

Upgrading of Problem-Based Learning with Educational Multimedia to the Undergraduate Students

Authors : Sharifa Alduraibi, Abir El Sadik, Ahmed Elzainy, Alaa Alduraibi, Ahmed Alsolai

Abstract : Introduction: Problem-based learning (PBL) is an active student-centered educational modality, influenced by the students' interest that required continuous motivation to improve their engagement. The new era of professional information technology facilitated the utilization of educational multimedia, such as videos, soundtracks, and photographs promoting students' learning. The aim of the present study was to introduce multimedia-enriched PBL scenarios for the first time in college of medicine, Qassim University, as an incentive for better students' engagement. In addition, students' performance and satisfaction were evaluated. Methodology: Two multimedia-enhanced PBL scenarios were implemented to the third years' students in the urinary system block. Radiological images, plain CT scan, and X-ray of the abdomen and renal nuclear scan correlated with their pathological gross photographs were added to the scenarios. One week before the first sessions, pre-recorded orientation videos for PBL tutors were submitted to clarify the multimedia incorporated in the scenarios. Other two traditional PBL scenarios devoid of multimedia demonstrating the pathological and radiological findings were designed. Results and Discussion: Comparison between the formative assessments' results by the end of the two PBL modalities was done. It revealed significant increase in students' engagement, critical thinking and practical reasoning skills during the multimedia-enhanced sessions. Students' perception survey showed great satisfaction with the new strategy. Conclusion: It could be concluded from the current work that multimedia created technology-based teaching strategy inspiring the student for self-directed thinking and promoting students' overall achievement.

Keywords : multimedia, pathology and radiology images, problem-based learning, videos

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