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SETTING THE SCENE: DISCOVERING CONCEPTS BASIC TO MAPPING

Henry W. Castner
USA

Abstract

As we meet to consider the future work of the Working Group on Children and Cartography, it may be useful to consider how we might proceed. Providing examples, this paper describes five strategies that suggest directions which our future goals might take or encompass:

• place a greater emphasis on all the skills in mapping, not just map making;
• connect mapping concepts with topics in other parts of the curriculum;
• set children design problems in which they must generate graphic metaphors;
• reach out, in our regional meetings, to local classroom teachers;
• expose children to several mapping technologies, not just the electronic one.

PROGRESSION IN MAP LEARNING

Patrick Wiegand
United Kingdom

Abstract

The notion of progression is widely recognised in reaching, and underpins much writing about learning. However, little specific attention has been paid to progression in a cartographic curriculum for young children. The author identifies some theoretical perspectives from models of cognitive development and approaches to the structure of knowledge. The conference presentation was illustrated with examples of practical map teaching materials for use in schools.

TEACHING GEOGRAPHY AND MAPPING FROM TERRAIN MODELS

Sam Brian
USA

Abstract

The author examines particular cognitive issues embedded in the study of Geography and in the attainment of literacy with maps. The article discusses the largely neglected ideas of progressive educator Lucy Sprague Mitchell and the reaching experiences of the author to illustrate and explain these geographic and cartographic, learning and teaching issues. The author describes his classroom experiences where terrain models and map making activities are used to address these geographic learning-teaching issues. The article proposes an elementary school curriculum based on activities using terrain models and map making projects. Research results of this curriculum are provided and discussed.

SPATIAL CARTOGRAPHIC LITERACY AND THE ATLAS OF QUEBEC PROJECT

Jean Carrière
Canada

Abstract

In order for children to establish a facility in reading maps, one of the necessary skills is the ability to perceive different types of spaces at different scales, from the immediate concrete environment to the more abstract notions of shifting spaces in logic. This paper investigates how cartographic documents can make effective use of technological advancements toward pedagogical use as the technology has an impact on the ways in which children develop cartographic literacy, whether producing or reading maps. The article also attempts to define some of the cognitive processes involved in the development of cartographic literacy before elaborating on a specific project designed in part for pedagogical use. The experience of developing the Internet Atlas du Québec et de ses regions is presented as based on this product, a new project is underway — the development of an Internet School Atlas of Québec.

THE CARTOGRAPHICAL SIGNIFICANCE OF A PROPOSED MAP UNIT IN THE NEW HONG KONG JUNIOR GEOGRAPHY SYLLABUS AND TEACHER RESPONSE

Tammy Kwan
China

Abstract

Based on the findings of an earlier pilot study on pre-teenage children's vernacular perceptions and experiences of maps in Hong Kong (Kwan, 1999), a new map unit, which is to be included in the proposed junior secondary Geography syllabus to be implemented in September 1999, will be examined in this paper for its cartographic
significance. This paper also reports on a survey conducted in February 1999, which gave an overview of the attitudes of Geography teachers about the nature and use of the map unit regarding its cartographic significance.

USING THE WEB FOR CARTOGRAPHIC EDUCATION IN HUNGARY

José Jesus Reyes Nuñez
Hungary

Abstract

What are the “Sulinet” and “Irisz” programs? The following paper responds to this question and discusses the difficulties that may impede the increased use of the World Wide Web in Hungarian schools. The principal pan of the report explains the process of creating a new Homepage to demonstrate elementary cartographic concepts taught in Hungarian Schools. These range from preliminary investigations to determine content, through to the software to be used for the design of graphic material, it also examines the presentation of the Homepage’s structure and the different ways to make this work accessible to schools.

CHILDREN'S SKILLS AND PERFORMANCE AND THE NEW CARTOGRAPHIC EDUCATION ENVIRONMENT IN JAPAN

Hiroshi Ota
Japan

Abstract

Worldwide, technology is rapidly evolving. in both the educational and home environments, the use of computers is being adapted. This is particularly important in the context of Japan. To this end, computer literacy is become part of education in order to make efficient and productive use of emerging new technologies. This paper outlines some of the concerns being addressed by the Keio Schools in Japan. Established in 1858, these schools are among the oldest private schools in Japan. The paper examines how technological literacy and training can work alongside traditional methodology to enhance student learning. It also illustrates some of the curriculum developments being proposed to the Japanese school system to address a growing number of issues surrounding technological advancements and education.

