

The power of peer learning in assisting first year students' engagement in successful learning

Jill Lawrence

Faculty of Business, Education, Law and Arts, University of Southern Queensland

Abstract

To effectively learn at university, first year students need to reposition their expectations and to fine tune their learning approaches to meet those required by the university. To assist students to achieve these outcomes, peer learning opportunities were integrated into a first year course at a regional university. These opportunities were not only designed to prompt students to engage in peer learning but also to encourage them to reflect on that learning. To investigate the effectiveness of the peer learning activities, a longitudinal, mixed method research study was conducted with 669 first year students. The findings confirm that the activities enhanced students' learning and engagement, inspiring them to value peer learning as a viable, user friendly and accessible study approach. The peer learning opportunities also familiarised students with, and expanded, their sources of support, assisting them to gain perspective about their study, facilitate their reflective capabilities and augment their personalised problem solving strategies.

Introduction

Peer-learning activities were integrated into the design of a first year undergraduate course conducted by the Department of Nursing and Midwifery at a regional Australian university to enable students to engage with and develop the quality of their learning. The course, *CMS1008 Building Professional Nursing Attributes A* (CMS), has been conducted since 2006 and is designed to assist students to develop the literacies and skills they need to succeed as learners in their higher education studies and, in the future, as nursing professionals. The aim of CMS is to develop students' academic, learning and information literacies, enhance their research, communication, interpersonal and team work skills and strategies as well as assist them to begin their professional e-portfolios. The rationale, design and delivery and evaluation of CMS (2006-2016) have been documented (see Lawrence, Loch & Galligan, 2010; Lawrence, 2013). This paper briefly describes the theoretical rationale underlining the inclusion of peer learning activities in course pedagogy. It then describes these activities before outlining the evaluation methodology used to assess students' perceptions about the value, or otherwise, of the activities. The findings are framed by the literature on peer learning, student engagement and transition.

Rationale for peer learning in course design

The rationale for the peer learning activities included in CMS's curriculum design took into account the complexities stemming from the nursing program's diverse nursing cohort and its underlying whole-of-program, holistic and transdisciplinary focus incorporated to enable unfamiliar students' transition to university and nursing practices. It was also strengthened by the importance of embedding key university and discipline literacies in course design (Pea, 2004) using Keimig's (1983) model of learning improvements. This model recognises that generalized and front-on approaches to skills courses are not as effective as those targeting specific aspects of learning within academic courses.

The rationale for peer learning also emerged from the theoretical perspectives stemming from critical literacy, first year pedagogy and peer learning. Lawrence (2005), employing critical perspectives, argues that the university can be characterised as a culture with students' transition recast as a processes of mastering its multiple, often unfamiliar, literacies and cultural practices. These, according to Lawrence (2005) include faculty, school and subject discourses, academic literacy and numeracy and information, administrative and technological literacies. There are also interpersonal literacies including the communication, cross-cultural, stress, time management and financial literacies essential to interacting effectively in the culture. Additionally there is the importance of mastering independent and active learning as well as a range of digital literacies including learning management systems and online pedagogical practices. By embedding and scaffolding key literacies in course design and incorporating strategies to encourage students to engage with their peers about their progress in mastering them, students are emboldened to make a more informed and confident transition to university.

First year pedagogical perspectives suggest that students' capacities to master key literacies depends on their self-awareness of the expectations, skills and knowledge with which they enter higher education. Devlin and McKay (2017) argue that when students enter university they do so with varying levels of the academic, linguistic and socio-cultural capitals they need if they are to master the literacies they encounter there. Devlin and McKay (2017) suggest that an intentional design of learning, teaching and assessment acknowledges the reality of the contemporary student context, mediating student diversity in relation to the preparedness and cultural capital of commencing students. Both the institution/staff and students have responsibilities in this process. Kift (2009, p.1) contends that the curriculum and its delivery "should be designed to be consistent and explicit in assisting students' transition *from* their previous educational experience *to* the nature of learning in higher education and learning in their discipline as part of their lifelong learning". Students too have a responsibility. They need to reflect on their own skill base before building their capacities in these literacies. Lawrence (2013) advises that it is important that students utilise communication skills like asking for help, making social connections and seeking feedback to enable a more seamless transition. These capacities need to be made explicit, embedded in pedagogy and reflected on with their peers if they are to be purposefully integrated.

Peer learning was another perspective utilised in curriculum design. Boud, Cohen, and Sampson (2001) describe peer learning as a two-way reciprocal learning activity involving networks of learning relationships among students and significant others. Its salience is recognised in a range of forms in higher education, for example in Martin's supplemental instruction, in Lave and Wenger's communities of practice, and in notions of the 'third space' in relation to academic literacies (Gutiérrez, 2008). Hilsdon (2013) explores peer learning in relation to the benefits of the social aspects of learning while Hanken (2016) reports that learning from peers and together with peers is beneficial for students studying diverse disciplines. Aderibigbe, Antiado and Anna (2015) argue that peer learning provides learners with convenient and informal opportunities to learn from those who are, or have been, in a similar situation. Geng and Midford (2015) add that peer learning may clarify aspects of confusion and reduce stress levels by providing more alternative avenues of support. Boud and Lee (2005) suggest that opportunities for learning emerge within everyday activities and also wherever students share their experiences, inside and outside the classroom. Informal learning opportunities are just as important, then, in empowering and assisting students to access support as those offered through formal learning.

Woven together, these theoretical perspectives guided the rationale for the peer learning activities integrated in curriculum design. The activities were incorporated to embed and scaffold key university and discipline literacies, replacing traditional study modules and selected readings. The peer learning activities represented formative assessment and were explicitly linked to the course's summative assessment. At the completion of each activity, students were asked to post responses to their forum group (n=20), variously named the Code Blues, the I V Leaguers, etc., each supported by an online

tutor who provided individual feedback to their posts. Students were also encouraged to offer comments. In addition, two learning activities explicitly required students to learn with/from each other. In Activity 2 (see Figure 1) students reflect on an interview they conduct with an experienced student before identifying specific, practical, problem solving strategies to incorporate in their study routines. In Activity 9, students reflect on the development of their learning methodologies and peer learning experiences over the semester as well as respond to others' reflections.

Activity 2.1 Learning about the university



Sparks

Watch this you tube video about the importance of getting online. Although it is from a different university it shows how important being present online is to university study in Australia (New Student Tip #08 – Get Online) <http://www.youtube.com/watch?v=L-peS-95GYE>

To prepare for your interview watch this you tube video. It should give you an idea of some topics to talk about. (New Student Tip #07 – Get Organised) http://www.youtube.com/watch?v=1ab0p_oe1BU

Purpose

To gain insight into the languages and learning strategies or practices that you will need to develop to succeed at university.

Task

Interview an experienced student, reflect about what you have learned from them and post an entry to your group forum.

Instructions

1. Find a student to interview. This student could be from nursing or from any other faculty or even a different university. It doesn't matter. They might have finished their degree some years ago or be in second or third year nursing. You could also interview your online tutor or the Meet Up team. **Remember to use a pseudonym instead of your interviewee's real name in your reflection and in your post. This relates to your confidentiality and their privacy (two of your nursing codes of practice).**
2. Write up the interview, thinking about the strategies you can put into place to help you to succeed this semester. Keep this somewhere safe as you will need this information to complete Assignment 1, Part B.
3. By Friday week 2 post onto your group forum:
 - a) One surprising thing that you discovered from the interview that differed from the expectations you had about learning at university
 - b) One learning skill or strategy you are going to put in place to enhance your study this semester
 - c) One reason why Nursing might have included CMS1008 into your program of study?

Response

Your online tutor will reply to your post.

Link to assessment

Your reflection about the interview is a requirement for Assignment 1, Part 2

The forum posts contribute to your online engagement marks in Assignment 1.

Figure 1: Activity 2 Learning about the university

Research study

Curriculum design decisions were evaluated in a longitudinal research study, conducted during each course iteration (2006-2016). The study embodied continuous evaluative processes applied throughout design, delivery and evaluation stages. A standard method of evaluation and program development with both quantitative and qualitative methods was applied (Taylor & Galligan, 2002) (see Table 1).

Item	Evaluation Strategy	Program Design Stage	Program Delivery Stage	Program Conclusion Stage
1	Feedback from previous student surveys	✓	✓	✓
2	Reflections in assignments and the portfolio		✓	✓
3	Official Student Evaluations of Teaching			✓
4	Online discussion and forum groups		✓	✓
5	Moodle participation analytics	✓	✓	✓

Table 1: Relationships between the evaluation strategies and stages in the course design

The design, delivery and evaluation of the course stemming from data collected over these evaluative cycles has been documented, for example when the course moved to online delivery (see Lawrence, 2013). This paper interrogates data specifically related to peer learning and included online course analytics and formative and summative data collected from the Student Management delivery System (Moodle). Participants comprised the 2016 student cohorts, semesters 1 (n = 572) and 2 (n = 97). Located within a critical realist paradigm, using interpretive methods to explore meaning and processes, the qualitative analysis involved data collected in items 2 and 4 from the Moodle study desk:

- Group forum posts (formative assessment) from Activities 2 (A2), and 9 (A9)
- Assignment 1, Task Two, which required students to write a reflective paragraph on the interview they had conducted (from assignments submitted online)

- Assignment 2, Task One, which asked students to reflect on the development of their learning and peer learning skills over the semester (from assignments submitted online).

A phenomenological approach (Jeffers, 1998) was used to analyse the lived experiences of students as they become more academically prepared, comprising students' past experiences, their present experiences and feelings, and how these were transformed. A limitation of the research is that, as the data includes formative and summative assessment, there is potential for participants to "provide what they think the listener wants to hear" or that the process could be threatening for those students who position the academic as an authority figure (Trahar, 2009). As Trahar (2009) argues though, "through narrative inquiry, I have learned to be explicit about diversity in higher education contexts and to acknowledge that we may all experience difficulties and frustrations, encouraging people to learn, through dialogue, about their differences and similarities".

Results and discussion

Table 2 illustrates the analytics in relation to the volume of posts in each semester.

Semester/year	Group forums for activities	Activity 2 (students & online tutors)	Activity 9 (students & online tutors)	Students enrolled
1, 2016	95867	1739	993	572
2, 2016	10400	162	106	97

Table 2: Analytics: Activities 2 and 9

Key themes (Trahar, 2009) emerging from the data, included a) gaining insight into self, b) repositioning expectations, c) achieving perspective, d) incorporating personalised problem solving strategies, e) developing sources of support, and (f) the value of peer learning to student engagement and quality learning. Woven through these themes were threads related to the communication capabilities of asking for help, participating in a group, seeking/accepting feedback and saying 'no'.

Insight into self

To engage in quality learning, first year students need to firstly understand their own learning skills. This helps them to reposition their learning expectations and fine tune their approaches to meet those required by the university. The peer learning activities encouraged students to develop their awareness of self and others, and by so doing, increase their learning confidence and motivation.

The one surprising thing I found with my interview was that it's not just me who struggles. It seems that everyone does even if they don't show it. Makes me feel a little better knowing that I am not alone. Activity 2 (A2) forum post semester 2 (s2)

Insight into their own development and learning progress was facilitated, an important ingredient of students' engagement, according to Nelson, Readman and Stoodley (2017).

I lacked confidence at the start of the semester but I have grown a lot in my own confidence and knowledge. Activity 9 (A9) forum post semester 1 (s1)

*Highlighted by international students was the extra challenges faced when coming to study in a new country with a new language and slang. Their posts nicely put things into perspective and were another gentle reminder that so called 'barriers' are in your own mind.*A9 post, s2

Achieving a more realistic perspective about their own learning skills and how these impacted on the quality of their learning was another consequence of peer engagement. This is important as unrealistic assumptions can be disjunctive with the realities of higher education (Roberts, 2011). Increasing self-awareness, as noted by Devlin and McKay (2017), is an important factor in students' success.

I have learnt perfection is, realistically, an unreachable goal for anyone. Suffice to say, it is possible to do good work, without placing the expectation on myself to do 'perfect' work. I did still expect a lot from myself, but I learnt to prioritise what was important and not exhaust myself trying to perfect everything. I'm glad I recognised this early and was then

able to set realistic goals that were attainable. Identifying my learning style and strategies assisted me with this. Assignment 2 (Ass 2) reflection s1

Students' reflections not only revealed how much students learnt from each other but also that they recognised that they needed to apply this kind of learning to their future professional practice.

One post which I particularly enjoyed was about how different cultures interact with their family, what their expectations are, and how each culture can approach different scenarios differently. That is something that needs to be kept in mind whilst nursing as Australia is a very culturally diverse country. A9, s1 post

This interview helped me see how important time management is, a tool which will also help later on in my career as nurse. Ass 2 reflection s2

I enjoyed reading the posts as some of the issues brought up were inspiring and had me thinking of other risk factors when I'm at work. Ass 2 reflection s1

These observations suggest that the insights peer learning provides can be a powerful motivator, making a difference in student attitude and widening students' understanding of its implications for nursing.

Repositioning expectations

Peer learning enabled students to recognise that their expectations may be naïve or inappropriate. Devlin and McKay (2014) argue that unfamiliarity with university may be disjunctive to transition.

I didn't have much of an idea of what to expect from university, it was just the direction I was heading, so my original thoughts were based more on the obvious and therefore not inappropriate at all. Post, s1

One interviewee's initial discomfort also helped her student interviewer to understand that transition is a process, one that takes time, a thoughtful approach and at times a degree of discomfort.

Whilst it can appear daunting at first she assured me that once you understand the requirements and expectations, everything becomes second nature. I have known Sarah for a very long time and to me she is highly intellectual and certainly capable, so when she explained to me that there were times she felt really lost I was certainly surprised. Post, s2

The data revealed that the interview assisted in overturning students' unrealistic expectations in relation to many key aspects of university study. Students had expected an absence of support, felt they needed to accomplish tasks solo, misunderstood the time required for study (as in either too much or too little), were apprehensive about the composition of the student body, were overwhelmed by the volume of work, and inaccessible teaching staff. Maguire et al. (2017) argue that overcoming fears such as these enhances students' affective and cognitive engagement, key to increasing their persistence at university

An inappropriate expectation I had about studying at university was that there would be no extra support available. I have found this to not be the case and in fact there are lots of different support facilities available for students. All you have to do is ask! s1 post

I expected a militaristic like institution where you either kept up to date and did well or you failed miserably, and the entire onus was on you and that the lecturers were there to teach and not to help you. Oh how wrong I was, the support for students was unprecedented. Their compassion never ceased to amaze me. s2 post

One expectation I had about learning at university is that there would be hundreds of people all doing the same subject at the same time and I would not be able to ask questions and if I did I may not receive answers. It does not take a lot of your time to use and read through the forums as they can help you a lot. s1 post

Research (Devlin, 2012; Kahu, 2013) of the strategies which help students succeed found that institutions who support engagement with and support from others are more effective in generating a sense of belong. That peer learning engenders these connections, alleviating feelings of dislocation, and promoting an empathetic approach confirms its applicability in first year curriculum design.

