

# Expectations of transitioning through second year science undergraduate programs

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## The Context

To date there has been limited exploration of Australian undergraduate transitional experience through (as opposed to into and out of) degree programs. Recently, literary recommendations (Casper *et al*, 2011; Gregory *et al*, 2013; Heier, 2012; Loughlin *et al*, 2013; Milsom *et al*, 2014) have been to establish cohort and institutionally relevant data for the second year student experience. This will enable the development of appropriate, holistic transition strategies for improved student experience through undergraduate degree programs (Tetley *et al*, 2010). In addition, understanding student expectations then allows for subsequent contextualised interpretation of lived experiences during progression through programs. The misalignment of second year student expectations has been an area of concern raised internationally as contributing to poor student experiences such as the 'sophomore slump.' (Heier, 2012; Willcoxson *et al*, 2011).



Paley, N. (2011). Retrieved from <http://mimiandunice.com/2011/08/15/exploitation/>

## Aims

- Developing our understanding of the second year experience of science undergraduate study
- Establishing science student expectations associated with the lived experiences of these students
- Identify emergent themes that students associate with their expectations of this year

## Methodology

### Participants:

- Students enrolled in their first Bachelor's program of study who had progressed to their second year of academic work regardless of where their first year was completed. Students had successfully completed between 60-120CP or equivalent of an expected 240-360CP of program-related coursework.
- Students enrolled in bachelor degrees in the areas of Science, Biomedical Science, Medical Science and Forensic Science.

### Data Collection:

- Students completed an anonymous online survey within 3 weeks of census Semester/Trimester 1 in 2015, 2016 and 2017.
- The survey comprised of Likert and open response questions. N= 30-40 representing 12-18% cohort response rates.
- Analysis included quantitative summation of Likert data and thematic analysis using NVivo11.

This project received Griffith University Human Ethics Approval EDN/B3/14/HREC.

## Emergent Themes

Highlights from the thematic analysis of open response questions indicated that the second year science students in this study identified that:

- Second year experience overall may be relatively more difficult than first year.
- Self directed learning increases.

Whilst these findings are similar to international cohorts, our students differed in that they:

- They articulated an understanding of an expected elevation in program workload with regards to content quantity and difficulty.
- Had many competing demands for their time that they expected to be difficult to balance, including concurrent working requirements.
- In this specific study, the majority of science students primarily lived at home with their family.

However, some students held unrealistic expectations regarding the amount and type of academic work required of them and the level of personalised support the university would be provisioning.

## Future Considerations

- Some comparisons to international cohorts can be drawn but there is a need to be contextualisation of the research findings of this study.
- Student expectations may be misaligned to a university culture of learning and are likely to impact the nature of student experiences, therefore transparency and clear articulation of these may assist in enhancing the student experience.

## Student Expectations

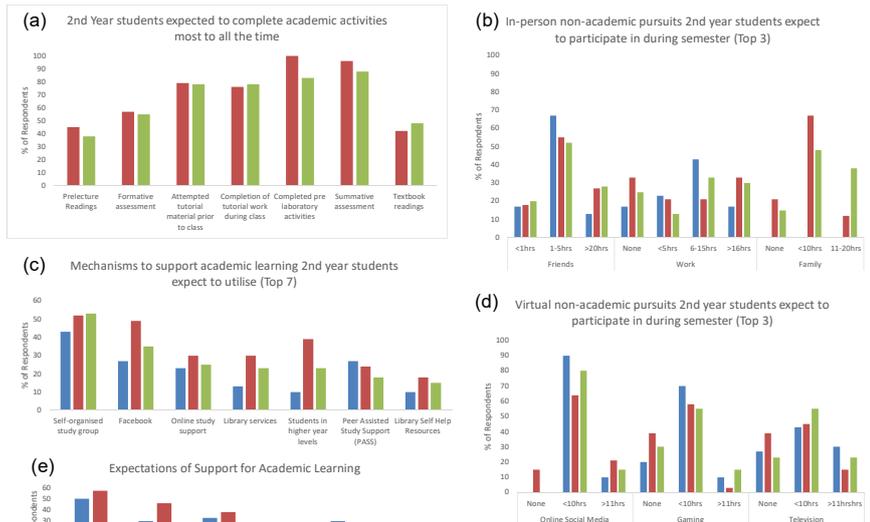


Figure 1. Student expectations associated with academic and non-academic activities during semester. For a-d 2015 2016 2017

## Key Expectations

- A concerning proportion of students do not expect to undertake academic learning activities including some who do not intend to complete summative assessment (Fig. 1a).
- Mechanisms students expect to access to support their learning is diverse: both in person and online, personally sourced and university supplied opportunities (Fig. 1c).
- Students are expecting to access university provided learning support services not provided for 2<sup>nd</sup> year students (eg Peer Assisted Study Sessions; PASS) (Fig. 1c).
- A large proportion of student time is anticipated to be spent on virtual non-academic pursuits (Fig. 1d).
- A large proportion of students are disconnected from support networks of family and friends (Fig. 1b. and 1c).
- The majority of students undertake work whilst studying (Fig. 1c).
- A subset of the students in this study expected at least the equivalent of learning support provision from the university than they received in first year if not more (Fig. 1e).

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