozo/jesus/mag-arg/projekt1.htm>) and "The possible uses of the Chernoff faces in thematic cartography with special attention to school cartography" (<http://lazarus.elte.hu/hun/dolgozo/jesus/ma0809/projekt1.htm>). In these projects, the general comprehensibility as well as the learn effect of the Chernoff principle in the field of thematic cartography was tested with pupils. The results emphasized the need for further research and experiments in different countries. The Hungarian-Austrian bilateral scientific co-operation evaluates the theoretical and practical results obtained so far and tries to find further possible cartographic uses. The current project concentrates on further research and surveys concerning the use of Chernoff faces in school maps.

The aim of this research is the extension of the theoretical research, studying the possible uses of Chernoff faces in school cartography for pupils of grades 3–4 (9–11 years old), seeking for new solutions and enable future research to create more efficient thematic maps for children. On the other hand the purpose is to extend the Hungarian-Argentinean project by organizing a survey in Austria and to compare this data with the previous results. The questionnaire is designed for pupils of grades 7 and 8 (13–15 years old) in Austrian Secondary Schools with some experience of using maps and school atlases. Based on the results of the test, the final proposals about the use of this method in school publications will be elaborated. In the case of successful realization and review of the research, this method of thematic representation can be used not only in the Hungarian and Argentinean but also in Austrian school publications (textbooks, atlases, etc), adapting it to the pupils' graphic and symbol world and to the specific curriculum of each participating country (studied in our previous research). This poster presents the results of the theoretical research and the survey on the using and understanding of this method by pupils in an international comparison of Hungary, Argentina and Austria.

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