From drowning to bouncing: the SKIM model for informing academic processes that are energy-builders rather than energy-suckers

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Abstract

The SKIM model is a theoretical framework for the development, management and delivery of multiple support strategies across a teaching semester. The model is student centred and success oriented. The SKIM model can be used to inform semester-long retention and engagement teaching approaches. It strategically addresses pressure points students are likely to encounter during the semester through supporting retention and engagement strategies. The model has been employed in a large first year course, COR109 Communication and Thought at the University of the Sunshine Coast (USC), for three years. With COR109 becoming a mandatory course for every first-year student at USC in semester 1, 2014 it offers the opportunity to expand and promote the SKIM model as an approach to address student retention and engagement at an ‘institution-wide’ level. The paper proposes an initial discussion around the SKIM model as a template that could be used in first-year courses to strategically incorporate support strategies that can improve the first-year experience of university students, and subsequently their retention in the higher education sector.

Introduction/Background

Recent literature emphasises the need for strategic institution wide initiatives designed to increase retention and reduce attrition in the first year of higher education (Kift, Nelson, & Clarke, 2010; Nelson, Quinn, Marrington, & Clarke, 2012). Social justice and equity are now of paramount importance for informing such initiatives (Creagh, Nelson, & Clarke, 2012; Nelson, Smith, & Clarke, 2012). Furthermore, a widening of access to higher education requires innovative, large-scale and flexible approaches to manage increasingly large and diverse student populations (Einfalt & Turley, 2009; Jenkins, Lyons, Bridgstock, & Carr, 2012; Skene & Evamy, 2009). This article documents and proposes for discussion an open and flexible FYHE theoretical model, the SKIM model, based on transition pedagogy (Kift, et al., 2010; Nelson, Creagh, Kift, & Clarke, 2010). First, the paper provides the description and context of a large first year course. Second, the paper identifies pressure points observed during the semester. Finally, the paper documents a suite of strategies and practices used to address those pressure points.

In 2014 the core course COR109: Communication and Thought will become mandatory for all first year students in their first semester of study at the University of the Sunshine Coast (USC). The enrolment projection for this first mandatory semester is 2100 students and will encompass all disciplines and programs of study. COR109 has a 13 year history that has seen its numbers grow progressively. For example, in semester 1 2009 the enrolment was 674 students, and in semester 1 2013 the enrolment stands at 1360 students. The growth rate of COR109 and the anticipation of it becoming mandatory led the current course coordinator, Greg Nash, to build on an existing retention strategy (Potter & Parkinson 2010; Wilson &
Lizzio 2008). Multiple retention and engagement strategies were used in the course over the last three years. This has led to the development of the SKIM model. The SKIM model is a proactive, open and flexible semester-long retention and engagement approach in that it identified and pre-empted pressure points students were likely to encounter by offering a suite of supporting strategies throughout the semester. Employing this model in a mandatory course for a semester provided every enrolled student with equal opportunity, support, and access to strategies and programs designed to promote self-help behaviour and to improve their first-year in higher education experience with a view to retaining their enrolment.

There is considerable amount of literature pertaining to first-year experience (FYE) (Kift, Nelson & Clark 2010), but one of the main issue identified and discussed widely in recent years is the idea of retention and engagement practices being “piecemeal” rather than “whole-of-institution” (Kraus, Hartley, James & McInnis, 2005, in Kift, Nelson & Clark, 2010). Burnett and Lamar (2011) and Krause et al (2005) suggested that ‘effort and resources may need to be focused on moving practice towards more holistic and sustainable institution-wide approaches and enhancements’. Kuh (2007) highlighted the significant problem of different divisions, factions, courses, or units within a single institution providing different approaches and strategies to dealing with retention and engagement.

Having a mandatory first-year course using the SKIM model to inform a more holistic approach could circumvent the problem of ‘piecemeal’ as it becomes ‘whole of institution’ from a student and staff perspective. The SKIM model allow for seamless and strategic integration of new strategies or programs into large courses. Therefore, if the strategy or program is experienced by students in a ‘whole of institution’ course, it will no longer be tagged as ‘piecemeal’ if also experienced in other courses. This paper uses the COR109 experience as a case study to discuss the impact of the SKIM model as a holistic approach to the retention and engagement of first-year university students.

What is the SKIM model?

