Empowering students in transition: Peer mentoring to support first and final year students

Andrea Chester, Sophia Xenos and Karen Elgar
RMIT University, Melbourne Australia
Lorelle Burton
University of Southern Queensland, Toowoomba Australia

ABSTRACT: This paper suggests a framework for empowering first and third year students as they transition into and out of undergraduate study. The Transition In, Transition Out (TiTo) program supports students using peer mentoring. TiTo is designed to build the five senses of student success described by Lizzio (2006): connectedness, capability, resourcefulness, culture and purpose and enhance productive learning approaches for both first year students and third year mentors. The TiTo model was implemented in the discipline of psychology at two Australian universities. It was embedded into the face-to-face curriculum at one university and offered as an option in a blended learning delivery at the other university. Results from a mixed-method evaluation support the effectiveness of TiTo. This paper describes the model and summarises the outcomes for first and third year students in the face-to-face program. The presentation will examine the challenges encountered during implementation and provide access to the resources developed as part of the project.

1 Background

> "The main benefit of having a mentor was the continued support I received; nothing was a bother or too hard or silly to ask and that was fantastic."
> First year student

> "Being a mentor helped me realise I am a lot more capable than I thought."
> Third year mentor

Knowledge about the first year experience is now well developed. Research in the area provides clear evidence that in order to retain and support students, we need to engage them, connect them with staff and each other and provide meaningful, timely feedback early in the first year of study (Kift, 2009; Lizzio, 2012; Tinto, 2000). While considerable attention has rightly been given to the first year transition, equally important are the issues that arise for final year undergraduate students as they transition out of the program and move on, either to further study or work. LIzzio (2012), in his lifecycle model, describes the shifting focus from first to final year as a movement from the establishment of student identity to the increasing development of a graduate identity. While the transition issues are clearly different for first and final year students, some of the needs of both groups can be met through peer mentoring. This paper reports on a project designed to simultaneously focus on first and final year transition in a mutually beneficial peer mentoring model embedded within the curriculum. The model, developed to empower both cohorts of students, is known as Transition in, Transition out (TiTo).

2 The TiTo model

The TiTo model is designed to simultaneously support first year and third year students as they transition into and out of university. The model is a flexible approach, with the capacity to be adapted for both face-to-face and blended learning contexts. TiTo supports the

development of a university student identity for commencing students and the transition to a graduate identity for final year students.

In the embedded TiTo model presented in this paper, mentoring was integrated into the first year curriculum, provided to all first year students in face-to-face classes. We also trialled TiTo in optional online discussion groups in a blended learning context. In both learning environments, mentors worked with a small group of five to six first year students on development of skills to support completion of assessment tasks for eight weeks of the semester. In the face-to-face approach mentors attended the second hour of tutorials and worked with the students, while the tutor stayed in the room. The focus in both the face-to-face and blended learning contexts was on supporting the academic skill development to assist first year students to complete their assessment on time and with confidence. In addition, psychosocial transition issues were covered, such as building connections to other students and practical aspects, such as access to support services.

Mentoring was also embedded into the third year curriculum in a capstone course, providing all third year students, regardless of GPA, with the opportunity to be a mentor. Mentors were provided with an intensive training package, supplemented by weekly classes to prepare, debrief and share ideas. In the online context mentors received ongoing support throughout the program via weekly online real-time sessions facilitated by their third year lecturer.

Central to the delivery of TiTo in the face-to-face mode are tutors, who remain in the classroom during the mentoring sessions. Tutors are responsible for providing both formative and summative feedback based on observations of the mentors' behaviour in class and contribute a small component to the third year students' mentoring practice grade. In addition, at the end of the semester tutors write a reference for their mentors, outlining the mentoring program and summarising the mentor's strengths. In the online mode the first year course examiner supports the third year mentors and monitors the mentored group discussions.

The TiTo model brings together the following two frameworks to support transition and engagement and develop effective learning styles:

- The five senses of student success framework (Lizzio, 2006), which summarise the major predictors of successful transition for first year students;
- Entwistle's (2000) deep, surface and strategic approaches to learning.

