Using the perceptions of online university students to improve the pedagogy and practice of distance educators: Them helping us to improve IT

David Bolton
West Chester University of Pennsylvania

Maria Northcote
Avondale College of Higher Education

Peter Kilgour
Avondale College of Higher Education

Jason Hinze
Avondale College of Higher Education

This paper reports on the findings of an investigation into the experiences of undergraduate and postgraduate distance education students from one higher education institution, Avondale College of Higher Education. All of the institution's current students who were enrolled in a distance course or who had previously completed a distance component of their course were surveyed using an online questionnaire. A subgroup of this population also contributed to focus group discussions. Findings from an analysis of the combined data gathered from the online questionnaire and the focus groups were used to inform the institution's professional development (PD) program that supports lecturers to design and teach online courses. Results of the study are outlined in terms of distance students' perceptions about the institution's distance education program, specifically in relation to course structure, interaction and communication, presentation of materials, use of media and design consistency. The paper concludes with recommendations for addressing the weaknesses of online learning programs including both curriculum design and PD strategies.

Introduction

The plight of distance students who typically enrol in online courses to complete their university studies has been reported at length over many years (for example, Cochran, Baker, Benson, & Rhea, 2016; Crampton & Ragusa, 2015; Gaskell & Mills, 2015; Smith, 2006). Similarly, the difficulties encountered by these students have been investigated and debated in varied contexts (for example, Davis, 2001; Niari, Manousou, & Lionarakis, 2016; Tyler-Smith, 2006). While the general benefits and limitations of online education continue to be topics of debate among educators across the higher education sector, the localised needs of distance education within specific higher education institutions are sometimes overlooked in favour of a more generalised set of recommendations. The purpose of the study reported in this paper was to determine the areas of strength and weakness within the distance education program at one specific institution, by giving the students an opportunity to voice their views about their past and current distance education experiences, with the view to modifying distance education courses in the future. In the past, the distance education courses had only been evaluated using the institution's generic end-of-semester evaluation survey and, to date, an in-depth evaluation of the students' experience of these distance courses across multiple programs and years had yet to be conducted. The study outlined in this paper reports on the first investigation at this institution which has specifically targeted distance students.

Background

Distance education courses provide a convenient way for busy people to learn. This premise has resulted in the number of distance programs being offered and, consequently, an increase in the number of students learning through distance education. In 2006, approximately 3.5 million students were enrolled in at least one online course, which was approximately a 10% increase from 2005 (Allen & Seaman, 2007). In contrast, in 2011, the number of students enrolled in an online

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course was 6.7 million students, almost doubling the number of students taking distance courses in 2006 (Allen & Seaman, 2013). In 2003, 28.3% of higher education institutions were offering online courses. More importantly, the number of distance programs had increased from 34.5% in 2002 to 62.4% in 2012. Simonson, Smaldino, Albright and Zvacek (2014) report that distance education has become an important part of many universities' long-term planning. An interesting trend appeared in the latest study by Allen and Seaman (2017), however. It was found that from 2012 to 2015, the number of students taking distance education courses has actually decreased 3.2%. Allen and Seaman (2017) note a changing situation in which colleges and universities will now be competing for fewer students. If this trends continues, it would make the issue of quality even more important as institutions of higher education try to maintain their distance programs.

When it comes to the quality of distance courses, the record has been mixed. Allen and Seaman (2013) reported that in 2003 "57.2 percent of academic leaders rated the learning outcomes in online education as the same or superior to those in face-to-face" (p. 5). In 2012, that number increased to 77 percent. In spite of the progress made in improving perceptions of online learning, a significant percent of academic leaders – in 2012, 23% - perceive online instruction to be inferior to face-to-face instruction. One of the specific concerns among academic leaders is the higher percentage of students who drop out of online programs compared with face-to-face programs (Bell & Federman, 2013; Patterson & McFadden, 2009; Tyler-Smith, 2006). The lower retention rates in distance programs add to the negative perceptions of distance learning. The academic leaders in the study by Allen and Seaman (2013) indicate that the high dropout rates are a significant barrier to the growth of distance education.

