FUTURE DIRECTIONS
FOR LEARNING, TEACHING AND ASSESSMENT

A Discussion Paper – October 25, 2018
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Introduction

The purpose of this paper is to consider future directions for learning, teaching and assessment at the University of Adelaide. Informed by sector trends and consultation with staff and students of the University, it proposes high-level priorities for development and innovation and distils six core propositions to guide future strategy. These propositions are intended as a springboard for further discussion and do not represent finalised strategy statements.

The paper is a companion piece to the New Curriculum Futures discussion paper, which considers the content and architecture of our academic programs. The focus here is on pedagogy, the third facet of curriculum alongside content and architecture (see Figure 1), and on exploring how we should continue to evolve our educational practices at institutional level. Taking content and pedagogy to be inseparably linked in students’ experiences of education, our point of departure is the assumption that what is taught explicitly as content, and the ways in which students learn, both contribute to achieving learning outcomes. For example, with the aim of enabling students to master discipline concepts more successfully and to develop attributes such as independent, critical inquiry for continuous lifelong learning, we seek to adopt student-focused1 methods of educational practice.

The paper and responses to it will inform the refresh, in due course, of our Strategy for Learning, Teaching and Assessment (STLA). This will build on directions set and progress made through the SLTA 2016-18. We will remain committed to ensuring that our students’ learning experiences are of the highest quality and value: engaging, inspiring, and focused on enabling student success. But we envisage that the next SLTA also will re-set some aspects of the SLTA 2016-18 and introduce new directions, in response to changes in the higher education landscape and the new strategic direction of the University.

The refresh of the SLTA will need to be aligned to several strategies and plans that relate closely to it. Among these, the University’s first Student Retention and Success Plan (currently in draft) is designed to dovetail with the SLTA. It sets the goal to embed best practice for student engagement, retention and success into institution-wide models, strategies and policies for orientation, curriculum, learning, teaching and assessment, establishing a number of key actions in support of this goal. Integration of the Plan with the SLTA will be essential. Other strategies and plans where linkage will be essential include our Indigenous Education strategy, our Internationalisation strategy and our Learning and Teaching Facilities strategy.

Digital learning, whether through blended or fully online modes of delivery, or hybrids of these, already is pervasive across all student learning at the University. We are currently developing a new strategy for online education. It is expected that a key plank of this strategy will be the development of a new portfolio of online programs, initially postgraduate coursework programs, for delivery from 2019. Expansion beyond postgraduate coursework (e.g. to encompass a sub-Bachelor, undergraduate and/or continuing professional development online offer) in due course is also anticipated. The learning, teaching and assessment priorities and propositions discussed in this paper are of equal relevance to both blended and fully online learning.

Figure 1: Facets of curriculum

Consultation

For the consultation for the development of this paper, a working group was established and 3 interactive workshops with 84 academic and professional staff were conducted. Workshops asked University staff to explore what the experience of learning at Adelaide should be like for our students in five years’ time, and to consider how we need to evolve our educational practices to meet their expectations, needs and aspirations in a changing world. The outcomes of these workshops were then further refined in a meeting with 23 of the University’s Education Specialists. Two focus groups with students were used to develop a brief survey which then was sent to all 24,000 students enrolled in coursework programs at the University. Responses were received from over 4200 students (17% response rate, with over 800 students providing open comments) and are presented in summary form in the Appendix. The respondent profile was descriptively similar to the overall coursework student population. A preliminary report on the themes emerging from the staff workshops and student survey was considered by University Learning Committee 6/18. Finally, a draft ‘propositions’ paper was tested against a Reference Group of 30 staff leaders and award-winners in learning and teaching at the University.

Staff and student feedback received through the consultation, and key quantitative data and some quotations from the student survey, are captured throughout the paper.

The learning and teaching landscape

A number of trends are driving increased emphasis, across the higher education sector, on assuring and enhancing the quality of students’ educational experiences. The landscape is changing rapidly, and the appeal and outcomes of the educational experiences we offer will be paramount in assuring our University’s position in an increasingly competitive, globalising market for students. Diversifying educational ‘products’ are being offered by a widening range of providers, including to meet the growing demand among professionals for career-long learning. The sector is experiencing increased regulatory oversight and the emergence of government policies that link institutional funding to performance in areas such as student retention and satisfaction, and graduate employment. Government agendas and employer expectations increasingly are oriented toward a higher education that prepares students for an innovation economy, while machine learning, big data and other digital developments herald fundamental change for the future of work. Workplace trends are fuelling calls for graduates whose solid discipline knowledge is combined with digital fluency and attributes in areas including ‘agile learning’,7 positivity, creativity, emotional intelligence and resilience, and design thinking.5 Meanwhile, students are investing more of their personal financial resources into higher education and, in return, expect a high quality experience that offers engaging learning and prepares for positive career outcomes. Millennial and Generation Z students bring different learning expectations and behaviours compared with those of previous generations, including for a more flexible and personalised learning experience. Student cohorts across the sector are becoming more diverse in their socio-economic and cultural backgrounds, leading to a need for a strengthened focus on inclusion in educational environments and practices.

