TEACH Journal of Christian Education

Volume 12 | Issue 2 Article 5

11-2018

A Health Check of Avondale's Distance Education Program: Where Have we Been? Where are we Going Next?

Jason Hinze
Avondale College, jason.hinze@avondale.edu.au

Maria T. Northcote
Avondale College of Higher Education, maria.northcote@avondale.edu.au

Peter W. Kilgour
Avondale College, peter.kilgour@avondale.edu.au

Beverly Christian
Avondale College, bev.christian@avondale.edu.au

David Bolton
Weset Chester University, dbolton@wcupa.edu

TEACH[R]

A health check of Avondale's distance education program: Where have we been? Where are we going next?

Jason Hinze
jason.hinze@avondale.edu.au

Maria Northcote
maria.northcote@avondale.edu.au

Peter Kilgour
peter.kilgour@avondale.edu.au

Beverly J. Christian
bev.christian@avondale.edu.au

Faculty of Education, Business and Science, Avondale College of Higher Education, Cooranbong, NSW

David Bolton
College of Education, West Chester University of Pennsylvania, West Chester, PA, USA
DBolton@wcupa.edu

> *the study provide[s] insight into the extent to which the distance education program … provides a space in which learning relationships can develop in online communities.*

Key words: distance education; online learning; evaluation; Avondale; higher education; ethos; values

FoR codes: 130103 Higher Education; 130313 Teacher Education and Professional Development of Educators

Abstract

Avondale College of Higher Education has been offering tertiary courses for over 120 years. In the past two decades, this institution has extended its programs to include distance courses for students who opt to study online or are not able to attend on-campus courses at Avondale's Lake Macquarie and Sydney campuses. While all of the institutions courses are evaluated on a regular basis, no formal evaluation had ever been undertaken of the distance education program as a whole. During 2017, a mixed methods research project was conducted to gather evaluative data from recent and current distance students using questionnaires and focus groups. The results of the study provide insight into the extent to which the distance education program at the College provides a space in which learning relationships can develop in online communities. Also, suggestions for future improvement and further research recommendations are provided. Findings of this study may be of interest to educators and administrators who incorporate online components in their curricula.

Introduction

Avondale was established in 1897 as a faith-based institution with a spiritually focused vision, mission, and motto. By the middle of the twentieth century the College had begun to diversify and offer degrees through external and affiliation programs, offering

its own NSW government accredited degrees from 1974 (Avondale College of Higher Education, 2018). Distance education was introduced in the mid-1990s with external affiliation, to upgrade education graduates from diploma to degree status. This was followed in 2000 by a blended Master's program in three disciplines, and gradually, as the capacity for online learning was developed, more courses were offered in blended or totally distance mode. Since 2008, the number of courses offered online has steadily increased. While early versions of distance education courses at the College involved students enrolling either by on-campus or distance (online) mode, more recent years have seen a lessening of this divide; instead, distance and on-campus students are currently enrolled in the same units and often self-select which aspects of their studies they attend in on-campus or distance mode. This more flexible approach has enabled students to tailor their pattern of attendance to meet the demands of their complex lives. Currently the College offers five undergraduate courses, and eight post graduate courses by distance education using an online mode, and an increasing number of individual units are also offered online.

Although Avondale has been offering distance education courses to undergraduate and postgraduate students for almost two decades, a comprehensive review of these students' experiences had not been undertaken before the study reported in this paper was conducted. Like many other schools and universities, Avondale regularly administers end-of-semester surveys to gather feedback about the quality of the learning experiences of all students who complete on-campus and distance courses, and this feedback has become a valuable source of data in assisting the continual improvement of each course's curriculum design and teaching methods. However, the distance cohort of students had not yet been specifically targeted to elicit information about their unique experiences of studying via distance. Since 25% of the institutions students choose to complete their entire course by distance and 40% of the College students currently choose to complete some of their studies in a distance mode, this large proportion of the student population at the institution needed to be consulted to ensure the quality assurance system of the institution was representative of all groups of students and to ensure the experiences of distance learners will become more integral to the institution's direction.

Background

Because of the convenience of learning online, distance education programs and online learning technologies have become increasingly popular in primary, secondary and tertiary education over the last twenty years. The number of tertiary education students taking at least one online class in the USA in 2006 was approximately 3.5 million (Allen & Seaman, 2007). This number almost doubled to 6.7 million in 2011 (Allen & Seaman, 2013). In 2012, 62.4% of college and universities reported offering distance programs (Allen & Seaman, 2017). In addition to more tertiary students enrolling in online classes, Rovai and Downey (2010) report an increase in the number of distance education programs offered by higher education providers, including for-profit institutions. Indeed, institutions of higher learning are increasingly making distance education an integral part of their long term planning (Simonson, Smaldino, Albright, & Zvacek, 2014). The adoption of digital technologies has also increased within the school sector. Schools have been reported as integrating varied degrees of online technologies into their curricula (Neyland, 2011) and groups of educators meet regularly to share ideas about how to use learning technologies in primary and secondary education (Voogt et al., 2017). These trends mean that the issue of program quality is important, as colleges and universities are challenged to provide quality education to a growing number of online students.