ENCOURAGING GRADE 6 STUDENTS FROM SATELLITE TOWNS TO USE MAPS FOR A LEARNING EXPERIENCE ABOUT SOME INTERESTING SITES IN THE NEIGHBORING CENTRAL CITY

Shimshon Livni and Varda Bar
Israel

Abstract

This study examines how negative attitudes that children have to maps can be changed. To illustrate this, a pilot study which involved an urban navigating tour was conducted to evaluate the use of maps. The project involved Grade 6 (12-13 year olds) in Beer-Sheva, Israel, and evaluated the students' attitudes to maps.

THE NATIONAL ATLAS OF CANADA AS AN EDUCATIONAL TOOL

Cathy Brede and Donna Williams
Canada

Abstract

The National Atlas of Canada has existed for 100 years with the first edition published in 1906 and the latest paper edition closing in 1993. With the closing of the fifth edition came a period of experimentation with changing content approach and vastly different communications avenues. The National Atlas was one of the very first interactive atlases on the web and this is still the major media for distribution of our information. The educational community has been an important audience in the creation of the various editions and in the current National Atlas on the Web.

The changing technology and content has lead to a new conceptual approach for the National Atlas of Canada. The Atlas is no longer a stand-alone paper product, but an integral part of the Canadian Geospatial Data Infrastructure (CGDI) and the government of Canada's contribution to it, GeoConnections. As such, it provides not only discrete information about a subject or issue, but also provides links to a wide variety of resources and experts.

Part of being the link between people and geographic information is offering varying levels of interaction with visualization tools. The new software developed for the National Atlas of Canada using ESRI Map Objects offers the ability to provide different interfaces for varying audiences with appropriate functionality for each user group. For a school audience, older students may want to complete complex searches and be able to combine a wide variety of information to make their own unique maps. A primary school student wanting to find out about climate change, for example, may want already composed maps with only pan and zoom, using a simple query function. These different interfaces are possible, using the same database and the same set of functions.

Previously developed interfaces for schools used input from teachers. Although a distinct interface for teaching is not being developed the new National Atlas tool was created with the same teacher input. Students and teachers are one of the major, identifiable audiences for the National Atlas.

A CARTOGRAPHIC ATLAS CREATED FOR AND WITH THE HELP OF CHILDREN

Temenoujka Bandrova
Bulgaria

Abstract

This paper supports the premise that children can work with cartographers and educators to compose and design maps and atlases. In the project, children's work and ideas were used by cartographers to create a symbol system for the special content of maps. A test after the map composition was done and the results were used to pre-process the maps in development. An experiment with 8-10 year-old children was completed to examine the proposed methods by having them work with cartographers to develop a map, thematically entitled 'Animals and Plants of the World'. The results have confirmed the positive effect of implementing such a practice in order to foster students' understanding of both cartographic and visual literacy.

ELECTRONIC ATLASES IN THE NATIONAL EDUCATION SYSTEM IN TURKEY

Necla Uluğtekin and Oztug Bildirici
Turkey

Abstract

Electronic atlases are becoming useful tools for education. Although some developed countries have created their own, there is no adequate cartographic electronic atlas in Turkey. This article presents a case study regarding the role of an electronic statistical atlas in Turkey's national education system. In Turkey, statistical information is published annually in the form of a yearbook by the National Statistical Institution. This yearbook contains a large amount of tabular data that has spatial character, but the few thematic maps are poor in cartographic product. The authors present the yearbook's statistical information as a view-only atlas that contains thematic and animated maps for children.

AN ATLAS:
THE PERFECT TOOL TO LEARN GEOGRAPHY

Janine Gisèle Le Sann
Brazil

Abstract

This present paper is about the production of school atlases for the most impoverished region of Brazil: the Jequitinhonha valley, located in the north of the State of Minas Gerais. This collection of atlases is intended to enhance the abilities and capacities of the children in their lifelong learning and acquisition of knowledge. The pedagogical aim is to promote learning processes by using Cartography in the classroom. The kinds of activities done by students in this context include observing, questioning, registering, organising, classifying and representing elements on a map. The paper outlines possible ways to develop these skills in students, highlighting that the construction of diagrams and maps, and their interpretation are important aspects for effective student learning in all academic areas.

