

National Guidelines for Improving Student Outcomes in Online Learning

Cathy Stone
The University of Newcastle, and
National Centre for Student Equity in Higher Education

This paper is taken from a research project report published by the National Centre for Student Equity in Higher Education (NCSEHE) in March 2017. For full details see the complete report at: <https://www.ncsehe.edu.au/publications/opportunity-online-learning-improving-student-access-participation-success-higher-education/>

About the Guidelines

Online learning has become a well-recognised part of the broader landscape of higher education. It is also proving to have a critical place in widening access and equity within this landscape. Increasing numbers of students from backgrounds historically under-represented at university are taking the opportunity to begin undergraduate study online, including through open-entry and alternative-entry pathways (Stone, O'Shea, May, Delahunty, & Partington, 2016). However, retention in online undergraduate programs has been shown to be at least 20% lower than in face-to-face programs (Greenland & Moore, 2014) with an Australian Government Department of Education and Training report (DET, 2017) finding that only 46.6% of fully external, online students, compared with 76.6% of on-campus, face-to-face students, completed their undergraduate degrees over a 9-year period.

In 2016, an Equity Fellowship offered by the National Centre for Student Equity in Higher Education (NCSEHE) resulted in the development of National Guidelines for Improving Student Outcomes in Online Learning (Stone, 2017). Qualitative interviews were conducted with 151 members of academic and professional staff across 16 higher education institutions - 15 in Australia plus the Open University UK - to seek their combined wisdom on ways to improve online student retention and success. The interviews investigated the types of practices, supports and retention strategies being developed and implemented within these institutions, by academic and professional staff, with the aim of improving student retention and academic success.

From analysis of the interview data and other related published research, seven key findings emerged.

- 1. A strategic whole-of-institution approach is required; one that recognises online education as 'core business'.* This approach needs to include an institution-wide understanding of the nature and diversity of the online student cohort as well as the development and implementation of quality standards for online education, which undergo continuous quality improvement.
- 2. Early intervention with students to connect, prepare and engage is essential;* particularly in terms of providing realistic expectations and encouraging and facilitating academic preparation.
- 3. 'Teacher-presence' plays a vital role in building a sense of belonging to the learning community and in improving student retention;* however the time-consuming nature of developing and maintaining a strong sense of 'teacher-presence' is not always recognised in existing workload models.
- 4. Content, curriculum and delivery need to be designed specifically for online learning;*

they need to be engaging, interactive, supportive and designed to strengthen interaction amongst students.

5. Regular and structured contact between the institution and the student is important in providing connection and direction along the student journey. This includes proactively reaching out to students at particular points along their journey, and is best achieved through the development of an institutional framework of interventions.

6. Learning analytics play an important role in informing appropriate and effective student interventions, including through predictive modelling and personalising the learning experience.

7. Collaboration across the institution is required to integrate and embed support; delivering it to students at point of need. When academic and professional staff cross traditional boundaries to work more closely together, a more holistic student experience can be delivered, including embedding support within curriculum.

These seven findings have informed the development of a set of 10 National Guidelines for Improving Student Outcomes in Online Learning, as outlined below. These are designed to inform institutions about ways to improve student outcomes primarily in undergraduate online education, where there tends to be a considerable diversity of the student cohort; this includes students from backgrounds historically underrepresented at university, as well as those with little prior experience of academic study and/or online study. The Guidelines are likely to be at least in part transferable to other online post-secondary education settings particularly where there is a similar diversity of student cohort.

National Guidelines for Improving Student Outcomes in Online Learning

Listed below are 10 National Guidelines for Improving Student Outcomes in Online Learning, particularly in terms of retention and course completion rates. Included are practical examples for institutions of how each guideline can be translated into action. These examples are intended to provide a snapshot of what implementation of the Guidelines could look like. At times they represent actual examples of practice in one or more of the institutions which participated in the research, while at other times they are composites of examples from institutions and/or literature.

Examples of resources derived from the interview data and related publications are included beneath each guideline to provide more ideas from which to further explore and investigate possibilities for implementation.

1. Know who the students are

Only by having comprehensive knowledge and understanding of the diversity of the online student cohort within an institution can the students' needs be met in the most appropriate and effective ways. The external, online cohort is generally quite different demographically from the on-campus cohort, yet many universities do not routinely analyse or distribute data that is specific to this cohort. Gaining an accurate institutional understanding of who these students are, means that decisions about and interactions with these students can be better informed. This understanding assists the development of appropriate support, teaching and communication strategies, including flexibility of approach to reduce barriers wherever possible.