Many of these themes are summarised in a 2018 report that asks whether the universities of today can lead learning for tomorrow.4 The report highlights five external forces which are expected to exert the most substantial influence on the future of higher education in Australia in the next decade:

- Increasing international competition for ranking, students and academics;
- The changing world of work, driven largely by technology disruption;
- Blurring sector boundaries, with non-traditional commercial providers bringing both competition for universities and opportunities for new collaborations;
- Evolving digital behaviour, with students increasingly expecting flexible provision and services through online delivery. The report suggests, on the basis of a recent survey, that we should expect future undergraduates to be much more likely than current undergraduates to prefer a substantial portion of online study within their degree experience;
- The rise of continuous learning, requiring learning that is self-directed, accessible, just-in-time, and that may challenge the dominance of the undergraduate degree.

At the same time, at sector level learning is being reshaped by the continuing paradigm shift from didactic teaching to active learning - now increasingly incorporating hands-on, experiential, work-integrated learning.5 In this context, students are seen as co-creators in learning and knowledge-creation - with each other and with their teachers - rather than as passive recipients of content.6 Educator roles are continuing to shift accordingly from ‘sage on the stage’ to designer, curator and facilitator of engaging learning activities, resources and assessments. Courses and programs increasingly are created through multi-professional partnership work, by teams that include learning designers, learning technologists, librarians and skills support professionals. Students, too, are becoming more involved as partners in shaping aspects of curriculum and learning environments.7 On the digital frontier, the boundaries between blended and online learning are blurring as fully online courses are being embedded into campus-based programs and new combinations of face-to-face and online experiences are created. Advances in integrated systems and analytics capability are enabling more personalised learning, with learning tasks, resources, feedback and assessments designed to better suit and support the needs of individual students, with targeted support interventions for ‘at risk’ students. Current digital trends include the use of analytics technologies, makerspace technologies, adaptive learning technologies, artificial intelligence, mixed reality and robotics. This year’s edition of an annual survey of trends that are expected to accelerate digital technology adoption across global higher education over the next five years highlights:8

- A growing focus on measuring learning behaviours and outcomes;
- The re-design of physical learning environments on-campus to embed smart technologies and other digital tools, creating spaces that often have more in common with professional and social spaces than with traditional classrooms;
- The proliferation and increasingly wide adoption of open educational resources including complete programmatic initiatives;
- The adoption of new tools for collaboration stimulated in part by new forms of inter- and trans-disciplinary studies;
- The emergence of ‘cultures of innovation’ in learning and teaching, and new cross-institutional collaborations.

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Strategy for Learning, Teaching and Assessment

Our current SLTA (2016-2018) places student engagement and success centre-stage, and recognises the importance in these of students’ sense belonging to their academic community. It set goals to strengthen employability-related outcomes in programs and courses, and to that end we mapped our Graduate Attributes more consistently into all our programs and courses, and strengthened our commitment to supporting students’ employability through work integrated learning. We developed a Digital Capabilities framework for learning and teaching, and drafted a revision of our Graduate Attributes that envisages bringing areas including digital fluency, creativity, innovation and Indigenous cultural awareness further to the fore in our curriculum. A Curriculum Mapping system development project has been established to deliver enhanced support for program and course design, and for student study plan decision-making. We also established the Adelaide Graduate Award to support and recognise the employability skills our students develop through their extra-curricular learning.

We committed to strengthening educational practice for active learning across the institution and focused in particular on forms of group-based and inquiry-based learning through the Small Group Discovery Experience (SGDE) initiative. We increased our focus on sharing and celebrating undergraduate research as a mode of learning and knowledge-creation by establishing an annual Undergraduate Research Conference. To enhance our students’ experience of blended learning we improved the MyUni environment through a major Learning Management System renewal project - the move from Blackboard to Canvas, which included support for academic staff to refresh the design of courses in MyUni - and the introduction of new lecture recording and digital active learning capability in lecture theatres and classrooms. In response to student demand, we made lecture recording standard practice and substantially increased e-submission and e-marking of assessed assignments across the institution. We embarked on building entirely new capability and support at institution level in learning analytics, to help inform support for ‘at risk’ students and to support evidence-based enhancement of courses and programs. And, we developed substantial new capability in educational practice for fully online, at-scale, global learning through AdelaideX, our program of MOOCs.

We strengthened reward, recognition and development of University teaching through the establishment of the Adelaide Education Academy and updates to our teaching awards scheme, including through the introduction of a student-led teaching award. We developed our engagement with students as partners in learning and teaching in other ways too, including through their participation in curriculum review and development, and in digital innovation activities.

Evaluations have shown the many successes of these developments in enhancing students’ learning experiences and outcomes, and also have highlighted areas where we should improve. Our SELT and QILT survey scores similarly point to areas of strength and of focus for further enhancing the student experience. In 2018, we set new institutional targets, for 2019 and beyond, for student retention as measured by the Commonwealth government, student satisfaction as measured by the QILT SES, and graduate employment as measured by the QILT GOS.

Figure 2: The 2016-2018 Strategy for Learning, Teaching and Assessment has student engagement and success at the centre.
Future directions

Principles and goals

In establishing principles for our future directions for learning, teaching and assessment, the proposed principles of flexibility, quality, relevance and inclusion underpinning the content and architecture dimensions of our curriculum are equally of relevance to our approaches to pedagogy. Consultation with staff supported a continuing focus on student engagement and success as our core goal, while proposing that an agreed definition of these, co-created with students, industry, staff and the community, would be helpful. A broad definition of success was favoured, to accommodate achievement of a broad set of capabilities. A clear theme from student survey comments was the need to consider the different expectations, support needs and goals of different cohorts of students, including mature aged students with work or family commitments. Students also discussed linking success to employment outcomes.