Many suggestions, guidelines and exemplars of online learning practices have been published previously in various formats such as Herrington and her associates' (2007) guidelines for authentic course design, Mbati and Minnaar's (2015) guidelines for facilitating interactive online learning programs and Salmon's (2013) suggestions about how to design and moderate online learning courses. These guidelines are useful tools for those responsible for designing and teaching online courses which are frequently taken by students studying by distance and/or using online learning technologies. Over the last decade, many of these published guidelines have been consulted and used to guide the design and implementation of online courses for distance students at Avondale. For example, the institution's Online Learning Policy [policy no. A.35] was modified during recent years to ensure student-centred concepts of learning that focus on engagement and authentic activities were integrated throughout the policy, replacing the use of teacher-centred terms such as "delivery" and "lecturing". Furthermore, a set of benchmarks have been established, for professional development purposes, reflecting many of the principles and recommended practices from renowned online educators, to guide academic staff in their design of interactive activities in online, blended and on-campus courses. Known as the "Minimum Moodle Expectations", these benchmarks provide detailed instructions about how to design

"the distance cohort of students had not yet been specifically targeted to elicit information about their unique experiences of studying via distance"

learning resources, activities and assessment tasks that engage students in authentic learning across all modes of study.

Throughout the history of distance education, various successes and problems have been reported. For example, Allen and Seaman (2013) report that in 2003 only 57.2% of educators "rated the learning outcomes in online education as the same or superior to those in face-to-face" (p. 5). Nine years later, that figure increased to 77 percent (Allen & Seaman, 2013). So, while things have improved, these two studies by Allen and Seaman suggest that there is still a significant proportion (23%), who are less than impressed with distance education programs. And this negative perception of distance education programs has been bolstered by a higher dropout rate among some distance education programs when compared with face-to-face programs (Bell & Federman, 2013; Patterson & McFadden, 2009; Tyler-Smith, 2006). Academic leaders report that this higher dropout rate will impede the growth of distance education programs (Allen & Seaman, 2013).

> *this negative perception of distance education programs has been bolstered by a higher dropout rate among some distance education programs when compared with face-to-face programs*

The lack of direct interaction with the lecturer may be a contributing factor in the higher dropout rates of online students. Lack of direct interaction between students and instructors, may allow problems which naturally occur in the course of any instruction to fester, and, if not addressed, these problems may undermine a distance education program (Simonson et al., 2014). Besides leaving the learner frustrated, not addressing the problems can further the perception of distance education programs as being impersonal (Perreault, Waldman, Alexander, & Zhao, 2002; Sunal, Sunal, Odell, & Sundberg, 2003). Addressing problems and assuring that instructors are providing clear channels of communication with their students is critical if the programs are to be successful.

In general, distance education programs need to focus upon quality if they are going to continue to attract and retain students (Moore, Lockee, & Burton, 2002). The issue of quality is also important for schools offering some curricula components through use of online technologies, such as wikis in primary schools (Woo, Chu, Ho, & Li, 2011) and online collaborative modules in secondary schools (DeWitt, Siraj, & Alias, 2014). Whether full programs or program components are offered via online technologies, their quality requires monitoring, as do on-campus learning programs and activities. Data collection to assure quality must be "carried out on a regular basis to monitor and improve online program outcomes so that the educational services satisfy program goals and meet student needs" (Rovai & Downey, 2010, p. 144). Surveys of students have been a frequently used method of assessing the quality of distance education programs. Focus groups have been less used (Cochran, Baker, Benson, & Rhea, 2016). The data collection methods we used to determine the quality of our online courses are now outlined.

Research methodology

All participants reported in this paper were college students at Avondale who had recently completed or were currently enrolled in at least one distance unit as part of their degree studies, regardless of whether or not they were completing their entire course in a distance mode. The research approach utilised in this study adopted a mixed methods approach which guided the collection of qualitative and quantitative data (Creswell & Plano Clark, 2011). Using two research methods enabled data to be gathered from the student-stakeholders of the institution's distance education program. These data could then be evaluated in a way that provided feedback to the institution about the perceived quality of the courses that comprise the distance program. For example, because the institution's approach to online and blended learning is intentionally focused on the development of interactive and engaging courses in which students were active learners (as evidenced in the Online Learning Policy [policy no. A.35] and Moodle Minimum Expectations mentioned earlier), many items in the questionnaire and specific questions used in the focus groups were designed to elicit student feedback about the extent to which the courses they were enrolled in engaged them in active learning tasks. Furthermore, this methodology ensured that the voices of the distance student population contributed to the direction of the College. This methodology has been designed in a way that could be replicated in other educational institutions such as universities, colleges and schools.