Translating into action:

An institution routinely collects data specific to the online student cohort, which is available to staff as required. This includes: de-identified demographic information about specific online student

cohorts and the online cohort as a whole, including age, gender, equity-status and other demographics collected any other available data such as student satisfaction reports.

Student information:

- is readily accessible via the learning platform dashboard and staff intranet
- is presented in ways that are easy to understand (e.g. pie charts)
- can be further interrogated for more detailed information.

Data and analytics staff are:

- available for further advice
- allocated to work with specific areas of the university, such as faculties, schools, divisions and services.

Teamwork and collaboration is central to:

- planning inclusive teaching, interventions and other strategies for online students
- developing a learning analytics strategy (see Guideline 9) to gain a deeper understanding of the
- individual needs of the students.

More ideas:

- *Scholarly insight 2016: a data wrangler perspective*. Open University UK (Rienties et al., 2016).
- *Access and Barriers to Online Education for People with Disabilities*. (Kent, 2015).

2. Develop, implement and regularly review institution-wide quality standards for delivery of online education

Quality online education needs to be viewed as central to the institution's core business. Quality standards for online teaching, learning design and student support need to be developed and clearly articulated at a senior institutional level; these standards need to include staff development and training, to ensure consistency of quality across all areas, as well as being subject to regular review via a continuous quality improvement framework, to ensure that they are updated and improved over time.

Translating into action:

An institution-wide, senior-level approach is taken to the development of these standards, which includes:

- close consultation with experts and relevant stakeholders within the institution
- the use of other research evidence
- appointment of strategy leaders or 'champions' at executive, faculty, school and division levels of the institution, to take responsibility for and oversee the development, dissemination, implementation and continuous quality improvement of the standards
- standards are embedded within the institutional strategic plan.

More ideas:

- *Standards for Online Education* (Parsell, 2014).
- *Quality and Standards Fact Sheets* (The Open University UK, 2017).

3. Intervene early to address student expectations, build skills and engagement

Early contact and interventions with students, both pre- and post-enrolment enable an institution to: explore student expectations; provide a realistic picture of online study; facilitate appropriate academic preparation; improve early engagement; and build a sense of belonging to a learning community.

Translating into action:

An institution informs and advises prospective students through clear information on its website, including:

- contact information for those wishing to speak with a prospective student advisor
- quizzes and games to help students understand what to expect of online learning
- ‘readiness’ questions to encourage adequate academic preparation
- information on the most appropriate academic preparation and how to enrol.

Prospective student advisors are well-trained and knowledgeable about the demands and realities of online learning, including support available and how this can be accessed. Free, online academic preparation is available and recommended via prospective student advisors and through the website, particularly to students new to university or to online study. The institution makes personal contact with new online students, via a range of media such as telephone, email and messaging to welcome and encourage participation in orientation activities and to refer to help or support as required. Different approaches and touch points are utilised, such as:

- connecting new online students with those more experienced through peer mentoring programs
- linking online students with a student advisor as their personal contact
- orientation activities, online and face-to-face, offered at different times in different ways
- outreach orientation activities delivered off-campus at locations where distance students and their families are likely to be able to attend.

More ideas:

- *Charles Sturt University’s Outreach Team* <https://www.csu.edu.au/office-for-students/our-teams/engagement/outreach-team>
- *Open-entry, online academic skills support* (Academic Survival Skills, UON; Start for Success, OUA)
- Free online preparatory units (*OUA PREP Units* <https://www.open.edu.au/courses/preparatory/preparatory-units>)
- Minhas-Taneja, V. (2017). Interactive online student transition to university. *Journal of the Australian and New Zealand Student Services Association*, 49(2017).

4. Explicitly value and support the vital role of ‘teacher-presence’

Online teachers are absolutely crucial in building teacher-student and student-student relationships. A strong teacher-presence provides online students with a sense of belonging, helping them to feel connected to a community of learning and increasing their likelihood of persisting.