One expectation I had about learning at university was that it would be difficult to get in connect with the teachers. This has definitely been proven wrong as every time I have had an issue my teachers has responded the same day and been extremely helpful. I have noticed the prompt response to other students by teachers and peers on the forums. s1 post
One of the biggest transformations of coming straight from school is independent study and knowing that you're responsible for the completion of your work (not being chased by teachers all the time). However, I found comfort during my interview as I was informed that there are always university staff members, whether they be my lecturers or the course 'Meet-Up' teams, who are always willing to assist with the course work and to ensure that they are providing the most sufficient content for you to learn. s2 post

A9 posts reinforced the importance of students being able to balance completing priorities as well as apply self-discipline are capacities that Devlin et al., (2012) identify as crucial to students' success.

I have realised that my expectation of the time required to complete my course work was unrealistic. Thankfully I re-evaluated my timetable and shuffled work and family commitments to be able to allow sufficient time to complete all the required tasks. s1 post

Mature age students were surprised to discover that their vulnerabilities about "standing out", being different or that studying online would be isolating and lonely for them, were unfounded.

One expectation I had that was inappropriate was that I would be a part of the minority as an adult student. This belief almost reduced my willingness to go to university as I thought I would be isolated and an outcast. This of course, was a complete misunderstanding and to my surprise, I have found that there are a lot of adult students.s1 post

One expectation I had was that as an external student it was important for me to learn to study on my own and not expect to have other students to socialise and study with. This definitely was not appropriate and thankfully turned out to not be true and I have met some wonderful people this semester.s2 post

Students' evidence revealed that through peer learning they gained a greater perspective about their studies and their approaches to learning that increased their engagement and the quality of their learning.

Incorporating personalised problem solving strategies

The peer interview and subsequent forum posts was key in assisting students to think about and develop their problem solving capabilities. In semester 2, 2016, one of the online tutors summarised the strategies developed by her forum group (the Resuscitators) in Activity 2:

Strategies summarised from The Resuscitator's forum group's responses to Activity 2, The Student Interview
• It's quite normal to feel overwhelmed at this early stage of your studies.
• Being organised will help you to keep on-track throughout your studies – wall calendar showing all work, due dates – technological help (reminders on phone, computer, etc.).
• When creating a schedule be sure to include all aspects of your life (family, friends, rest, study and/or work) so you can develop the skill of balancing all of your commitments in a healthy manner (your life/study balance now; life/work balance later).
• Review your schedule/plan regularly to make sure it reflects reality (e.g. some courses or assessment items require more time than expected). Regular adjustments may be necessary until it is 'just right' for you.
• Remember to take breaks and 'you' time – go for a walk, have a cuppa with a friend, play some music, read a book – but remember that sometimes you <i>will</i> have to prioritise study.
• Stress management – take a break, go for a walk, take some YOU time, talk to someone – remember that no-one can do everything and no-one can take everything in at once.
• Complete weekly activities and posts so you remain on-track; incorporate your feedback.
• Keep checking your emails, course pages and forums regularly because there's a wealth of information and resources that will be provided to you via these channels. It will help you to keep up and make sure you don't miss important information.
• Have a dedicated, distraction-free workspace for your studies – then everything is at your fingertips and you can leave things, knowing everything will be as you left it when you return.

<ul style="list-style-type: none"> • When working on assessment items, work on the most difficult/complex ones first and pay attention to the weighting (% value) of each, to use your time effectively.
<ul style="list-style-type: none"> • I.T. advice – having a reliable computer, up-to-date software (including anti-virus), reliable internet access and regularly back up your work (USB, external drive or even email it to yourself).
<ul style="list-style-type: none"> • Never be afraid to ask for help because your lecturers and tutors are happy to help.
<ul style="list-style-type: none"> • There are great resources to help you with your studies – fellow students, lecturers, tutors, The Learning Centre, Meet Up, the library.

