

Abstract

E-learning has shaped and transformed the ways people learn. Previous e-learning related researches have focused much on the motives, attitudes, behaviors, satisfactions and effectiveness of the learners. However, the users' (teacher/learner) learning activities have never been taken into consideration during the e-learning design process. The research intends to bridge the gap between the learning activities and the design process.

During the initial design stage, the researcher interviewed Math teachers from several junior high schools to identify the suitable e-learning subjects which are too abstract to teach otherwise. After the discussion, Geometry was chosen for the e-learning subject. Through the entire design cycle, whether or not the system meets the teaching objects, students' learning capacities, and classroom environments were iteratively evaluated and modified. The math teachers were involved in the entire design process.

At the end, the completed system was used by teachers in their real math classes. From the results of evaluation, we find that the e-learning system has highly linked to the teaching concepts. The system provides enough interactive controls and feedbacks that allow teachers and students' to set their own paces to learn gradually or repeatedly. Students agree that this learning process helps them to concentrate more, and achieve better performances. In addition, this e-learning system through the proposed designing process causes a more positive, pleasure and effective learning/teaching experiences.

Keyword: interactive design, user experience, e-learning