One of the reasons for dropping out may have to do with the impersonal nature of distance education caused by the lack of direct interaction with the lecturer (Perreault, Waldman, Alexander, & Zhao, 2002; Sunal, Sunal, Odell, & Sundberg, 2003). Bollet and Fallon (2002) report, "At this time, our challenge and inspiration is to include an essential human aspect in the further development of e-learning." (p. 44). As a result of the lack of direct interaction with lecturers, problems which are occurring may not be readily identified. These problems may fester and lead to frustration and ultimate disengagement from the lecturer and ultimately the program (Simonson et al., 2014). These problems will continue to haunt a distance education program unless addressed. It is therefore critical for administrators to listen to their students and determine their perceptions of the program.

If distance programs are to improve, it is also critical for administrators to focus upon quality indicators (Moore, Lockee, & Burton, 2002). In Smidt, Li, Bunk, Kochem and McAndrew (2017), the quality of online courses was defined by surveying students, faculty, and administrators who had experience in the online education environment. The open-ended question was asked of them: *How do you define quality in an online course?* The results were analysed using qualitative methods to identify themes. In their report, the researchers focus upon the top seven criteria: comparable rigour, clarity, interaction, meets objectives or outcomes, feedback, availability, and engagement. However, other criteria are also mentioned, such as multiple ways of learning, organisation, and real world application.

Generally, quantitative measures, such as surveys, have been the typical methods used to evaluate the quality of distance education programs. Focus groups have rarely been used (Cochran et al., 2016). In the study by Cochran, et al. (2016) three focus groups were used to evaluate the distance education program within a school of business at a large state university in a southern state in the United States. Eleven undergraduate students who had experience in online learning were asked to identify positive and negative aspects of their online experience at one university. The data were then coded to identify themes. The themes identified included the convenience of online learning, the need for consistency between classes, the need for a calendar to remind students about assignments, mixed feelings about discussion boards resulting from a dependency upon other students to post, the need for faculty to communicate the relevance of assignments to their future careers or lives, and the perception that some of the work was busy work and not important to the focus of the class. The participants' views were mixed when it came to the relative advantages and disadvantages of online versus face-to-face learning, liking the accountability of face-to-face classes, but also liking the anonymity and freedom associated with online learning (Cochran et al., 2016).

Methodology

The participants in the study reported in this paper were students enrolled in a private Christian tertiary institution in the Lake Macquarie district of New South Wales, Australia. Of the 1307 students enrolled at the institution, approximately 288 are currently completing at least one of their courses in distance mode or had previously completed a distance course.

This study employed a mixed methods research methodology (Creswell & Plano Clark, 2011). Quantitative data were collected using an online survey that was developed to measure quality indicators as identified by Smidt, Li, Bunk, Kochem and McAndrew (2017). To delve deeper into the responses from the survey, qualitative data were collected from participants during focus groups. The research processes used throughout the

study were driven by the pursuit of answers to the following two research questions:

1. What are students' perceptions of distance learning at Avondale College of Higher Education?
2. What professional development is required to address the weaknesses of the distance learning program at Avondale College of Higher Education, as identified by the students' perceptions?

The whole cohort of distance students was invited to complete a survey online. The survey was designed to identify the areas of strength and weakness in the way distance education is currently being facilitated and has been administered at the institution in the past. In the sruvey, students were asked to indicate the percent of classes which fell into different categories, or the percent of classes which fitted various quality indicators

The online survey instrument was developed based upon two previous studies. A first draft of the instrument was created based upon the research by Muilenburg and Berge (2005) which looked at the barriers to online learning experienced by students. Since the focus of the study was upon program indicators, only program-related items were included. Items were expressed as positives. For example, if the barrier was that students were not able to interact with fellow students, the item would be expressed as the extent to which the courses within the program promoted interactions among students. Subsequently, the survey instrument was then revised to include program quality indicators, as derived from Smidt et al. (2017). Students were asked to rate the extent to which the program addressed those quality indicators.

The survey responses were entered into and analysed using the Statistical Package for the Social Sciences (SPSS). As part of the data analysis process each of the items' means and standard deviations were calculated. Because much of the data were skewed, the median was calculated as well. As directed by the distribution of the means or medians, the items were then ranked in order from lowest to highest. According to this ranking, strengths and weaknesses of the distance courses at this institution were evaluated.