THE USE OF PRIMARY GRAPHIC ELEMENTS IN MAP DESIGN BY FIRST AND SECOND GRADE STUDENTS

Vasiliki Filippakopoulou, Evanthia Michaelidou and Byron Nakos
Greece

Abstract

This paper outlines a study conducted which introduced primary graphic elements, on which the design of cartographic symbolization is based, to students in Grades I and 2. The subjects of the study were asked to compose thematic maps by choosing, according to preference, the most appropriate set of thematic symbols for the representation of four groups of themes. The different sets of thematic point symbols were designed by applying changes in size, s/tape, hue or value. Participants took a test on a computer, using a specially developed software. The main purpose of the study was to examine their intuitive reaction to the use of visual variables.

THE VALUE OF TOPONYMY IN TEACHING

Ana Maria Garra, Christina Esther Juliarena, and Carmen Alicia Rey
Argentina

Abstract

The act of “discovery” is often hidden or ignored so teaching and learning in the school environment adheres to prevailing research ideas, concepts, processes and underlying pedagogical goats. Through mediation, the teacher must lead the student, in a variety of ways, toward a gradual acquisition of knowledge. The comprehension, understanding and application of spatial dimensions are significant components in the Learning process. Maps allows both the representation of geographic space, and the abstraction of geographic space. By means of elementary drawings such as sketches, charts and maps, and other complex cartographic materials that delineate space, teachers can work with language. The process of map comprehension ranges from basic reading skills to conceptualizing and negotiating the known and unknown. The terms TOPONYMY and SYMBOLOGY are significant in this discussion. After colour and scale, they function as the nearest reference points in a child everyday life.

This article emphasizes the importance of geographic names, and their origin. It examines meaning and spelling characteristics, the reasons for naming, and their duration over time. This paper, while advocating the further development of cartographic materials for all levels of Basic General Education, concentrates on the Third Cycle (12-14 year olds). An example of a rural area in the Argentine Republic is used to illustrate the article’s objectives. This small scale topographic map was produced by the Argentine Military Geographic Institute (IGM). It’s toponymic component, weight, features and place names are analysed to prioritize the interdisciplinary nature of the names. In this context, the map functions are to isolate historical, cultural and geographical information about a particular place. TOPONYMY also reveals the past which lies within a place name. An understanding of the origins of a name permeating everyday life contributes to pedagogical projects which can incorporate Cartography as a learning tool.

ENCOURAGING TEACHERS TO TRY NEW APPROACHES TO MAPPING

Karen M. Trifonoff

USA

Abstract

The maps made by children in elementary grades often reflect the background and training of the teacher. Elementary teachers may have had exposure to a general Geography course that included map reading, but perhaps they may have more limited experience with map making specifically. When developing lessons in map making for their classes, teachers rely on prior experiences and available materials. Cartographers can help classroom teachers expand their map making knowledge in two ways. First, they can conduct workshops on map making to expose teachers to maps other than the typical navigation maps often used in elementary settings. Second, they can go into the classroom itself and guide teachers and students in map making activities This paper presents the results of two such encounters and suggests guidelines for future interactions.

ENVIRONMENT AND CURRICULUM DESIGNED TO ENHANCE THE CONCEPT OF TIME AND SPACE AT THE AGE OF FOUR

Joséphine Barry Davis

USA

Abstract

This paper looks at environment and curriculum that can lead four year-old children from an intuitive sense of time (past, present, future) and space (near and far) to an understanding of History and Geography. It elaborates on research conducted in a classroom setting with materials specially developed for this purpose. The curriculum developed was called 'The First Frontier" and it addressed the concepts of time and space according to the cognitive abilities and sensorial preferences of children at the age of four. This paper presents some of the research findings. It suggests that the early introduction of Geography and History, particularly during the childhood period where sensitivity to time and space is engaged, facilitate effective learning. This study offers a basis from which to inquire into the epistemology of children's space/time understanding. Such knowledge would allow curriculum design to be aligned with children's needs.

CARTOGRAPHIC LANGUAGE AND THE MULTI-EDUCATION CURRICULUM

Tania Targino
Brazil

Abstract

This paper examines the efficacy of the Multi-education curriculum in place at over 1,000 schools in Brazil. It maintains that it is necessary to include a cartographic approach to pedagogical practice. The study proposed that this would allow new teaching practices to emerge which would enhance the ability for students to construct knowledge. The use of cartographic language develops the capacity for larger comprehension, and must be introduced at an early age to foster an active learning process.