PROPOSITION 1

We should significantly increase and enhance active learning across all our programs, with a special focus on strengthening technology-supported, collaborative and inquiry-based approaches

There was consensus among staff who participated in the consultation that didactic approaches to learning and teaching will not deliver the graduate outcomes that we want for our students, including broad employability capabilities. Instead, we should continue to increase and strengthen active learning approaches, such as inquiry-based, case-based and problem-based learning, using digital tools to enhance active learning by integrating them in a purposeful way into course design as appropriate. It was argued that better and more effective use of feedback including formative and peer feedback, to empower students to improve their learning and feed forward into future assessments, incrementally building skills and capabilities, should be part of our approach to active learning. Careful scaffolding of learning, to enable students to transition smoothly into the University and through the levels of study, and progressively develop the skills they will need for academic success and lifelong continuous learning, also was emphasised. This might, for example, be achieved through the use of "transition pedagogy" in the first undergraduate year including a strong element of interactive and small-group learning, support for learning to learn, and building of appropriate skills progressively through programs.

As a first-year student straight out of high school, the first semester came as a bit of a surprise and I often found myself weeks behind as I could not keep up to the lectures in face to face lectures, forcing me to watch my lectures online and catch up on course material online. Prior to starting I never received advice on preparing for lectures or the best ways of taking notes in order to learn the course. I feel this could be emphasized more in the first few weeks and by the lecturers themselves as they often rush through topics not allowing for thorough note taking. This semester I have decided to watch many of my lectures online and have managed to stay on top a little better but feel there could be more of an emphasis also on keeping up to date with work with a little pressure from maybe lecturers or tutors because from personal experience as a quieter student it is easy to fall under the radar. [Student survey]

Staff also flagged the continuing need for enhancement of our learning and teaching spaces, to support active, technology-enhanced learning. There is demand in particular for flat-floor, technology-enabled spaces of different sizes which allow for flexible flow of activity between short lectures or presentations by staff (or students) and students working in groups or individually to apply concepts to cases and problems. There was no consensus in the consultation on whether face-to-face lectures should be phased out, and many staff envisaged a continuing role for these in the pedagogical mix. However, they emphasised that active learning principles should inform our approach to lectures and their role in course design. It was pointed out that, increasingly, educators at Adelaide are moving away from more traditional, transmission styles of lecturing to interactive approaches, with encouraging results for student engagement. In some cases, these approaches are based on flipped learning in which, prior to class, lectures or other forms of digital content are viewed online and readings completed, and face-to-face time is spent on discussion or working through cases or problems.

... lectures were recorded and seen prior to the class time, and in class there will be discussion about the lecture topics to reinforce the understanding and discuss about other information involved in the topic.

In other cases, staff are experimenting with lectures that use Echo360 Active Learning Platform tools or other digital technologies to support interaction.

Student support for lectures also seems relatively strong. Student survey respondents were evenly split on whether flipped classrooms should replace lectures, with 37% agreeing and 39% disagreeing (24% were undecided). However, many students elect to skip face-to-face lectures altogether in favour of accessing the recordings online.

*Online lectures are great as it means there is an extra revision tool and missing an in person lecture isn’t the end of the world. However, at least half the students I know, myself included, learn far better from a lecture in class, and although people complain, they would rather have them than not.* [Student survey]

As a research institution, the University has committed to the union of research, learning and teaching. As well as infusing our curricula with the latest research advances of the disciplines and enabling our students to interact with leading researchers in their fields, we involve students in learning and knowledge creation through inquiry and research. Reinforcing the 2017 evaluation of our SGDE project, the consultation indicated that this project provides a strong foundation for further development of inquiry-based and research-based approaches to learning and teaching from a broader and more flexible perspective. The positive outcomes achieved through the embedding of SGDE in courses were emphasized by staff who participated in the consultation, and 78% of student survey respondents were in favour of including more research-based learning in their degree programs. However, the consultations suggested a clear preference to emphasize real-world problem solving in inquiry-based and research-based learning and to use group learning to build capabilities including critical thinking, collaboration, interpersonal communication and creativity - thereby linking both inquiry-based and research-based learning, and small group learning, with the development of employability skills.

Inclusion in degree programs of plenty of opportunities for small group learning was supported by a clear majority of student survey respondents (65%) but 21% were undecided and 14% were not supportive. Students wanted multiple opportunities to interact with their teacher and fellow students in person, or if online in high quality, well-designed and technologically well-supported online interactions. However, while supportive of small group learning students were much less supportive of group assessments with many reporting experiences of negative interactions and difficulty in producing a high quality collaborative outcome, and believing that their grades had been negatively affected.

The only negative experiences I have had involve group assignments. Some of these have been enjoyable and rewarding. Others lack structure. As a result, highly motivated students do most of the work. [Student survey]

**PROPOSITION 2**

We should actively build students’ sense of connection to their academic cohort and community through our educational practice, including through partnering with students to shape and enhance the learning experience.

Sense of belonging to an academic community, nurtured by supportive peer relations within program/discipline cohorts and meaningful interactions between students and academic staff in the learning experience, is a critical factor in student engagement, learning and success. Students strongly supported the idea that they should feel part of a learning community with 86% of survey respondents agreeing that studying at the University should afford a strong sense of belonging to an academic community. Some student feedback suggested that students see this as a dimension of ‘personalised’ learning and also pointed to the challenges of achieving this with large student cohorts and existing student/staff ratios. The design of course structures was seen as a factor that could help in fostering stronger staff-student interaction and student engagement. Lack of common spaces for students was also flagged by some in this context.