Following the analysis of the responses collected from the surveys, focus groups were facilitated to which all of the 40 students who indicated their willingness to contribute to a focus group were invited. These focus groups, conducted in person and online through video conferencing, were centred around four main issues:

1. whether the participants perceived the strengths and weaknesses identified in the surveys to be valid;
2. whether the participants could provide examples of incidents that illustrated confirmed areas of strength or weakness in the distance program;
3. whether the participants were able to identify ways to address each of the identified areas of weakness; and
4. recommendations from the participants 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.

In general, the data analysis process used to analyse and code the focus group transcriptions followed many of the procedures used in Cochran, Baker, Benson and Rhea's (2016) study in which focus groups were facilitated to gain a rich understanding of student perspectives about their online learning experiences.

Initially, the qualitative data from the focus groups were analysed by identifying the major themes that emerged from the participants' comments. Also, the reported strengths and weaknesses about the institution's distance education program were grouped into sub-themes and analysed in relation to the study's research questions and aims. This grouping of the strengths and weaknesses of the institution's distance program formed the major categories under which the professional development recommendations were presented. The professional development recommendations themselves were also derived directly from the findings of the data analysis process. For example, one of the weaknesses identified in distance courses was the lack of clarity about the current week's course materials. The wording of identified weakness was thus reversed and converted to an instruction of what teachers *should do*, rather than what they *should not do*. As a result, the recommendation was worded as follows: "provide weekly context of where students are in the overall instructional process". Using the results of these data analyses, a set of recommendations for the professional development (PD) of course designers and online teachers was identified.

The PD recommendations outlined later in this paper are currently being embedded into the institution's PD program which comprises resources, activities and events. In each of these components of the PD program, the PD recommendations reported in this paper have been used to guide the practical development and design of the PD program components. For example, the recommendation that cites the importance of locating key assessment task information in an obvious location in an online course has become one of the outcomes of an assessment-related workshop. Furthermore, instructions and suggestions for how to ensure distance students do not feel like "second rate" students are being incorporated into one of the PD program's key online resources, known within the institution as *Moodle's Little Helper.*

Findings: students' perceptions of distance learning at Avondale College of Higher Education

Answers to the first research question of the study (What are students' perceptions of distance learning at Avondale College of Higher Education?) were sought through analysis of the quantitative data collected from the online survey and the qualitative data gathered during the focus groups. Firstly, the quantitative data from the online survey were analysed.

Initially, 288 students were surveyed. Out of 288 students, a total of 80 students responded to the online questionnaire. However, the responses of 14 respondents were eliminated because they reported that they had not taken a distance course, reducing the actual number of possible respondents to 274. In addition, the responses of ten respondents were eliminated who did not respond to at least 50% of the items on the questionnaire. A total of 56 respondents remained, representing a return rate of about 20% out of the population of 274 possible respondents. The larger majority, about 91% of the 56 viable survey respondents, indicated that they were currently enrolled in a distance course at Avondale and the large majority, 54%, had completed or almost completed six or more distance courses at Avondale, while 39% had completed or almost completed two to five courses. Overall, these response rates indicated that these student-participants were qualified to evaluate the program. While it was hoped for a higher response rate, it should be noted that studies "over the past decade have concluded that the response rate of the survey may not be as strongly associated with the quality or the representativeness of the survey as had been generally believed" (Johnson & Wislar, 2012, p. 1805). Other studies (Holbrook, Krosnick, & Pfent, 2007; Keeter, Kennedy, Dimock, Best, & Craighill, 2006; Visser, Krosnick, Marquette, & Curtin, 1996) have found little or no difference in the representativeness of surveys with differing response rates. Moreover, the response rate to the survey is moderated and validated by the use of the focus groups.