Translating into action:

Within the institution’s quality standards (as discussed in Guideline 2), the role of teacher-presence is explicitly recognised and valued. It is also included in institutional resource planning for online education (as discussed in Guideline 10). Online teachers are trained, supported and resourced to create an obvious, supportive, encouraging and professional presence within their online classroom. Sufficient teaching time and appropriate technology is allocated to enable them to provide an interactive, co- created learning experience that eases the isolation of online study and helps students feel connected with the teacher, their fellow students and with the class as a whole.

Examples include:

- welcoming students through personal introductions
- being responsive on discussion boards
- providing timely and detailed feedback
- encouraging deep learning through inclusive and relevant learning activities and assessments
- generating peer interaction over learning tasks
- making appropriate use of learning tools
- assisting with problems
- referring to the correct support.

More ideas:

- *Let students know you’re there: Designing online for maximising teacher presence:* Higher Education Faculties and the Office of Learning and Teaching. (Charles Darwin University, 2015)
- Signor, L., & Moore, C. (2014). Open Access in Higher Education – Strategies for Engaging Diverse Student Cohorts. *Open Praxis*, 6(3), 305-313.

5. Design for online

Education delivery needs to be designed for online first and foremost. In addition to the growing numbers of fully online students, blended learning for on-campus students is now the norm. Online technology provides multiple ways to access learning and undertake tasks, creating an inclusive learning space for all students.

Translating into action:

An institution adheres to quality standards for online learning design, ensuring inclusivity and accessibility for all students. There is a consistent and intuitive structure to the learning platform across different faculties, schools and disciplines. Content is designed to encourage online engagement and interactivity, such as:

- purpose-made short videos with captions
- tasks that encourage communication and collaboration
- use of online tools to provide synchronous and asynchronous activities
- information presented in multiple ways
- the ability for students to move at their own pace
- assessments designed using a mixture of approaches, relevant and relatable to the learning content.
- The cultural mix of the student cohort is considered in the design of content, tasks, assessments and mode of delivery, to ensure relevancy and inclusiveness, as are the needs of students with disability, poor internet access and those who may be incarcerated. A teamwork approach to design sees learning designers and academics working collaboratively to ensure compatibility and accessibility of curriculum, content and delivery. Continuous improvement is emphasised, with quality reviews regularly conducted across all courses.

More ideas:

- Online Learning Insights: <https://onlinelearninginsights.wordpress.com/resources-for-course-designers/>
- Canty, A. J., Goldberg, L. R., Ziebell, J. M., & Ceperkovic, H. (2015). Meeting the Challenge of designing and delivering an entry level unit of study to engage and inspire learners in online neuroscience education in a Bachelor of Dementia Care. *Paper presented at the ICERI Proceedings*, 18-20 November, Seville, Spain. <http://ecite.utas.edu.au/106511>

6. Engage and support through content and delivery

‘Interactive’, ‘connected’, ‘inclusive’ and ‘relevant’ are all essential criteria for online learning content and teaching strategies, using a range of appropriate technologies, both synchronous and asynchronous, that are specific to online delivery. The flexible nature of online delivery and the time-pressures experienced by high numbers of online students means that asynchronous delivery and interactivity is particularly important in ensuring that all students can participate.

Translating into action:

The institution’s quality standards for teaching and delivery of online education (see Guideline 2) specifically include the importance of delivering engaging and supportive curriculum and content. Teachers and curriculum developers receive ongoing and regularly updated training and staff development. Sessional staff receive paid training time to attend. Teaching staff are kept up-to-date with practical resources and guides that are incorporated in training. Students are engaged and supported through:

- a variety of engaging and relevant content, activities and assessments
- a mixture of approaches and different technologies
- timely, constructive and specific feedback
- opportunity and encouragement to communicate and collaborate through synchronous and asynchronous discussion forums and collaborative tasks
- encouragement of informal peer support opportunities (e.g. social media).

More ideas:

- *6 principles of online teaching* (Charles Darwin University, 2017)
- Devlin, M., & McKay, J. (2016). Teaching students using technology: Facilitating success for students from low socioeconomic status backgrounds in Australian universities. *Australasian Journal of Educational Technology*, 32(1), 92-106.
- Verenikina, I., Jones, P. T., & Delahunty, J. (2017). *The Guide to Fostering Asynchronous Online Discussion in Higher Education*.

7. Build collaboration across campus to offer holistic, integrated and embedded student support

Strong collaboration is required across the academic and professional areas of universities to provide holistic and integrated support to online students. Through this collaboration, support is embedded within the curriculum as much as possible, hence delivering it where and when it is most needed.