PROMOTING CHILDREN'S CARTOGRAPHIC CONCEPTS THROUGH AN INTERNATIONAL MAP COMPETITION

Jacqueline M. Anderson
Canada

Abstract

Since its inception in 1993 the biannual Barbara Petchenik Children's Map Competition, created by the International Cartographic Association (as a memorial to Barbara Petchenik), has involved thousands of children from 43 countries producing their own creative representations of the world.

The paper provides a brief historical perspective of the competition. To date three contests hove been held: Köln (1993), Barcelona (1995) and Stockholm (1997) with the next competition taking place in Ottawa in 1999. What are the strengths and shortcomings of the competition as a means of promoting children's involvement with maps and learning concepts associated with the understanding the nature and role of maps? These questions are considered as well as related issues that require further investigation and discussion.

THE BULGARIAN NATIONAL COMPETITION
"A WORLD MAP" AND THE BARBARA PETCHENIK
CHILDREN'S MAP AWARD REPORT

Temenoujka Bandrova
Bulgaria

Abstract

The report briefly presents the steps of the "World Map" competition held in Bulgaria in 1999. The National Competition was organized by the department of Photogrammetry and Cartography and was supported by the University of Architecture Civil Engineering and Geodesy, Sofia and Faculty of Geodesy. 108 children from 13 settlements in Bulgaria participated. The exhibition of work was highly appreciated by all visitors. An award committee nominated 47 of the entries, among which ten were awarded, with five winners. A 10 year-old girl, one of the competition's winners, proposed the theme for the next Barbara Petchenik Award.

THE BARBARA PETCHENIK MAP DESIGN COMPETITION AS A TOOL OF THE CARTOGRAPHY AND CHILDREN WORKING GROUP

Henry W. Castner
USA

Abstract

In 1993. the International Cartographic Association created a map design competition for children to honour the late Barbara Bartz Petchenik. It is not clear, however, in what ways it is to accomplish this. Given her extensive professional experience in designing maps, her published interest in the underlying concepts, as well as the details of the cartographic process, it seems that we might best honour her work by helping children and teachers to understand how the design process works in solving spatial problems, especially those of interest to children To do this, the Commission on Cartography and Children can select more universal questions or specific geographic propositions as themes for the Competition. To make it easier for teachers to incorporate the Competition into their classrooms, the Commission can show how mapping concepts are related to those of other disciplines and provide reproducible materials, including a manipuable map projection, for class use. These tools would also be useful in providing outreach workshops for teachers in areas where regional meetings of the Commission are held.

DEVELOPMENT OF SCHOOL ATLASES FOR LOCAL STUDIES

Rosângela Doin de Almeida
Brazil

Abstract

This study consisted of the elaboration of school atlases for three municipalities in the state of São Paulo, Brazil, destined for 9-12 year-old students. For the research team, which consisted of a university professor and elementary public school teachers, this required the development of both products and methodologies. It was necessary to create procedures for the production of the material as well as for its validation. This task made it possible to join technical concerns of cartographic representation with classroom dilemmas, opening an avenue for the establishment of methodologies in cartographic education.

SOME DEMANDS FOR MAPS IN UZBEKISTAN

Gizella Bassa
Hungary

Abstract

GiziMap decided to design a map of Central Asia. First, we asked map users for information about the area that our ‘nap should cover. Based on the responses, we chose the main tourist area for our new map at a scale of 1:1,750,000. The map covers the whole of Uzbekistan, Kvrgyzstan, Tajikistan, South Kazakhstand and East Turkmenistan. During our research of maps and guide books, we investigated many old and new maps in addition to books about this area. Many of the materials were published in Russian. In these newly independent countries, current maps are now published in local languages as well as in Russian. In October 1998, I field-checked a colour composite of our map in Uzbekistan with Will Tefft from Map Link.

In the areas of coverage, there has been many economic change. We were fortunate to learn many of these things from a variety of different sources. In Tashkent, for example, teachers from several educational organizations indicated that globes were an important educational requirement There were the same requirements for globes in Uzbek. Many tourists and students visit Samarqand, Buchara and Khiva. As a result, in addition to globes, it is also very important to have maps and atlases of these cities in Uzbek in an international version, in English as well as other languages. If students can be exposed to maps of their birthplace, this will encourage their use of other maps more as well. Producing a general map of the country and cities is on a first step in awakening an interest in what information can be shown on maps. We hope that our published general map of Central Asia will be used not only by tourists, but by students as well.