Initially, the online survey items required students to rate the quality of the courses by indicating the percent of the courses which fell into five categories: 1) excellent; 2) good; 3) fair; 4) poor; and 5) very poor. An overall score for quality was calculated by weighting these percentages, combining them, and dividing by the highest possible score. The categories were given a weighting of 4, 3, 2, 1, and 0, respectively. The average of these overall weighted scores was found to be 75.4%, a standard deviation of 20%, and a median of 77.1%, with the overall scores being negatively skewed.

Respondents were asked to indicate the percent of distance courses which met certain quality criteria. Those criteria can be found in *Table 1*, along with the mean, standard deviation, median, and the sample size upon which the statistics were based. The criteria are ordered by mean and median. Means, standard deviations, and medians are expressed as percentages.

Table 1: Mean, standard deviations, medians and sample size for ratings of quality criteria

Criteria	Mean	St. Dev.	Median	N
Assessments measure instructional objectives	73.9	22.2	80	52
Well organised	71.5	25.7	80	55
Same/higher rigour compared to face-to-face courses	69.3	28.4	80	49
Helped students to think critically	69.2	27.9	77	56
Helped students to apply knowledge to the real world	64.3	27.4	71	56
Actively engaged the student with the subject matter	62.3	31.3	70	56
Facilitated group interactions among the students	49.6	33.0	47.5	52
Accommodated different learning styles	47.9	30.8	50	56

Students were asked about the percent of the lecturers they found personable and accessible. On average, the percent of lecturers they found to be personable was 86.8% with a standard deviation of 19.0%. The median was 95%. With regards to accessibility, respondents reported an average of 79.1%, with a standard deviation of 22.4%. The median was 90%. Both responses were negatively skewed.

Only 73.2% of the students believed they had opportunities to collaborative with their fellow students during the units. Those students were asked to indicate the percent of the interactions that were excellent, good, fair, poor, and very poor. These percentages were again weighted, combined, and divided by the maximum possible score. The average of these overall weighted scores was found to be 63.3%, with a standard deviation of 25.0%. The median score was 65.0%. Again, the data were negatively skewed.

The majority of the respondents, 53.6% did not feel close at all to their fellow students; 19.6% and 16.1% reported feeling a bit close or somewhat close.

Respondents were asked in what percent of distance courses at Avondale was the amount of work required too much, too little or just right. Respondents stated that they

felt an average of 30.6% of the courses required too much work, an average of 6.2% of the courses required too little work, and an average of 63.2% of the courses required just the right amount of work.

Students were also asked about the Learning Management System (LMS), Moodle, as well as the dependability of the technology that they used in their distance courses. Sixty percent found Moodle to be user-friendly or very user-friendly, while 40% found it not user-friendly. 82% found the technology to be dependable or very dependable.

Students were asked about the quality of the instructional materials used by lecturers in the distance courses. Students were asked to determine the percent of the materials that fell into the categories excellent, good, fair, poor, and very poor. An overall score was calculated by multiplying each percentage by its respective weight, adding them together, and dividing by the maximum possible score, as was done previously. The mean of these overall weighted scores was found to be 77.2%, with a standard deviation of 20.2%. The median was 80.8%.

Students were asked how helpful the assistance provided by the distance lecturer(s) was when they had a question. Overall, an average of 87.9% of the respondents found the assistance to be very helpful or helpful. The medians were 70% and 20% respectively. Students were also asked about their perception of the quality of the feedback provided by lecturers to the work they submitted to distance courses at Avondale. They were asked to indicate what percent of time the quality of the feedback was excellent, good, fair, or poor. On average, 82.3% of respondents found the feedback to be excellent or good. However, on average, 11.5% of the respondents found it fair, and 6.1% found it to be poor.

Students were asked about their perception of the timeliness of the feedback provided by lecturers on work completed in distance courses. On average, 55.4% of the time the feedback was timely, 29.6% it was somewhat timely, and 15.0% of the time is was not timely at all.

