Cognitive Tools and Information Technology in Curriculum Planning for Brazilian College Teaching

This paper describes a curriculum planning experience by means of computer based cognitive tools that was applied to a Brazilian College. This research has been performed in three steps. During first step teachers were able to use these tools during a general curriculum planning, and also in specific curricula like classroom activities and interdisciplinary contents. During the second step, constructivist methodologies were applied to the biology laboratory praxis using conceptual maps and technology. The main goal is to get the possibility to evaluate the ability of cognitive structure that students could acquire, according to Piaget’s model and contemporary models. Both previous steps, showed the perversity of the Brazilian programmed instruction model and pointed to the need of “learning to learn” for teachers and students. The third step of this experience is the development of a learning tool that can use network and computers resources that has been conducted by two public Universities. This tool is based on information highway to build distributed models of multimedia over Internet. It has the development of a pedagogic project as objective that can ease application and evaluation of didactic and cognitive tools for training and continuing studies of college teachers.