The word ‘SKIM’ from the SKIM model is not an acronym but rather an analogy. Instead of throwing a student into a semester and waiting until they start drowning before offering help, we would rather provide a suite of pre-emptive retention and support strategies throughout the semester to keep them SKIMming across the surface and travelling longer in their first year learning journey. This is very important from a wellbeing perspective because regardless of their age, first year students need to make numerous adjustments to their behaviours and life in order to adapt to the university experience.

The SKIM model is proposed as a theoretical framework for the development, management and delivery of multiple support strategies across a teaching semester. The model is student centred and success oriented. The SKIM model can be used to inform semester-long retention and engagement teaching approaches that strategically address pressure points (Please see Figures 2, 3 and 4) students are likely to encounter during the semester through supporting retention and engagement strategies (See Figure 1).

The SKIM model proposes that any strategy employed avoids being a deficit, or ‘just in time’ strategy. The whole point of identifying pressure points is to pre-emptively prepare students for what they might experience and provide a support service to help alleviate any anxiety produced by the pressure point. The SKIM model presented here is the result of three semesters of evolution and testing.
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**Figure 1: Visual representation of the SKIM model**

*What is a pressure point?*

For the purpose of this paper a ‘pressure point’ is defined as a particular time within the semester (for example, census date or Week 13) where a student will experience greater anxiety or emotional discomfort as a direct result of their university studies. The anxiety or emotional discomfort from the pressure point actually occurs in the 5-10 days leading up to the specified date identified as a pressure point. The long term impact can be serious psychological distress (Stallman, 2010). Due to the diverse study patterns of different students it is difficult to map the pressure points for each individual student. However, when dealing with large cohorts of students (for example, in a large first-year course), then pressure points for that particular course should be mapped to cater for the cohort within that course. Moreover, particular dates that have an adverse effect on all students (for example, census date or exam week), can be mapped as pressure points across multiple course. Identifying pressure points, and their impact on students, allows teaching staff to develop pre-emptive strategies that can alleviate, to some extent, the anxiety experienced by their students. It has been documented that both institutions and educators have an ethical obligation to reduce student distress wherever possible in the educational process (Watson & Field, 2011).

*Identifying pressure points*

There are a number of ways to identify pressure points within a course. Other than the literature that alludes to points of anxiety in the semester for students, some research within the institution can give strong indications of potential pressure points. The case study identified five pressure points within the semester that would impact its students to some degree and these pressure points were synonymous with assessment. The indicators of these pressure points are outlined below.

Assessment-based indicators: Einfalt & Turley (2013) employed survey data from a number of sources internal and external of USC that were indicative of anxiety-related pressure points. PASSdi data (Einfalt & Turley 2013) revealed that 70 per cent of students suggested they experience anxiety while preparing for assessment tasks (Figure 2). Nash et al (2012) produced preliminary results in their FFF study which found that 68 per cent of students experienced anxiety before receiving feedback on assessment (Figure 3). Assessment due dates across all semester 1 first-year courses can be mapped to identify pressure points due to multiple assessment items (Figure 4).
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**How was the SKIM model applied?**

The retention strategies offered in the SKIM model were discussed openly in lectures and tutorials, not as something external to the course that might help, but as an integral part of the course, designed to enhance the student learning experience. Where data was available to demonstrate the benefits of particular strategies, such data was shown in lectures and made available on Blackboard (USC’s online learning environment) to clarify the potential benefits of the strategy. Other promotion avenues included images on the course Blackboard site, dedicated micro-websites, access to information and literature for students and teaching staff, and flags/banners set up on the university campus. The SKIM model, given that it involves numerous retention strategies, required systematic preparation before the semester started.

When this data is taken into account with the previous two graphs that demonstrate the anxiety students feel in relation to assessment, pressure points within the semester begin to become apparent. Of particular interest here are Weeks 5, 9, 13, and Exam Week 2. Week 5 sees 11 courses having assessment due and this means there might be a large cohort of students who will have the anxiety felt over assessment being due compounded by having multiple items due across different courses. This can equate to four assessment pieces being due in that week for full time students and they will be experiencing the anxiety that goes with each of those items. Finally, data presented by Jenkins et al. (2012) demonstrated spikes in the engagement with a dedicated Facebook page to his course on weeks when assessment was due, indicative of emotional response to assessment these students were experiencing.

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**Figure 2: Student anxiety while preparing for assessment tasks**

**Figure 3: Student emotional response before receiving feedback**

**Figure 4: Number of assessments due in first-year courses each week of semester**
Following are the basic preparation steps taken in the case study to ensure the model was presented as seamlessly as possible:

1. Relevant research: research to identify the ‘pressure points’ in semester was carried out before and during the semester to ensure retention strategies were provided in a pre-emptive fashion (in advance of potential problems occurring) so as to best prepare students to deal with the targeted problem area.
2. Consultation with stakeholders: communication and consultation was carried out with relevant divisions in the university to ensure those with expertise (for example, library staff, counsellors, and academic services) could provide input or prepare to participate in particular retention strategies.
3. Consultation with academic staff: primarily, consultation was carried out with first-year teachers from as many disciplines as possible to try and provide greater scope to the retention strategies offered in the SKIM model.
4. Tutors’ guide: a 13 week (complete semester) tutors’ guide was developed and provided to teaching staff before semester started. All retention strategies provided in the SKIM model were incorporated into the tutors’ guide alongside tutorial activities. This normalised the teaching process for the tutors and for the students.
5. Tutorial materials: all materials related to retention strategies (such as printing, guides, or software) were organised before the semester began and were available for tutors to pick up with their standard weekly tutorial materials for each week.
6. Rooms and environments: all rooms or relevant spaces were booked before the start of the semester to ensure the requirements of any retention strategy were met by the venue, and that the location could be advertised in advance of the strategy delivery.

The key goal of the SKIM model is to normalise first year processes and experiences for all students. It does so by ensuring that any and all retention strategies are embedded into and promoted through the course content. This performs a number of critical functions:

1. Students and staff become collaborators in supporting each other through the first year experience (Kuh, et al., 2010)
2. Embedding retention strategies in course content ensures they are available to all students and not only to those considered “at-risk” (Nelson, Duncan, & Clarke, 2009; Purnell, McCarthy, & McLeod, 2010)
3. Students are not identified as deficient (for example, failing a piece of assessment) and therefore are not demoralised through the ‘intervention’ (Purnell, et al., 2010)
4. Experiencing in-class exercises focused on student problems that could lead to ‘dropping out’ may encourage help-seeking behaviour long-term (Wingate, 2007)

The SKIM model was developed not only to help students and retain them, but also to foster their self-management of learning including help-seeking behaviour. In this regard, one of the most important aspects of the SKIM model is that it is a holistic model (Creagh, et al., 2012; Nelson, et al., 2012). It was designed to be equitable, meaning that all students participate in the retention strategies regardless of their achievements or engagement in the course. While many traditional retention strategies base their implementation with a focus on identifying ‘at risk students’, the SKIM model proposes that ‘all students are at risk’.

This new perspective was prompted by data from surveys carried in academic drop-in sessions (Einfalt & Turley, 2013) and student feedback initiatives (Nash, Liebergreen, & Crimmins, 2012). These studies found that approximately 70 per cent of students experienced anxiety both before submitting assessment, and also before receiving the mark and feedback.
on assessment. This raised a number of questions because the assumption cannot be made here that the 15 per cent of students who might have received a high-distinction for the piece of assessment were in the 30 per cent of students who did not experience anxiety. Thus the following questions need to be raised: Who is more at risk of distress and attrition? The high-distinction student who experienced a lot of anxiety? Or the student who failed, but did not experience any anxiety over it? The SKIM model proposes that all enrolled students should have direct access to all support strategies offered during the semester.

The blanket offering of support strategies in the course offers multiple opportunities for two way dialogue and collaboration (Kuh, et al., 2010) on a number of levels such as: teachers to students, students to students, teachers to teachers, support staff to teachers, support staff to students, student mentors to students and more. Given that every student participates in these strategies, we can rethink the definitions of success. In other words, the only true failure occurs when a student quits for reasons that could have been prevented.

<table>
<thead>
<tr>
<th>Sem/year</th>
<th>Strategy</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2, 2011</td>
<td>1. ‘Just in time’ intervention (Wilson &amp; Lizzio 2008)</td>
<td>1. Implemented as a stand-alone strategy in 2010</td>
</tr>
<tr>
<td></td>
<td>2. First Feedback Face-to-face (FFF)</td>
<td>2. Pilot run of the feedback strategy</td>
</tr>
<tr>
<td></td>
<td>3. FASSdi (Faculty of Arts and Social Sciences drop-in sessions)</td>
<td>3. Pilot run of drop-in sessions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, 2012</td>
<td>1. ‘Just in time’ intervention (Wilson &amp; Lizzio 2008)</td>
<td>1. Final semester of running this strategy due to its deficit nature and the success of the FFF strategy</td>
</tr>
<tr>
<td></td>
<td>2. FFF</td>
<td>2. Installed as permanent fixture in course</td>
</tr>
<tr>
<td></td>
<td>3. PASSdi (Psychology Arts and Social Sciences drop-in sessions) formerly FASSdi</td>
<td>3. Installed as permanent fixture in course</td>
</tr>
<tr>
<td></td>
<td>4. Anxiety to public speaking workshops</td>
<td>4. Pilot run of public speaking strategy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2, 2012</td>
<td>1. FFF</td>
<td>2. Installed as permanent fixture in course</td>
</tr>
<tr>
<td></td>
<td>2. PASSdi (Psychology Arts and Social Sciences drop-in sessions) formerly FASSdi</td>
<td>4. Pilot run of retention strategy to help students with emotional responses to assessment</td>
</tr>
<tr>
<td></td>
<td>3. Anxiety to public speaking workshops</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Resilience building strategy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, 2013</td>
<td>1. FFF</td>
<td>4. Installed as permanent fixture in course</td>
</tr>
<tr>
<td></td>
<td>2. PASSdi (Psychology Arts and Social Sciences drop-in sessions) formerly FASSdi</td>
<td>5. Pilot run of retention strategy to address course engagement</td>
</tr>
<tr>
<td></td>
<td>3. Anxiety to public speaking workshops</td>
<td>6. Pilot run of retention strategy to address, and limit, the number of plagiarism cases within the course</td>
</tr>
<tr>
<td></td>
<td>4. Resilience building strategy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Tracking student engagement with Blackboard/Attendance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. SafeAssign draft strategy</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: History of retention strategies run in COR109 Communication and Thought since semester 2, 2011

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The support and retention strategies for Semester 1, 2013 (Table 1) are outlined below:

1. First Feedback Face-to-face (FFF): students participate in a ten minute one-on-one consultation focusing on their first written assessment. This strategy enhances clarity of feedback, reduces misinterpretation of feedback, and empowers students (Nash, Liebergreen, & Crimmins, 2012).

2. Psychology Arts and Social Sciences drop-in sessions (PASSdi) ‘is a voluntary, informal drop-in service available to students for a two hour period, once a week … promoted by faculty teachers in lectures and during the embedded team-taught skills presentations delivered by the librarian and academic skills advisor’ (Einfalt & Turley, 2013).

3. Anxiety to public speaking workshops: developed in conjunction with USC counsellors to guide students with strategies developed to alleviate anxiety to public speaking.

4. Resilience building strategy (MyTern): MyTern teaches students how to be in control of their emotions and stress levels and how to increase their mental and physical fitness, enabling them to function more efficiently and productively.

5. Tracking student engagement with Blackboard/Attendance: If students demonstrate a lack of attendance in class and engagement with Blackboard in the first four weeks of semester they are contacted by their tutor through email and a follow-up phone call to offer support and encouragement to the student if needed.

6. SafeAssign draft strategy: this strategy allows students to put a draft of their first written piece of assessment through SafeAssign (anti-plagiarism program) without being reprimanded if plagiarism is detected to provide a better understanding of plagiarism and the importance of accurate referencing.

These strategies have proven effective as single, stand-alone approaches offered in a course, but when offered in a logical and systematic way together (SKIM model), they offer a more holistic approach to providing support and retaining enrolment of students.

Support

Due to its institution wide format the SKIM model required support from a number of divisions within USC. Even with the model now being well-established it requires continued support on a number of levels to be executed in a beneficial and professional manner. Support for the SKIM model was provided in a number of ways (See Table 2)

<table>
<thead>
<tr>
<th>Support from staff</th>
<th>Funding</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library staff (PASSdi)</td>
<td>For research into strategies</td>
<td>Room-booking preferences to ensure appropriate environment</td>
</tr>
<tr>
<td>Student services staff (PASSdi and Anxiety to public speaking)</td>
<td>To pay sessional staff for participation</td>
<td>Printing and materials supplies</td>
</tr>
<tr>
<td>Administration staff (printing and collation of required materials)</td>
<td>For conference attendance</td>
<td>Supply of technology equipment required to deliver strategies</td>
</tr>
<tr>
<td>Sessional staff (participation in, and presentation of, strategies)</td>
<td>Workload relief for ongoing administrative and academic staff</td>
<td></td>
</tr>
<tr>
<td>Academic staff (ethics applications, research, participation, conference attendance, writing)</td>
<td>For promotion of strategies</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Support, funding and resources required to employ the SKIM model

