Abstract

During the last years, the possibilities for multimedia development have rapidly increased, fueled by new computer technologies and by the idea that multimedia facilitates learning. Sweller’s cognitive load theory and Mayer’s cognitive theory of multimedia learning, which were developed during the nineties, have influenced the field of instructional design. The experiments conducted during that decade further illuminated the process of multimedia learning and have been summarized in a series of guidelines that offer guidance to both the novice and expert designer. This paper describes the authors experience in trying to design multimedia environments that appropriately complement the teaching process of a college calculus class, starting with the tracking of web sites with multimedia content for similar courses and finalizing with the manner in which the principles derived from cognitive theories were implemented in multimedia environments. The multimedia learning experience  learning from words and pictures - is not a panacea for all the education problems; however, under the appropriate conditions and with the right students, it turns into a powerful tool.

Keywords

INSTRUCTIONAL DESIGN, MULTIMEDIA, COGNITIVE THEORIES, COGNITIVE LOAD, MULTIMEDIA LEARNING