

EMBEDDING CASE STUDIES INTO STATISTICAL TEACHING TO ENHANCE QUANTITATIVE SKILLS OF BIOMEDICINE STUDENTS

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ABSTRACT

Students often find it difficult to appreciate the relevance of statistical analysis to their future profession in the health sciences. In particular, a survey of first year Biomedicine students in 2010 who had completed a compulsory statistics subject revealed that many students continue to hold misconceptions about the relevance of the subject to their future careers. Recent studies have pointed to the use of context-based approaches to teaching statistics (Wood & Solomonides, 2008; Matthews et al., 2009). We attempted a context-specific approach to teaching statistical concepts in order to provide more effective education to Biomedicine student in 2011, than teaching biology and statistics in isolation from each other, as is the current practice. Students' perceptions of the initiative were determined through the use of a questionnaire asking students to give their opinions about the relevancy and importance of studying quantitative skills, and their application to biology cases. We found a positive shift in student perception about the importance of statistical analysis in the health sciences and in their future decision making, supporting the use of context-based teaching approaches to enhance appreciation of quantitative skills in 1st year undergraduate biomedicine students.

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