2.1 Five senses of student success

The five senses of student success framework summarises the variables that predict first year student satisfaction, engagement, and retention in higher education (Lizzio, 2006, 2012). The model is based on student needs in five areas capability, connectedness, purpose, resourcefulness, and culture and can be used to shape transition strategies, without prescribing solutions (Lizzio, 2006). The five areas of student success and their characteristics are outlined in Table 1.

The model suggests that succeeding as an undergraduate student involves mastering specific curriculum knowledge and skills (**capability**). The knowledge to be mastered by students typically includes understanding of core concepts, theories and research in one's discipline area. The additional skills and qualities expected of the student are typically outlined in the university's graduate attributes. The Five Senses model advocates that student success at university involves more, however, than the acquisition of discipline-based knowledge and skills. According to Lizzio (2006), the quality of the relationships a student develops with her peers and staff as well as her affiliation with the university (**connectedness**) will impact on her wellbeing and her experience at university.

Additionally, a strong sense of **purpose** provides the commitment and persistence necessary to flourish. Successful students also know how and where to seek support for their learning, through university resources as well as policies and procedures, and can balance study with work and family commitments (**resourcefulness**). Finally, successful students develop a cultural competence in the context of higher education (**culture**), understanding the core values and ethics of the institution.

Table 1
Five Senses of Student Success

Sense	Characteristics
Capability	Understanding the student role and mastering academic knowledge and skills
Connectedness	Building relationships with peers and staff, as well as identifying with the university
Purpose	Setting realistic goals, engaging with the discipline and developing a sense of vocation
Resourcefulness	Knowing about university resources and procedures. Balancing work, life, and study.
Culture	Appreciating the core values and ethical principles of higher education

Helping students build capacity in each of these five areas is a complex task and unlikely to be accomplished by a single initiative or confined to the first year of the program. Nevertheless, TiTo was designed to address all five needs for first year mentees. Although the five senses framework was developed to explain the first year experience of transition, in this project we wondered if the same senses could be used to support third year students in their transition out process. The TiTo model was therefore designed to enhance the same five senses in third year mentors.

2.2 Learning approaches

As well as building the five senses of success, TiTo was designed to support the development of effective approaches to learning. The TiTo model employed Entwistle's (2000) tripartite model of deep, strategic, and surface learning.

A **deep approach** to learning is associated with a desire to understand material, a tendency to link ideas and seek relationships to other knowledge, the use of evidence to draw conclusions, and an intrinsic motivation for study. The **strategic approach** is associated with time management and planning, confidence, competitiveness, consciousness of the assessment demands, and a capacity to monitor progress. A **surface approach** is characterised by lack of direction, reliance on rote learning, and fear of failure (Walker, Spronken-Smith, Bond, McDonald, Reynolds, & McMartin, 2010).

Small but significant changes over time have been noted in deep, strategic and surface learning amongst first year students following purposeful curriculum change (e.g., Walker et al, 2010). TiTo was deliberately designed to develop deep and strategic approaches to learning and minimise surface learning for first year mentees. In helping mentors better understand these aspects of learning it was anticipated that third year mentors would also experience improvements in these areas, however it was unclear to what extent the mentors' learning approaches would be influenced, given they were in the final year of their undergraduate study.

2.3 Research aims

The project described in this paper evaluated the effectiveness of the TiTo model in supporting transition and developing productive learning approaches for both first and third year year undergraduate psychology students. It was hypothesised that both first and third year students would show enhancements on the five senses of success by the end of the TiTo program as well as improved scores on deep and strategic learning and a reduced dependence on surface learning.

3 Method

3.1 Participants

The TiTo model was implemented in the undergraduate psychology curriculum at two Australian universities. Only the data from one university, where classes were provided on campus, is presented in this paper. Of the 276 students enrolled in the first year course, 231 (166 females and 65 males) provided pre and post-test data.

Mentors chose mentoring from a range of choices in a third year capstone course. Of the 53 students in the third year course, 39 choose the mentoring option and 34 (23 females and 11 males) provided pre and post-test data for the project.

