

AN ONLINE GAMES-BASED COLLABORATIVE LEARNING ENVIRONMENT TO TEACH DATABASE DESIGN

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ABSTRACT

The study of database systems is typically core in undergraduate and postgraduate programmes related to computer science and information systems. However, one component of this curriculum that many learners have difficulty with is database analysis and design, an area that is critical to the development of modern information systems. This paper reflects on these difficulties and explores a range of pedagogical issues surrounding the development of a web-based collaborative learning environment based on interactive visualisation and computer games to help overcome these difficulties and help the learner develop the skills necessary to understand and perform database analysis and design effectively. The paper proposes a set of guiding principles upon which the proposed learning environment is being developed.

KEY WORDS

Collaborative e-learning; innovative teaching and learning technologies for web-based education; e-pedagogy; design and development of online courseware.