THE ACTIVITIES ROOM

The Activities Room was an idea that began at the Working Group Meeting in Wroclaw, Poland in 1998. We were aware of many hands activities, both manual and computer-based, which could be used to help children discover and understand concepts basic to mapping. It is sometimes difficult to share these activities through written description; an understanding and appreciation of them comes much faster by actually doing them. In order for us to be able to make use of some of the more accessible and appropriate ones, it would be necessary to have them in a place where we could work with them individually and share our reactions and evaluations. It was thought that such experiences would be most useful when we returned to our home countries and tried to share some of our conference experiences with colleagues and students. The following contains brief descriptions of the activities presented.

Regina Araujo de Almeida

BUILDING A PLACE

The goals of this activity were two-fold: 1) to introduce children to tactile graphic language and cartographic concepts, and 2) to offer multi-sensory experiences related to map making and map use. Four games were introduced. The first was a memory game which employed tactile variables for point, line and area representations. The second game involved tactile exercises which introduced point of view (horizontal and vertical) and scale. The third game utilized a braille compass to develop skills in discovering location and orientation. The fourth game involved “Building a Place.” In this activity, 24 tactile pieces representing elements of a neighborhood/village such as buildings, street and parks were used. The activity also involved the use of a compass, legend and a board couvered with a special fabric to which the tactile symbols easily adhered. Each group of students receives descriptions of a neighborhood/village to construct. After playing the first time, the groups created descriptions of other villages, and with the same legend, created new features and play pieces. This game can be used to show different geographical environments such as rural areas, forests, parks, tourist areas (both imaginary and real). The same procedure can be used to build villages and places in 3D models, utilizing real or mental maps.

Jacqueline Anderson

INTRODUCING THE MAP LEGEND CONCEPT

This activity was geared toward children 5-7 years old. To introduce the concept of the map legend, necessary materials included: several life size objects of different size, shape and colour (for example, hoop, box, plate, white cloth (a black 1ine along one edge — to represent the bottom), hockey stick, scale models (1:8. pictorial representations of the life size objects, plan view representations of real objects with a magnetic strip, white cloth, equal signs with magnetic strips on the bottom, a large sheet of paper and colour crayons). The

activity involved arranging the life sue items on the white cloth. The participants were then asked to identify how one could show the arrangement of the objects to somebody else in a different location. One solution was to replace the cloth with a piece of paper and draw around the objects and then colour these in. Another solution was to mike a magnetic scale model. In this manner, the information of the scale model could be represented as a two graphic using either pictorial or abstract symbols (the latter produced by tracing around items in the scale model). But, how do you work out with this abstract representation if one is not familiar with the reality represented? The idea of the map key as a series of sentences was introduced — each sentence having a structure: map representation, equal signs, and what is represented (shown as either a picture of the object or the word). This activity allows various arrangements of these objects in reality and then the production of a map and a corresponding legend. With this kind of activity, children can experiment with the mapping of many different real objects.

Sam Brian

TERRAIN MODEL IN A PAN

This activity involved the presentation of a paper as well — please see the conference presentation, Teaching Geography and Mapping from Terrain Models. By gradually introducing blue-coloured water, students could identify and describe (and thus define) the variety of landforms that were created by the rising waters. This became a starting point for a number of subsequent mapping assignments

Henry Castner

THEMATIC MAP VARIATION MODEL

Henry Castner brought numerous items. These included a thematic map variation with a model of the nine postal code areas of the contiguous states of the USA. He also shared several sets of manipulable projections which participants were invited to put together to make different map projections of the earth. The three differ sets presented were the earth on: 6 squares (the cube), 20 equilateral triangles (the icosahedron), and 32 squares (the Guyou projection).