Data collection methodology

Quantitative methods of data collection were used initially in this study to identify the strengths and weaknesses of the distance education programs at the College. The cohort of eligible participants in this study were invited to complete an online questionnaire. This online questionnaire was based upon data collection instruments used in two previous studies. The first draft of the questionnaire was generated from an instrument developed by Muilenburg and Berge (2005), that identified aspects of a distance program which might become barriers to online learning for students. The statements of this questionnaire were modified at times to better address the institution's specific approach to distance education. For example, rather than focusing on administrative and academic needs in general, the

specific titles of the administrative and academic support services at the institution were specifically addressed in the questionnaire. A second draft of the questionnaire included program quality indicators, as derived from Smidt, Li, Bunk, Kochem and Mc Andrew (2017). Participants were asked to rate the extent to which the distance program addressed these quality indicators. A five-point rating scale was used for each statement made in the final questionnaire. In addition, students were given the option to make comments explaining their answers for each aspect. If replicated by other education institutions, the questionnaire used in this study could be modified to appropriately reflect the specific nature of the institution's context.

Once the questionnaires had been administered and analysed using the Statistical Package for the Social Sciences (SPSS), descriptive statistics (i.e., means and standard deviations), were used to identify areas of strength and weakness. In addition, the students' written responses to the questionnaire's open-ended questions were identified and analysed to identify themes evident in the qualitative data. These themes largely revealed students' perceptions about the strengths and weaknesses of the institution's online, distance learning program. Also evident in the students' comments were suggestions for future improvement of the program. After identifying areas of strength and weakness, and areas of possible improvement, focus group interviews were conducted with randomly selected groups of participants. To ensure the background of any one researcher did not influence the collection or analysis of the data from the focus groups, multiple focus group facilitators conducted these focus groups. To further address reflexivity in this stage of the research study, the processes associated with designing, facilitating and analysing the data from the focus groups were coordinated by the chief investigator of the project but also incorporated input from at least three of the researchers engaged with the project. Lastly, in case any of the participants wanted to comment on issues that were not reflected in the focus group questions, each participant was provided with opportunities to comment on issues that were important to them but were not necessarily reflected in any of the research questions.

These focus groups were conducted in person and through video conferencing, depending on the availability and location of the students being interviewed. Specifically, participants were given the opportunity 1) to discuss whether they perceived the identified strengths or weaknesses to be valid and to explain why; 2) to provide examples of incidents which could illustrate these strengths or weaknesses; 3) to help identify ways of addressing each weakness; and 4) to make recommendations to maintain what they had confirmed to be the institution's areas of strength. The discussions that took place in relation to these questions were recorded and transcribed.

Once the quantitative and qualitative data from the questionnaires were analysed, followed by the qualitative data from the focus group interviews, both sets of analysis were triangulated to establish the key findings from the students' responses and comments. The end product of this analysis was a set of recommendations to be implemented throughout distance units and courses at Avondale.

"Once the quantitative and qualitative data from the questionn-aires were analysed, followed by the qualitative data from the focus group interviews, both sets of analysis were triangulated to establish"

Findings

Population and sampling

Out of a possible 288 students, 92 responded to the questionnaire. However, 18 respondents were eliminated as they did not confirm they had taken a distance unit, and a further 15 respondents were eliminated because they responded to less than 50% of the questionnaire items. A total of 59 respondents remained, which equates to a return rate of approximately 22% 1. The larger majority, about 92% (n = 54), of those respondents indicated that they were currently enrolled in a distance course at Avondale and the majority, 53% (n = 31), had completed or almost completed six or more distance units at the College, while 41% (n = 24) had completed or almost completed two to five units. Overall, the students were deemed as being qualified to evaluate the program, thus rendering the data gathered as valid.

Emergent themes

A summary of the main themes that emerged from the data analysis processes and the alignment of the quantitative and qualitative data can be found in Table 1.

