University of South Australia

Final Report

Preparing first year students studying on-campus for online learning: a pilot project

UniSA Learning and Teaching Development Grant Scheme 2019

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Contents

Background

The learning and teaching context at the University of South Australia (UniSA) is changing, influenced by the Digital Learning Strategy (2015-2020), transitioning from solely traditional classroom learning to incorporating digital online learning environments and technologies across programs. Consequently, the meaning of on-campus or internal enrolment is changing; many on-campus students are now required to study fully online courses in their first semester of university and all students will study courses in hybrid format. However, first year on-campus undergraduate students are predominantly school-leavers and they enter their degree expecting traditional, classroom-style, structured learning in their courses. As a result, there is a potential mismatch between students' expectations and the reality of their university learning experience. This contrasts with the expectations of UniSA Online students, who commence their degree in the knowledge that all learning will occur in an online environment.

The delivery of courses in an online format offers potential advantages to students, such as greater flexibility, with reduced face-to-face commitments and the ability for students to learn at their own pace. This is supported by course evaluation feedback from UniSA students undertaking a hybrid course (HLTH 1044 SP2, 2018) as part of an on-campus program, such as *"…it was handy to have the flexibility of half online/half in person*" and "*The major strength of this course is that it is predominantly online, which alleviates much pressure when it comes to attendance*". However, significant barriers and challenges exist for students studying online courses, including time management, understanding and navigating the website or learning platform, locating resources, and motivation in a self-directed environment (Muilenburg & Berge, 2005; Song, Singleton, Hill, & Koh, 2004). This mirrors other feedback received from UniSA students in the same course, such as, "*With the entire course being online it was difficult to find motivation to do the lectures/tasks*" and "*Hated the idea of the course being totally online. Was way too hard to keep up to date when there were no face to face lectures or tutorials weekly*".

Managing the expectations of on-campus students and adequately preparing them to succeed in an online learning environment is crucial for student engagement, including elements of affect, cognition and behaviour (Kahu, 2013). First-year UniSA students have indicated negative affective and behavioural elements of engagement in their course evaluation feedback (examples above), which may impact on student learning, satisfaction and wellbeing (Kahu, 2013). First year on-campus students studying online courses enter this digital learning environment during a period that requires rapid adaptation to the adult-learning principles and expectations of tertiary learning institutions. However, support for students to manage and succeed in this unexpected learning environment is not being consistently provided; there is no systematic provision of orientation or preparation for self-directed online learning for on-campus UniSA students studying courses online. UniSA Online offers an example of best practice, delivering a compulsory online orientation and first term course which prepares students for online learning.

Although course evaluation feedback provides valuable insights into the student experience upon completion of a hybrid course, readiness of UniSA on-campus students for online learning, including their perceptions and confidence in their abilities to learn online, has not been systematically evaluated. As such, it is currently unclear how on-campus students feel about the prospect of online learning; do they feel ready and capable to learn online? Self-efficacy, or the perceived ability to perform a given task, affects academic performance (Stajkovic, Bandura, Locke, Lee, & Sergent, 2018); students with higher self-efficacy are more likely to maintain their self-confidence and persist when challenged. In the university setting, low self-efficacy and lack of satisfaction is linked with university dropout and poorer academic achievement (Chambel & Curral, 2005; McKenzie & Schweitzer, 2001). Furthermore, self-efficacy and performance are suggested to be reciprocally linked, with poor performance leading to lower self-efficacy in subsequent tasks (Talsma, Schüz, Schwarzer, & Norris, 2018). Self-efficacy is also domain-specific (Lent, Brown, & Gore Jr, 1997; Putwain, Sander, & Larkin, 2013); thus, students who feel confident and capable in face-to-face learning will not necessarily have similarly high self-efficacy for online learning. Accordingly, assessing students' self-efficacy, or readiness, for online learning and the provision of adequate supports to facilitate online learning is critical; students' experiences in first year online courses will influence their self-efficacy and performance in further online learning throughout their program.

This project, funded through a UniSA Teaching and Learning Development Grant, was a pilot exploratory study, situated within the Division of Health Sciences (HSC) at the University of South Australia (UniSA), that aimed to understand students' perceptions of the online learning environment and determine students' readiness for online learning. This project further sought to determine whether preparing students for online learning through provision of an online module of resources would improve their readiness.

UniSA is committed to student wellbeing and providing a positive student experience; it is therefore imperative that we seek to fully understand on-campus students' perspectives of online learning. The knowledge gained from this study will provide valuable insights in determining how we can better support on-campus students' online learning experience and facilitate improvements in engagement in hybrid and online learning.

At the time of preparing this final report, we find ourselves in the midst of the COVID-19 pandemic, necessitating a dramatic and transformational shift to online learning at UniSA, both for academics and students. The nature of this pandemic has created conditions whereby all internally enrolled students, many whom would normally spend much of their week on campus, find themselves thrust into online learning with little to no preparation. In addition, many academic staff have never taught in the online environment and have been required to deliver quality teaching in completely new ways with no time and little resourcing. Thus, the intent of this project has immediate relevance to the university, and to teaching and learning in higher education globally.

Aim

To determine whether preparing on-campus students for online learning improves their readiness.

Objectives

1. To determine the readiness of two cohorts of first-year, on-campus UniSA students for online learning;
2. To garner first-year on-campus UniSA students' perspectives of online learning;
3. To explore UniSA staff perceptions of barriers to and facilitators of online learning;
4. To determine whether an online learning Orientation Module impacts student readiness for online learning.

Amendments to original project objectives and methods

The project design was amended from that originally planned due to a number of factors outside the control of the project team, described below. Table 1 indicates the original project plan, and Table 2 outlines the amended project phases.

Table 1. Original project plan: Preparing first-year students for online learning

Phase	Description	Timeframe
Phase 1	• Focus groups with students and tutors in online/hybrid delivery course at UniSA (internal students) to inform development of online learning Orientation Module • *Learning Outcome Evaluation Point 1, Course 1:* Students in HLTH 1044 invited to complete the Student Online Learning Readiness (SOLR) questionnaire.	SP2
Phase 2	• Design of Orientation Module informed by literature and focus group findings. Development undertaken by a Research Assistant and Online Educational Designer. • Pilot test Orientation Module.	Late SP2/ mid-year break
Phase 3	• *Learning Outcome Evaluation Point 1, Course 2:* Students enrolled in HLTH 1049 invited to complete the SOLR questionnaire (T1). • Orientation Module made available to HLTH 1049 students. • *Learning Outcome Evaluation Point 2, Course 2:* Mid-way through HLTH 1049, students invited to complete SOLR questionnaire (T2), to compare with initial SOLR scores. • *Learning Outcome Evaluation Point 3, Course 2:* After mid-point of HLTH 1049, students invited to participate in focus groups to explore student perceptions of the Orientation Module.	SP5

The project team had sought project funding for an external Online Educational Designer (OED) support and a research assistant to design and develop the online learning Orientation Module. The module was the key deliverable for this project. However, the project was not funded for this specific budgeted component; instead, the project team were given in-principle support to access OED support through the UniSA Teaching Innovation Unit (TIU). Unfortunately, there was a significant delay in the project team's ability to access this internal OED support due to TIU resourcing constraints. Due to this lack of resourcing for the Orientation Module development, this deliverable was unable to be developed. On advice from the assigned OED, a number of resources designed to support students in online learning were collated and provided to students in HLTH 1049 in place of a discrete, packaged online learning Orientation Module, as originally planned. These resources were existing supports offered through UniSA, but through disparate web locations.

