

Teaching GIS in schools using distance learning A French experience with the Department of Education

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Abstract

In high schools geographic information is of little use in teaching geography. Basic knowledge of maps and other geographic information forms is relatively absent from the traditional course. Map reading has more or less disappeared from the official programmes. Therefore the Department of National Education and the Institut Géographique National (the French mapping agency) decided to join efforts to develop pedagogical tools to improve the situation and giving the schoolboys and girls new possibilities of access to geographic information technologies.

The challenge is twofold : to convince teachers of the interest and practicability of those technologies for teaching and to attract scholars with new concepts and flexible tools. Moreover the number of high schools (some 1,300) and teachers (some 30,000) makes this objective rather difficult to reach. Distance learning seems the only way to solve major problems, with the use of CD-ROM and Internet technologies. A pilot project was launched in 1998 using two methods : one "linear" manual with technical pages as well as case studies with maps or samples of GIS results, with a strong motivation to learn and carry out map-reading. The other method is to provide an interactive GIS software together with geographic data files, and examples of land planning problems wich can be solved with the aid of GIS. Those examples have to be chosen according to the programme of geography teaching in order to be coherent with the relevant pedagogical orientations (evolution of urban space, nature protection, knowledge of environment, prevention of natural or industrial disasters, etc.).

First experiments show the difficulty of finding the appropriate level of language and argumentation for very different types of trainees and the necessity to design simplified procedures for most people as well as more complex tools for future specialists.

Keywords

Secondary education, distance learning, multimedia, National Education