The themes that were revealed in the focus group interviews in most cases aligned with the information being sought in the questionnaire. This resulted in the categories of isolation, lecturer feedback, organisation of unit materials, the support of the lecturer, the experience of online forums, the flexibility of learning online, the catering for different learning styles, and the quality of the instructional materials to be identified as key areas of attention in online learning experiences. Table 1 is presented as a matrix making it possible for the reader to triangulate the quantitative and qualitative results without needing to carefully read paragraphs while visualising the connections. For example, the row that reports on different learning styles shows that comments were made in focus groups about the need for more attention to be given to different

Table 1: A triangulation of questionnaire and focus group data

Theme	Positive qualitative comments	Negative qualitative comments	Quantitative Results
Isolation		Some feelings of isolation from lecturers and other students.	56% (n=33) said collaboration with other students was excellent or good but only 50% (n=30) reported this happening in a formal way organised by the lecturer.
Feedback		Would like more feedback.	83% (n=49) of students found lecturer feedback excellent or good.
Organisation		Some coursework could be more organised online.	71.4% (n=42) of students found online course materials well organised.
Lecturer Support	Lecturer support and accessibility.		88% (n=52) of students found lecturer support excellent or good.
Online Forums	Online Forums have been a good experience.		
Flexibility	Studying by distance makes life do-able.		
Different learning styles		Would like different learning styles to be catered for.	49% (n=29) reported that different learning styles were catered for.
Quality of instructional materials			79% (n=47) of students reported excellent or good quality instructional materials.

"The quantitative results showed that in the majority of areas, most students were quite satisfied with their online experiences ... Nevertheless, [minority] comments needed to be heard and are areas for improvement."

learning styles. This is supported by the quantitative result that less than half of students reported that different learning styles were catered for.

The table also shows a conflicting result in that for the category of *feedback*, 83% (n = 49) of participants reported that they felt lecturer feedback was excellent, but focus group comments did not always back this up.

Additional majority outcomes were identified in the quantitative data. Most students (74%, n = 44) agreed that objectives of the units they had enrolled in actually measured instructional objectives. Slightly fewer (70%, n = 41) believed that the College's level of academic rigour in distance units was the same or higher than the rigour they had experienced or expected of units taught in a face–to-face format, and a similar number agreed their distance units had helped them think critically. Close to two thirds (64%, n = 38) assessed their distance units had helped them apply knowledge to the real world, while 63% (n = 37) considered their distance units actively engaged them with the subject matter. It appears that the technology and supporting Learning Management System (LMS) used to facilitate the units were found to be dependable by 81% (n = 48) of students and 86% (n = 51) of students found the lecturers to be personable.

The quantitative results showed that in the majority of areas, most students were quite satisfied with their online experiences. Therefore, any negative comments in these domains are limited to a minority of the student cohort. Nevertheless, their comments needed to be heard and are areas for improvement.

Valuable insights gleaned from these students showed that it is possible for there to be: *a sense of feeling like a second class student (even though the lecturer didn't intend this). Example, distance students had to watch the internal students' videos but not the distance students' videos. Made us feel we weren't as good as them (the internal students).*

Further, about a third of the respondents, after reflecting on their distance education units were critical of the academic rigour compared to face-to-face interaction, did not recognize active engagement with the subject matter, and believed that the distance units did not help them apply knowledge to the real world or foster critical thinking. These issues must be addressed through curriculum review and improved online pedagogy. It may require general, or even individual specific, professional development

and mentoring for program providers/lecturers.

Other students commented in the focus groups that they would rather have had more regular access to other distance students and would have preferred to have more scope to learn using their own preferred learning styles. Another useful comment from the focus groups was that students find it easy to miss new material when it is placed on the learning management system. They commented that sometimes adjustments may have been made to assessments from the originally published editions that they overlooked.

Despite these comments that are suggesting places of improvement in the online experience, the overwhelming bulk of responses were positive with many very helpful recommendations and affirmations for the lecturers involved. Some examples follow.

It's important to make the distance students feel part of the Avondale community ... In general, I feel that I have been included ... that you're on equal terms, that you're considered a student just as much as the internals [on-campus students] as well.

Overall, a very positive experience. I've just found everyone in all the subjects are all great. I feel like I'm making good progress and getting there.

Synchronous interaction with tutor and other students is very helpful.

Ability to choose your own topic to research was very relevant and inspiring. Got me quite excited actually.

Lecturers have been very good at replying to questions and inquiries.

You've also got to think of the lecturer's time. It would be so difficult to be a lecturer and accommodate everyone's needs

It would be nice to see a bit more consistency in the look of the different Moodle sites for each subject. I've noticed, it seems like you are aiming towards more consistency. Some of the sites that I've accessed this semester have got a little tool bar at the top … there's different links that you can click on to access different material.

Specific areas for improvement to focus on from the forum interviews surrounded the idea of isolation. The students reported this isolation in relation to feeling distant to the action they perceived happened on campus. This included isolation from other students and isolation from the content because, in some cases, lectures were either not recorded and uploaded or uploaded too late to synchronise with the course materials for the current week.