In addition to the lack of resourcing for the design and development of the online learning Orientation Module, the project team encountered a very poor participation in the student focus groups intended for Phase 1 of the project, with just one respondent. The project (and ethics application) was amended to deliver an additional online student survey to supplement student focus groups. This is reflected in the amended project plan and results. Further, due to the lack of an Orientation Module product, the final learning outcome evaluation (Learning Outcome Evaluation Point 3, Course 2) focus groups were not conducted. Table 2 outlines the amended project phases undertaken for this project.

Table 2. Amended project plan: Preparing first-year students for online learning.

Phase	Description	Timeframe
Phase 1	• Focus groups conducted with on-campus enrolled students and tutors in online/ hybrid delivery course at UniSA to inform development of online learning Orientation Module • *Learning Outcome Evaluation Point 1, Course 1:* Students in HLTH 1044 invited to complete the SOLR questionnaire. • Online survey of students that had enrolled in /undertaken an online course to garner perceptions of online learning.	SP2
Phase 2	• Collation of existing materials for online learning support	Mid-year break
Phase 3	• Online learning support resources made available to HLTH 1049 students prior to course start (T1). • *Learning Outcome Evaluation Point 1, Course 2*: students enrolled in HLTH 1049 invited to complete the SOLR questionnaire. • *Learning Outcome Evaluation Point 2, Course 2*: Mid-way through HLTH 1049, students invited to complete SOLR questionnaire (T2), to compare with their initial SOLR scores.	SP5

Methods

Participants

This project involved four data collections across three topics, involving UniSA students and staff within HSC aged 18 years and over. Participant age was confirmed at the commencement of each data collection.

Student Online Learning Readiness (SOLR) Questionnaire

Students enrolled in HLTH 1044 Foundations of Physical Activity and Health (SP2, 2019; n = 351) and HLTH 1049 Introduction to Evidence Based Practice and Research in Health Sciences (SP5, 2019; n = 502) were invited to participate in the SOLR questionnaire via email from their Course Coordinator.

HLTH 1044 is a first-year core course within multiple programs (IHCP, IBHT, IBXS) in the School of Health Sciences (HLS), UniSA. It is a course delivered in hybrid format, with most teaching and learning undertaken online except six face-to-face workshops involving group work.

HLTH 1049 is similarly a first-year core course within multiple programs, different to those that take the course HLTH 1044 (IBRS, IHOC, IHPZ, IBOP, IBHL) in HLS, UniSA. This course is also delivered in hybrid format, with lectures held on campus and tutorials undertaken online.

Student Perspectives of Online Learning

HSC students who had taken a first-year hybrid/online course in 2018 or SP2 2019 (HLTH 1044, HLTH 1049, HLTH 1025) were invited to participate in focus groups via an email from the relevant Course Coordinator. Due to an inadequate student response rate for the focus groups, and following ethics protocol amendment approval, the same HSC student cohort were contacted again and invited via email from their Course Coordinator to participate in the Student Perceptions of Online Learning (SPOL) survey.

Staff Perspectives of Online Learning

Teaching staff from four hybrid/online HSC courses (HLTH 1044, HLTH 1049, HLTH 1040 and HLTH 1025) were invited via email to participate in focus groups.

Procedure

The UniSA academic year comprises two major study periods; Study Period 2 (SP2) from March to July and Study Period 5 (SP5) from July to November. The three phases of the project were aligned to these major study periods.

The staff and student focus groups and SPOL survey were all conducted during SP2. Participants completed the SOLR via an online survey in the first week of commencement of HLTH1044 (SP2) or HLTH1049 (SP5) (T1). Students in HLTH1049 (SP5) were also invited to complete the SOLR at the midpoint of the course (T2) to determine whether the provision of supports for online learning contributed to improved readiness for online learning as measured by the SOLR instrument.

Figure 1 provides a timeline overview of the project's data collection points throughout the 2019 academic year.

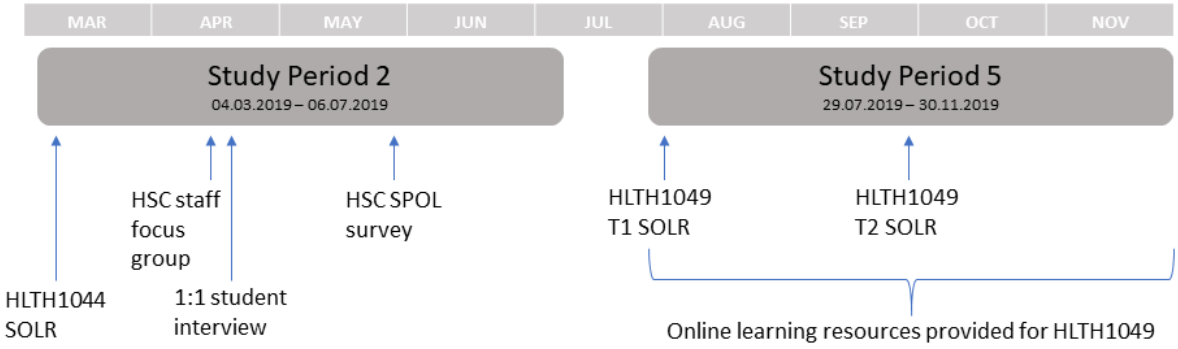

Figure 1. Project Data Collection Timeline.

HSC = Division of Health Sciences, HLTH1044 = Foundations of Physical Activity and Health, HLTH1049 = Introduction to Evidence Based Practice and Research in Health Sciences, SOLR = Student Online Learning Readiness, SPOL = Student Perceptions of Online Learning.