3.2 Measures

Both first and third year students were surveyed at the beginning and end of semester on a range of measures. The three measures reported in this paper are described below.

Five senses of success

The Five Senses scale was adapted from the work of Lizzio (2006). The scale consisted of 73 items measuring the five subscales of capability 21 items, connectedness 16 items, purpose 12 items, resourcefulness 19 items and culture 5 items. All items are responded to on a 5-point Likert scale (*1 = strongly disagree* to *5 = strongly agree)*. The psychometric properties of the five subscales show satisfactory internal reliability estimates ranging from .80 for culture to .92 for capability (Sharrock, 2011). The internal consistencies of the sub-scales in the present study were capability α = .91, connectedness α = .87, purpose α = .85, resourcefulness α = .90 and culture α = .80.

Learning approaches

Learning approaches were measured using the Approaches and Study Skills Inventory for Students (ASSIST; Entwistle 2000). The ASSIST measures three learning approaches: deep, strategic and surface. The scale includes 52 items, each of which is answered on a 5-point Likert scale (1 = *agree* to 5 = *disagree)*. Because high scores on this scale indicate disagreement, all responses were reversed. The deep approach comprises 4 sub-scales (seeking meaning, relating ideas, use of evidence and interest in ideas), the strategic approach comprises 5 sub-scales (organized studying, time management, alertness to assessment demands, achieving and monitoring effectiveness) and the surface approach comprises 4 sub-scales (lack of purpose, unrelated memorizing, syllabus-boundness and fear of failure).

The ASSIST has demonstrated a sound factorial structure as well as good internal reliability and predictive validity (Gadelrab, 2011). The internal consistencies of the three learning

approaches scales in the present study were deep α = .85, strategic α = .86 and surface α = .79.

Peer mentoring evaluation

Three forced-choice questions were administered to evaluate student perceptions of the peer mentoring program in terms of its perceived impact on academic performance and sense of belonging. Students were also asked how much they enjoyed peer mentoring. Each question was answered on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree).*

Further data on student perceptions of the mentoring program were gathered via open-ended questions on the best aspects of the mentoring program and suggestions for improvements. Follow up focus groups were also used to explore benefits and challenges of the TiTo model.

4 Results and discussion

4.1 Five sense of success

A comparison of scores for first and third year students on the five senses of success scale at the beginning and end of semester are presented in Tables 2. Not surprisingly third year students typically had higher self-reported scores on the five senses at the start of the semester than the first year students, illustrating the progression from student to graduate identity. As Lizzio (2006) argues, these senses predict success in the early stages of study, so students who succeed in the program and progress to third year would be expected to demonstrate higher scores on these sub-scales.

Table 2
Repeated Measures t-test Five Senses of Success Scores for First and Third Year Students

	Pre-test M (SD)	Post-test M (SD)			
First Year			*t*(230)	*p*	*d*
Connectedness	3.64 (.58)	3.81 (.67)	-5.27	<.001	-.27
Culture	3.95 (.61)	4.11 (.57)	-4.09	<.001	-.27
Resourcefulness	3.60 (.58)	3.69 (.65)	-2.67	<.005	-.15
Capability	3.68 (.56)	3.75 (.64)	-1.82	.07	-.12
Purpose	3.81 (.57)	3.80 (.63)	0.18	.86	.02
Third Year			*t*(33)	*p*	*d*
Connectedness	3.92 (.60)	4.19 (.56)	-3.88	<.001	-.47
Culture	4.34 (.56)	4.34 (.54)	-.08	.938	.00
Resourcefulness	3.88 (.51)	4.07 (.59)	-2.61	<.05	.34
Capability	3.90 (.51)	4.06 (.57)	2.29	<.05	-.30
Purpose	3.77 (.68)	4.00 (.59)	2.61	<.05	-.36

Note. All subscales measured on 5-point scale 1 = disagree, 5 = agree

The only sub-scale on which the third year students reported a lower mean score than the first year students at pre-test was purpose. This may reflect third year concerns about life beyond graduation and some anxiety at the start of their final year about career preparedness. By the end of semester it was encouraging to note a significant increase for third year students on this dimension.

