Modern education is a kind of learner-based education. How to provide an effective teaching methodology and a good learning environment to keep learners realizing the content of courses well is the goal of all people that are concerned with education. Utilizing the Computer-Assisted Instruction (CAI) not only can match the requirements of distinct learners but also can adapt the difference among learners to accomplish the best learning effect. Since the computer technology developing widely and rapidly, CAI has evolved from the traditional teaching tools into a new multimedia learning environment, called MultiMedia Computer-Assisted Instruction (MMCAI). Besides the medium changes, the interaction is too important to ignore. Comparing with the traditional CAI tools, the most difference of the Interactive MultiMedia Computer-Assisted Instruction (IMMCAI) is the capability of offering different kinds of media such as animation, sound, and video to state the content of courses and demonstrate the examples or instances and the interaction between systems and learners. Such active style of utilization and explanation make the learners to keep more interested in courses and enhance the realization and reaching motive for the teaching topics. This paper emphasizes that it needs considering the interaction that we develop interactive multimedia CAI systems. The system should support a good communication with the learners so as to be a better learning environment to promote the interest of the learners. Beside the research of the application of the interactive teaching idea and the development of the construction of IMMCAI teaching course, we implement a IMMCAI system for the information management system course to attest the effectiveness of the theory and the designing process mentioned in this paper. Finally, there is an evaluation result for the IMMCAI system and some recommendations for developing a great IMMCAI.

Keywords : MultiMedia ; Interactive MultiMedia ; CAI ; Information Management System