Chapter 6
Using Infographics for Teaching:
A Case of Geography in a Greek Primary School

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ABSTRACT

Outstanding advances in educational technology are significantly influencing new learning environments, where it is necessary for teachers to respond and for learners to be able to adapt to the modern age of knowledge and information dissemination. The development of ICT has catalyzed the ability of all types of data to be reproduced visually (visualization). The term visualization refers to the use of various visual aids, which makes a subject more eloquent. This is especially useful for teaching a variety of special courses (environmental education), geography (maps, atlases), history (historical maps, atlases). Geography is a comprehensive and one of the most demanding subjects, as its study deals with a variety of different topics. This course can be made more effective and produce more permanent results through the use of innovative tools. One of these tools is information. In the context of the present study, the use of infographics, a pioneering visual tool transformed into a reliable teaching tool-guide in the classroom, is presented.

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VISUAL LITERACY

In modern culture, the importance of images and media modifies the meaning of being *visually literate* in the 21st century (ACRL, 2011). From time to time, the concept of visual literacy has been examined and determined by many scholars who describe the term from different perspectives. Debes (1969) defined the term *visual* literacy through a set of visual abilities that one is able to develop while seeing and incorporating other sensory experiences. It is a group of skills, the development of which is fundamental to normal human learning, as it empowers individuals not only to distinguish but also to interpret the visible energies, objects and symbols that they encounters in their surroundings. Of course, the creative use of these kinds of skills allows communication with others, understanding and enjoying the "masterpieces" of visual communication. Other researchers, who supplement Debes' findings, mention that visual literacy hypotheses show that images convey some meaning and education means that one is able to read and compose. Dondis (1973) reports that learning skills that are offered by visual media can not only enhance, but also enrich visual writing. Schiller (1987) states that each visual medium such as computer or video hides its own structure and specific learning skills. The Association of Academic and Research Libraries (ACRL, 2011) reinforces the above, saying that all students can be equipped with visual literacy skills so that they are able to understand and analyze the contextual, cultural, moral, aesthetic, spiritual and technical components involved in the production and use of optical materials. In addition, Dr. Bamford (2003), in a study conducted at Sydney University of Technology, states that visual literacy includes a variety of different types of visual communication, such as objects, gestures, signs and symbols. Furthermore, all these optical signaling systems are found everywhere, for example through movies, exhibitions, computer games, advertisements, public monuments, photographs, architecture and art. She concludes saying that, in order to be considered visually literate, people have to be able to:

- Understand the content of images.
- Analyze and interpret the images in order for them to gain meaning within the context in which the image was created and existed.
- Analyze the syntax of images, including style and composition.
- Analyze the techniques used to produce the image.
- Evaluate the aesthetics and value of the project.
- Evaluate the value of the project in terms of purpose and audience.
- To "catch" the synergy, interaction, innovation and emotional impact of the image.

All the above confirm that visual alphabet is more than just a linguistic way of handling images (Elkins, 2008; Messaris, 1994; Raney, 1999). Moreover, Case-Gant (1973) describes visual literacy as a group of skills that allows individuals to compose, interpret, and read visual messages even in personal relationships. Researchers Sims, O'Leary, Cook & Butland (2002) report that effective visual messages can help to bridge the gap between face-to-face communication and mediation, providing visual information and advice to enhance a text. In turn, Gray (2008) states that visual literacy has the power of reading and writing visual information, visual learning, conjecture, and problem solving in a visual environment. In this regard, Hortin (1980) defines visual education not only as the ability of understanding and using images, but also the ability of thinking and studying in relation to them. Unlike traditional writing, digital visual literacy is the capability of creating and understanding certain types of information, for instance visual information generated by computer. In particular, the ability of digital visual literacy is defined as: