Ready to Study: an online tool to measure learning and align university and student expectations via reflection and personalisation

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Despite widespread implementation of initiatives to support student transition into higher education, research reports that many students, both undergraduate and graduate, still lack awareness of expectations and preparedness for study (Baik, Naylor & Arkoudis, 2015; Ozga & Sukhnandan, 1998; Drew 2001; Haggis & Pouget, 2002; Wingate, 2007). In this paper we report on the design and development of an online adaptive diagnostic module to help students better understand the expectations of studying at a large Australian university, reflect on and evaluate their current skill level in relation to these expectations, and address any skills gaps. The module[1] was designed to (1) gather evidence of student needs through analysis of student perceptions and behaviours, (2) be personalised enough to maximise opportunity for students to reflect on and self-regulate learning, and (3) be scalable and sustainable enough to develop and maintain within resourcing constraints. Preliminary learning analytics and student surveys from the pilot (n=402) indicate that this approach allowed students, teachers and developers to measure current learning in relation to expectations and take action. Importantly, it was also easily embedded in and adapted for different contexts.

Keywords: Transition; first-year in higher education; personalisation; reflection; feedback; adaptive learning; measurement;

Introduction

Facilitating student transition into higher education has become a critical issue in Australia, with a growing body of international evidence to support the notion that a student's first year experience impacts academic success, wellbeing, retention and engagement with university services and communities (Baik, Naylor, & Arkoudis, 2015; Briggs, Clark, & Hall, 2013; Tinto, 2010). Both experience and preparedness for university are cited as key factors influencing student satisfaction, persistence and attitudes in first year studies (Baik et al., 2015; Tinto, 1999). Therefore, a key challenge for higher institutions lies in designing impactful programs and initiatives that align institutional and student expectations and help students prepare for the demands of university study. Achieving this relies on both staff and students being able to diagnose, or measure, current learning (knowledge and skills) in relation to institutional expectations, as well as understand perceptions and behaviours and how these might impact the learning experience.

Many universities have implemented initiatives aiming to support student transition; however, research suggests that despite these offerings, students still lack preparedness (Baik et al. 2015; Ozga & Sukhnandan, 1998; Drew, 2001; Haggis & Pouget, 2002; Wingate, 2007). One explanation for this is that engagement with such initiatives is often low; in fact, a recent report on the *First Year Experience in Australian Universities* indicated that only "three out of ten students reported that they had actively engaged with university orientation programs and fewer than half of these students (42%) believed that the programs helped them get off to a good start" (Baik et al., 2015, p. 32). This report also stated that for 18% of students, "university had not lived up to their expectations" (p. 30) and for 38% "the standard of work expected at university was much higher than they expected" (p. 31). This discrepancy highlights a need to review existing approaches to student transition initiatives to better help students understand expectations and develop the required skills. Ability to measure student learning and gather information on perceptions and behaviours at this stage in the student lifecycle could inform future development of resources and initiatives that truly meet students' needs.
It is widely accepted that as educators our role in this transition process is to help students to: learn about higher education (Briggs et al., 2013); bridge the gap between their previous learning experiences and those they are likely to have in their institutional context (Perry & Allard, as cited in Briggs et al., 2013; Wingate, 2007); recognise their learning habits (Wingate, 2007); and develop both "learner identity" (Briggs et al., 2013, p. 6),

[1] Participate in a demonstration module and view screenshots of module design at bit.ly/R2S-Research

and autonomous learning skills (Briggs et al., 2013; Wingate, 2007). Importantly, literature also emphasises the need for initiatives to encourage students to be actively involved in learning activities (Tinto, 1999), and occur early enough to allow both students and university staff to act on feedback and adjust behaviours (Tinto, 2010; Wingate, 2007). We, therefore, need to create conditions in which students can measure their preparedness and take appropriate action early in the transition process.

To help students develop these independent learning skills and take control of their learning process, Kellenberg, Schmidt, and Werner (2017) and Wingate (2007) advocate encouraging the development of self-regulation and reflection skills. Kellenberg et al. (2017) add that "an individual's metacognitive control of the learning process is an essential prerequisite for self-regulated learning" (p. 25), meaning that we must provide opportunities for students to reflect on and adapt their learning process. In this way, we are helping them to develop lifelong learning skills, defined by Kellenberg et al. (2017) as "(1) the motivation for and the interest in education (learning motivation intrinsic and extrinsic), and (2) the competence to apply these successfully in concrete learning situations" (p. 23). This shift in focus makes students active agents in their own learning, better preparing them for both university life and their future careers.

The Ready to Study project

This project aims to investigate the effectiveness of using a personalised, reflective diagnostic online approach to help students get ready for university study. While literature exists on developing self-regulation through collaborative e-assessment tasks (Marin & Garcias, 2016); developing academic literacy through self-regulated learning online learning (Lear, Li and Prentice, 2016); and online interventions to support mental health wellbeing and study skills (Papadatou-Pastou, Goozee, Barley, Haddad & Tzotzoli, 2015; Papadatou-Pastou, Goozee, Payne, Barrable & Tzotzoli, 2017), little literature was found on helping students to reflect on their past learning experiences and behaviours, evaluate their appropriateness in a higher education context, and take action to ensure their own success.

We wanted to explore how we could design an effective, useful, scalable and personalised online tool to help students better understand expectations of studying at a large Australian university, reflect on and evaluate their current skill level in relation to these expectations, and address any skills gaps. We considered three key questions in the design process: (1) could we design a tool to gather evidence of student needs through analysis of student perceptions and behaviours?; (2) could we personalise this tool to maximise opportunity for students to reflect on and self-regulate learning?; and (3) could it be designed in a way that allowed for scalability and sustainability? Having considered these aims in line with the technological affordances of products available to us, we developed the Ready to Study module using the SmartSparrow platform.

This paper reports on the progress of this project. We begin by outlining the principles that informed the design process, the features of the Ready to Study module, the development process and modes of deployment. Then, following a brief presentation of method and results, we discuss key findings from the data and propose future directions for research and opportunities for collaboration.

Re-designing our approach to student transition: key principles

Personalisation

Previously, we took a one-size-fits-most approach to resource development and student support; this was predominantly based on Academic Skills Advisor (ASA) understanding of skills students needed, rather than evidence from students. A limitation of this approach is that while it outlined general expectations and provided generic resources, it did not consider diverse preferences, backgrounds, motivations or experiences of students, or afford students much agency. This lack of personalisation did not create conditions in which we could scaffold development of self-regulation and reflection skills, and potentially made it appear less relevant to students, leading to low engagement.

Learning opportunities, not failures

We also wanted to move further away from a deficit model of support which focused on identifying weaknesses rather than strengths, and in which gaps in knowledge were presented as a failure rather than an opportunity to learn. By encouraging personal reflection on past experiences and behaviours we hoped to move away from the idea of 'support', which according to Haggis (2006) implies, "the existence of a superior group who function in a strong and 'unsupported' way, thus pathologising any student for whom these assumptions are not clear" (p.

525). In this way students could understand their progress towards both university and personal goals and connect strategies and behaviours to their own experience.

Scalability and sustainability

Although the primary focus was to develop a tool for use by all new students that could be personalised to their learning needs, we also wanted it to be scalable and sustainable. These factors were important given we have large enrolment numbers each semester with no increase in resourcing. The ease with which we could accommodate and adapt to diverse needs of students, faculties and departments was also a key consideration, because the student experience varies depending on subject, faculty expectations, cohort, year of study, and background, and while "some 'skills' are broadly generic... most of what students need to understand is more complex and importantly variable from discipline to discipline" (Channock, Horton, Reedman, & Stephenson, 2012, p. 2). Research has also shown that approaches in which support is tailored and embedded, rather than "one-size-fits-all" generic programs have been shown to result in improved outcomes (Catterall & Ireland, 2010; Salamonsen et al., 2009; Wingate et al., 2011, as cited in McWilliams & Allan, 2014, p. 4).

Design

The Ready to Study module is divided into three interdependent but conceptually separate components (see Figure 1). The modular design allows components to be modified and adapted without significantly affecting each other or the overall student experience.

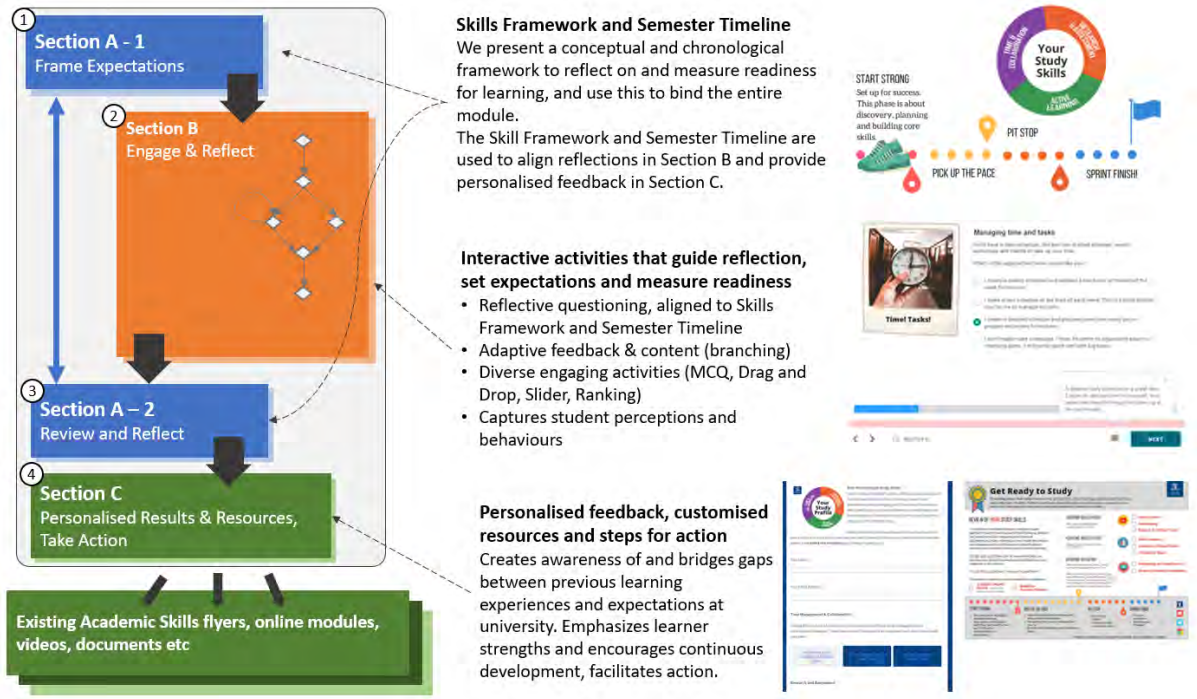

Figure 1: Overall module structure and design

1) Section A – 1: Frame Expectations

This section:

- gives students tools to understand, evaluate and articulate their study skills.
- creates a long-term and high-level view of how these skills will be applied at university.
- frames their experience in the module and the semester.

The two sub-components in this section are the Timeline and Skills Framework, as shown in Figure 2.

Timeline

The timeline is designed to help students see the relevance of study skills in the context of challenges they might face throughout the semester. This long-term view should also encourage a more proactive approach to

developing academic skills. The interactive activities in Section B of the module are aligned with this timeline, so as students progress through the module, they also progress through the semester.

Figure 2: Timeline and Skills Framework

Skills Framework

As Figure 2 indicates, analysis of existing resources produced three categories of academic skills:

- **Research and Assessment Skills** – skills and approaches related to the assessment tasks and research required to complete them (for example, the writing process, presentation skills, incorporating sources)
- **Active Learning Skills** – positive study approaches to increase impact of learning (for example, note-taking techniques, revision strategies, critical thinking)
- **Time Management and Collaboration** – a broad category of productivity skills that impact study (for example, groupwork, general time management strategies)

Collating the range of specific academic skills required across the semester into these three main categories limits the likelihood of students being overwhelmed, highlights complementary or similar skills, and encourages holistic self-development strategies. This also creates a clear summary of the most important academic skills, and becomes the basis for designing reflections, measuring learning and personalising advice for action.

2) Section B: Engage and Reflect

This section consists of 10 interactive activities focused on specific learning experiences students might have at university relating to each of the three main skill areas (Table 1).

The activities are designed to:

- create awareness of academic expectations of studying at university.
- facilitate personal reflection on skills and behaviours required in specific learning situations.
- provide personalised feedback to align responses to expectations and encourage action to improve preparedness.
- gather evidence of needs and capabilities by capturing perceptions and behaviours.

Table 1: Specific learning experiences mapped to Skill Framework

Timeline	Activity	Reflection focuses on...	Skill Area measured
Start Strong	1	Note-taking in Lectures	Active-Learning
	2	*Approach to Tutorials OR Labs	Time Management & Collaboration
	3	Time Management Approaches	Time Management & Collaboration
	4	Revision Strategies	Active Learning
Pick Up the Pace	5	*Assignment Planning	Research & Assessment
	6	Research Strategies	Research & Assessment
	7	Critical Thinking	Active-Learning
	8	Group Work Attitudes	Time Management & Collaboration
Sprint	9	Incorporating Sources	Research & Assessment

Finish	10	Exam Preparation	Research & Assessment

**students are split into 2 pathways depending on discipline (Humanities or STEM)*

The activities are scenario-based and behavioural, and apply diverse engagement tools (multiple choice questions, drag and drop, sliding scales and sorting lists, see Figure 3). Each activity offers personalised feedback to students based on their input (between two and four unique responses). Rather than simply being corrective (identifying right or wrong behaviours), this tailored feedback aims to help students understand what they are doing well (reinforcement), reflect on strategies and behaviours to improve their performance (personal development), and select and apply those which they feel will benefit them (agency). In this way, it emphasises growth instead of support, thus avoiding a deficit approach and encouraging action.

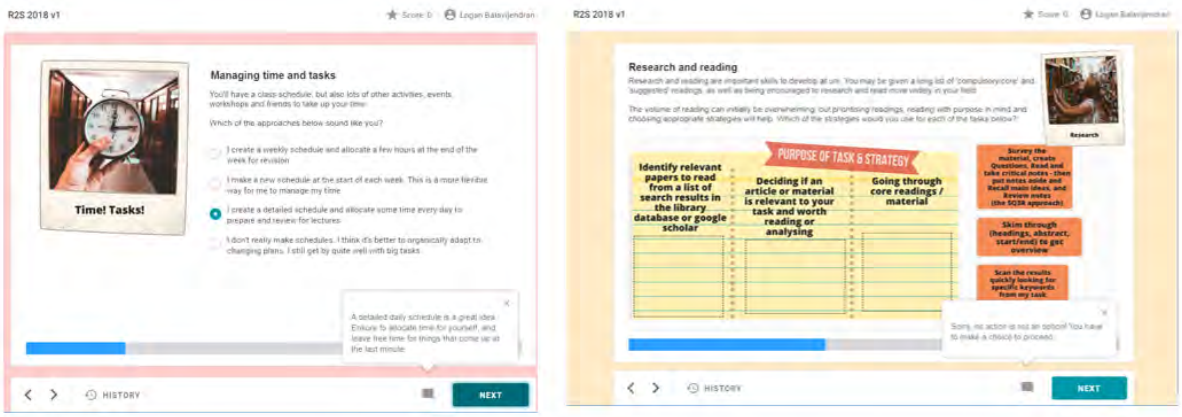

Figure 3: Scenarios are designed to create awareness, encourage reflection and provide feedback

3) Section A – Part 2: Review and Reflect

Based on their perceptions and behaviours in Section B, students are clustered into the HIGH or LOW band of each skill category. This is then used to give students immediate personalised advice against the skill categories (for both HIGH and LOW bands), and then to filter them into eight cohorts in preparation for personalised resources (see Table 2). These profiles and the sorting mechanism are not visible to students.

Table 2: 8 Skill profiles based on student reflections against the Skill Framework

Profile	Research and Assessment	Active Learning	Time Management & Collaboration	
1 – LLL	LOW	LOW	LOW	*Curated resources for Profile 1*
2 – LHL	LOW	HIGH	LOW	*Curated resources for Profile 2*
3 – LLH	LOW	LOW	HIGH	*Curated resources for Profile 3*
4 – LHH	LOW	HIGH	HIGH	*Curated resources for Profile 4*
5 – HLL	HIGH	LOW	LOW	*Curated resources for Profile 5*
6 – HHL	HIGH	HIGH	LOW	*Curated resources for Profile 6*
7 – HLH	HIGH	LOW	HIGH	*Curated resources for Profile 7*
8 – HHH	HIGH	HIGH	HIGH	*Curated resources for Profile 8*

4) Section C: Personalised Results and Resources, Steps for Action

This section of the module aims to:

- provide customised resources best suited to the student's skill profile.
- encourage and facilitate action for self-development.

Students are presented with a customised list of resources (based on one of the eight study profiles). Consistent with our focus on growth instead of support, they receive advice and resources aligned to all skill categories – including those they are strong in.

In the first iteration of the module students received a hyperlinked downloadable PDF document. Feedback indicated this approach did not afford enough agency, so in the second iteration we redeveloped this PDF document into an online form (using Qualtrics). This form allowed students to preview then choose which resources (and thus skills) they wanted to focus on. This generated a customised email with a list of resources (along with a link to the full list).

The design also included a follow up email later in the semester (three or four weeks in) to remind students of their insights and encourage further reflection, action and application. This was a manual process in the first iteration that has now been automated in the second.

Development and Deployment

In order to maximise sustainability and scalability, the module was developed using tools supported by and embedded into the University. It was developed internally as part of current scope of work (not a separate project) and involved two staff members spending about two days a week over the space of three months. Smart Sparrow was chosen for its ability to create engaging interactive experiences, build adaptive pathways and capture learner analytics. It is also relatively simple to create various instances and embed it into the Learning Management System (LMS).

The module was piloted in Semester 1, 2018. It was launched in the Academic Skills community within the LMS with minimal communication and embedded in six subjects. At the end of Semester 1 the module was evaluated, improvements were made and it was relaunched for Semester 2. A version was also adapted for fully online graduate students.

Method

We adopted a mixed model approach (quantitative analysis followed by qualitative focus groups) to evaluate the effectiveness of our design.

Three approaches were used:

1. Platform Analytics (captured using Smart Sparrow, Bit.ly and Qualtrics. This captures student reflections, engagement and action post module)
2. Student perception survey (captured via online survey upon module completion)
3. Focus groups (with students who completed the module)

The student perception survey had two parts: five statements (with a 5-point Likert scale response with 1 for Strongly Disagree and 5 for Strongly Agree) and two open ended questions.

1. *I am now more aware of the strategies and skills required to succeed at university*
2. *I will be able to apply the ideas and strategies from this module in my studies*
3. *The feedback provided after each question was relevant and useful*
4. *The module was engaging and interesting*
5. *The module was easy to use*
6. *Are there any improvements to the module? (open ended)*
7. *What was the most interesting aspect of the module? (open ended)*

For the purposes of this paper, we will report on and discuss only data from the platform analytics and student perception survey.

Results

Table 3 shows a snapshot of the four instances of the module that received the most engagement. These were all embedded in Semester 1, 2018. In all instances the module was optional and not embedded into the curriculum, with little or no extrinsic motivation to engage or complete it.

Table 3: Engagement with the Ready to Study module

Module Instance	Attempted Module	Completed Module		Accessed Results		Completed Survey	
Academic Skills Hub	308	225	73.05 %	177	78.7 %	201	89.3 %
Organisational Behaviour	37	22	59.46 %	20	90.9 %	19	86.4 %

Management	33	14	42.42 %	14	100 %	14	100 %
Nursing Science	24	16	66.67 %	15	87.5 %	15	93.8 %
Total	**402**	**277**	**68.91 %**	**226**	**81.2 %**	**249**	**89.9 %**

The Academic Skills Hub is a self-enrolled community in the LMS with over 5000 students. Organisational Behaviour and Management are subjects with a more traditional student demographic (school leavers, first tertiary experience, first and second year), whereas Nursing Science is a graduate subject with a smaller cohort from a less traditional background. All cohorts consist of local and international students. At this stage of the study, it is unnecessary to further delineate the cohort.

Overall, a substantial number of students who explored the module went on to complete it (69%), and of those who did complete it, a large proportion also went on to access their personalised results (81%). Analysis of resource links also show that the personalised reports were downloaded 147 times (65% of students who accessed their results), and resources linked within those reports clicked on 438 times (almost three resources per student who downloaded the report).

The most common study skills profile was low in every skill category (Table 4), followed by high Research and Assessment. Only one student was judged to be 'high' in all three categories.

Table 4: Breakdown of student academic skills profiles

	LLL	**LHL**	**Others**	Total
Academic Skills Hub	138	29	10	177
Organisational Behaviour	17	3	0	20
Management	12	2	0	14
Nursing Science	8	6	1	15
Total	**175**	**40**	**11**	**226**

Findings

This section highlights insights from preliminary data analysis and discusses the broad potential of this approach.

Evidence of student needs
The activity design and Smart Sparrow platform tools enable easy analysis of the answer distribution for each question. In the example below, we can easily see how students apply scheduling strategies. From this specific example we can assume this cohort has a predisposition towards unstructured or responsive scheduling approaches, which indicates a need for more training, information or tools.

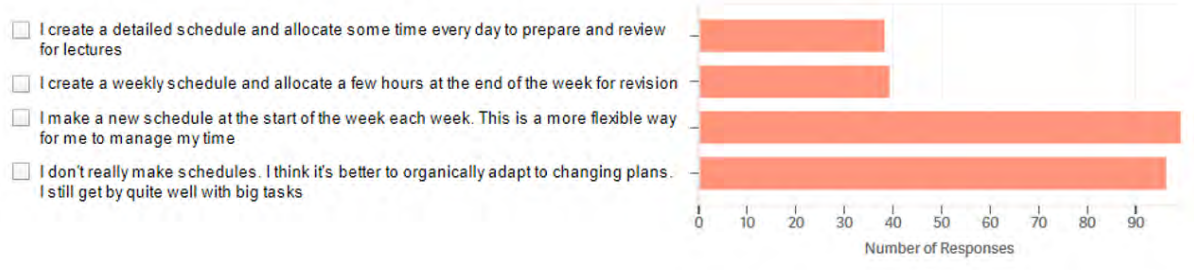

Figure 4: Instantly extract student perceptions of study skills and identify gaps

There are, however, some limitations. In order to further filter this data – for example, to see how many students from a specific faculty responded in a specific way – the data needs to be exported into another program (e.g. Microsoft Excel) for further manipulation. Furthermore, some complex interactive input tools (e.g. Drag and Drop) do not produce this detailed student input data, which creates a trade-off between using engaging input types and easy data analysis. It is still possible to identify how students interacted with these input types, but that requires manipulating the design.

Maximising opportunity for students to reflect on and self-regulate learning through personalisation

Table 5: Student perception: survey respondents who *Agreed* and *Strongly Agreed* (4 &5) with the statement *(vs Disagreed and Strongly Disagreed 1 & 2)*

Module Instance	*Likert Score*	Academic Skills Hub	Organisational Behaviour	Management	Nursing Science	**Total**
n		201	19	14	15	**249**
Increased awareness of Strategies & Skills	*4 & 5*	55.20%	52.60%	42.90%	60%	**54.60%**
	1 & 2	2.5%	0%	0%	0%	**2.0%**
Can apply ideas and strategies in studies	*4 & 5*	52.24%	47.37%	42.86%	53.33%	**51.41%**
	1 & 2	1.99%	0%	0%	0%	**1.61%**
Feedback provided relevant and useful	*4 & 5*	53.20%	52.60%	35.70%	60%	**52.60%**
	1 & 2	3.98%	0%	0%	0%	**3.21%**
Module was Engaging	*4 & 5*	45.77%	36.84%	14.29%	40%	**42.97%**
	1 & 2	5.97%	0%	7.14%	06.67%	**5.62%**
Module was Easy to use	*4 & 5*	63.68%	63.16%	35.71%	53.33%	**61.45%**
	1 & 2	0.50%	0%	0%	0%	**0.40%**

As Table 5 indicates, overall, a majority of students agreed or strongly agreed that the module improved their awareness of skills and strategies and gave them confidence that they could apply them in their studies. This indicates that the module helped students reflect on knowledge or skills gaps and identify appropriate strategies for their needs. Importantly, the significant number of students who accessed the recommended resources indicates that they were able to identify areas for improvement and take action.