While 83% (n = 49) of students found lecturer feedback to be excellent, there was a small proportion of students who were looking for more:

Generally, I have to talk to the lecturer to get proper feedback on my assignment.

More constructive criticism would be greatly appreciated as this would show me what areas of research or writing I need to improve on.

The quantitative data revealed that 71% (n = 42) of students found that course materials were well-organised, but some of the students' comments expressed opinions that they would like to see them organised in a different way. For example, one student preferred to have all of the materials available at the beginning of the semester:

I know that this would not work for all students but I would have liked to have all the course materials available at the beginning so that I could plan my time.

Discussion and recommendations

As identified in the literature (Celic, Christian, & Matthes, 2016), relationships are the conduit through which the ethos and values of an institution are transmitted to students. The centrality of relationships as an indicator of high quality online learning contexts has been a consistent theme in literature related to distance, blended and online learning over the last few decades. Over a decade ago, Keough (2005) suggested, in the title of his paper, that "Relationships not technology are key to online learning". More recently, the recognition of the role of human relationships, online presence and communication still dominate online learning research (Bowers & Kumar, 2017; Kear, Chetwynd, & Jefferis, 2014; Stenbom, Jansson, & Hulkko, 2016).

In this study, a positive attitude towards lecturers (86%, n = 51) and lecturer feedback (83%, n = 49) emerged from an analysis of the quantitative data. This was strengthened by the findings from the qualitative data which revealed positive comments relating to lecturer accessibility, although it appears there is room for improvement in this area as not all students found their online experience inclusive.

In terms of the quality of the unit materials, 79% (n = 47) of students reported excellent or good quality instructional materials, and a majority (71.4%, n = 42) of students expressed satisfaction with the

"*the recognition of the role of human relationships, online presence and communication still dominate online learning research. In this study, a positive attitude towards lecturers and lecturer feedback emerged*"

organisation of course materials.

Based on the qualitative findings that highlighted the importance of social learning, academic staff at the institution clearly require professional development activities and resources that will enable them to extend their skills in designing online courses that promote community building. These skills clearly depend on the lecturer's ability to perform a *facilitator* role, as explained by Ouyang and Scharber (2017), or a *moderator* role, as described by Salmon (2013). Skills in the facilitation of interactive activities such as online discussions are often found to be at the centre of an online learning community, as indicated by multiple educational researchers (Ball & Leppington, 2013; Buchenroth-Martin, DiMartino, & Martin, 2017; McDonald, 2014). Since students reported on valuing the interactive and personalised aspects of their learning, the professional development offered to lecturers needs to be focused on how to facilitate interactive distance units of study that incorporate relevant communication tools.

> *"the professional development offered to lecturers needs to be focused on how to facilitate interactive distance units of study that incorporate relevant communication tools … the construction of a Community of Practice"*

Furthermore, the development of authentic and personalised relationships, developed in online learning contexts, is frequently linked to the construction of a Community of Practice or a Community of Inquiry in which teachers and students work together to pursue activities that facilitate high quality learning (Dawson, 2006; Herbers, Antelo, Ettling, & Buck, 2011; Kiggins & Cambourne, 2007; Swan, Garrison, & Richardson, 2009). The isolation reported by some of the students in this study indicated that institution's distance courses need to be designed in a way that included, rather than excluded, distance students from interacting with their lecturers and other groups of students. Thus, by focusing on the development of lecturers' skills in both course design (in activities that often occur before the semester begins) and course facilitation (activities that happen during the semester), it is anticipated that the College's online course offerings will come to feature a strong community and, consequently, an environment in which learning relationships (teacher-student and student-student relationships) are central to the course's character.

While the professional development staff and academic teaching staff of the institution hold a unified view of the value of the institution's Christian ethos, the fact that this element was not highlighted in any of the questionnaires or focus groups suggests that the College still needs to develop a practical strategy for making sure that the Christian ethos is transparent for all students that study in a distance mode. To help guide this institution in developing these strategies, future data collection methods should incorporate questions about students' perceptions of the institutions ethos as reflected in the distance education course.

The findings from the current study have been shared with the academic staff who teach the distance units. These findings have also been integrated into the institution's professional development program, which offers strategies to address the issues identified in this research. A major emphasis of this training focuses upon using strategies to develop relationships between lecturers and learners. The findings from this research indicates that the establishment of these relationships sets the foundation for ensuring the success of a distance unit, the lack of which may weaken an otherwise well-designed course. Furthermore, the Christian ethos may be more likely to become manifest through the development of personalised professional relationships between students and teachers in distance courses.

