Student success in large undergraduate subjects: A pilot study embedding self-management development.

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Abstract

Self-management is the capacity to work effectively toward achieving meaningful goals, and to be flexible in the face of setbacks (Cranney et al., 2016). Self-management capacity is essential both to the successful completion of higher education studies, and to the type of graduate that the future needs. University students experience numerous stressors which, if not adequately self-managed, can lead to distress. Thus, this program sought to embed opportunities for the development of self-management capability in the context of professional development, within the formal curriculum of primarily first- and second-year large undergraduate subjects (in biology, chemistry, psychology, and business law). Overall evaluation by staff and students across the subjects is positive; quantitative data is yet to be analysed. Resources will be demonstrated (thefridge.org.au; http://unistudentsuccess.com/the-fridge/). Lessons learned, and questions remaining, will be discussed.

Background

The aim of this project was to trial the embedding of evidence-based blended learning strategies for the development of self-management capability in large first- and second-year courses, to increase students' capacity to manage, and thus be successful in, their studies. The primary intended outcomes were: (a) identifying which of the self-management strategies are most promising in different contexts; (b) building staff capacity in large first- and second-year courses; and (c) contribution to improving student success at UNSW.

The theoretical framework for this program is based on (a) transition pedagogy and research (e.g., Kift, 2008); (b) the student life cycle framework, which includes relevant concepts such as psychological needs and identity formation (Lizzio, 2006), and (c) the foundations for professional development (e.g., Tano & Vines, 2009). Two fundamental issues drive this work: one is negatively framed, and relates to evidence that students experience high levels of distress (e.g., Andrews & Chong, 2011; Field, 2014; Larcombe et al., 2014; Stallman, 2010; Universities UK, 2002), and the other is positively framed, in terms of future-oriented 21st Century graduate capabilities--in particular, psychological literacy, which is the capacity to apply psychological principles to meet personal, professional, and societal needs (Cranney & Dunn, 2011). Evidence-based self- management is one aspect of psychological literacy. To elaborate: The first component of self-management is explicit goal formation, planning, and pursuit, effective strategies for which have been shown to lead to increased goal attainment and subsequent wellbeing (e.g., Oettingen et al., 2005;

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Sheldon & Eliott, 1999). The second component of self-management is flexibility in the face of set-backs, whereby psychological flexibility skills allow rapid emotional recovery and adaptive alternative responding (e.g., Kashdan & Rottenberg, 2010). These aspects of self-management capacity are particularly valuable in transition situations, such as transition into university, and transition into today's workforce, wherein conditions are rapidly changing (Peiperl & Baruch, 2007). Any change to organismic equilibrium is a stressor, and how that stressor is perceived and processed can lead either to successful adaptation, or to distress (e.g., Jamieson et al, 2010).

It is not practical to require all students to study applied psychology; however, it is possible to provide opportunities to develop self-management capacity via a range of different curricular strategies. This project sought to extend an Office for Learning and Teaching funded project (Cranney, Andrews, & Morris, 2016), and continue to "bridge the gap" between extracurricular and curricular resources to increase student success and wellbeing.

Approach

This project sought to embed opportunities for the development of self-management capability in the context of professional development, within the formal curriculum of first- and second-year large undergraduate subjects (in Biology, Chemistry, Psychology, and Taxation & Business Law). The self-management resources included topics of relevance to most students, such as time-management, goal setting, procrastination, study strategies, and emotional regulation. A key feature of the approach was that course coordinators chose how to implement the resources in their course (i.e., contextualisation).

In Semester 1, self-management resources (videos, worksheets) on the topics of managing time, motivation, study, and well-being, were identified or developed, and integrated into the learning, teaching and assessment strategies of the subjects to varying degrees (see Table 1). In addition, an optional co-curricular program was developed to allow pre-post student surveying. There was insufficient take-up of the co-curricular program to allow reliable within or cross-subject comparison. Semester 2 involved the development of new materials, particularly for Psychology, Business, and Law, which will enable evaluation of conditions where self-management activities were more (*cf.* less) embedded. The methodological approach is outlined in Table 1.