The open-ended comments also spoke to the impact of the module, with students identifying the feedback, timeline and strategies as especially valuable. The statements below are a selection of responses to "*what is most interesting about the module*":

- "The set up and organising the different strategies in phrases. On top of this the short sentences, instead of long paragraphs were extremely useful to understand specifically what the strategy is, and how it is most effective."
- "The use of a timeline of the semester gave me perspective on what to expect."
- "the immediate feedback given when an option is selected"

A very small number disagreed that the module had a positive impact (Table 5), with a sizeable number neither agreeing nor disagreeing (selected 3 on the 5-point scale), or not completing it (31%, from Table 3). One notable exception was the Management cohort, whose level of agreement was lower across all categories, especially in relation to how engaging they found it. Survey data provided limited explanation for this, indicating a need for further research.

Scalability and Sustainability

The Ready to Study module is easily scalable and relatively sustainable, as evidenced by the ease with which we were able to deploy it across seven instances (the Academic Skills hub and 6 subjects) and adapt it for a purely online cohort with relatively minimal effort. The Smart Sparrow platform allows for easy creation of instances (or "classes"), which enabled us to embed mirror versions of the module in different subjects. This allowed us to isolate student data, while retaining one point for updates and corrections. Embedding and accessing the module in the LMS as a LTI tool is also a smooth and uncomplicated process.

Moreover, we were able to easily modify this module in collaboration with colleagues from MSPACE (the Melbourne School of Professional and Continuing Education) to serve the needs of students enrolled in fully online degree programs offered at the University of Melbourne. This a unique cohort and substantially different from on campus full time undergraduate students, the main audience of the initial Ready to Study module. The modular design meant updates could be made in a few areas (such as the timeline, terminology and aesthetics), to personalise the student experience without having to redesign the entire module. Four activities were

redeveloped and feedback and resources were updated without substantive changes to the module logic and framework. A new version – Ready to Study Online - was developed, tested and launched in under two months.

Key learnings, future directions and opportunities

Having implemented changes to the design of this module based on feedback, we launched the second iteration of the campus-based Ready to Study module and the new Ready to Study Online version in Semester 2, 2018. It is still too early to evaluate these iterations, but preliminary data show promising signs of engagement with the module and developmental resources.

Reflecting on findings to date highlights a number of opportunities, including:

- Adapting to cater for diverse needs of faculties and cohorts.
- Collaborating with other universities on the SmartSparrow network to deploy and evaluate effectiveness
- Differentiating impact by student background (international, years in formal education etc.).

Conclusions

Overall, preliminary findings indicate that the personalised, reflective approach embedded in the Ready to Study module was effective in helping both students and staff to measure current learning (knowledge and skills), as well as understand perceptions and behaviours and how these might impact the learning experience. The Smart Sparrow platform allowed us to gather useful information on student perceptions and behaviours, which have since been used to inform resource development in Academic Skills and adjust the module. Importantly, it also provided evidence that students were able to reflect on current behaviours, engage with feedback, recognise areas for development and take action to develop necessary skills. The technological affordance of this tool also made it both scalable and adaptable to different contexts.

Key limitations of this research will be addressed in future iterations. Recognising that the small sample size limits the generalisability of our findings, we hope to encourage greater engagement with this tool and embed it in more subjects. We also hope to use data gathered to help us improve the content (question design and feedback), thereby increasing completion rates and clickthrough to skills development resources. In order to better understand the impact of this tool on aligning institutional and student expectations and helping students prepare for the demands of university study, we plan to conduct a longitudinal study and hope to collaborate with other universities.