Online Learning Resources

On advice from a UniSA OED, the project team collated resources to support online learning for students in HLTH 1049 (SP5, 2019). These resources were provided to the HLTH 1049 course coordinator, who added them to the learnonline course site in a separate section titled "Online orientation". The specific resources collated were chosen based on the themes that emerged from data on student and staff perceptions of online learning conducted in phase 1 (SP2). A screenshot of these collated resources is depicted in Figure 2.

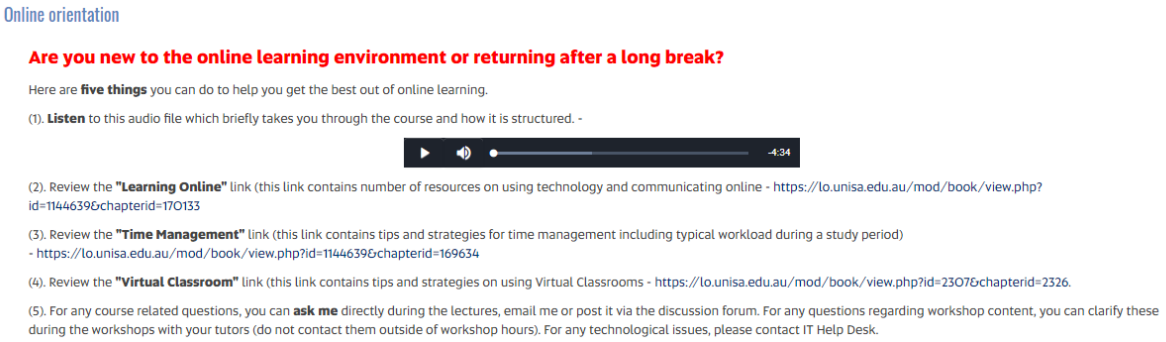

Figure 2. Online learning support resources (HLTH 1049, SP5 2019).

The five resources provided to students included:

1. An **audio file** introducing students to the course: https://lo.unisa.edu.au/pluginfile.php/2366223/course/section/316183/Online%20experience_2019.wav
2. An **introduction to Learning Online** developed by the UniSA Student Engagement Unit: https://lo.unisa.edu.au/mod/book/view.php?id=1144639&chapterid=170133
3. A **Time Management** resource developed by the UniSA Student Engagement Unit: https://lo.unisa.edu.au/mod/book/view.php?id=1144639&chapterid=169634
4. **Virtual Classroom** tips and strategies: https://lo.unisa.edu.au/mod/book/view.php?id=2307&chapterid=2326
5. Course Coordinator contact instructions and expectations.

Outcomes

Student Readiness for Online Learning

Readiness for, and confidence in, online learning was measured by the Student Online Learning Readiness (SOLR) Instrument (Yu & Richardson, 2015). The SOLR is a valid and reliable measure of learners' social, communication, and technical competencies for online learning (Yu, 2018; Yu & Richardson, 2015). The twenty-item questionnaire takes approximately 5-10 minutes to complete and includes four factors: technical competencies (6 items), social competencies with instructor (5 items), social competencies with classmates (5 items), and communication competencies (4 items) (see Appendix 1 for complete SOLR instrument). Level of agreeance with each item is indicated on a 5-point Likert Scale (1 = Disagree, 2 = Tend to disagree, 3 = Neutral, 4 = Tend to agree, 5 = Agree). Individual scores for each item are aggregated to provide a mean score for each factor and a total mean score.

Staff Perceptions of Online Learning

In-depth staff perceptions of online learning, including facilitators and barriers to successful online learning and the potential utility of an online learning orientation module, were gathered via a focus group. The focus group included questions about staff experiences, perceptions and expectations of teaching in an online course. The focus group also involved questions to encourage discussion about what staff thought would be beneficial in an online orientation module (see Appendix 2 for focus group question guide). The focus group was facilitated by a research assistant and the Chief Investigator (KB). The facilitators kept a brief written record of key points raised throughout the session and it was audiotaped to ensure accurate analysis and accountability.

Student Perceptions of Online Learning

It was originally envisaged by the research team that in-depth student perceptions of online learning would be gained from focus groups. As a result of the inadequate student response to focus group participation, insights from the single student respondent were gathered via one-on-one interview with one of the Chief Investigators (KF) (see Appendix 2 for interview questions).

Additionally, a 5-minute online SPOL survey was used to gain perspectives of a larger number of students. This bespoke survey was based on previous literature, UniSA student feedback around barriers and facilitators to online learning and was framed to address the research objectives. The survey instrument has not been tested for validity or reliability. The survey contains both multiple-response and open-response questions and takes approximately five minutes to complete. It includes questions about previous university courses undertaken (2 questions), aspects of online course delivery that the participant enjoys and finds difficult (2 questions), and the potential benefits of orientation or other preparation for online learning (3 questions) (see Appendix 4 for complete survey questions).

Ethics

Ethical approval to conduct this study, including a study protocol amendment, was granted by the UniSA Human Research Ethics Committee (Application ID 202054). All potential participants in the online survey were provided with an information sheet that they were required to read prior to participation, thereby giving informed consent. Focus group participants provided written informed consent prior to participation. Approval to contact HSC students and staff was granted by the Pro Vice Chancellor: Health Sciences.

Data analysis

SOLR instrument

Scores from each individual question in the SOLR instrument were aggregated to calculate mean scores for each of the four factors (Technical Competencies, Social Competencies with Instructor, Social Competencies with Classmates, and Communication Competencies), as well as a total mean score. The scores for each group of students were summarised using descriptive statistics, tables and graphs. SOLR results reported in the literature by Yu and Richardson (2015) have been used for comparison. This study is the best available published data with factor mean scores provided for university undergraduate students with which to compare our participants.

Although some group factor scores were not normally distributed, means and standard deviations (SD) were provided in addition to medians and interquartile ranges (IQR), to facilitate visual comparison with Yu and Richardson's (2015) results, which only reported means and SD. Statistical comparisons were made between the HLTH 1044 and HLTH 1049 T1 groups, as these were two distinct student groups with SOLR data collected at course commencement. Comparisons were also made between the HLTH 1049 T1 and HLTH 1049 T2 groups, to determine whether there was a difference over time in 'readiness' among these students. Comparisons were made using Independent T-Tests or Mann-Whitney U Tests for normally and non-normally distributed data, respectively. All statistical analyses were conducted in SPSS (Version 23; SPSS Inc., 2009) with the level of significance set to 0.05.

SPOL survey

Quantitative data from the SPOL was summarised using descriptive statistics. Qualitative data from open responses was analysed thematically and narratively summarised, with example quotes provided in tables.

Focus Group data

Audio data from the staff focus group and the student interview were transcribed verbatim and analysed thematically. Themes were summarised narratively, with example quotes provided in tables.