In terms of within-group comparisons, Table 2 shows increases for first year students on four of the five sense of success over the course of the semester, with small but significant increases on connectedness, culture, and resourcefulness. Although an increase was noted for capability, this was not a significant change. No significant change was noted for purpose. At third year increases were noted on four of the five senses of success: connectedness (with a moderate effect size), resourcefulness, capability, and purpose. No change was observed on the dimension of culture. It is of note that the pre-test score on this dimension was, however, comparatively high.

4.2 Learning approaches

At the beginning of the semester first year students reported less productive learning approaches than third year students, with slightly lower deep and strategic mean scores than the third year students and higher surface learning scores, although interestingly the same patterns of responses was evident in the two groups, with surface learning being the favoured approach by both first and third year students. Strategic learning was the second most used learning approach and deep learning the least well used. By the end of semester this pattern was reversed for both groups, suggesting the development of more productive approaches to learning.

Deep and strategic learning were increased for first year students (with large effect sizes), and surface learning decreased (moderate effect size) as shown in Table 3. All changes between pre- and post-test were significant at .001 level. An almost identical pattern was noted for third year students, with significant and large increases noted on deep and strategic learning. A small and non-significant decrease was noted on surface learning for third year students.

Table 3
Repeated Measures t-test Learning Approach Scores for First and Third Year Students

Learning approach	Pre-test M (SD)	Post-test M (SD)	$t(230)$	p	d
First Year			$t(230)$	p	d
Deep	2.22 (.57)	3.99 (.58)	-27.23	<.001	-3.08
Strategic	2.33 (.61)	3.64 (.68)	-16.80	<.001	-2.03
Surface	3.15 (.61)	2.79 (.64)	4.81	<.001	.58
Third Year			$t(33)$	p	d
Deep	2.34 (.62)	3.83 (.51)	-8.37	<.001	-2.63
Strategic	2.55 (.81)	3.74 (.52)	-6.11	<.001	-1.75
Surface	2.99 (.59)	2.80 (.57)	1.06	.30	.33

Note. Possible score range for all items was 1-5.

4.3 Student evaluation of TiTo

Both first and final year students evaluated the program favourably (Table 4). The majority of first year students enjoyed the program (70%) and perceived it to positively influence their sense of belonging (61%) as well as their academic work (59%). Despite this generally positive perception, it is of note that 20% of students expressed a neutral position and a further 20% did not support the value of the program either academically or socially.

Third year mentors evaluated the program even more favourably than the first year students. All the mentors enjoyed the program. The majority perceived the program to support their academic work (85%) and nearly all (94%) felt it helped their sense of belonging.

Table 4

Evaluation of TiTo by First and Third Year Students

Evaluation items	Percentage of students				
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
First Year (*N*=247)					
Peer mentoring helped the quality of my work	19	40	20	13	8
Peer mentoring helped me feel like I belong	20	41	23	10	7
I enjoyed peer mentoring	30	40	16	9	6
Third Year (*N*=34)					
Peer mentoring helped the quality of my work	41	44	15	0	0
Peer mentoring helped me feel like I belong	53	41	6	0	0
I enjoyed peer mentoring	74	27	0	0	0

The quantitative evaluation of the program summarised above was supplemented by responses to open-ended questions about the best aspects of mentoring and suggestions for improvements. In addition, a focus group was used to explore a range of themes. Perceived to be the most helpful aspect for first year students was the opportunity to work in small groups, facilitating opportunities to build relationships with colleagues, and reinforcing the importance of the connectedness sense of success. Also highly rated were the study tips that mentors shared.

The most common suggestions to improve mentoring for the first year students related to the skills and knowledge of specific mentors, clarification of the mentor role, and reducing the duration of the mentoring session. As one student commented,

> I thought that there was a little too much emphasis on peer mentoring - it was definitely helpful and interesting but we often got through the content very quickly and spent ages just sitting around chatting instead of doing work.