Initial Findings

The strategies for evaluating the project and its outcomes included: (a) appointment of an evaluator, who gave valuable formative advice throughout the Fellowship program, and (b) interviews, surveys, and open commentary (e.g., through project meetings) with stakeholders, particularly the course coordinators, advisory group members, and students, throughout the project. Evaluation by staff and students across the subjects has been positive; quantitative data is yet to be analysed.

> *"I've become better at handling the workload of my studies, so now when I'm stressed or burnt out I just take a break instead of continuing to push myself to get things done." (Student)*
> *"I think this is something that should be implemented at all first year level courses." (Staff)*

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"The students definitely liked the whole idea of mindfulness and how it could help them manage their stress… seem to be managing their time a lot better than they have previously thanks to the time-tabling component. I've seen students this year, particularly in first year, that aren't stressing out as much as they often do particularly in this later stage in the semester." (Staff)

As intended, this project successfully extended the previous OLT project, in that more staff and students in different disciplines have now been exposed to the value of embedding the development of self-management strategies into subjects. Perhaps more importantly, this project has assisted in keeping student success and well-being 'on the agenda'. We have accomplished this through our partnerships with subject directors and student leaders, delivery of staff development events, engagement with university governance, and provision of sustainable resources.

Critical success factors:

1. The material is either assessable, or closely linked to assessable tasks.
2. Partnerships with subject directors, including their agreement to promote the activities/materials to students and classroom instructors.
3. Training of the instructors who are delivering the material/activities.
4. Quality control of strategy delivery.
5. Availability of evidence-based materials/activities, that are easy to adapt and use.
6. Ethical permission to gather data from students and staff across the courses.

Primary recommendations:

1. Include 'self-management' as a university-wide graduate capability.
2. Collaboratively (with all relevant stakeholders) develop a whole-of-university plan to support student self-management, success and wellbeing—and implement it!

Questions for discussion:

1. Who do you think is responsible for developing student self-management capacity? Why?
2. How does one best garner support from classroom instructors, subject directors, and university leadership?
3. How does this approach relate to a whole-of-university approach to student success and wellbeing (e.g., http://unistudentwellbeing.edu.au/)?
4. Do you think it worthwhile, and feasible, to adapt this approach in your subjects/programs? Why/why not?

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Acknowledgements

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Schools & Courses	SEMESTER 1 Implementation	Assessment	Moodle Self-management section	Optional co-curricular program	SEMESTER 2 Implementation	Assessment	Moodle Self-management section
Chemistry—1st yr CHEM1011 (S1&2; n= 542, 365) CHEM1001 (S1; n = 81) CHEM1031 (S1; n = 520) CHEM1051 (S1; n = 26)	*Moderate:* each of four target videos embedded in different weekly quizzes.	One question per video	Contained 4 primary videos & 3 worksheets	Approximately weekly emails; access to additional resources	*Moderate:* each of four target videos embedded in different weekly quizzes	1 question per video	Contained four primary videos and three worksheets
BABS (BIOLOGY) BIOC2101 (S1, n = 275) BABS2204 (S2, n = 134) BABS2264 (S2, n = 27)	*Moderate*: first video & 3 worksheets well integrated into first 4 weeks of lectures and labs	No	as above	as above	*Moderate*: Goal video and worksheet activities well integrated across the semester, mostly in labs	No	
Psychology PSYC1001 (S1, n = 1091) PSYC1011 (S2, n = 820) [Courses indirectly influenced: eg PSYC2081 = 432; PSYC3011 = 250]	*Moderate*: Fourth video integrated into assignment with some tutorial time.	Video in assignment; 1 question per video in final exam	as above	as above	*Moderate*: Experimental group completed 3 SSP exercises related to SM material.	With each SSP exercise, students needed to summarise main points. Questions in final exam.	No Moodle SM section, as needed to be different for different research conditions.
Tax and Business Law (Business & Law) TABL1710 (S1, n = 520; S2, n = 80-650)	*Minimal:* ASMP, first video and 3 worksheets minimally integrated into first 4 weeks of lectures and tuts	No	as above	as above	*Moderate*: Brief exercises at beginning of most classes in 4 tutorial streams (*vs* minimal in additional 4 tutorial streams); Moodle for all.	No	Numerous videos and worksheets to reinforce class activities.

Table 1. Implementation method for the Academic Self-management Program (ASMP).