Table 3: Summary of Activity 2 responses detailing students’ problem solving strategies

The range of the strategies identified by students in just one forum group demonstrates the power of peer learning in assisting students to develop their problem solving capacities. That students are able to distinguish these, as well as apply them to their future study endeavours, documents their impact on students’ development of self-efficacy and resilience. These capacities are vital, especially in regional universities as research reports that problem solving in relation to balancing study with family and work responsibilities, unfamiliarity with university expectations, a lack of preparedness with university literacies, technology issues and financial insecurity can disrupt study and mitigate against transition and retention (Devlin et al., 2012).

Developing sources of support

One of the most potent problem solving capacities is that of seeking help and support (Lawrence, 2005). Research highlights the need for support services to be made explicit and widely publicised (Gale & Parker, 2014). The evidence here indicates that peer learning provides a credible and pertinent method for disseminating the availability of support coupled with the importance of seeking it out.

Further discussions with Dulcie led her to divulge that I should utilise all resources available to myself. Due to my introverted personality I am less likely to seek help from others. With her advice I have realised my studying would be made easier if I seek help from sources, such as my lectures and other students. A2, s1 post

One surprising thing I discovered during my interview is how holistic the university environment is. Students are encouraged to network and expand their educational experience well beyond the four walls of the rooms. A2, s2 post

Other students identified the importance of peer learning in developing friends and support.

I realized that I have to become more socialize to make more friends. As my communication skill is poor I could not make more friends. So, in next semester besides working hard I will improve my communication skills and also become more social. s1 ass reflection

A strength that I will use this semester is that of being an extrovert where it will help me work alongside my peers in university to help one another out just as communication is important within the nursing field to benefit the patients. s2 post

Students described the power of peer learning in building their sense of belonging, a key ingredient for success, according to Nelson, Readman and Stoodley (2016).

Sam discussed with me the transition into tertiary level study. She said to me “Ask. Don’t waste precious time unsure and uncertain, you will have a lot to do. It is almost guaranteed someone is having the same thought and your tutor has probably answered the same question. You can learn a lot from others. Use the forums, talk with other students, and email your tutors and coordinators. s2 post

Students were also alerted to the importance of informal peer learning (Boud & Lee, 2005), which Kift (2009) reports is crucial in helping students engage with study.

She also said to ‘make friends at uni, having someone who is going through the same thing can make it easier, someone to talk too when things are getting tough’. Ass reflection, s2

In relation to the first-in-family experience, O’Shea (2016, p.17) argues that accessible forms of systematic and timely support that “travels with learners as they move through their university programs

is critical for those who do not have access to intergenerational knowledge about university systems and procedures”. O’Shea argues that students generally respond more to support and interventions that proactively engage with them rather than being expected to seek this out. The evidence confirms that the interview activity (by asking students to connect with an experienced student) proactively engages students in an intervention where they not only develop their self-efficacy but also reinforces the idea that a critical skill is their capacity to access the abundance of support universities offer.

The value of peer learning

Many posts, both intentionally and unintentionally, confirmed the benefits of peer learning: in particular that it assisted students to improve their learning and engage and connect with each other.

Participating in forum discussions has been fantastic in not only learning but also getting to work with classmates. A9 post s2,

Students identified the value of peer learning both for their study and future nursing practice as well as for fuelling their motivation and resilience.

Reading other peoples' posts is insightful. It is so good that we can all help each other because in the future in our nursing roles that is what we will be doing, working in teams and supporting each other. A9, s1 post

The fact we were expected each week to contribute to online engagement was fantastic, not only did we get to chat with other students but we also got the chance to see what other students were thinking and know we weren't alone if we were struggling with anything. The feedback given by the tutor at the end of each week was a massive help in knowing we were on the right track! A9, s2 post

We all learn so much from others through their different understandings of perceptions of tasks and different cultural understandings. I love reading the posts. It makes me realize lots of things. They help me build my learning strategies and motivate me to do my best. Post s1

Activity 1 asked students to nominate a source of support. Consistently, across the cycles, students nominated peer support and learning as a key to increasing their sense of connection and belonging.