Ana Maria Garra

SYMBOL MEMORY

This activity is directed to an audience of 8 years of age and older. Its primary aim is to help children to recognize cartographic symbols identify planimetric and altimetric elements, acquire cartographic knowledge and ease the assimilation of concepts. The game is composed of 62 pieces: 30 cartographic symbols, and 30 identifying pieces of text corresponding to the symbols. The two other pieces

were a card with the outline of Argentina, and a black piece. To play the game, all the pieces are placed face down and mixed. The first player has to turn over two pieces and try to make a pair. If the pair is completed, the player takes the pieces out of the game. If a pair is not achieved, the pieces are returned to their positions. The bonus piece (with the outline of Argentina) allows the forming of any pair. The player that selects the black piece loses the game. The player that forms the most pairs is the winner. There are many variations to this game. For example, when more pieces are used in the game more players can be involved. There can also be variants in terms of information used in the game. Pairs can be formed by symbol and text, a symbol and drawing of an element, two equal symbols, and other combinations. For players of different ages, symbols and level of difficult may vary. Teams may also be formed according the number of players. Regulations regarding the roles e.g., time allocations as well as the number of pairs should be made by the players before play begins.

Tammy Kwan

USING MAPS IN FAMILIAR AND UNFAMILIAR PLACES

The Activities Room included the presentation of results of way-finding activities developed by Tammy Kwan. The three exercises had the overall goals of 1) enabling children to use maps to facilitate way finding and 2) developing an appreciation of the importance of understanding map concepts and practicing map skills. Exercise One involved the use of a map in a way finding exercise with a pre-selected route in a suburban environment that was familiar to the children. Exercise Two had children participate in a way finding exercise with a pre-selected route. The children were taken individually to a starting point (for example, a post office) of a familiar suburban environment. The children were then asked to find their way back to the school, using a map. In the third exercise, the children were instructed about the use of maps and textual instructions in a way finding exercise in an unfamiliar environment. The children were asked individually to demonstrate the way they used both map and textual instructional information to explore an unfamiliar environment. The study results showed that teachers can benefit from the information obtained regarding how children way find in familiar and unfamiliar environments. The activities here provided children with real opportunities to use maps in a real environment, thereby developing their problem-solving skills.

Shimshon Livni

DECODING RELIEF INFORMATION

The objective of Shimshon Livni's activity was to help students to decode relief information. Materials included a small plastic container, plasticene, water, plastic wrap and a marker. First, the demonstrator marked elevations up the side of the container. Then, a 3D relief model was made and placed in the container. After this, the model was flooded to the first marked elevation. The plastic film was then stretched over the top of the container. A line was then traced with a marker on the plastic film to correspond with where the water touched the model. After this, a corner of the plastic wrap was opened up, and more water was poured to the second marked elevation, and this elevation was marked on the plastic film. This process was continued until water had been poured to the highest level marked on the side of the container. The demonstration resulted in the creation of a contour map, with the contours corresponding to the initial elevations marked on the side of the container.

Anita Muller

KIDPIX STUDIO DELUXE - SOFTWARE OVERVIEW

The Activities Room featured a demonstration of KidPix software for cartographic purposes. KidPix Studio Deluxe is a program that supports and encourages children's creativity and lets them use the computer in a playful way to create art. Combing ease-of-use with powerful drawing and multimedia tools, the program enables teachers to introduce computer graphics and use the software for drawing maps. KidPix consists of several project options. These projects vary in subject matter, from creating simple drawings to slide show presentations and animation. With KidPix, children can design maps in a very simple environment, similar to any paint program. They can also learn through exploration. The interface consists of a drawing area in the middle of the screen with options and tools located at the bottom. Tools can be selected by clicking the mouse. Each tool has several additional options such as stamp, pattern and colour palette, line weight, text, size and style. Qualitative and quantitative maps can be produced.

Patrice Pitre and Sylvie Vachon

ATLAS OF QUEBEC PROJECT

The Activities Room featured a demonstration of the Atlas of Québec et ses regions as part of the schedule in order to illustrate additional pedagogical possibilities of utilizing electronic tools to aid cartographic and geographic literacy. It provided participants with hands-on experience.

Peter Pulsifer

THE CANADIAN EXPLORER VERSION FOR SCHOOLS

Canadian Geographic Explorer is a multimedia CD-ROM that presents an interactive journey through Canada. The product uses maps, satellite images, video and text to communicate the different landscapes, environments and cultures of Canada. The educational version that focuses on the use of the product by school aged children was demonstrated. The “School Lab Pack’ stresses cartographic skills such as map reading and interpretation, layout, printing, legend creation and labeling. The CD-ROM version also presents students with simple concepts of using remote sensing imagery for environmental management. One of the more popular features of the product with educators is the introduction to visualization with 3D “fly-overs” and relief representation using 3D stereoscopy. Following the demonstration, there was a discussion of experiences using the product in Canadian Elementary Schools.