As well as analysing the quantitative data, gained from the online questionnaire, students also offered views about their distance learning experiences by contributing by focus groups. The questions in the focus group discussions were developed by analysing the quantitative data gathered from the students' responses to the online surveys. Furthermore, following the lead of Cochran et al. (2016), students were specifically asked about the positive and negative aspects of their experiences as distance learners. In total, seven focus groups (including three on-campus and four online focus groups) were facilitated including a total of 16 students who had been enrolled for between one and nine years. Some of the students had been enrolled in undergraduate courses and some had been enrolled in postgraduate distance programs. Each focus group lasted from 30 to 60 minutes. To ensure that the participants' facial expressions and gestures were visible, the online focus groups were conducted using a video-conferencing program, Skype for Business. An initial analysis of the transcriptions of the focus group data generated a set of major themes that reflected the distance students' perceptions of learning online (Figure 6).



Figure 6: Word cloud of major themes from focus groups

During the focus group, many of the students commented on the need for more consistency across different courses:

> "I feel like there's not much consistency across the board between teachers. There's not a lot of consistency between what is posted online. Some just post audio, some just post websites, some post videos of themselves talking, some post just their slides."

Interestingly, many of the students recognised the lecturer's plight in terms of workload and difficulty in meeting the many different learning needs of their students, as well as juggling conflicting requirements of students, the institution and their own personal life. Comments such as the following reflected their awareness of these issues:

> "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".

> "Obviously there's been a lot of work put in from the lecturer's side of it."

Despite their ability to view multiple perspectives of the stakeholders in distance education, the distance students who participated in the focus groups were quite firm in their resolve not to be seen as "second class students", "second rate" or "invisible" due to their choice to study by distance and, consequently, through online means. They appeared very aware of the differences between the online courses and the on-campus courses, some of which they saw as necessary in order to meet the needs of the students who studied in these two different modes.

Once the major themes were identified in the focus group data, further analysis was conducted to determine the

students' perceived strengths and weaknesses of the distance courses in which they had been or were currently enrolled. Two samples of the positive-negative matrix created from each focus group, based on the methodology used by Cochran, et al. (2016), is illustrated below (Figure 7). This method was applied to each of the seven focus groups.

FOCUS GROUP NO. 1	
Positives	**Negatives**
Availability of online forums	Felt alone and isolated
Hearing the lecturer's voice (audio or video)	Lack of communication from lecturer
Weekly checklists are helpful	Over assessed
Early availability of course materials	Lack of consistency across subjects
Audio feedback regarding assignments	Challenging and frustrating
Synchronous sessions with lecturer/ students	Lack of contact with other students
Chunking of tasks	Difficulties in setting up groupwork schedule

FOCUS GROUP NO. 2	
Positives	**Negatives**
Flexibility	Lack of accountability of other students
Active learning encouraged	Piecemeal structure of some courses
Use of reflective learning activities	Quality of audio files need improvement
Support service staff helpful (IT, Library, Tutoring)	Too much reading material (little media)
Learning Management System worked well	Lack of communication from other students
Sequenced flow of activities and materials	Not made aware of wider services

Figure 7: Samples of positive-negative analysis matrix from two focus groups

When the transcription data from all seven focus groups were analysed, the three most frequently mentioned positive features of Avondale's online distance program included the flexibility offered by distance learning, the welcoming and approachable ways in which teaching staff fielded students' inquiries and the engaging, relevant, applicable nature of the course materials. These themes were illustrated through the students' comments such as the following:

> "I've just found everyone in all the subjects are all great."
>
> "Contact with the lecturers has been very good. They respond promptly. Like, I sent an email on Sunday and didn't anticipate that I'd get a response but I did. Like, 15 minutes later, I was very impressed!"
>
> "It's important to make the distance students feel part of the Avondale community which, in general, I feel that I have been included."
>
> "I would never have been able to do this if it wasn't online."
>
> "I felt very engaged with all my subjects."

While many of the students described their distance learning experiences as positive overall ("Overall, a positive experience" and "Generally, very good"), there were a number of areas that required improvement, such as the need for the use of more audio and visual media to highlight the teacher's presence, greater use of online communication tools to facilitate interaction and the need for some form of consistency in course structure across subjects. These themes were illustrated by comments from the students, such as the following:

> "It would be nice to see a bit more consistency in the look of the different Moodle sites for each subject. 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 are different links that you can click on to access different materials."
>
> "I learn in chunks. For me, if it's broken down into smaller lectures or a lecture and a reading, I manage better. I learn better that way."