Several techniques were employed to ensure rigour in the qualitative data collection, analysis and interpretation processes. These included use of the focus group question guide, audiotaping focus groups, verbatim transcription of the audio recordings by an independent and external service, and cross-checking coding, theming and interpretation of data by more than one researcher.

Results

Student Readiness for Online Learning

There were 129 eligible (aged 18 years or older) respondents to the SOLR questionnaire from the HLTH 1044 cohort (n = 351), resulting in a response rate of 37%. In the HLTH 1049 cohort (n = 502), there were 96 eligible respondents at T1, and 58 eligible respondents at T2, yielding response rates of 21% and 13%, respectively. It is unknown how many students in each of these cohorts were aged less than 18 years; thus, the response rates are approximate and would be in reality slightly higher if ineligible students were not included in the total sampling frame.

Table 3 shows the descriptive statistics of the factor and total mean score results for each group, with comparison to Yu and Richardson's (2015) results. Of the four factor mean scores, HLTH 1044 scored highest in Factor 2: Social Competencies with Instructor, with a median score of 4.00 (IQR = 1.20). Both groups of HLTH 1049 scored highest in Factor 1: Technical Competencies, with median scores of 4.08 (IQR = 0.83) at T1 and 4.50 (IQR = 0.83) at T2. All three groups scored lowest in Factor 3: Social Competencies with Classmates, with median scores of 3.40 (IQR = 1.20) for HLTH 1044, 3.20 (IQR = 1.20) for HLTH 1049 T1 and 3.20 (IQR = 1.60) for HLTH 1049 T2.

Table 3. Student Readiness for Online Learning Results

		F1: Technical Competencies				F2: Social Competencies with Instructor				F3: Social Competencies with Classmates				F4: Communication Competencies				Total			
Course	Time	*n* =	Mean (SD)	Median (IQR)	Range	*n* =	Mean (SD)	Median (IQR)	Range	*n* =	Mean (SD)	Median (IQR)	Range	*n* =	Mean (SD)	Median (IQR)	Range	*n* =	Mean (SD)	Median (IQR)	Range
HLTH 1044	T1	127	3.71 (0.68)	3.67 (0.83)	1.83-4.83	126	3.87 (0.77)	4.00 (1.20)	1.20-5.00	127	3.37 (0.85)	3.40 (1.20)	1.00-4.60	129	3.47 (0.69)	3.50 (1.00)	1.75-4.50	122	3.62 (0.60)	3.60 (0.81)	1.70-4.75
HLTH 1049	T1	96	4.15 (0.59)	4.17* (0.83)	2.67-5.00	95	3.85 (0.75)	3.80 (1.00)	1.60-5.00	95	3.26 (0.82)	3.20 (1.20)	1.60-5.00	96	3.89 (0.77)	4.00* (1.00)	2.00-5.00	94	3.79* (0.49)	3.78 (0.81)	2.85-5.00
	T2	57	4.36 (0.59)	4.50^ (0.83)	2.67-5.00	58	3.90 (0.88)	4.20 (1.20)	1.00-5.00	58	3.13 (1.14)	3.20 (1.60)	1.00-5.00	57	3.92 (0.70)	4.00 (1.00)	2.25-5.00	56	3.85 (0.60)	3.80 (1.00)	2.75-5.00
Yu & Richard -son		*331*	*4.25 (0.85)*		*1.00-5.00*	*331*	*3.71 (1.06)*		*1.00-5.00*	*331*	*4.27 (0.87)*		*1.00-5.00*	*331*	*4.31 (0.81)*		*1.00-5.00*	*331*	*4.13 (0.71)*		*1.00-5.00*

F = Factor, IRQ = interquartile range, M = group mean of individual factor mean scores, Median = group median of individual factor mean scores, Range = range of individual factor mean scores, SD = standard deviation, T1 = At commencement of course, T2 = At midpoint of course. *Indicates significantly different to HLTH 1044. ^Indicates significantly different to HLTH 1049 T1. Results reported by Yu and Richardson (2015) are reported in italics for comparison.

Staff Perceptions of Online Learning

The coordinators of four core hybrid/online courses within HSC were invited to participate in a focus group regarding perceptions of online learning. Coordinators were also asked to forward the invitation to their teaching staff to participate. A total of four staff participated in the focus group, held on 18 April 2019.

The key three themes (sub-themes in brackets) that emerged from the focus group were: *staff workload concerns* (managing/avoiding excessive emails from students, managing forums, importance of flexibility), *strategies to engage students online* (setting clear expectations, making information easy to find, structuring course requirements to encourage contributions, face-to-face orientation session, creating a supportive, sharing environment), and *concerns that students do not have the information technology (IT) equipment and software required* for online learning.

Minor additional themes included*: optimising online communication* (Virtual Classroom dynamics, encouraging student initiative in forum communications), *perceived challenges for students associated with online learning* (difficulties with time management and planning, face-to-face expectations), *lack of student engagement and perceptions that students are not taking it seriously or only engaging with assessed content, technical and navigation issues, importance of detecting and managing students who are struggling,* and *concerns about academic misconduct*. General experiences and feedback were also shared in the focus group (themes and examples are summarised in Table 4).

Table 4. Main themes arising from staff focus group, with example quotes.

Main Themes Sub-themes	**Example Quotes**
Staff workload concerns	
Avoiding excessive emails from students	"…I have had so many emails straight to me as course coordinator…they see it as much more accessible…" "I never highlighted myself as you can email me...I won't take responsibility out of any of my emails. I'll put it on the teaching forum…" "I've said openly to all of my tutors and all the students…we're only going to access emails from Monday to Friday, between 8:00 and 6:00…I just wanted to maybe protect all of us for a little bit. With 550 emails that you might get every week…"
Managing forums	"I'm finding the interaction on forums really difficult…we'd have 15 (*class-specific forums)*…so juggling all that is difficult." "…we also rostered certain hours through the week on the forum…I've been quite strong with all of our team about being responsible." "…one thing to improve the communication…I've given a report specific forum and then in that I've pinned section one questions go here, section two questions…then like a general, I don't know how to format it, I can't reference whatever…that's worked quite well."
Importance of flexibility	"…if you start to imposing rules on...we don't want to send an email during weekends, and you have set up your assessment just at the end of the weekend (*then)* it doesn't work, it's not flexible anymore...." "…I run the same session twice for those who can't come. And I mean it is largely because they're working."
Strategies to engage students online	
Setting clear expectations	"…expectations have come from the time budget I set up for the course…*(telling them what*) needs to be done by the end of the week…" "…I've got an etiquette on there..how I want us to talk. Responses of 24 hours we'll respond to a student forum…So it's all been upfront." "…we've tried to make it clear…you do need to set time aside for this course…and it's more than just timetabling in some way."
Making information easy to find	"…we have done an FAQ… When you have…a problem, first check FAQ, check the discussion forum, and then post your question..." "I've got a similar thing on mine...I've got a getting started tab, where it's like, if you're stuck, do this…" "…we can repeat in same information on different parts of the course…in the course outline, we'll put it in assessment, we repeat it there…so the challenge is to make sure that consistent all over the place, but…they have more chance to find information…"
Face-to-face orientation session	"…I've introduced a new week, which is foundation…including one face to face lecture…I've invited librarian to come and show them many things…I'll just show them how to access things…So I had less problems in people understanding how to navigate…"
Structuring course to encourage contributions	"Our students need to post every week, that sort of thing, to get certain marks." "…they're expected to do a tutorial question and post it…the following week we'll actually talk about it…*(so)* you have to be prepared..."
Creating a shared environment	"I try and I have a really nice classroom environment…we have shared jokes and shared culture, which I think is really important."