Lastly, the institution has committed to ongoing research into the students' experiences (especially that of the distance students) of learning in courses that comprise online components within the Avondale context. While the academic staff at the institution remains vigilant about the publication of new research pertinent to online learning, they intend to continue researching their own scholarly practice. This research will definitely investigate the experience of online education from students' and teachers' perspectives, but it will also be characterised by exploratory strategies that focus on how the Christian ethos and embedded values of the College are incorporated into the online learning platform.

Conclusion

The purpose of this study was to evaluate the distance education program of Avondale College of Higher Education. The methodology used was student focused in that it asked students to provide their perceptions of the distance program through questionnaires and focus groups. The research particularly focused on eliciting views from students about their learning experiences with the program.

While relational teaching and learning are important in both face-to-face and distance units (Bowers & Kumar, 2017; Chen, deNoyelles, Patton, & Zydney, 2017; Martin, Wang, & Sadaf, 2018), establishing professional relationships between students and lecturers in distance units requires more work on the part of the lecturers to overcome the technological barriers. Finding ways to create opportunities for meaningful student-to-student interactions is important for high quality distance units (Miner-Romanoff, McCombs, & Chongwony, 2017; Ragusa & Crampton, 2014; Smidt et al., 2017). These opportunities should satisfy the need

for human contact, yet also provide support for learning. Developing learning communities could be a powerful way to broaden the focus from providing learning support to fellow students to providing meaningful relationships which enhance learning at a deeper level (McDonald, 2014; Tarmizi, de Vreede, & Zigurs, 2006). Helping instructors to create learning communities is becoming a major focus of the professional development instructors receive.

This study represents the beginning of a plan to research the distance education students' experiences at Avondale in a longitudinal manner; it is only the beginning of a longer process. Creating a continuous evaluation program is an important part of any distance education program. In the future, the institution will continue to use the results of this study to develop professional training opportunities, and to evaluate the impact of that training. Eventually, this study needs to be repeated to assure that the College maintains a quality distance education program. While this study was conducted within a higher education institution, the data collection instruments could be easily modified and applied to other educational contexts, such as primary and secondary schools, to evaluate the efficacy of online courses and online course components from the perspective of students. Subsequently, findings of such studies have the potential to provide the foundation of a research-informed set of practical recommendations that could guide future course design and identify the requirements for evidence-based professional development of teaching staff. TEACH

References

Allen, I. E., & Seaman, J. (2007). *Online nation: Five years of growth*. Needham, MA: The Sloan Consortium.

Allen, I. E., & Seaman, J. (2013). *Changing course: Ten years of tracking online education in the United States*. Needham, MA: Sloan-C.

Allen, I. E., & Seaman, J. (2017). *Digital learning compass: Distance education enrollment report 2017*. Babson Park, MA: Babson Survey Research Group, e-Literate, and WCET.

Avondale College of Higher Education. (2018). Avondale College of Higher Education. Retrieved 22 June, 2018, from http://www.avondale.edu.au/

Ball, T. C., & Leppington, R. (2013). Community-building learning groups in an online course: A study of functional moves. *The Northwest Journal of Communication, 41*(1), 109-132.

Bell, B. S., & Federman, J. E. (2013). E-learning in postsecondary education. *The Future of Children, 23*(1), 165-185.

Bowers, J., & Kumar, P. (2017). Students' perceptions of teaching and social presence: A comparative analysis of face-to-face and online learning environments. In M. Khosrow-Pour, S. Clarke, M.E. Jennex, A. Becker, & A. Anttiroiko, (Eds.). *Blended learning: Concepts, methodologies, tools, and applications* (Volume III, pp. 1532-1550). Hershey, PA: IGI Global.

Buchenroth-Martin, C., DiMartino, T., & Martin, A. P. (2017). Measuring student interactions using networks: Insights into the learning community of a large active learning course. *Journal of College Science Teaching, 46*(3), 90.

Celic, E., Christian, B., & Matthes, A. (2016). Christian higher education and students with diverse beliefs: Impacts and challenges. *International Christian Community of Teacher Educators Journal, 11*(1), 1-11.

Chen, B., deNoyelles, A., Patton, K., & Zydney, J. (2017). Creating a community of inquiry in large-enrollment online courses: An exploratory study on the effect of protocols within online discussions. *Online Learning, 21*(1), 165-188.

Cochran, J. D., Baker, H. M., Benson, D., & Rhea, W. (2016). Business student perceptions of online learning: Using focus groups for richer understanding of student perspectives. *Organization Management Journal, 13*(3), 149-166.

Creswell, J. W., & Plano Clark, V. L. (2011). Choosing a mixed methods design. *Designing and conducting mixed methods research* (2nd ed., pp. 53-106). Thousand Oaks, CA: Sage.

