Abstract: 81S

Can an anatomy and physiology bridging program impact first year University science engagement?

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Over recent years, there has been a noticeable drop in preparatory standards of students entering first year university science based courses in Australia. Evidence suggests that this trend begins at high school, with students increasingly avoiding science-based subjects (Wilson et al 2014). Concomitant with the lowering levels of science-based engagement are noticeable higher levels of anxiety towards them (Mehta et al 2008). The tertiary sector struggles to cope with this increasing gap between entry-level preparedness and the Australian Qualifications Framework (AQF) university standards it needs to maintain, especially with students continuing their education in courses that require a strong science-based background such as nursing (Mehta et al, 2008). This struggle has been largely attributed to the lower university entrance scores required for nursing/health courses and a lack of previous science study (Crane & Cox, 2013). Further, students who are anxious about studying science may experience similar impairments in their ability to learn, consolidate, and recall new information and concepts. As such, understanding the science background of students, and improving their attitudes and feelings towards science, is a critical first step in helping students learn the science required for their future practice as healthcare practitioners. This project aims to evaluate the effect of an online Anatomy & Physiology Headstart learning support program on engagement and performance in anatomy and physiology by first-year allied-health students.
Method: The program consists of topics covering introductory core concepts in body organisation and homeostasis, chemistry, biochemistry, cell structure and function, and key organ systems, using H5P and curated videos. The Headstart program is integrated into the VU learning management course communication spaces of courses that include anatomy and physiology as core units. First year students can then access and complete the Headstart program before the formal beginning of each teaching block. **Results & Discussion:** Quantitative and qualitative data support that the Headstart program positively effects bridging the gap between entry-level preparedness and student outcomes. Results from both Qualtrics and student focus interviews indicate that student perception of the Headstart preparatory program is positive, and that participation had enhanced their learning and reduced their anxiety toward science-based study.

Crane, J., & Cox, J. (2013). More than Just a Lack of Knowledge: A Discussion of the Potential Hidden-Impact of Poor Pre-enrolment Science Background on Nursing Student Success in Bioscience Subjects. *International Journal of Innovation in Science and Mathematics Education*, **21**(2), 26-36.

Mehta, H., Robinson, K., & Hillege, S. (2008). Expectations, perceptions and experiences of first year students enrolled in Nursing and/or Midwifery courses at three NSW universities. *Focus on Health Professional Education*, **10**(1), 11-25.

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