Talking with Kerry did give me more insight into group study and how studying with peers can help reduce study anxiety with being able to talk over issues. s2 post

A surprising thing that came out of the interview was the importance of interaction and co-operation with other external students. I was made aware of the value that peer support can offer during university studies, that having other people who are going through the same experience to bounce ideas off of and to offer/receive encouragement is very helpful. s1 post

Activity 9, which asked students to reflect on their learning skills, proved valuable for many students who were able to enunciate a more effective learning approach for their next semester of study.

I have been adjusting how I do things throughout this semester; making progress and discovering new strategies to be more effective with my time and work quality. I am a workaholic and find it hard to turn down shifts, which leaves less time to study. I will have to learn to say no to my work and use the time to study more! Ass reflection s1

I've always been a fan of social media but never knew how valuable it really was as an educational tool until talking with Cinderella, I was unaware that each subject has its own face book group. I am learning to utilise this social media to my best advantage, connecting with other students and hearing different perspectives and different interpretations which are also helping clear up some questions when it comes to assignments. s2 post

M's number one rule for students at university is to 'get involved.' Get involved in everything the university has to offer to get the most of your time and experience as a student studying any degree which I found extremely surprising was to 'get involved.' She states "See what your campus has to offer and just be involved in everything you think will benefit you, whether it be helping you in your career in the future or just in that very

moment physically and emotionally”. At first this statement took me by surprise however really thinking about it made more sense the more I thought of it. University is about putting yourself out there and getting the most you can out of your campus for yourself and your education. S2 ass1 reflection

The learning strategy that I will put into place next year is to focus on my feedback from my assignments and extend my learning through the Learning Centre. I believe in improving we have to take the criticism and work on what we need to improve on so we can better ourselves throughout not only study but life in general. Ass 2 reflection s1

Conclusions and Future Research Directions

The research findings confirm the value of peer learning for student engagement and quality learning. Emerging from the data were benefits related to gaining insight into self and achieving perspective, repositioning expectations, incorporating personalised problem solving strategies, and developing sources of support. Woven through these themes were threads related to the communication capabilities of seeking help, making social contact, participating in groups, seeking feedback and saying ‘no’. Future research directions include the continuation of the longitudinal study investigating the benefits of peer learning. For instance, feedback from students could be sought in their second or third years to assist in ascertaining whether or not the positive effects gained through peer learning opportunities in their first year can persist into the latter years of their studies. Such feedback could also clarify if students continued to engage in peer learning opportunities as well as assist them to appreciate the benefits that peer learning could provide as they transition into their future professional careers.

Perhaps the last word can be left to a student who, in reflecting on her learning, discusses how her initial frustrations transformed into quality learning or, as she puts it, “*an internal generation of energy*”.

Over this semester, my learning skills have gotten keener. I have benefitted from identifying my own learning style, strengths, and weaknesses, and implementing strategies to support my learning. However, an overlaying mindset in my approach to university study has been firmly established that includes making myself and my learning to prioritise in my day to day activity. To engage fully in activities not only to achieve learning outcomes, but to develop broader conceptual skills and their application has been a revelation to me. Initially, the online components seemed like another basic course that one seems to encounter on any study program, and one which I met with frustration. This was an inappropriate conception. I resented having to respond to online forums, and considered to be required to read everyone else's responses (let alone reply to them), an imposition on my valuable resource of mental energy. My mental energy is, to me, a premium. I guard my energy carefully, lest my ability to verbally communicate, think, and function throughout the day are compromised. Initially I was resistant to engaging in anything more than what I had too. Over the semester, information on the reasoning behind the extended engagement has surprised me. I am glad now that I persevered, participated in forums and engaged in the university culture, as I feel an internal generation of energy that draws me toward my study daily from these activities. My own perceptions can and have been the limitations on developing better skills in thinking. (A9 post, s2)

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