

Relationships between student backgrounds and the anatomy learning experience

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In order to achieve equity in higher education, it is important to recognise the potential differences between traditional and non-traditional students and the impacts these may have on the quality of the learning experience. The aim of this project was to investigate the relationships between student backgrounds and the student learning experience in the degree programs offered by the Faculty of Veterinary Science, University of Sydney (Bachelor of Veterinary Science, BVSc; Bachelor of Animal and Veterinary Bioscience, BAVBSc). We chose to focus on the study of anatomy, as this is a demanding subject that forms a significant proportion of both degree programs.

The objective was to expose potential barriers to participation and achievement by both traditional and non-traditional students, and thus to identify opportunities to better support a deep, high quality learning experience for all students.

The study was constructed to examine the effects of approaches to learning, perceptions of the learning environment and student backgrounds on self-predicted academic outcomes. To gain additional insight into students' perceptions of self-efficacy, students' satisfaction with their predicted outcomes was also investigated. An anonymous survey composed of the Revised Two-Factor Study Process Questionnaire, the short form Course Experience Questionnaire and a customised Student Background and Study Situation Questionnaire was delivered to 245 anatomy students in first year BVSc and second year BAVBSc. Students completed the survey at the feedback sessions for their intra-semester assessments, such that they had some objective measure of their progress. Response rates were 79% (BVSc) and 83% (BAVBSc).

Ordinal regression analysis identified two variables (deep approach to learning, perception of workload) that had a highly significant ($p < 0.01$) impact on self-predicted outcomes, and one variable (support options for students concerned about their performance) that significantly affected satisfaction with predicted outcome ($p < 0.0001$). Odds ratios revealed that:

- 1. Students exhibiting a preference for a deep approach to learning were 3 times as likely to expect a high grade (D/HD) and students who perceived the workload as being appropriate were 4 times as likely to expect a high grade.**
- 2. Students who, if worried about their performance, would:**
 - deal with things on their own "because that is my preference" were 2.5 times as likely to nominate a combination of low self-predicted grade (F/P) and dissatisfaction with that outcome, compared with students who seek support from staff, counselling or other sources.**
 - deal with things on their own "because I wouldn't know who to turn to" were 14 times as likely to nominate the F/P/dissatisfied combination, compared with students who seek support**

The first of these findings was consistent with previous studies¹. In contrast, the significant relationship between self-efficacy and student beliefs about support is a novel finding in this learning context, and is of considerable concern as it represents an obstacle to participation and performance. To address this effectively, further work is needed to identify the factors (student related, institution related, other) that may predispose students to feeling that they do not know who to turn to for support in their pursuit of academic achievement.

¹ Ryan MT, Irwin JA, Bannon FJ, Mulholland CW, Baird AW. Observations of veterinary medicine students' approaches to study in pre-clinical years. J Vet Med Educ 31(3):242-254, 2004.