Dawson, S. (2006). A study of the relationship between student communication interaction and sense of community. *The Internet and Higher Education, 9*(3), 153-162. doi: 10.1016/j.iheduc.2006.06.007

DeWitt, D., Siraj, S., & Alias, N. (2014). Collaborative mLearning: A module for learning secondary school science. *Journal of Educational Technology & Society, 17*(1), 89-101.

Herbers, S., M, Antelo, A., Ettling, D., & Buck, M. A. (2011). Improving teaching through a community of practice. *Journal of Transformative Education, 9*(2), 89-108.

Herrington, J., Oliver, R., & Herrington, T. (2007). Authentic learning on the web: Guidelines for course design. Faculty of Education Papers, Australia: University of Wollongong.

Kear, K., Chetwynd, F., & Jefferis, H. (2014). Social presence in online learning communities: The role of personal profiles. *The Journal of the Association for Learning Technology, 22*, 1-15.

Keough, M. (2005). *Relationships not technology are the keys to online learning*. Paper presented at the 17th Biennial Conference of the Open and Distance Learning Association of Australia, Charles Sturt University, Adelaide, South Australia.

Kiggins, J., & Cambourne, B. L. (2007). The knowledge building community program: A partnership for progress. In T. Townsend & R. Bates (Eds.), *Handbook of teacher education: Globalization, standards and professionalism in times of change* (pp. 365-380). The Netherlands: Springer.

Martin, F., Wang, C., & Sadaf, A. (2018). Student perception of helpfulness of facilitation strategies that enhance instructor presence, connectedness, engagement and learning in online courses. *The Internet and Higher Education, 37*(April), 52-65. doi: https://doi.org/10.1016/j.iheduc.2018.01.003

Mbati, L., & Minnaar, A. (2015). Guidelines towards the facilitation of interactive online learning programmes in higher education. *The International Review of Research in Open and Distributed Learning, 16*(2). doi: http://dx.doi.org/10.19173/irrodl.v16i2.2019

McDonald, J. (2014). *Community, domain, practice: Facilitator catch cry for revitalising learning and teaching through communities of practice. ALTC Teaching Fellowship Final Report 2014*. Sydney: Australian Government Office for Learning and Teaching.

Miner-Romanoff, K., McCombs, J., & Chongwony, L. (2017). Interactive and authentic e-learning tools for criminal justice education. *American Journal of Distance Education, 31*(4), 242-257. doi: https://doi.org/10.1080/08923647.2017.1306771

Moore, M., Lockee, B., & Burton, J. (2002). Measuring success: Evaluation strategies for distance education. *Educause Quarterly, 25*(1), 20-26.

Muilenburg, L. Y., & Berge, Z. L. (2005). Student barriers to online learning: A factor analytic study. *Distance Education, 26*(1), 29-48.

Neyland, E. (2011). Integrating online learning in NSW secondary schools: Three schools' perspectives on ICT adoption. *Australasian Journal of Educational Technology, 27*(1), 152-173.

Nulty, D. D. (2008). The adequacy of response rates to online and paper surveys: What can be done? *Assessment & Evaluation in Higher Education 33*(3), 301–314. Retrieved from https://www.uaf.edu/files/uafgov/fsadmin-nulty5-19-10.pdf

Ouyang, F., & Scharber, C. (2017). The influences of an experienced instructor's discussion design and facilitation on an online learning community development: A social network analysis study. *The Internet and Higher Education, 35*(October), 34-47. doi: https://doi.org/10.1016/j.iheduc.2017.07.002

Patterson, B., & McFadden, C. (2009). Attrition in online and campus degree programs. *Online Journal of Distance Learning*

> *the data collection instruments could be easily modified and applied to other … contexts, such as primary and secondary schools, to evaluate the efficacy of online courses and online course components*