Interestingly many of the students appeared to conceive of online teaching as the provision of online lectures and, conversely, online learning as the viewing or consuming of online lectures. Although there was an awareness of the value of engaging in learning activities and meaningful tasks, their conceptions of learning and teaching were still largely focused on a traditional model of pedagogy.

After the students' perceptions of distance learning were identified, these were used to identify answers to the study's second research question (What professional development is required to address the weaknesses of the distance learning program at Avondale College of Higher Education, as identified by the students' perceptions?). This research question is now answered.

Findings: Professional development recommendations

Emerging from analyses of the quantitative and quantitative data, and the triangulation of these two sources of data, a set of professional development (PD) recommendations were developed. To ensure these PD recommendations were closely linked to the current PD program which is in operation in the institution, these recommendations have been categorised according to previously identified PD recommendations related to

another online teaching research project which has been operation at the institution since 2010. The previous PD-focused research project focused on the identification of threshold concepts of online teachers (Northcote, Gosselin, Reynaud, Kilgour, & Anderson, 2015; Northcote et al., 2017; Northcote, Reynaud, Beamish, Martin, & Gosselin, 2011). Consequently, the PD recommendations developed from this project were classified into the following three classifications: 1) preparation and course design; 2) online presence; and 3) interaction and relationships. To ensure that the recommendations that were yielded from this recent research project were embedded into the PD program already in operation, it was decided to categorise the recently identified PD guidelines into these three categories, as outlined in Table 2.

The more detailed sub-themes, often represented by participants as commentary about what *should* be done and what *should not* be done in a semester of teaching and learning, were used to develop the actual PD recommendations within the three PD categories. These practical recommendations have been designed to meet the specific needs of the current academic teaching staff, especially in relation to designing and teaching online distance students at the institution from which the data were gathered.

Although some of the PD recommendations outlined in Table 2 have been reported elsewhere in online education literature, these recommendations have been derived directly from practising online teachers and currently enrolled higher education students. Whereas many other published sets of PD recommendations for online teaching and course design represent the views of experts or experienced online educators, the recommendations outlined here represent students' *and* teachers' views from within the same institution. Furthermore, when viewed as a set of recommendations and in light of the bulk of recommendations related to preparation and course design, they confirm the value of the work completed by online educators during the preparation time before a typical semester begins.

Table 2: Professional development recommendations for distance education lecturers

PD category	PD recommendations
Preparation and course design	When assisting lecturers to developing materials, the allocation of reading material should be interspersed with the presentation of audio or video materials. PD programs should include instruction to lecturers about how to: • "chunk" learning materials into manageable sections; • where to locate key assessment task information in an online course; • consider students' views about difficulties they encounter when new material is added to the course without notification; • use signposts to highlight the current week of the course; • provide weekly context of where students are in the overall instructional process; • ensure learning materials are aligned with assessment tasks; • coordinate due dates of assessment tasks across and within courses; • promote self-determined learning strategies (e.g., self-paced checklists); • ensure students feel they are accountable to complete learning activities *and* assessment tasks; and • implement strategies that enable immediate or quick feedback.
Online presence	Lecturers need to be taught techniques for promoting online presence of themselves (Garrison & Cleveland-Innes, 2005) as well as online presence of other students. If forums are recommended for use in online distance courses, course designers and lecturers require PD in how to promote higher level thinking and develop a sense of community by using forums.
Interaction and relationships	PD programs should include instruction to lecturers about how to: • promote social student-student and student-lecturer interactions; • develop meaningful group work activities and/or assessment tasks; • ensure distance students do not feel like "second rate" students; and • convey interest in distance students and their learning.

Discussion

Although used as one of the data collection methods in this study, the use of questionnaires is not fully sufficient to comprehensively investigate the "state of play" of an institution's distance learning program. As with the work of Cochran et al. (2016), this study also used focus groups to gather data purposely to evaluate online distance programs; this approach has not yet been used extensively for this purpose. Furthermore, this study adopted a mixed methods design, as advocated by Bozkurt et al. (2015) when researching distance education, and also targeted a mix of both undergraduate and postgraduate students.