… smaller class sizes for ALL year levels would be the biggest improvement to learning and teaching, allowing teachers and students to get to know each other enough that discussions in class would be more beneficial and motivating. More teachers, smaller classes would improve student engagement no end. [Student survey]

My favourite courses undertaken in my time at University have been structured as three-hour seminars in which the usual lecture content and tutorial participation are integrated together. This has been beneficial both because students only have to come in once a week for each class (rather than attending tutorials and not lectures, as they’re on different days) and because I feel I have engaged more with the lecturer/coordinator and the course content. The University should consider developing more courses this way. [Student survey]

Fostering students’ sense of connection and belonging was identified by staff too as a very high priority for the future. High quality interactions in the learning experience with staff and among student peers were considered an important way to address this. Staff told us that, as for the on-campus experience, the online experience also should work to build a sense of connection and community. Students agreed, and there was evidence in student survey responses of positive experiences in this respect.

Active, inquiry- and research-based learning approaches re-imagine students as partners – with each other, and with
educators – in learning, and digital technologies offer creative mechanisms to support co-creation.\textsuperscript{12,13} A further strong theme running through the consultations was that, as well as expanding our idea of learning and teaching partnerships to involve industry and community much more actively, we should build on the work we have been doing to develop student and staff partnerships in learning and teaching in ways that foster student agency, and value and engage students as full members of the University community. The student survey strongly supported involving students more in shaping the development of degree programs and learning experiences (82\% in favour).

PROPOSITION 3
We should create many more experiential and work-integrated learning opportunities that engage students with real-world projects, problems or issues throughout their studies.

The consultation revealed support among students and staff for an Adelaide education to embed a much greater seam of experiential, work-integrated and ‘authentic’ learning across all programs. This will enable students to apply discipline knowledge to real-world contexts and issues, engage across different disciplines and areas of inter-professional practice, and develop affective and employability capabilities.

\textit{Work integrated learning in the real world is interdisciplinary. There is an opportunity to reach across areas and make space for multidisciplinary activities and options … could do projects across various disciplines. [staff consultation]}

Field trips, work-integrated and community-service projects, simulated experiences such as role-play or design-based learning, global experiences (study abroad, study tours), and work-experience placements and internships were examples of approaches that provide opportunities for students to connect concepts to contexts, develop skills in reflective practice, and apply learning to practical problems.

\textit{I [undertook] an overseas internship … I found this the most beneficial experience in my entire university career thus far due to the practical immersion in country on a real-world project. The most valuable things I learnt were not theoretical concepts regarding my … degree, but instead, it was the soft skills such as being adaptive, communicating, showing initiative, leading a team, interacting with stakeholders on a professional level, pitching, risk management, learning how to deal with crisis (this actually happened to us!), and so many more things that are most effectively taught through real-world experience, not in the lecture theatre. [student survey]}

Co-creation and partnering with community, employers and alumni, to engage these groups directly in supporting experiential and work-integrated learning opportunities, was a strong theme in the consultation and both staff and students also highlighted the idea of giving back to the community through student learning.

Students as Partners projects with an outcome which gives back to the community should be standard … [a] reciprocal agreement which ensures local community benefits from the local University and the students get the chance to be central to these opportunities guided by academics. This also boosts life-long learning for the community. [staff consultation]

I think the university providing more opportunities for community involvement relevant to study to all students would be an excellent way to develop professional skills as well as benefit the community. Also, more opportunities for students in different years of the same degree to meet and interact would be really beneficial. [student survey]

Staff saw projects shaped by community or industry partners as a way for the University to increase opportunities for students to develop employability attributes without necessarily meaning every student would undertake work-experience through placements or internships. More authentic assessments closer to what employers might expect to reflect professional practice were also advocated in this context by both staff and students.

A very large majority (90\%) of student survey respondents were in favour of including more opportunities in their degree programs to work on ‘real-world’ problems, and there was overwhelming support for all degrees to provide increased opportunities to develop employability and preparation for graduate employment, with 92\% in favour. A smaller majority (61\%) thought that work-experience should be compulsory in all degrees. Older students, postgraduate students and Arts students were less supportive of this and around a third of all students were unsure. Students shared staff concerns about quality and equity if work-experience were to be compulsory.

Students were supportive of the idea of a ‘grand challenges’ curriculum (projects where multidisciplinary groups of students from different degrees work together on global or local problems) with 64\% in favour of having opportunities to undertake such projects in every degree. More postgraduate students (72\%) than undergraduate (60\%) supported this idea, and there was more support for this amongst students in ECMS (71\%) and Professions (70\%) than in Arts (55\%), Health Sciences (57\%) or Sciences (57\%). However, only 28\% of students thought grand challenge projects should be compulsory with 58\% unsure. Analysis of comments suggests that, if compulsory, students may have concerns about level of engagement and also assessment.

PROPOSITION 4
We should ensure that our students experience learning at Adelaide as flexible, personalised and adaptive.

Student survey respondents strongly supported increasing the flexibility and personalisation of learning (77\% in favour) including a majority who thought that students should be able to choose what to study online and what to study face-to-face (66\% in favour). Some staff envisaged a relatively short-term future when the potential for students to construct their own flexible, personalised mix of face-to-face and online should be standard, perhaps through providing fully online delivery, as optional, for selected courses in many or all programs. Student feedback


illustrated different student preferences and views on the relative merits of face-to-face and online learning.

