Promoting Higher Order Thinking Skills via IPTEACES e-Learning Framework in the Learning of Information Systems Units

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ABSTRACT

When developing and working with various types of devices from a supercomputer to an iPod Mini, it is essential to consider the issues of Human Computer Interaction (HCI) and Usability. Developers and designers must incorporate HCI, Usability and user satisfaction in their design plans to ensure that systems are easy to learn, effective, efficient, safe, and with fewer errors, while still meeting users’ needs and satisfaction. To improve the learning concepts, especially in the assessments regarding HCI and usability, the researchers introduced the IPTEACES e-learning framework in IS6 (Information Systems 6) and WSPD (Website Planning and Development) units in Australia and Portugal higher education respectively. This study elicited experimental evidence based on quantitative and qualitative data from three sources namely: formal and informal student feedback and an online survey to examine students’ attitudes to the unit program, assessments, and lecturers’ feedback as well the skills they acquired after completing these units. The study outcomes confirmed that students are pleased with the IS6 and WSPD program/unit, assessments, and lecturers’ feedback, and believe that they have acquired the necessary knowledge and skills related to HCI and Usability; by completing these units, they have developed various communication skills which will assist them with their university studies and future work in industry.

Keywords: Human-computer interaction (HCI), User satisfaction, Experiential learning & education, learning styles, critical thinking, culture