CHERNOFF FACES IN ARGENTINEAN SCHOLASTIC CARTOGRAPHY: AN NEW PROPOSAL FOR TEACHING

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Comprehension of space has always been a knowledge valuable and useful in every day's life, however, it is not a knowledge acquired spontaneously but by means of study and deep consideration about its representation: "the map". So as to make concrete the usage of maps, it is necessary to prepare students, teaching them cartography in their formal education.

Cartography is such an important tool that helps in the understanding of space though it has to be discover again by Geography and also by others fields of knowledge imparted at educational institutions.

The Chernoff faces constitute a new proposal of graphication to renew scholastic cartography because its essence consists of using human face features to represent statistical data. The insertion of this method in education not only makes easy the representation of statistical indicators in different scales but also puts forward a different experience, more attractive than that of traditional cartography. Besides, this methodology improves pupils' predisposition to apprenticeship in a natural way, building up a knowledge that at the same time "entertains" them. That is the reason why they enjoy it very much.

This piece of work states a new way of teaching cartography using Chernoff faces in thematic scholastic maps. Several variables have been chosen for the practical application of this methodology. Some of them are: fires that affect environment, population (urban versus rural, density, etc) and life's quality, in world, regional, national and local scale. These variables are related with curricular contents of first year in secondary school of the city of Buenos Aires, Argentina. At the same time, the authors made a review of the cartographical and graphic resources available for the representation of the mentioned variables in atlas, books, etc, used in the teaching of Geography.

The result of this piece of work is a cartographic representation of the selected variables by means of using the Chernoff faces and the comparison between between this method and the traditional graphical representations.

The feasibility of application of this method in the Republic of Argentina has been checked by the authors by means of working with 800 students between 13 and 15 years of age, from eight schools located in the metropolitan area of Buenos Aires, during 2009. Same of these schools were private ones while others belong to the state.

This research was useful not only to make a comparison between methods but also to see the change in the behavior of the students because they show enthusiasm, desire to acquire knowledge, positive attitude for communication and to dialogue between mates and good predisposition to relate this knowledge with other fields of science.

Easy to teach and to learn, the inclusion of the Chernoff faces in Argentinean education seeks to spread out and to make easier the teaching of cartography in all possible disciplines. The great achievement of this methodology is not just to learn images but statistical contents as well, from thematic cartography that shows many variables in a simple way.