References

Baik, C., Naylor, R., & Arkoudis, S. (2015, March). *The first year experience in Australian universities: findings from two decades, 1994-2014.* Retrieved from the Melbourne Centre for the Study of Higher Education website: https://melbourne-cshe.unimelb.edu.au/__data/assets/pdf_file/0016/1513123/FYE-2014-FULL-report-FINAL-web.pdf

Briggs, A.R.J., Clark, J., & Hall, I. (2012). Building bridges: understanding student transition to university. *Quality in Higher Education, 18(*1), 3-21. doi: https://doi.org/10.1080/13538322.2011.614468

Channock, K., Horton, C., Reedman, M., & Stephenson, B. (2012). Collaborating to embed academic literacies and personal support in first year discipline subjects. *Journal of University Teaching & Learning Practice, 9*(3), 1-13. Retrieved from http://www.eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=EJ996020

Drew, S. (2001) Student Perceptions of What Helps Them Learn and Develop in HigherEducation. Teaching in Higher Education, 6 (3), pp. 309–331. https://doi.org/10.1080/13562510120061197

Haggis, T. (2006). Pedagogies for diversity: retaining critical challenge amidst fears of 'dumbing down', *Studies in Higher Education, 31*(5), 521-535. doi: https://doi.org/10.1080/03075070600922709

Haggis, T. and Pouget, M. (2002) Trying to be Motivated: Perspectives on Learning fromYounger Students Accessing Higher Education. Teaching in Higher Education, 7 (3),pp. 323–336.

Kellenberg, F., Schmidt, J., & Werner, C. (2017). The adult learner: Self-determined, self-regulated, and reflective. *SIGNUM TEMPORIS, 9*(1), 23-29. doi: https://doi.org/10.1515/sigtem-2017-0001

Lear, E., Li, L., & Prentice, S. (2016). Developing academic literacy through self-regulated learning online learning. *Student Success, 7*(1), 13-23. doi: https://doi.org/10.5204/ssj.v7i1.297

Marin, V., I., & Perez Garcias, A. (2016). Collaborative e-assessment as a strategy for scaffolding self-regulated learning in Higher Education. In S. Caballe & R. Clariso (Eds.), *Formative Assessment, Learning Data Analytics and Gamification* (pp. 3-24). doi: https://doi.org/10.1016/B978-0-12-803637-2.00001-4

McWilliams, R., & Allan, Q. (2014). Embedding academic literacy skills: towards a best practice model. *Journal of University Teaching & Learning Practice, 11*(3), 1-19. Retrieved from http://www.eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=EJ1048871

Ozga, J. and Sukhnanden, L. (1998) Undergraduate non-Completion: developing anexplanatory model. Higher Education Quarterly, 52 (3), pp. 316–333.

Papadatou-Pastou, M., Goozee, R., Barley, E. A., Haddad, M., & Tzotzoli, P. (2015). Online intervention, 'MePlusMe', supporting mood, wellbeing, study skills, and everyday functioning in students in higher education: a protocol for a feasibility study. *Pilot and Feasibility Studies*, 1-34. doi: https://doi.org/10.1186/s40814-015-0029-8

Papadatou-Pastou, M., Goozee, R., Payne, E., Barrable, A., & Tzotzoli, P. (2017). A review of web-based support systems for students in higher education. *International Journal of Mental Health Systems*, *11*(1). doi: http://dx.doi.org.ezp.lib.unimelb.edu.au/10.1186/s13033-017-0165-z

Tinto, V. (1999). Taking retention seriously: rethinking the first year of college. *NACADA Journal, 19*(2), 5-9.

Tinto V. (2010). From Theory to Action: Exploring the Institutional Conditions for Student Retention. In: J. Smart (Ed.), *Higher Education: Handbook of Theory and Research* (pp. 51-89). https://doi-org.ezp.lib.unimelb.edu.au/10.1007/978-90-481-8598-6_2

Wingate, U. (2007). A framework for transition: supporting 'learning to learn' in Higher Education. *Higher Education Quarterly, 61*(3), 391-405. doi: https://doi-org.ezp.lib.unimelb.edu.au/10.1111/j.1468-2273.2007.00361.x

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