

USING ONLINE DISCUSSION FORUMS TO DEVELOP STUDENTS' ANALYTICAL AND REASONING SKILLS IN PHYSIOLOGY COURSES

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ABSTRACT

Innovative strategies have been developed to encourage teacher-student interactions and improve the delivery of lectures and practical classes, yet they are often limited to an enclosed learning environment, and the physical presence of students is required in order to receive maximal benefits. An interactive learning environment beyond the classroom, where students can exchange ideas, share information and discuss course content, has not been given much attention to.

This project investigates the use of an online discussion forum (Discussion Board in Blackboard) to assist students in the development of analytical and reasoning skills. The lack of such skills is demonstrated in students' written laboratory reports, where overall performance in data analysis and interpretation is often poor, particularly when students have to deal with complex data sets. A pilot study in Semester 1, 2012 showed that 29 out of 83 students (35% participation rate) posted and/or responded to questions, a majority of which were directly related to data analysis. More importantly, the discussion became student-driven as they progressively developed relevant skills. Preliminary data further suggest that the initial participation and timely input from instructors and being able to post anonymous comments by students are both key to the success of an online discussion forum.

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