

Peer assisted study sessions to develop understanding of physiology in a mature age cohort

D.H. Hryciw,¹ K. Tangalakis² and G. Best,³ ¹Department of Physiology, University of Melbourne, Parkville, VIC 3010, Australia, ²Biomedical and Lifestyle Diseases Unit, College of Health and Biomedicine, Victoria University, St Albans, VIC 8001, Australia and ³Students Supporting Student Learning, Academic Support and Development, Victoria University, Footscray Park, VIC 8001, Australia.

Student peer mentoring programs are generally implemented to improve student retention, student learning outcomes, academic progression and/ or social support for new students. In brief, these rely upon the principles of collaborative learning with students coming together in a semi-formal setting to engage and learn. At Victoria University, one peer assisted learning program is based on Supplementary Instruction from the USA, known as Peer Assisted Study Sessions (PASS). PASS involves 2nd or 3rd year Student Mentors facilitating weekly review sessions for groups of 1st year students in a specific unit of study. Student Mentors use collaborative learning methods to assist students to better understand difficult concepts and therefore to enhance their learning. Students enrolled in the Bachelor of Health Sciences (Paramedic) and Bachelor of Biomedicine share a common subject which is focused on the principles of anatomy and physiology. The two student cohorts are separated by lectures and associated learning activities scheduled for the two separate degrees. However, the content taught to both is largely similar. Previously (Hryciw *et al.*, 2013) we have demonstrated that students enrolled in the Bachelor of Health Sciences (Paramedic), who participated in a semester of PASS, demonstrated an increased overall final grade for their anatomy and physiology subject, as well as a reduced failure rate. These students typically are mature age (average age is 25 ± 7 years), with a number of them returning to study following a number of years absence from formal education. Despite the previous data which suggests that these students find the topics of anatomy and physiology difficult, which is compounded by their limited exposure to biology at high school, these students are often highly motivated. Students enrolled in the Bachelor of Biomedicine are typically school leavers (average age 18 ± 2 years). In addition these students are typically “first in family to University”, from immigrant communities (48%).

The aim of this study was to investigate the effectiveness of the PASS scheme for subjects associated with anatomy and physiology for the two different cohorts of students (Bachelor of Health Sciences (Paramedic) and Bachelor of Biomedicine). We hypothesised that both cohorts would improve their academic grade for the subjects and that there would be a reduction in the failure rate of students participating in the PASS program. This study was approved by the Human Ethics Research Committee of Victoria University (HRETH 10/20). Students enrolled in both degree programs voluntarily participated in the PASS scheme in 2011 and 2012. Evaluation surveys were distributed at week 12 of semester. The survey contained 10 questions with a Likert scale of 5, as well as 3 open questions. Student Mentors (2nd years) and mentees (1st years) were asked to comment on the usefulness of the program. The final grades for the mentees in each year were also evaluated and compared to students not enrolled in PASS in the anatomy and physiology subjects.

In general, students who attended PASS improved their final grade for the anatomy and physiology subject, and reduced their likelihood of failure of this subject. This occurred in both the Bachelor of Health Sciences (Paramedic) and Bachelor of Biomedicine cohorts. Both cohorts also believed that PASS helped improved their knowledge and confidence in the subject, and provided them with skills that could be transferred to other subjects. All students who participated in the PASS program strongly agreed that it had been a positive experience. The PASS program employed at Victoria University produced favourable outcomes for both the Bachelor of Health Sciences (Paramedic) and Bachelor of Biomedicine students. Future studies should focus on the students’ transferability of the skills learned in the PASS program in other subjects within their degree.

Hryciw DH, Supple B, Tangalakis K & Best G. (2013) *Advances in Physiology Education* **37**: 80-4.