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Implications

The SKIM model has evolved over the last three years and overcome a number of challenges associated with implementing it in such a large course. The advantage of embedding strategies within course content is that they become transferable to future semesters with little extra work. There is another obvious advantage in employing pre-established strategies that already have a successful track record and a framework for implementation. In the case of COR109 the FFF and anxiety to public speaking strategies were developed within the course and resulted in considerable extra work, but have now proven to be very successful strategies and can be transferred between semesters with relative ease. The two main challenges faced were logistics (which may be specific to COR109 due to its size), and any training of sessional teaching staff associated with particular strategies. The logistics of a strategy is usually only a problem in the first semester the strategy is run, or until an adequate framework is in place that can be reused each semester. The training of sessional teachers provides some great professional development, but usually comes with some associated costs, which have been funded at faculty level for COR109.

What was the observed impact?

Semester-based results

The results of the case study indicate that the SKIM model was most effective in semester one. The two most likely reasons for this are: 1) if students have experienced a semester of university before being exposed to the SKIM model they have most likely developed study behaviours and perceptions about engagement and retention strategies. If they have successfully completed a semester of university, no matter how difficult it was, they might believe they do not require the help of any support services and 2) the semester one enrolment of the case study course is almost double that of semester two and larger numbers can be beneficial and creating a conducive learning and teaching culture and environment. This is not to say that the SKIM model does not work in semester two, only that the results of the case study indicate that it may be more effective in semester one.

Impact on grades

Figures 5 and 6 demonstrate that since the SKIM model was introduced in 2010 there has been a six per cent (from 51 per cent to 57 per cent) increase in students receiving a credit or better grade (65 per cent or more).

Figure 5: COR109 semester 1 grade distribution 2010-2012

Figure 6: COR109 credit or better % Semester 1, 2010-2012

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**Student feedback on course**

Student feedback on the course COR109 has been administered in semester one each year since employing the SKIM model and its impact on students is apparent in both the overall rating for the course, and in the comments provided by students at the end of semester (See Table 3 for examples). This achievement is significant considering the course has had an enrolment ranging from 1000-1200 students/semester one (over three years) and an average of 25 teaching staff across these semesters.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Rating</th>
<th>Student comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2010</td>
<td>4.5/5</td>
<td>“The skills, strategies and confidence I’ve gained from the course have been very beneficial to my learning throughout the semester and have provided me with future skills. Thanks.”</td>
</tr>
<tr>
<td>1, 2011</td>
<td>4.2/5</td>
<td>“It has helped me with everyday life and also will help me with other courses I’m taking or plan to take.”</td>
</tr>
<tr>
<td>1, 2012</td>
<td>4.2/5</td>
<td>“Emphasis on first semester, first year uni experience, as I am one! Felt very empowered by all the support available. Particularly when I was extremely nervous about coming back to study after 20 years.”</td>
</tr>
</tbody>
</table>

*Table 3: Overall rating provided through student feedback on course*

**Impact on attrition/retention**

The attrition rate of COR109 has fluctuated slightly over the last four years with a mean of 6.45 per cent. This suggests the SKIM model has not had a direct impact on retention of students. However, the course has maintained a reasonably low attrition rate through significant growth in enrolments during this period (See Table 4), which the SKIM model may have contributed to. It is also considerably lower than the average attrition rate for Australian universities.

<table>
<thead>
<tr>
<th>Year (semester 1)</th>
<th>Number of enrolled students</th>
<th>Attrition number (students)</th>
<th>Attrition rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>674</td>
<td>43</td>
<td>6.38</td>
</tr>
<tr>
<td>2010</td>
<td>785</td>
<td>52</td>
<td>6.62</td>
</tr>
<tr>
<td>2011</td>
<td>975</td>
<td>54</td>
<td>5.53</td>
</tr>
<tr>
<td>2012</td>
<td>1081</td>
<td>78</td>
<td>7.21</td>
</tr>
<tr>
<td>Total</td>
<td>3515</td>
<td>227</td>
<td>Average: 6.45</td>
</tr>
</tbody>
</table>

*Table 4: COR109 attrition rates 2009-2012 (semester 1)*

**Conclusion**

We are proposing a paradigm shift when thinking about the first year experience: every student is at risk. Enhancing the first year experience and increasing retention requires a systematic approach including: the identification of pressure points in the semester and the availability of an open and flexible set of proactive, pre-emptive and preventative strategies as part of a sustained institution wide approach. While further research is needed to refine the SKIM model, its employment in a large first year course is feasible. The SKIM model could provide a framework to inform large scale “whole of institution” efforts designed to increase retention and enhance student success in the first year of higher education.
References