Concerns students do not have essential IT equipment/software	"…I think a real starting point is that you need to have a camera, basic stuff, you need to have the physical equipment..." "…I don't actually think many of my students would have a microphone" (*to verbally ask questions in VC).* "...if you're prepared to come to university, you need…access to a laptop, or use one of the library computers…a phone is not…enough." (S*tudents need to know)* "If they can download for free, I mean, actually telling them…"
Optimising online communication	
VC dynamics	"one of the student's mike is a problem, and we often have to turn her off…I don't want to do it, but it's sort of become a joke now…" "We have said…if you find your question would be easier to…talk it out…put your hand up, and we can turn on your microphone."
Encouraging student initiative in forum communications	"… because it takes longer for it to appear on the forum. There's that gap in time. The other thing is I wonder…whether students feel, Oh, that's a dumb question. I don't want to be seen in public asking a dumb question." "… I do wonder whether we need to encourage more peer to peer communication, rather than waiting for us to come in…"
Perceived challenges for students	
Difficulties with time management and planning	"…the students are really struggling with having to remember themselves to keep up with content…*(many students)* have just said because there's nothing in my timetable, I forget…."
Face to face expectations	"…they're seeing what they're getting in the other *(internal)* courses…some of our main feedback was, why can't the lectures actually be in person? …they want that contact, because they're an internal student and I can understand what they're saying."
Lack of student engagement	"One of them said in a forum, will I get assessed on this?...they're not compulsive things that are linked to assessment, but really it is…" The interaction in the general Q and A (*forum)*…is struggling…it was week three before a student actually asked a question…" "…The ones who don't appear are the people who aren't motivated and they think it's the bludge way of doing it…"
Technical and navigation issues with online learning	"…we had some technical dramas teaching them (*students)* to actually get to the place" (*for VCs).* "…we are definitely struggling is some students when last year we didn't have the Internet at all, so it's a problem…NBN drops, oh-no..." "…Because I'm a new coordinator, I didn't know all the formatting…I…had about 24 hour period where no student could access my forums, because of one button that used to be high level, and clear… that IT have now hidden …it didn't set the best first impression…" "…it takes us many phone calls… till we escalate support to a IT senior staff who said, "No, it's all wrong. Your links have not roll over. "…"
Detecting and managing students who are struggling	"One other thing I'd probably add would be bumping up student engagement unit…if they're struggling, go there early, because I had a student come to me…who had not participated in anything…she got to the end of week five and was like, I don't know where I am."
Academic misconduct concerns	"…students who were logging in (*to quizzes)* at the same time…giving you exactly the same patterns of right and wrong …"
General experiences and feedback	"We've found…that the virtual classrooms were in pretty well received overall… they seem to be enjoying that." "…I use zoom meetings, which are, the students found easy."

Student Perceptions of Online Learning

Student Interview

After inviting n=351 students to participate in focus groups, one willing and eligible respondent was subsequently interviewed about their perceptions of online learning on 23 April 2019. Three key themes (sub-themes in brackets) emerged: *online interaction differences* (lack of student interaction, no personal concerns with ability to interact with staff online, altered dynamics in virtual classrooms), *importance of attitudes towards online learning* (maintaining a face to face mindset, lack of accountability), and *improving online learning experiences* (clearly indicate course is online, set clear expectations and increase accountability, time management support, make VCs more dynamic and improve ease of communication). *Technology-related issues* and *general experiences* were minor themes. Themes and examples are summarised in Table 5.

SPOL Survey

A total of 1,657 students that had been or were currently enrolled in an on-campus HSC course across 2018 and 2019 were invited to participate in the SPOL survey, and n=147 students completed the survey (response rate = 8.8%). It is possible that a proportion of students contacted were not actively enrolled in their program at the time of the survey, and students aged less than 18 years were also contacted. The research team did not have information regarding active enrolment status or student age to determine eligibility or to calculate an accurate response rate. Sixty-two (42%) SPOL participants were currently undertaking an online/hybrid course; 84 (57%) took an online/hybrid course in 2018, and 55 participants (37%) had yet to complete a University-level course (Table 6).

When asked about the elements of online course delivery and learning that were enjoyable, the most frequent responses were “Flexibility of study time” and “Ability to study at own pace”, which were selected by 92% (n = 135) and 80% (n = 118) of participants, respectively. The remaining response options were each selected by less than a third of participants (Table 7). Six participants provided open responses; these referred to reduced travel time, additional study materials (e.g. YouTube videos), referring to weekly content at one’s own leisure, not relying on other students, and not liking online courses. More than half of participants selected “Unsure of what is expected of me” (n = 88, 60%) or “Lack of interaction with educators” (n = 86, 59%) as difficult elements of online course delivery and learning. The least frequently selected response to this question was “Access to technology”, which was selected by 10% of participants (n = 15); however, several open responses (n = 4) related to technology issues, including access to internet, availability of lecture content online, video information being unclear and navigating unfamiliar software. Other open responses related to lack of face-to-face communication, difficulty locating documents, lack of clarity with required

tasks, and slow responses from teaching staff. Two-thirds of participants (n = 97) felt they would have benefited from a short orientation to online learning as part of their program (Table 7).

When asked specifically what would benefit students to prepare them for undertaking an online course, 120 participants (82%) provided a comment. Four main themes emerged: *more explanation of online processes and assistance with navigating course site, setting clear expectations, help with time management,* and *more face-to-face opportunities or would prefer a classroom-based course* (themes and examples are summarised in Table 8). Fifty-nine participants (40%) responded to the final open-response question about their online learning experiences. The key themes that emerged were*: difficulties with online interaction and requesting more face-to-face, positive experiences with online learning and convenience, requests for more guidance,* and *problems coping with self-directed learning* (themes and examples are summarised in Table 9).