My first preference for learning at uni is to attend lectures, tutorials and practical sessions, as I learn better this way. I like being able to access material online, however, I don't like doing whole courses online. I like the face-to-face interaction, as you can have good conversations and go really in-depth... [student survey]

… live-stream lectures (e.g. by using Zoom) … would enable people who are unable to make the lecture and who rely on recorded lectures to be more engaged in the lecture in real-time, listen to questions and answers and ask questions themselves. Online tools are essential in enabling me to undertake university study whilst doing paid work to support myself living away from home (in the country). [student survey]

Advances in adaptive learning were highlighted and some staff envisaged our students five years hence navigating personal pathways through courses, with the ability to select topics and modes of assessment, and allowing learning to be tailored to individual goals and definitions of success. Learning analytics would be used to customise the feedback students receive about their level of competency, providing richer feedback with more worked examples and scaffolding when needed, or moving students on to the next level, or to summative assessment, as appropriate. Some student feedback highlighted the benefits of existing approaches to adaptive feedback.

In [my course], we have a quiz at the end of each week worth 40% of our overall grade. We have no way to practice the extensive content in any systematic way before the quiz is submitted. Last year we had many practice quiz opportunities in [the prerequisite course]. I believe that instantaneous feedback … is required for transfer and recall - learning - to take place. We need many examples and questions to be created to practice … [we need a system where] if you get the incorrect answer it will explain why that answer is incorrect. The follow up questions provide metrics to both the student and lecturer on why they chose the answer that they did. This information can be used to provide more robust feedback and ensure that the student is actually learning. All parameters can be tweaked for each question, and professional quality video can be attached to the individual question. [student survey]

It is worth noting here the challenge that we may begin to encounter in achieving the right balance between offering genuinely flexible learning while at the same time fostering cohesive connection and community among student cohorts. The benefit of offering a variety of assessments that provide students with alternative ways to demonstrate their learning emerged strongly from the staff consultation. These could provide ways for student to demonstrate development of broader capabilities. For some staff, this would mean reducing our reliance on examinations, which are assumed primarily to test recall, and instead offer assessment tasks that assess competencies and require students to apply and integrate their learning. Increased choice for students in selecting the type, weighting and format of assessments was also advocated by some staff. Analysis of open-ended student comments in the survey supported flexibility in assessment and reduction in the number and/or weighting of exams.

I think all examinations have to be replaced by projects or assignments or research papers. I feel that I learn and understand so much more about certain topics by doing projects or assignments compared to doing examinations. Examinations are just the moments where I need to memorise the solution for a certain problem without actually understanding the reasons why it is done that way. After the examination is done, everything is forgotten... [student survey]

Additionally, there needs to be more "continuous" assessment, 50-60% of your entire grade just from the exam is so hard for people who learn better with continuous reinforcement. [My course] is doing that this semester with short quizzes every workshop (flipped classroom format), and I’m already finding that I’m retaining the information much better than my other subject. It especially means that I’m not falling behind on the content, because the amount of time between assessment is too short to get weeks and weeks behind. Even if this didn’t completely replace the exam, something more reasonable would be a 30% exam as not everyone is able to memorise such huge amounts of content. [student survey]

PROPOSITION 5

We should develop and implement a clear design-for-learning framework for the University, with a special focus on guiding development of new modes of blended and online learning and teaching

Enthusiasm was expressed by staff for exploring new digital technologies for learning and teaching, including the potential of virtual reality and artificial intelligence. However, the strong feedback from the staff consultation was that digital tools and technologies should enhance learning, rather than be selected for novelty value, and that we should prioritise sound educational principles and evidence in the development of digital practice and innovation. Staff emphasised that learning activities, content and assessments should be designed to optimise the online environment and the flexible and adaptive technologies available. Interactive teaching approaches, with the purposeful employment of digital tools to enhance learning, were strongly preferred by staff over shifting all or even most learning online.

The use of innovative technologies should add to the teaching and learning experience, introduce technologies that enable student success, think about how digital tools/systems can ‘work together’ and the questions that they can answer e.g., learning analytics, know the audience - what do the students want [staff consultation]

This viewpoint also was reflected in the student survey, which found that respondents ranked the use of cutting-edge digital technologies for teaching fifth out of five suggested priorities for University investment in the improvement of the learning experience. Only 8% ranked this first and 15% second. Student feedback also confirmed the value our students place on high quality face-to-face learning experiences. Some students indicated in their survey responses their expectations that online learning should be engaging and high quality, and student comments
reinforced the idea that the best blended learning approaches combine face-to-face and digital learning activities purposefully in a genuinely integrated way to support the achievement of learning outcomes.

Flipped classrooms are an excellent idea. However their success comes down to the way they play out in format. For example I have had two courses with flipped classroom. One provided an anonymous question-asking platform, with about 80% of the class time spent asking questions and receiving answers, that the whole class heard/saw - this was by far the most useful use of class time I have experienced in my degree so far. The other course coordinator set up structured activities and question topics in the flipped class, which left a much smaller amount of time for asking unstructured questions, and this had to be done by speaking up in front of the whole class or on a microphone - these were interesting additional learning activities but I feel more time for general questions in a format that isn’t so intimidating would have been the best use of our time and biggest gain in learning. [student survey]

PROPOSITION 6

We should increase and enhance support for educator development across the University, including more opportunities for high-quality, scholarly continuing professional development for teaching.

The need to use data and evidence to support best and innovative practice in learning and teaching was a common theme across multiple topics in the staff consultations. In addition to using evidence to support selection of digital tools and technologies, staff also thought the development and supported use of fit-for-purpose analytics that assist in understanding student learning, progression and risk of withdrawal or failure should be prioritised.

Similarly, developing staff capabilities to deliver strategic initiatives that improve student engagement and success was a key theme in the staff consultation. Staff advocated prioritisation of increased and enhanced continuing professional development opportunities, with a strong focus on active learning and achieving the potential that digital technologies can offer. This message was also strongly supported by students who responded to the survey. Lifting the quality of teaching consistently across the institution was clearly a priority for students and mentioned across comments about multiple aspects of the student experience on campus, online and in course delivery and assessment design. Students wanted all of their teachers to be as good as their best teachers and wanted the University to invest in teacher development, and reward excellence, so that this can happen.

I personally find the interactive classes are where you learn the most, and have an opportunity to engage. Therefore, you need people in place who can facilitate this (there are many who do, but you’re out of luck if you get one that can’t!) [student survey]

Some students perceived a budgetary imperative driving poor learning experiences, lack of educator development and reduced access to academic support from their educators. Overall, 41% of survey respondents made educator development their top priority for University investment in enhancement of the learning experience (from a list of 5 options) and 65% ranked it either first or second priority. ’Making sure every lecture is engaging’ was ranked second by 24% of students although another 24% also ranked this fifth. Analysis of student comments suggests that this disparity in ranking reflects very good experiences for some students and therefore less perceived need to prioritise this.

...would like to see the university do more to help students by removing bad lecturers and giving more support to the good ones, putting more money into teaching ... and student support. [student survey]

It is highly important that the quality teaching is streamlined and improved to enable better delivery of courses ... Lecturers and course administrators who demonstrate continued high engagement and student satisfaction should be rewarded by the university (monetary or otherwise) to encourage other low performing staff to actually engage with improving their content and how they teach. [student survey]

... provision of a "how to teach" course with academic support staff experienced in teaching should be compulsory for staff looking to step into a teaching role. As students, we currently experience a huge variation in quality of teaching which can result in significant losses in student engagement and fluctuations in student performance in assignments / exams. [student survey]

Next steps

Do you agree with the thematic priorities and the six high-level propositions set out in this paper as a basis for direction-setting for future learning, teaching and assessment at the University?

Do they serve as the beginning of a roadmap, as we embark on evolving our educational practices to meet our current and future students’ needs and expectations, and to keep pace with accelerating changes in global higher education?

What challenges and opportunities do you identify for us in this endeavour?

As we progress the University’s strategic planning for curriculum design, we will invite further consultative input to the development of our next SLTA. In the meantime, your comments and feedback on this paper via pvcsl@adelaide.edu.au are invited.
Appendix – Summary of the student survey

The survey

The survey was sent to all 24,500 students enrolled in coursework programs using the eXplorance Blue system on Thursday 23 August and closed on Thursday 30 August. Two reminders were sent. Responses were received from 4280 students giving a 17% response rate. As shown Table 1 the sample is broadly representative of the whole student population. Female respondents, postgraduate respondents and respondents aged over 25 are slightly overrepresented and where comparison are made between demographic groups these have been adjusted to account for any systematic differences. Representation across the faculties reflected the distribution of students enrolled into faculty programs.

Table 1: Demographics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample Mean±SD</th>
<th>Population Mean±SD</th>
<th>Sample Median</th>
<th>Population Median</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean±SD</td>
<td>24.2 ± 8.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>22</td>
<td></td>
<td>1677</td>
<td></td>
</tr>
<tr>
<td>IQR</td>
<td>20-25</td>
<td></td>
<td>24.7</td>
<td>1055</td>
</tr>
<tr>
<td>&lt;20 years (%)</td>
<td>24.7</td>
<td>1055</td>
<td>29.5</td>
<td></td>
</tr>
<tr>
<td>20-24 years (%)</td>
<td>49.0</td>
<td>2097</td>
<td>51.2</td>
<td></td>
</tr>
<tr>
<td>25-29 years</td>
<td>12.1</td>
<td>517</td>
<td>10.4</td>
<td></td>
</tr>
<tr>
<td>30+ years</td>
<td>14.3</td>
<td>611</td>
<td>8.9</td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female (%)</td>
<td>54.8</td>
<td>2344</td>
<td>48.6</td>
<td></td>
</tr>
<tr>
<td><strong>Level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postgraduate (%)</td>
<td>27.9</td>
<td>1193</td>
<td>17.1</td>
<td></td>
</tr>
<tr>
<td><strong>Faculty</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts (%)</td>
<td>19.1</td>
<td>820</td>
<td>18.8</td>
<td></td>
</tr>
<tr>
<td>Engineering, Computer &amp; Mathematical Sciences (%)</td>
<td>21.4</td>
<td>915</td>
<td>19.8</td>
<td></td>
</tr>
<tr>
<td>Health &amp; Medical Sciences (%)</td>
<td>17.5</td>
<td>750</td>
<td>18.8</td>
<td></td>
</tr>
<tr>
<td>Professions (%)</td>
<td>29.6</td>
<td>1265</td>
<td>31.0</td>
<td></td>
</tr>
<tr>
<td>Sciences (%)</td>
<td>11.4</td>
<td>486</td>
<td>11.6</td>
<td></td>
</tr>
</tbody>
</table>