While the findings of this study reinforced some of the results of previous studies, there were also differences. While some of the participants in the study by Cochran et al. (2016) reported viewing the requirement to contribute to online forums as "busy work", not related in a meaningful way to the overall course intentions, the participants in the study reported in this paper offered more varied perceptions of the purpose of forum activities. While they did acknowledge some of the challenges associated with forums, they recognised their value in providing opportunities for student interaction. They also noted that forums presented opportunities to develop critical thinking skills by reacting to other students' thought processes. The participants acknowledged that student interactions within forums could assist in the development of a learning community and could also develop social presence, as identified by Akyol and Garrison (2008). As such, this study provides evidence of students recognising the link between interaction and critical thinking, the value of which has previously been reported from distance educators' points of view (Bullen, 2007).

Although many previously reported studies have suggested that online or distance learning has been perceived as negative (Allen & Seaman, 2013; Parker, 2008), the students in this study have largely reported a positive experience, even in relation to some issues which have sometimes been reported negatively in previous research. In comparison to previously reported studies on the value of interaction in online courses (for example, Dawson, 2006; Salmon, 2013), the students in this study recognised the usefulness of interacting online with others for learning purposes. In addition, they acknowledged the role of interactive online communication with both lecturers and other students, even expressing acknowledgement about the value of group work tasks especially when they incorporated collaborative strategies that promoted learning.

Interestingly, although most of the students in the study reported on their perceived recognition of the value of interaction, communication, authentic learning and relevant materials, the lens through which they viewed teaching and learning was still very much tinged by an underlying dual understanding of *teaching as lecturing* and *learning as absorbing lectures*. According to those who have previously categorised conceptions of teaching and learning (Gow & Kember, 1993; Marton, Dall'Alba, & Beaty, 1993) from remembering information through to changing as a person, this lens represents quite an underdeveloped view of teaching and learning. From a PD perspective, this finding suggests that, like on-campus educators, distance educators have a responsibility to convey more sophisticated models of education to students, beyond the traditional views of delivering and receiving information.

While the use of focus groups can be useful in elaborating upon quantitative research results, as has been done in this paper, a note of caution needs to be introduced. In the context of the current study, focus groups were used to understand our students' experiences in their education. While this information is important, it should not be used as the only determinant of the content and methods of our educational practices. Because students are viewing education from their limited perspective, they do not always see the big picture. Our educational practices should be driven by an overarching conceptual model which considers the needs and input of students. Thus, the results of focus groups research need to be interpreted within the contexts of that conceptual model. Focus groups should be used to determine if the conceptual model is being used or implemented appropriately. For example, the students' need for structure might be balanced with the benefit of accepting a degree of uncertainty which can promote higher-level thinking (Cochran et al., 2016).

Conclusion

The study reported in this paper investigated distance students' perceptions of their previous or current courses, especially in terms of strategies that they viewed as being negative or positive. An online survey and focus groups were used to gather rich and important sources of information about one institution's distance education programs. Together, the data gathered from these two sources provided evidence-based insights into students' perceptions of their distance learning experiences. These perceptions were further interpreted to develop PD recommendations to assist lecturers become effective course designers and teachers of online courses. The PD recommendations offered in this paper should not be interpreted as generalisations, rather, faculty members need to interpret these PD recommendations and decide whether or not to apply them to their own context.

As reported in the data gathered throughout this project, students valued media-rich materials that address multiple learning styles. Video and audio materials, and

the use of social media can also be utilised to promote a sense of lecturer presence and student presence, and can as such serve to personalise the learning materials of the course. Lastly, online learning cannot simply be the process of impersonally conveying information. The relationship between the student and the online/ distance lecturer still plays a critical role in the success of online education programs.

During the next few months, the researchers plan to replicate this study within the context of a public university in the US, West Chester University of Pennsylvania. The results of the data gathered from the two institutions will then be compared and used to develop and share common PD resources with the aim of supporting the development of online teachers in both institutions. The authors welcome other educators to trial and implement the methodology outlined in this paper to determine the needs of distance learners in their own higher education institutions.

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Contact author: David Bolton, DBolton@wcupa.edu.
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