Table 5. Main themes arising from 1:1 student interview, with example quotes.

Main Themes Sub-themes	**Example Quotes**
Differences with online interaction	
Lack of student interaction	"…it's probably made me a bit more reclusive…you have classes (*face to face*) where you are meant to partner up with someone that you don't usually know or something. Yeah you definitely don't have that (online)…definitely I didn't meet any new people."
No personal concerns with ability to interact with staff online	"…I've had positive experiences with the tutors." "If there's an issue or anything, I guess I send an email or something. Everything's always been fine and properly sorted." "…whenever we do these classrooms, it's literally just me and my friend answering every question and I've never known why."
Altered dynamics in VC	"…I asked a question in the little chat thing and they wouldn't see it…they'd see it and address it later, but it didn't flow as well as…when you can see someone raising their hand in the class". "Definitely (*the dynamic is worse online*). Even fewer people contribute."
Importance of attitudes towards online learning	
Maintaining a face to face mindset	"…if I go, "Oh it's just an online class, that means I probably won't have to ask any questions because the teacher won't ask me anything specific", like, I won't be held as accountable. So I try to mitigate that. I just pretend it's a real class."
Lack of accountability	"But I also know that a lot of my other friends would literally just log onto virtual classrooms and then just walk away." "I don't think a lot of people take online classes seriously."

Improving online learning experiences	
Clearly indicate course is online	"…definitely from the beginning telling people that it's online will help, especially when it comes to…their timetable."
Set clear expectations and increase accountability	"I suppose a video tutorial doesn't hurt…showing people how to do this, log on properly, how to participate…" "…why is it wrong to say, "Okay [student's name], can you answer this question?" I feel like you do in a classroom, so that'll make people try harder, that will make people more accountable, and they'll take it more seriously."
Time management support	"…I do think a lot of students need just to, yeah do it whenever you want, but you have to have it this time, this day."
Make virtual classrooms more dynamic and improve ease of communication	" I don't know how well things will be communicated via microphones *(instead of typing in VCs)*…but…that solves a lot of the issues." "…the teacher will say (*in face to face classes*), "Okay, someone from this side of the room, answer a question…Do that with online…try to get everyone involved…So that way it feels more like a classroom…"
Minor technology-related issues	"…I've got a bad computer, so I do have to come to uni to do it, which can sometimes be a negative, but…it's been fine."
General online learning experiences	"I don't see any benefit for me…especially with the virtual classroom one, it's not as if I could do that in my own time..."

Table 6. SPOL Survey Participant Characteristics

		n = (%)
Online Course Enrolment	2018 HLTH1044	16 (10.8)
	2018 HLTH1049	29 (19.7)
	2018 HLTH1025	39 (26.5)
	2019 HLTH1044	45 (30.6)
	2019 HLTH1025	17 (11.6)
	Not stated	1 (0.7)
University-level Courses Completed	0	55 (37.4)
	1 – 5	12 (8.2)
	6 – 10	59 (40.1)
	10 or more	21 (14.3)
Courses Studied that Included Online Delivery	1	56 (38.1)
	2	22 (15.0)
	3	14 (9.5)
	4	24 (16.3)
	5 or more	31 (21.1)

HLTH1044 = Foundations of Physical Activity and Health, HLTH1049 = Introduction to Evidence Based Practice and Research in Health Sciences, HLTH1025 = Health and Society

Table 7. SPOL Survey Results: Multiple-Response Questions

	Response Options	n = (%)
Enjoyable Elements of Online Course Delivery*	Flexibility of study time	135 (91.8)
	Ability to study at own pace	118 (80.2)
	Technology-enhanced learning	41 (27.8)
	Clear expectations of me	26 (17.7)
	Ease of understanding course material	22 (15.0)
	Interacting with educators online	19 (12.9)
	Interacting with students online	8 (5.4)
	Other- provided open response	6 (4.1)
Difficult Elements of Online Course Delivery*	Unsure of what is expected of me	88 (59.9)
	Lack of interaction with educators	86 (58.5)
	Understanding course material	69 (46.9)
	Lack of interaction with other students	63 (42.9)
	Time management	50 (34.0)
	Course site design and layout	43 (29.3)
	Access to Technology	15 (10.2)
	Other- provided open response	10 (6.8)
Would Benefit From Orientation to Online Learning	Yes	97 (66.0)
	No	50 (34.0)

*Multiple responses possible (percentages do not add up to 100).

Table 8. Themes and Examples Responses to, "What do you think would benefit students in preparing them for undertaking an online course?"

Main Themes	Example Quotes from Participant Comments
More explanation of online processes and assistance with navigating course site	"A workshop explaining where everything is…"
	"...(knowing) what would be involved with the online component of the course"
	"An explanation of how online tutorials work…"
	"…a quick tutorial of the expectations and how to use the site. However in my course this was done, which really helped"
	"…where to seek help if needed"
Setting clear expectations	"…brief introduction into what is expected and what will need to be completed"
	"…clear outline of online participation expectations/tasks"
	"A list every week of what is to be done"
Assistance with time management	"Explaining the benefits and dangers of having to manage their own time with regards to their learning"
	"How to manage time…"
	"Keeping on top of things"
More face-to-face opportunities or would prefer a classroom-based course	"Where students can go for face-to-face help"
	"Information session face to face"
	"I think there should be an optional in class option…"
	"…optional workshop to meet the tutor…"
	"…I just prefer in-person courses"

Being told the course will be online when enrolling	"Being aware that the course is online before starting…" "Knowing how much of it would actually be online and that they have to learn everything themselves pretty much" "I think actually knowing the course is online…"
More opportunity for student interaction	"…make it easier for students to communicate with each other/ask questions (maybe a student forum the teacher can't see?)" "Meeting students"
Other (not relevant to orientation)	"Read well before answering quizzes" "Take the time and learn the content. It's not a race"

Table 9. Themes and Example Responses to, "Is there any other information you would like to provide with regard to your experiences in online learning?"