Overall responses

As seen in Table 2 and Figure 1 there is strong support for:

**Future Directions in LTA**
- development of employability skills (92%)
- opportunities to work on real-world problems (90% agree)
- university providing a strong sense of belonging to an academic community of learners (88% agree)
- students shaping degree programs and courses (82% agree)
- opportunities to develop research skills (79%)
- more personal and flexible learning experiences (77% agree)
- students choosing what to study online and what face-to-face (68% agree)
- multiple opportunities for small group learning (65%)
- interdisciplinary grand challenges (64%)

**Curriculum Design**
- work experience (90%)
- study abroad (81%)
- broadening courses (71% agree)
- acceleration of degree completion (68% agree)

The only question about which there was less support was around replacement of lectures with flipped learning with only 37% agreeing and 39% disagreeing and 22% undecided.
Table 2: All respondents

<table>
<thead>
<tr>
<th></th>
<th>% of respondents</th>
<th>Median (IQR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The University should involve students more in shaping the development of degree programs and the student learning experience</td>
<td>Strongly disagree 0.47</td>
<td>4 (4-5)</td>
</tr>
<tr>
<td>You should be able to accelerate to complete your degree more quickly</td>
<td>Disagree 2.55</td>
<td></td>
</tr>
<tr>
<td>You should be able to choose what to study online and what to study face-to-face</td>
<td>Undecided 15.42</td>
<td></td>
</tr>
<tr>
<td>Studying at the University should give students a strong sense of belonging to a community of learners and researchers</td>
<td>Agree 50.40</td>
<td></td>
</tr>
<tr>
<td>Studying at the University should be a more flexible and personalised experience</td>
<td>Strongly agree 31.17</td>
<td></td>
</tr>
<tr>
<td>There should be multiple opportunities to undertake small-group learning in every degree</td>
<td></td>
<td>4 (3-4)</td>
</tr>
<tr>
<td>Face-to-face lectures should be abandoned in favour of ‘flipped’ learning (so lectures are viewed online and reading completed prior to class, with time in class spent on discussion or working through problems)</td>
<td></td>
<td>3 (2-4)</td>
</tr>
<tr>
<td>All degree programs should include more opportunities for students to develop research skills and learn by carrying out research</td>
<td></td>
<td>4 (4-5)</td>
</tr>
<tr>
<td>All degree programs should include more development of students’ employability and prepare them for employment on graduation</td>
<td></td>
<td>5 (4-5)</td>
</tr>
<tr>
<td>All degree programs should include more opportunities to work on ‘real world’ problems</td>
<td></td>
<td>4 (4-5)</td>
</tr>
<tr>
<td>Every degree should include projects where students from different degrees work together on global or local ‘grand challenge’ problems (like climate change, homelessness, childhood obesity etc)</td>
<td></td>
<td>4 (3-4)</td>
</tr>
<tr>
<td>Broadening courses (e.g. sciences students studying arts subjects and vice versa) should be available in every degree</td>
<td></td>
<td>4 (3-5)</td>
</tr>
<tr>
<td>An international study abroad experience should be available in every degree</td>
<td></td>
<td>4 (4-5)</td>
</tr>
<tr>
<td>Work experience (e.g. placements, internships) should be available in every degree</td>
<td></td>
<td>5 (4-5)</td>
</tr>
</tbody>
</table>
The University should involve students more in shaping the development of degree programs and the student learning experience.

You should be able to accelerate to complete your degree more quickly.

You should be able to choose what to study online and what to study face-to-face.

Studying at the University should give students a strong sense of belonging to a community of learners and researchers.

Studying at the University should be a more flexible and personalised experience.

There should be multiple opportunities to undertake small-group learning in every degree.

Face-to-face lectures should be abandoned in favour of ‘flipped’ learning (so lectures are viewed online and reading completed prior to class, with time in class...)

All degree programs should include more opportunities for students to develop research skills and learn by carrying out research.

All degree programs should include more development of students’ employability and prepare them for employment on graduation.

All degree programs should include more opportunities to work on ‘real world’ problems.

Every degree should include projects where students from different degrees work together on global or local ‘grand challenge’ problems (like climate change,...)

Broadening courses (e.g. sciences students studying arts subjects and vice versa) should be available in every degree.

An international study abroad experience should be available in every degree.

Work experience (e.g. placements, internships) should be available in every degree.
Prioritising selected investments

Respondents strongly prioritised training for academic staff to be good teachers – 42% of students ranked this first of five priority areas. Ensuring every lecture is engaging and providing students access to teaching staff outside of class had a similar distribution of rankings with around 40% of respondents ranking these 1 or 2 (see Figure 2), and use of cutting edge digital technologies and better physical learning spaces had similar distributions of priorities (with more respondents ranking these 3,4 or 5 rather than 1 or 2).

