Learning outcomes from online learning in Malaysia: a case study on physics students' perception of satisfaction, perception of interaction and perceptions of individual features of online learning

Abstract

This paper aims to investigate differences and reports results of a study concerning of Malaysian undergraduate science physics students' perceptions of learning through online. Specifically, it required to ascertain whether students had positive perceptions of a new teaching and learning medium. 61 physics students were involved in this study from the School of Science and Technology (SST) under a programme offered in University Malaysia Sabah (i.e., Physics with Electronic programme). The students then followed all learning activities for sixteen weeks through online (i.e., N=30, PBL approach; N=31, traditional approach). The online learning environment was using learning management system (LMS) as the main medium to carry-out the whole learning process throughout the second semester of 2008/2009 academic year. Data gathered from an established open-ended questionnaire with 5 points Likert Scale that administered after they completed with the learning activities at the end of the semester.Students' perceptions after experiencing the online learning were analysed into three main themes: students' perception of satisfaction; perception of interaction; and perceptions of individual features of online learning, and the main purpose was to seek the difference between PBL online and the traditional online learning approach. The findings of the study showed physics student that exposed in PBL online shows positive perceptions in all three themes as compared to traditional approach, except for sub-theme of the online assignment arrangements, and the content available on the Web. Thus, it suggests that some of the PBL'selement did contribute to the physics students' satisfaction where they made a meaningful interaction and developed some individual features. However more consideration needs to be contemplated particularly in technical syllabus arranging via online.