Main Themes	Example Quotes from Participant Comments
Difficulties with online interaction and requesting more face-to-face	"…I prefer having tutorials/workshops face-to-face, as I found it very difficult to have productive group discussions with other students in an online tutorial format…and you can't detect people's tone. I had difficulties getting help from my tutor…because…she couldn't see my body language and facial expressions to know that I was still not understanding and it was too difficult and time consuming to type out my queries in the online format…" "…posting on forums can be overwhelming…having more other types of interaction such as video chats or in person would be good" "I have found it difficult to get a clear answer to questions online compared with asking them face-to-face" "I find forum posting answers to course questions can be a bit stressful as whatever you write may be judged by the class"
Positive experiences with online learning and convenience	"…Being able to access content at any time is a huge benefit to my ability to succeed with courses" "I often prefer watching lectures online, as I like to be able to pause it and take notes and learn at my own pace…" "It is well suited for my lifestyle as I am a working parent" "Overall it was good experiences…would love to have more courses like that"
Requests for more guidance	"…more reminders about when to upload the online tasks…" "It is easy to completely miss important information…" "I never asked any questions on the forums because at the time, I didn't really know that there was a platform for me to interact…"
Problems coping with self-directed learning	"…we neglect the course more in comparison to the others…I think this is because there is less compulsory contact time…" "I really struggled, when I go to an in person lecture I keep myself accountable…In online courses I can just shut my laptop and tell myself I can do it whenever…"

	"It took me a few weeks to sort out how to best approach the online learning course…" "…finding the motivation was so hard"
Quality of course materials	"High quality video and audio essential"
Didn't like online course	"I'm not the biggest fan of it, this is the one course I feel least prepared for the exams…" "I thoroughly disliked the online course" "It was not an effective way of learning"
Other	"I am single mother and despise the extra data costs" "I find it frustrating that the cost of an online course is the same as one that has in person classes with many resources available …"

Key findings

This exploratory pilot project is the first to evaluate the readiness of a cohort of first-year, on-campus UniSA students for online learning and investigate the perspectives of both UniSA staff and students towards online learning. Limited research has sought to understand both staff and student perspectives of the online learning experience which can be compared; thus, this project will add rich information to this body of literature.

Overall, UniSA first-year, on-campus students enrolled in hybrid/online courses demonstrate limited 'readiness' across four domains critical to online learning. The limited readiness of our students to learn online observed from SOLR results was further reflected in open responses to the SPOL survey, with many students indicating they believe more support and guidance is needed to succeed in the online learning environment. Several students commented that they were not aware when enrolling that the course would have a significant online component and stressed the importance of this knowledge prior to commencement; this was echoed in the student interview. When combined with frequent student responses asking for more face-to-face opportunities, this suggests some students had unmet expectations of their on-campus student experience, and that greater communication with students at the outset regarding modes of study is critical.

While the vast majority of students cited flexibility in study time and pace as benefits to online learning, more than half of participants reported being unsure about expectations of them when studying online and reported a lack of interaction with educators as challenging elements of online learning. The staff focus group findings outlined strategies currently being used to support students in online learning, such as clarifying expectations of students and flexibility in options for communication between staff and students; interestingly, these appear to be the elements with which students continue to struggle most. Continued efforts to support teaching staff with training, time and resources to more effectively deliver online courses may be required.

Student responses from the survey indicate that guidance regarding online communication prior to course commencement, as well as learning designs that promote a safe learning culture in the online environment and foster students' sense of belonging, are likely to be beneficial. Students also appeared to find interactions with staff and peers difficult in the online environment. These issues identified by students were paralleled with a major theme of the staff focus group related to increased staff workload; staff reported challenges associated with facilitating student-initiated discussions on forums and a large volume of questions asked via email by individual students, rather than through forums provided for this purpose. Additionally, some students reported sub-optimal experiences in the virtual classroom environment due to (lack of) speed of the interaction when typing, staff and students not being able to see their body language or hear their tone of voice, and lack of clarity with answers from teaching staff. Teaching staff were cognisant of these potential communication difficulties faced by students and different dynamics in the virtual classroom, compared to face-to-face. Clear and specific guidance for students regarding how to communicate

online appropriately and effectively may assist in both improving students' efficacy for interacting with students and staff online and decreasing staff workload related to communication. In addition, opportunities for the development of authentic relationships between teaching staff and students, and within the student cohort, need to be embedded into the design of online curricula, creating an environment where students feel safe to participate and interact and have a sense of belonging to the learning community. This teaching environment and the relationships between staff and students has previously been reported by students as vital to their interest and success in a course (Kahu, Nelson, & Picton, 2017).

An interesting finding related to student access to IT resources. Staff in the focus groups were concerned that students do not necessarily have the IT resources and competence to successfully undertake online learning, although interestingly just 10% of SPOL participants selected "access to technology" as a difficulty with online learning and a quarter of students considered technology-enhanced learning to be an enjoyable aspect of online course delivery. There appears to be a degree of disconnect, whereby staff relate difficulties in student engagement online to technological-related issues, but student responses in this study suggest other factors, including motivation, online communication skills and the online learning culture are likely to be more critical to engagement and success with online learning.

While not within the scope of this project, strong themes emerged from the staff focus group regarding the high workload and effort associated with delivering online/hybrid courses in comparison to traditional face-to-face teaching. Staff indicated a need for greater assistance, training, and workload allowances to effectively implement best-practice online course delivery.

Through this comprehensive understanding of student needs, perspectives and experiences around online learning, UniSA can develop informed interventions to facilitate student engagement and learning in the online environment. The opportunities and challenges of online teaching identified by UniSA staff will enable the development of specific strategies and resources to build staff capacity for teaching online, in collaboration with other units within the university.

Limitations

The use of a reliable and valid survey instrument to assess students' confidence and readiness for online learning (SOLR) strengthens our findings. However, the response rates to each data collection were relatively low. In addition, while the samples shared some similarities in terms of including undergraduate university students, there may some differences in the learning and cultural context that may explain differences between UniSA groups and Yu and Richardson's (2015) results and the validity of the SOLR has not been tested in an Australian student population. The use of independent samples tests to compare HLTH 1049 SOLR results at two timepoints (T1 and T2) may bias results towards statistical significance as some of the sample may be the same; however, we did not have access to identifying information to know with confidence how many T2 participants also completed the survey at T1. Ideally, we would have linked student's SOLR responses to their academic outcomes in the relevant course, to determine if readiness for online learning (overall, or within specific factors) related to course performance. This was beyond the scope and resources of the current project and presents an opportunity for further research.

The SPOL survey was based on previous literature and UniSA student feedback around barriers and facilitators to online learning, and was not validated. Ideally, student focus groups would have provided more in-depth understanding of students' perceptions and allowed greater exploration of themes. However, recruitment of sufficient student participants to undertake student focus groups was unsuccessful; of over 800 students invited to participate, only one response was received. The in-depth perceptions of this student's online learning experiences were explored in a one-on-interview instead; however, this single perspective is unable to reveal the breadth and diversity of experiences of the greater student body. In contrast, when the same cohort was contacted to complete the SPOL survey, 147 students participated. This relatively large sample provided a diversity of perspectives.

The staff focus group was modest in size and it is likely that further focus groups would have been required to reach saturation in identifying themes that comprehensively represent the perspectives of online teaching staff.