Translating into action:

Academic and professional staff collaborate to embed support into the curriculum at point of need, including academic skills and technology support. Student advisors, IT staff, learning skills staff and library staff are attached to schools and discipline areas, creating teams of academic and professional staff working together within discipline or curriculum areas to provide teaching and support that is linked, relevant and provided at the point of need. This includes:

- opportunities to practise academic skills embedded within beginning units/modules
- early assessment tasks designed to assist students develop academic literacy skills and understand academic expectations
- additional optional online workshops and resources made available and encouraged
- support services easily accessed remotely through a variety of technologies including telephone, email, messaging, live chat, synchronous and asynchronous audio and video
- academic staff knowledgeable about support services and referring students appropriately
- support services are easily locatable via the learning platform; also embedded in course content at relevant points in curriculum
- extended/after-hours' support available to students at times they are more likely to be studying.

More ideas:

- Slade, S., & Prinsloo, P. (2015). Stemming the flow: improving retention for distance learning students. Paper presented at the *EDEN 2015 Annual Conference*.
- *Helping online students succeed* (Stone, 2013)

8. Contact and communicate throughout the student journey

Across the wider institution, the establishment of regular contact points when the institution reaches out to students to provide information, offer support and increase engagement have a demonstrated impact on retention and academic success of online students.

Translating into action:

An institution develops an online student intervention strategy, informed by learning analytics (see

Guideline 9) and implemented collaboratively between academic, support and data analysis staff. A comprehensive institutional framework of interventions is developed, which includes:

- personalised messages, through synchronous and asynchronous technologies, scheduled at particular times and targeted towards particular students or cohorts
- students are regularly and clearly advised about crucial dates and what these mean, including the last date for withdrawal from study before fees are due (census date)
- each student receives only those messages that are relevant for them
- messages are personalised based on a student's activity and behaviour, and tailored to their needs in real time.

Both academic and professional staff are involved in the student intervention strategy ensuring that students are contacted at the most relevant time by the most relevant member of staff. This approach, combined with the personalisation of messages made possible by information from learning analytics, tells the student that the university knows who they are, is interested in them as an individual (see Guideline 1) and is actively seeking to provide them with relevant and timely support.

More ideas:

- *MILLS Framework*. Open University UK (Slade & Prinsloo, 2015)
- Nelson, K., & Creagh, T. (2012). *Case Study 7: University of New England (UNE) Early Alert Program*

9. Use learning analytics to target and personalise student interventions

Data from the institution's systems provides information on online activity of students, which can be constructively harnessed to inform the development, personalisation and appropriate targeting of interventions to help students persist and succeed with their studies.

Translating into action:

An institution uses data from its internal online systems to inform interventions based on student activity and behaviour. From this data, the institution:

- builds a predictive model to target interventions towards those most likely to need them
- personalises the interventions, including tailoring content and learning activities more specifically for
- individual students based on their learning engagement and achievements
- takes a collaborative approach towards the development of a learning analytics strategy
- consults widely with academic and support staff in deciding what to ask of the data and how to make the best use of the answers
- makes available information, advice and support to staff working with students across all areas of the university to engage and involve them with the process.

More ideas:

- *Horizon Report*: (Johnson et al., 2016)
- *JISC Report*: (Sclater, Peasgood, & Mullan, 2016)

10. Invest in online education to ensure access and opportunity

In order to successfully implement the strategies discussed in each of the points above, the delivery of online education needs to be viewed as core business and invested in accordingly, by committing to it a level of priority and resourcing equitable with on-campus education. This investment and commitment, when clearly voiced and actioned at an institutional level, will dispel the notion of its being ‘secondary education’ and instead will create an environment in which online students have greater opportunities to persist with and complete their studies.

