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SWISS MAP TROPHY - a new way to teach map reading

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The Swiss and their maps

The first map of what is today known as Switzerland was drawn around the year 1497. During the following centuries, local governments tried to get a general view of their territory. Under the direction of General G.H. Dufour, the first accurate map of the country was published between 1845 and 1864 at the scale of 1:100,000. Scientists and alpinists soon pushed for the publication of the original surveys, with contour lines (instead of hachures) and scales of 1:25,000 for the lowlands and 1:50,000 for the mountains. In fact, the published topographic data allowed the conquest of the Alps and the development of tourism.

Today, the national map series 1:25,000, 1:50,000, 1:100,000 and 1:200,000 are widely used in the army, for business purpose and for getting around. Hikers, alpine bikers, motorists and pilots plan their trips and orient themselves en route using detailed topographic information. Planners and technicians rely on up-to-date (and historical) maps — for the past few years also on cartographic information in digital form. Military planning and operations have usually required a large amount of printed maps.

A CONSTRUCTIVIST APPROACH TO CHILDREN'S RELIEF MAPS

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Introduction

Understanding the shape of landforms and how they are represented on maps is a challenging task for children, yet both are fundamental to an understanding of geography. Children often have a weak grasp of physical landscape concepts and may be unable to apply correct terms to common features. Milburn (1972) demonstrated that only 30% of a sample of 500 8-11 year olds could correctly define simple features such as rivers, valleys and mountains. Common landscapes are, however, difficult to define and landscape terminology can be confusing (Wiegand, 1993). Some features are identified by their form (e.g. *island*) but can vary substantially in size. Other features (e.g. *volcano*) are described by their process of formation but can vary in their appearance. Regional variations in terminology to describe features on the Earth's surface may add to the difficulties. Harwood and Jackson (1993) assessed children's understanding of nine common vernacular physical landscape features using oral interviews, picture recognition and picture drawing and revealed many significant misconceptions. However, the concept *hill* was found to be one of the more securely established notions and this was thought to be related to their relevant prior experience. This would include both direct experience (e.g. through walks in the countryside) and indirect (e.g. through pictures, video and stories).

CARTOGRAPHIC KNOWLEDGE GAINED BY RURAL AND URBAN CHILDREN OF SRI LANKA THROUGH FORMAL AND NON-FORMAL EDUCATION

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Sri Lanka is an island situated in the Indian Ocean to the west of Bay of Bengal. It is separated from the Indian peninsula by a strip of sea about 22 miles wide. Land extent of the island is 25,332 sq. miles. The topography of the island is such that the highland is situated in the middle surrounded by a plain traversed by several rivers. This plain is divided into two sections viz. the wet-zone and the dry-zone on the basis of rainfall. The wet-zone comprises the southwest quadrant of the island and the rest of the plain is the dry-zone.

Population distribution of the island is not even; 60 per cent of population being concentrated in the wet-zone which covers only 23 per cent of the land area of the island. In fact, 75 per cent of the island's urban population resides in this zone. Of the nine districts (ie. Colombo, Gampaha, Kalutara, Galle, Matara, Ratnapura, Kegalle, Kandy, Nuwara Eliya) which comprise the wet-zone, Colombo district is the most urbanized. Leading state and international schools and also private schools with very good educational facilities (e.g. well equipped libraries, laboratories) are located in this district. Colombo which was the capital city for nearly 175 years (up to 1982) and the primate city of the island boasts of the best urban facilities of the country.

**“REAL FAR..., TWO SQUARES..., TWO WEST...,
100 LATITUDE 31.5° LONGITUDE “-- AN ANALYSIS OF
KINDERGARTEN TO GRADE 11 STUDENTS’ RESPONSES
TO QUESTIONS DESIGNED TO EXPLORE THEIR
UNDERSTANDING OF, AND COMPETENCY IN,
SOME BASIC MAPPING CONCEPTS**

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Abstract

This paper presents part of a recent study designed to provide insight into the knowledge of maps and attitudes held towards them by Quebec students five to 17 years of age. To place the study in context, a brief outline of Quebec’s instruction pertinent to the introduction of basic mapping skills is presented. This is followed by an overview of the study’s methodology. The students’ responses to questions designed to test their competence in several basic map skills are then examined. Students were asked questions which involved symbol identification, cardinal directions, co-ordinate locations (alpha-numeric and geographic), and distance calculation. Arguing on the basis of the current trends in technology, that the students of today will be the map producers and map users in the next millennium, the paper concludes with a discussion of some of the implications of the findings for maps and mapping in the information society.

UNDERSTANDING OF CHILDREN'S ABILITY TO WAYFIND AROUND AN UNFAM ENVIRONMENT USING A LARGE SCALE MAP

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Introduction

The study of children's performance in reading and using maps is of interest to cartographical educators for three distinctive reasons. Firstly, map work is a basic part of the geography curriculum in almost all primary and secondary schools (Department of Education, Queensland, 1994; IGU, 1992; Riding & Boardman, 1983). Secondly, maps are often encountered in everyday life and hence is an essential life skill for children to master (Gerber, 1993; Kwan, 1996). Thirdly, using a map and its performance are related to children's spatial visual ability (Witkin *et al*, 1977) to disembedding a geometrical shape from within a more complex pattern (Riding & Boardman, 1983).

A STUDY ON THE ABILITY OF CHILDREN UNDERSTANDING THE FUNDAMENTAL ELEMENTS OF REALITY PRESENTED ON MAPS

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Abstract

This study examines the way school children perceive the fundamental elements of reality presented on maps, taking into account the spatial and cognitive developmental levels, the fundamental cartographic functions and the analytical curriculum. The research is based on a test addressed to elementary school children of Cyprus. The test material consists of different scale maps. The maps are specially designed to support basic cartographic functions, such as: spatial orientation, topological relationships, sorting and measuring objects, etc. The results reveal that the ability of children to perceive fundamental cartographic functions is gradually increasing.

DYNAMIZATION OF MAPPING TEACHING IN THE PRESENT ARGENTINE SCHOOL

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The aim of this paper was to prepare a serious proposal which could answer the educational requirements - formal - and give interesting answers - informal - to questions related to CARTOGRAPHY, always with a scientific background.

Our way of seeing the importance of cartography -as a science and as an art- in the old and present times of humanity, is that it must be transmitted BY and AT school but, based on what elements?