Summary and Recommendations

This project has promoted the student voice as critical to developing effective delivery of online teaching, alongside the voice of staff working 'on the ground' to deliver online courses. Novel information was gathered from UniSA students and staff regarding their perceptions and experiences of online teaching and learning. The information presented in this report is directly relevant to the university's continued development of online teaching and learning capabilities.

The findings of this project are also timely, given our current shift to online teaching and learning as a response to the COVID-19 pandemic. The perspectives of students and staff reported here may offer valuable insights into the key areas of focus for staff who are in the midst of converting curricula from face-to-face to online delivery. The online teaching and learning arrangements (i.e., when, where and how are students expected to "attend to" the course), as well as methods and frequency of communication between students and staff, appear to be important considerations over and above 'learning' the substantive course content.

In light of the findings presented in this report, the project team has developed three key recommendations for consideration in future online or digital teaching and learning initiatives. We believe action on these recommendations would further position UniSA as a leader in online higher education, and would improve the learning experience of on-campus students in online learning:

1. **Online learning orientation resource:**

   This project has indicated a clear need for curated, tailored collection of resources (such as an online learning Orientation Module), to assist students to adjust to the online learning environment and create a positive learning experience. There are several existing UniSA resources, such as the UniSA Online Critical Approaches To Online Learning course, elements of the UniSA Ready module, and other websites developed by the Student Engagement, however none of these are a tailored, curated package to support students in learning online, addressing the key challenges identified by students and staff in this project.

2. **'One online' – universal course site design and structure:**

   UniSA Online arguably delivers best-practice online teaching and learning, in part, facilitated by a universal course site structure. Ideally, all courses delivered by UniSA would similarly have a universal course design. With a universal course site structure, a single orientation module could be delivered to all students across the university at the start of their program. Without this, it remains necessary to nuance the support and resources provided to students to orientate them to learning online *within each online course*. A universal course site design and structure would also reduce the support required for staff.

3. **Staff support for online course delivery:**

   There are currently many resources and options provided by the university to support staff to develop as effective online educators. The greatest need appears to be time for staff development as well as workload associated with developing and delivering high quality online courses. This need may be overcome with a universal course site design and structure, and greater clarity around the workload involved in delivering online courses outside of the UniSA Online structures.

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Appendices

Appendix 1. Student Online Learning Readiness (SOLR) Instrument*.

Factor 1: Technical Competencies

1. I have a sense of self confidence in using computer technologies for specific tasks.
2. I am proficient in using a wide variety of computer technologies.
3. I feel comfortable using computers.
4. I can explain the benefits of using computer technologies in learning.
5. I am competent at integrating computer technologies into my learning activities.
6. I am motivated to get more involved in learning activities when using computer technologies.

Factor 2: Social Competencies with Instructor

(How confident are you the you could do the following social interaction tasks with your INSTRUCTOR in the ONLINE course?)

7. Clearly ask my instructor questions.
8. Initiate discussions with the instructor.
9. Seek help from instructor when needed.
10. Timely inform the instructor when unexpected situations arise.
11. Express my opinions to instructor respectfully.

Factor 3: Social Competencies with Classmates

(How confident are you the you could do the following social interaction tasks with your CLASSMATES in the ONLINE course?)

12. Develop friendship with my classmates.
13. Pay attention to other students' social actions.
14. Apply different social interaction skills depending on situations.
15. Initiate social interaction with classmates.
16. Socially interact with other students with respect.

Factor 4: Communication Competencies

17. I am comfortable expressing my opinion in writing to others.
18. I am comfortable responding to other people's ideas.
19. I am able to express my opinion in writing so that others understand what I mean.
20. I give constructive and proactive feedback to others even when I disagree.

*Participants completed questionnaire via online survey platform.

Appendix 2. Staff Focus Group Question Guide

1. How have you found the interaction with students online?
2. Is there a preferred method of communication with you that the students use?
3. Are there any common issues or problems that you have identified?
4. How have your expectations and the students' expectations aligned?
5. Have you received any feedback from the students? What?
6. If there was an online orientation module, what do you think this should include?

Appendix 3. Student Interview Questions

1. What can you tell us about your experiences of online learning so far in the course Foundations of Physical Activity and Health and other courses with online learning components?
2. How confident do you feel in learning online? What do you think impacts on this confidence (positive and/or negative)?
3. What parts of the online learning experience do you think has worked for you?
4. What parts of the online learning experience have not worked so well for you?
5. Do you have any comments about technical/IT issues?
6. How do you feel (How confident do you feel?) about interacting with the educator? Are there any barriers to asking them for help?
7. How has the online learning environment affected your social interaction with other students?
8. How confident are you in expressing your opinions/ideas online?
9. What do you really like about online learning? What motivates and supports you in online learning?
10. Are there any barriers to learning online? What makes it difficult to engage with online classes and materials?
11. If an online module was to be developed to assist your online learning, what would you like to see it include?

Appendix 4. Student Perceptions of Online Learning (SPOL) survey*.

Online Learning Experience

1. Which of the following courses have you been enrolled in?
- 2018 HLTH 1044 Foundations of Physical Activity and Health
- 2018 HLTH 1049 Introduction to Evidence Based Practice and Research in Health Sciences
- 2018 HLTH 1025 Health and Society
- 2019 HLTH 1044 Foundations of Physical Activity and Health
- 2019 HLTH 1025 Health and Society

2. How many courses have you completed in total at university level?
- 0
- 1-5
- 6-10
- 10+

3. How many courses have you studied that include online delivery of course material? Please include courses you are currently studying. (one option allowed)
- 1 course
- 2 courses
- 3 courses
- 4 courses
- 5 or more courses

Online Learning Perspectives

4. What elements of online course delivery and learning do you enjoy? (select as many responses as apply)
- Flexibility of study time
- Ability to study at own pace
- Technology-enhanced learning
- Clear expectations of me
- Ease of understanding course material
- Interacting with educators online
- Interacting with students online
- Other *(open response)*

5. What elements of online course delivery and learning do you find difficult? (select as many responses as apply)
- Unsure of what is expected of me
- Lack of interaction with educators
- Understanding course material

- Lack of interaction with other students
- Time management
- Course site design and layout
- Access to technology
- Other *(open response)*

Online Learning Orientation

As part of this project, we are going to develop a short orientation to online learning, to be delivered at the start of each online course within the School of Health Sciences. Your responses to the next few questions will help us in designing this online orientation module to benefit student learning.

6. Do you feel you would have benefited from a short orientation to online learning as part of your degree program?

- Yes
- No

7. What do you think would benefit students in preparing them for undertaking an online course?
(open response)

8. Is there any other information you would like to provide with regard to your experiences in online learning?
(open response)

*Participants completed survey via online survey platform.