Table 3: Rank order priorities – All respondents

<table>
<thead>
<tr>
<th>The University should invest more in... Please rank these in order of priority (1 Highest Priority – 5 Lowest Priority)</th>
<th>Rank 1 (%)</th>
<th>Rank 2 (%)</th>
<th>Rank 3 (%)</th>
<th>Rank 4 (%)</th>
<th>Rank 5 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing students with access to teaching staff outside of class</td>
<td>20.30</td>
<td>18.71</td>
<td>20.96</td>
<td>18.18</td>
<td>21.85</td>
</tr>
<tr>
<td>Better physical learning spaces (classrooms, labs etc)</td>
<td>12.64</td>
<td>19.09</td>
<td>21.73</td>
<td>25.28</td>
<td>21.26</td>
</tr>
<tr>
<td>Cutting-edge digital technologies for teaching</td>
<td>7.76</td>
<td>15.00</td>
<td>23.71</td>
<td>27.34</td>
<td>26.19</td>
</tr>
<tr>
<td>Training for academic staff to be good teachers</td>
<td>41.47</td>
<td>23.93</td>
<td>15.07</td>
<td>12.90</td>
<td>6.64</td>
</tr>
<tr>
<td>Ensuring that every lecture is engaging</td>
<td>17.83</td>
<td>23.27</td>
<td>18.53</td>
<td>16.31</td>
<td>24.07</td>
</tr>
</tbody>
</table>

Figure 2 – Rank order priorities – All respondents

Compulsory features of degrees

There was strong support for making work experience compulsory (61% definitely) but more equivocal support for broadening courses (37% definitely) grand challenges projects (28% definitely) and study abroad (24% definitely) (Table 4 and Figure 3). However only a minority of students thought that most these features should definitely not be a compulsory part of degrees (7% for work experience, 12% for broadening and 14% grand challenges projects). Notably 26% thought study abroad should definitely not be compulsory. Other than for work experience, the majority of students (50-60%) responded maybe to each of these features suggesting they would want to see more details before endorsing any of them as compulsory.

Table 4: Which of these features should be compulsory in every degree?

<table>
<thead>
<tr>
<th>Question number</th>
<th>% of respondents</th>
<th>Median (IQR)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Definitely not</td>
<td>Maybe</td>
</tr>
<tr>
<td>Work experience</td>
<td>6.59</td>
<td>31.89</td>
</tr>
<tr>
<td>International study abroad</td>
<td>25.82</td>
<td>50.68</td>
</tr>
<tr>
<td>Broadening courses</td>
<td>11.19</td>
<td>52.45</td>
</tr>
<tr>
<td>Grand challenge projects</td>
<td>13.53</td>
<td>58.34</td>
</tr>
<tr>
<td>Other</td>
<td>3.67% provided 'other responses'</td>
<td></td>
</tr>
</tbody>
</table>
Demographic differences

On almost all questions there were differences between undergraduates and postgraduates and for older rather than younger students. For some questions responses also differed by gender (see following tables).

Undergraduate and students under 25 supported the following more than postgraduate students and students over 25:

- work experience available in every degree
- study abroad available in every degree
- broadening available in every degree
- training for staff to be good teachers
- ensuring every lecture is engaging

Postgraduate and/or older students supported the following more than undergraduate and/or younger students:

- choosing whether to study online or face to face (22-24 year olds more supportive than other age groups)
- flexible and personalised learning (25+ less supportive than other age groups)
- working on real-world problems (20-21 year olds less supportive than other age groups)
- working on grand challenge projects (22-24 year olds more supportive than other age groups)
- developing employability and preparing for employment (slightly more undergrads are undecided)
- flipped classrooms replacing lectures (22-24 year olds more than other age groups)
- research based learning (no age-related differences)
- small group learning (22-24 year olds more supportive than other age groups)
- involving students more in shaping degree programs and learning experience (older and younger students less supportive than 20-24 year olds)
- using cutting edge technologies for learning
- belonging to a community of learners (no age related differences)

No differences for acceleration by age or enrolment

In terms of ranking, postgraduate students ranked cutting-edge digital technologies higher than undergraduate students, whereas undergraduate students ranked training for academic staff to be good teachers higher. No other demographic differences were detected.

Postgraduate students were more supportive of compulsory study abroad, broadening and grand challenge projects than undergraduates but there was no difference for compulsory work experience.
Faculty differences

No differences between faculties were found for:

- work experience
- belonging
- students shaping degree programs and learning experiences

Differences among faculties were evident for the other questions (see following tables):

- study abroad – HMS, ECMS less supportive than other faculties
- broadening courses – HMS less supportive, Arts more supportive
- grand challenge projects – Professions and ECMS more supportive than other faculties
- working on real world problems – Arts less supportive than other faculties
- development of employability – Arts less supportive, HMS more supportive
- research-based learning – HMS less supportive than other faculties
- replacing lectures with flipped learning – Professions and ECMS more supportive than other faculties
- multiple opportunities for small group learning - Professions and ECMS more supportive than other faculties
- flexible/personalised learning - Professions and ECMS more supportive than other faculties
- choosing whether to study online or face-to-face – HMS and Sciences less supportive
- acceleration – Sciences less supportive (and maybe HMS)

In terms of prioritising investments:

- providing access to teachers outside of class – ECMS ranked higher than other faculties
- better physical learning spaces – Arts and HMS ranked lower than other faculties
- cutting edge technologies – Arts and HMS ranked lower than other faculties
- training for staff to be good teachers – ECMS and Professions ranked lower than other faculties
- ensuring every lecture is engaging – ECMS and Professions ranked lower and HMS ranked higher than other faculties

ECMS and Professions were more supportive of compulsory study abroad and grand challenges projects, Professions was more supportive of compulsory broadening and Arts was less supportive of compulsory work experience