Translating into action:

An institution recognises that investment in engagement and support of online students leads to improved retention and completion. This is demonstrated by such means as:

- online teaching recognised appropriately in the academic workload model
- consultation with experienced academic staff, including sessional teaching staff, to set benchmarks for realistic online class sizes and paid hours required for effective teaching and support
- programs that improve online student engagement, satisfaction, retention and/or academic success receive dedicated, ongoing funding
- investment made in technology improvements, including learning platforms, learning design, learning tools and data analytics to deliver an engaging and positive online student experience

More ideas:

- Standards for Online Education (Parsell, 2014)
- Salmon, G. (2014). Learning Innovation: A Framework for Transformation. *European Journal of Open, Distance and e-Learning*, 17(2), 219-235

References:

- Canty, A. J., Goldberg, L. R., Ziebell, J. M., & Ceperkovic, H. (2015). *Meeting the challenge of designing and delivering an entry level unit of study to engage and inspire learners in online neuroscience education in a Bachelor of Dementia Care*. Paper presented at the ICERI Proceedings, 18-20 November, Seville, Spain.
- Charles Darwin University. (2015). *Let students know you're there: Designing online for maximising teacher presence*. Higher Education Faculties and the Office of Learning and Teaching.
- Charles Darwin University. (2017). *6 Principles of Online Teaching*.
- DET. (2017). *Completion rates of higher education students- cohort analysis, 2005-2014*.
<https://www.education.gov.au/> Retrieved from <https://docs.education.gov.au/documents/completion-rates-higher-education-students-cohort-analysis-2005-2014>.
- Devlin, M., & McKay, J. (2016). Teaching students using technology: Facilitating success for students from low socioeconomic status backgrounds in Australian universities. *Australasian Journal of Educational Technology*, 32(1), 92-106.
- Greenland, S. J., & Moore, C. (2014). Patterns of student enrolment and attrition in Australian Open Access Online Education: A preliminary case study. *Open Praxis*, 6(1), 45-54.
- Johnson, L., Adams Becker, S., Cummins, M., Estrada, V., Freeman, A., & Hall, C. (2016). *NMC Horizon report: 2016 Higher education edition*. Retrieved from <http://cdn.nmc.org/media/2016-nmc-horizon-report-he-EN.pdf>
- Kent, M. (2015). *Access and barriers to online education for people with disabilities*. Retrieved from <https://www.ncsehe.edu.au/wp-content/uploads/2016/05/Access-and-Barriers-to-Online-Education-for-People-with-Disabilities.pdf>
- Minhas-Taneja, V. (2017). Interactive online student transition to university. *Journal of the Australian and New Zealand Student Services Association*, 49(2017).
- Nelson, K., & Creagh, T. (2012). Case Study 7: University of New England (UNE) Early Alert Program *Good practice for safeguarding student learning engagement in higher education institutions* (pp. 85-90). Brisbane, Australia: Queensland University of Technology.
- Parsell, M. (2014). *Standards for online education, final report* Retrieved from <https://www.onlinestandards.net/>:
- Rienties, B., Edwards, C., Gaved, M., Marsh, V., Herodotou, C., Clow, D., . . . Ullmann, T. (2016). *Scholarly insight 2016: a Data wrangler perspective*. Retrieved from <https://core.ac.uk/download/pdf/77067424.pdf>
- Salmon, G. (2014). Learning Innovation: A framework for transformation. *European Journal of Open, Distance and e-Learning*, 17(2), 219-235.
- Sclater, N., Peasgood, A., & Mullan, J. (2016). *Learning analytics in higher education: a review of UK and international practice. full report*. Retrieved from <https://www.jisc.ac.uk/sites/default/files/learning-analytics-in-he-v3.pdf>
- Signor, L., & Moore, C. (2014). Open access in higher education—Strategies for engaging diverse student cohorts. *Open Praxis*, 6(3), 305-313.
- Slade, S., & Prinsloo, P. (2015). *Stemming the flow: improving retention for distance learning students*. Paper presented at the EDEN 2015 Annual Conference.
- Stone, C. (2013). Helping online students succeed: Informa.
- Stone, C. (2017). *Opportunity through online learning: Improving student access, participation and success in higher education*. Retrieved from <https://www.ncsehe.edu.au/publications/opportunity-online-learning-improving-student-access-participation-success-higher-education/>
- Stone, C., O'Shea, S., May, J., Delahunty, J., & Partington, Z. (2016). Opportunity through online learning: experiences of first-in-family students in online open-entry higher education. *Australian Journal of Adult Learning*, 56(2), 146-169.
- The Open University UK. (2017). *Quality and standards fact sheets*.
- Verenikina, I., Jones, P. T., & Delahunty, J. (2017). *The guide to fostering asynchronous online discussion in higher education*. Retrieved from www.fold.org.au/docs/TheGuide_Final.pdf.

The author may be contacted via

Cathy.stone@newcastle.edu.au