A smaller group of first year students did not see peer mentoring as relevant to their learning experience. For example, one mature age student who had already completed a degree commented, "having a much younger person with less university and life experience try to mentor … felt a little condescending."

Mentors, who generally reported a high level of satisfaction with the program, praised TiTo for developing a sense of purpose and skill development. As one student commented, "the mentor program helped me build up vital life skills in leadership and communication…it was rewarding learning how to facilitate a group because I can see how that will be used in my career". Also rated highly were self-awareness and self-reflection and better insight into teaching and lecturing. As one mentor noted, "it was helpful to reflect on the concepts and advice I was providing the first year students as it applied to myself", and be more self aware of my strengths and weaknesses and most importantly how I could improve my approach".

The most common reflections on the most challenging aspects of their mentoring experience related to managing group dynamics, encouraging the engagement of mentees, and overcoming anxiety and nervousness. A smaller group of mentors requested additional clarification of the mentor role. Several mentors also commented on the classrooms within which mentoring took place. In some cases these were not large enough to accommodate the mentoring groups.

In summary, the implementation of TiTo in face-to-face classes was associated with positive outcomes for both first year students and their third year mentors. Significant positive changes were noted for both groups of students across the senses of success measure, with both groups reporting increases in connectedness and resourcefulness by the end of the semester. These results suggest that the embedded TiTo model is associated with the development of important relationships as well as an enhanced understanding of university resources and procedures for both groups of students.

Importantly, TiTo was also associated with significant change on all three learning approaches for both groups. Significant increases were reported on both deep and strategic learning and a decrease on surface learning for both first year students and the third year mentors. These changes indicate a move to more productive ways of learning. The significant changes for third year students are particularly pleasing as they suggest that a focus on this aspect in their mentoring can flow through to their own practice.

A limitation of the study design is that it does not allow us to claim mentoring produced the changes demonstrated in this study. As with any educational intervention, cause and effect is a complex relationship. It is, however, reasonable to conclude that the TiTo package, embedded into the first and third year curriculum, supports positive change. Focus group data collected from both first year students and mentors underscored the value of the approach and provided valuable information to inform continued refinement of the model. In particular, attention needs to be paid to managing first year students' preparation for and engagement in the mentoring process as well as acknowledging the needs of mature age students.

References

Entwistle, N (2000) Approaches and study skills inventory for students ASSIST. Retrieved March 27, 2008, from http://www.tla.ed.ac.uk/etl/questionnaires/ASSIST.pdf

Gadelrab, HF (2011) Factorial structure and predictive validity of the Approaches and Study Skills Inventory for Students (ASSIST) in Egypt: A confirmatory factor analysis study. *Electronic Journal of Research in Educational Psychology,* vol 9, pp 1197-2095

Kift, S (2009) *Articulating a transition pedagogy to scaffold and to enhance the first year student learning experience in Australian higher education.* Final report for ALTC Senior Fellowship Program. NSW: ALTC. Retrieved from: http://www.fyhe.qut.edu.au/transitionpedagogy/reportsandre/documents/Kift_Sally_ALTC_Senior_Fellowship_Report_Sep_09.pdf

Lizzio, A (2006) *Designing an orientation and transition strategy for commencing students*. Retrieved from http://www.griffith.edu.au/__data/assets/pdf_file/0008/51875/Alfs-5-Senors-Paper-FYE-Project,-2006.pdf.

Lizzio, A (2012) *The student lifecycle: An integrative framework for guiding practice*. Brisbane, Australia: Griffith University.

Sharrock, P (2011) *The relationships between personality, learning approaches, academic self-efficacy, student transition, and academic success* [Unpublished honours dissertation]. University of Southern Queensland, Toowoomba, Australia

Tinto, V (2000) Taking Retention Seriously: Rethinking the First Year of College *NACADA Journal,* vol 19, pp 5-10

Walker, R, Spronken-Smith, R, Bond, C, McDonald, F, Reynolds, J, and McMartin, A (2010) The impact of curriculum change on health sciences first year students' approaches to learning. *Instructional Science,* vol 38, pp 707-722