Administration, 12(2), n2.
Perreault, H., Waldman, L., Alexander, M., & Zhao, J. (2002). Overcoming barriers to successful delivery of distance-learning courses. *Journal of Education for Business, 77*(6), 313-318.
Ragusa, A. T., & Crampton, A. (2014). Any voice will do: Distance students' perceptions of audio lectures In B. Hegarty, J. McDonald, & S. K. Loke (Eds.), *Rhetoric and reality: Critical perspectives on educational technology. Proceedings ASCILITE Dunedin 2014* (pp. 273-278). Dunedin, New Zealand: Australasian Society for Computers in Learning in Tertiary Education (ASCILITE).
Rovai, A. P., & Downey, J. R. (2010). Why some distance education programs fail while others succeed in a global environment. *The Internet and Higher Education, 13*(3), 141-147.
Salmon, G. (2013). *E-tivities: The key to active online learning* (2nd ed.). London and New York: Routledge.
Simonson, M., Smaldino, S., Albright, M., & Zvacek, S. (2014). *Teaching and learning at a distance*. Charlotte, NC: Information Age Publications.
Smidt, E., Li, R., Bunk, J., Kochem, T., & McAndrew, A. (2017). The meaning of quality in an online course to administrators, faculty, and students. *Journal of Interactive Learning Research, 28*(1), 65-86.
Stenbom, S., Jansson, M., & Hulkko, A. (2016). Revising the community of inquiry framework for the analysis of one-to-one online learning relationships. *The International Review of Research in Open and Distributed Learning, 17*(3). doi: 10.19173/irrodl.v17i3.2068
Sunal, D. W., Sunal, C. S., Odell, M. R., & Sundberg, C. A. (2003). Research-supported best practices for developing online learning. *The Journal of Interactive Online Learning, 2*(1), 1-40.
Swan, K., Garrison, D. R., & Richardson, J. C. (2009). A constructivist approach to online learning: the Community of Inquiry framework. In C. R. Payne (Ed.), *Information technology and constructivism in higher education: Progressive learning frameworks* (pp. 43-57). Hershey, PA: IGI Global.
Tarmizi, H., de Vreede, G.-J., & Zigurs, I. (2006). Identifying challenges for facilitation in communities of practice *Proceedings of the 39th Hawaii International Conference on Systems Sciences* (pp. 1-10).
Tyler-Smith, K. (2006). Early attrition among first time eLearners: A review of factors that contribute to drop-out, withdrawal and non-completion rates of adult learners undertaking eLearning programmes. *Journal of Online Learning and Teaching, 2*(2), 73-85.
Voogt, J., Knezek, G., Christensen, R., Lai, K. W., Pratt, K., Albion, P., . . . Gibson, D. G. (2017). *The International Handbook of Information Technology in Primary and Secondary Education: Part 2*. Paper presented at the Society for Information Technology & Teacher Education International Conference, Austin, TX, USA.
Woo, M., Chu, S., Ho, A., & Li, X. (2011). Using a wiki to scaffold primary-school students' collaborative writing. *Journal of Educational Technologwy & Society, 14*(1), 43-54.

> *Developing learning communities could be a powerful way to broaden the focus from providing learning support to fellow students to providing meaningful relationships which enhance learning at a deeper level*

[1] The researchers would like to acknowledge some contextual issues associated with this response rate. Firstly, while the researchers would have preferred a higher response rate to this questionnaire, it should be noted that the questionnaire was administered online and, as noted by Nulty (2008), "online surveys are much less likely to achieve response rates as high as surveys administered on paper" (p. 302). When considering what Nulty refers to as "liberal conditions" (p. 310) to an acceptable level of required responses rates by class size, the minimum required number of participants in a total course with enrolments from 200 to 1000 is 23-24 respondents (or between 8-12% of the total population enrolled). While this response rate does not take into account Nulty's corresponding set of higher response rates recommended in his "stringent conditions", the 22% response rate represented in the study reported in this article is closely in line with Nulty's liberal conditions of response rates. Secondly, it is acknowledged that the 22% response rate may represent some sample bias; that is, students less satisfied with the distance learning program at Avondale may have been more likely to respond to the questionnaire which may have, in turn, resulted in the findings being negatively skewed.

Author information

Jason Hinze is a lecturer and Secondary Course Convenor at Avondale College of Higher Education in New South Wales Australia. He has made significant contributions towards education as a secondary teacher, community educator and initial teacher educator. Some of his research interests include wellbeing education and the power of overseas professional teaching experiences on the development of pre-service teachers.

Maria Northcote is an Associate Professor in the Faculty of Education, Business and Science at Avondale College of Higher Education in New South Wales Australia. She is an experienced higher education teacher, leader and researcher and is involved in undergraduate and postgraduate education, and professional development. Some of her research interests include threshold concepts, educational technology, online teaching and professional learning.

Peter Kilgour is a Senior Lecturer and Director of the Christian Education Research Centre at Avondale College of Higher Education in New South Wales Australia. He has 39 years experience in Christian education as a secondary teacher, school principal, school system director and more recently lecturer and researcher in pre-service teacher education. His research interests include Christian school learning environments, innovations in tertiary learning and teaching, online education and cultural awareness in tertiary students.

Beverly Christian is a Senior Lecturer in the Faculty of Education, Business and Science at Avondale College of Higher Education in New South Wales Australia. Her specialty area is classroom pedagogy and professional development. Her research interests include school culture and ethos, pedagogical approaches to learning and the role of nature in well-being.

David L. Bolton has been teaching at West Chester University since 1991. The courses and workshops he has taught include evaluation and measurement, distance education, research methods, statistics, and educational technology. His primary focus of research has been the power of educational technology to engage students in the learning process.