

## **BRINGING PEOPLE TOGETHER WHILE LEARNING APART: CREATING ONLINE LEARNING ENVIRONMENTS TO SUPPORT THE NEEDS OF RURAL AND REMOTE STUDENTS**

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### **ABSTRACT**

This paper presents an analysis of the perceptions and actions of five Information Communication Technology (ICT) Education lecturers, at the University of New England (UNE), concerning issues associated with the online teaching to students in rural and remote areas. The authors reflect upon the strategies that support these models and discuss how these may in turn provide students with firsthand experiences to develop transferable skills and knowledge to create their own motivating and engaging online learning activities and environments.

**Key words:** rural education, online teaching, online engagement

### **INTRODUCTION**

This paper presents an analysis of the perceptions and actions of five Information Communication Technology (ICT) Education lecturers, at the University of New England (UNE), concerning the online teaching of students in rural and remote areas. Off-campus students enrolled in Education units access their study materials through the Moodle Learning Management System (LMS) and the ICT team provides a range of resources including PDF downloadable documents, articles, videos, podcasts, URLs to relevant sites, wikis, blogs, discussion boards, chat rooms and virtual worlds. The purpose of this paper is to collect, collate, analyse and present a range of practically-oriented strategies utilised by these experienced practitioners in the field of online learning to share with a wider audience.

### **BACKGROUND AND CONTEXT**

The study setting was the University of New England which has an enrolment of approximately 22,000 students with 80 per cent choosing to study in off-campus mode (University of New England, 2013). On-campus students (20%) receive their study materials through blended learning where they attend face-to-face lectures, workshops or tutorials and receive their materials online through the Moodle LMS. Off-campus students receive all their study materials online through the Moodle LMS.

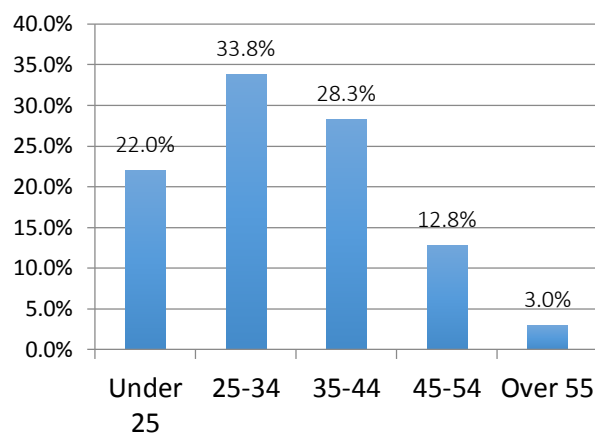
The university itself is situated in a rural area drawing a significant proportion of its student population from regional areas. Table 1 provides an overview of students' reported place of residence from 2009 to 2014 whilst studying at UNE.

**Table 1: Student location of residence by %**

Location	2009	2010	2011	2012	2013	2014
Metropolitan	53.2	53.3	53.7	54.8	56.6	56.5
Regional	40.6	40.7	40.4	39.3	37.6	37.2
Remote	1.5	1.4	1.2	1.3	1.4	1.3
Overseas	3.3	3.5	3.6	3.3	3.1	3.3
Unknown	1.4	1.2	1.0	1.2	1.4	1.6

The School of Education (SoE) is the largest School at UNE making up approximately 25 per cent of student enrolments. The SoE typically has 4,000 to 5,000 students enrolled each year with 12 per cent enrolled in on-campus mode with the majority of students, 88 per cent studying off-campus (McGarry, 2014). The majority of students in the SoE are enrolled in pre-service teacher education programs for Early Childhood, Primary and Secondary, offered at Bachelor and Masters levels. Gender ratios of student enrolment at the School of Education are approximately 80 per cent female and 20 per cent male. This reflects national figures showing that teaching is a predominantly female-oriented profession (ABS, 2007, p. 129).

Student age demographics in the SoE are provided in Figure 1. Over 60 per cent of students enrolled are in the age range of 25 to 44 years of age. The majority of students (78%) enrolled at the SoE are over 25 years of age.



**Figure 1: Age demographic for students at UNE in the School of Education, 2014 (McGarry, 2014)**

The School of Education student population with over 88 per cent studying off campus; approximately 40 per cent located in regional, rural and remote areas; and 78 per cent over 25 years of age, presents a set of unique challenges for both students and lecturing staff.

### **Literature Review**

Students from rural and remote areas of Australia are under-represented in terms of participation in the university system and display lower retention rates than urban students (Bradley, Noonan, Nugent, & Scales, 2008; Sharma, 2008). Many regional students who aspire to study at university and receive offers of placement do not accept the offer or defer enrolment, with relocation to a metropolitan campus being a major barrier to participation (Harvey, Burnheim, Joschko, & Luckman, 2011). When rural students do go to university, those living in non-urban areas of Australia experience lower rates of degree completion (Robinson & Lamb, 2009). Factors impacting on retention

for rural and remote students include family commitments and financial concerns (James, Krause, & Jennings, 2010). Further, beginning students from rural backgrounds express lower levels of enjoyment and are less likely to feel part of a group of students committed to learning than other sub-groups of students (James, et al., 2010). As a regional university, the University of New England has made a special commitment to providing *accessible, quality higher education for communities in rural, regional and metropolitan Australia*, and 77 per cent of its undergraduate on-campus cohort come from regional and remote areas of Australia (University of New England, 2011).

According to Bell and Federman (2013), online learning has the potential to improve access to further education among groups of students who experience disadvantage, such as students from rural areas. As a champion for rural and remote students the University of New England adopts a range of online learning strategies and technologies to educate and support both its on-campus and off-campus students. However, as Bell and Federman (2013) point out, realising such a potential is not as simple as providing access to online learning. Rao, Eady and Edelen-Smith (2011) have identified the specific challenges of online learning for rural and remote students. Challenges identified include high attrition rates, feelings of isolation, an over-reliance on text-based learning, and difficulty accessing the Internet. Encouragingly, the digital divide (in general terms) is narrowing between the people with and without access to technologies. However, the nature and reliability of this technology, such as access to broadband, continues to perpetuate inequality between the 'haves' and the 'have nots', impacting on levels of skill and rates of success amongst students from disadvantaged backgrounds (Bell & Federman, 2013).

Reports of attrition rates from online courses vary widely, with studies reporting attrition rates of anywhere between 20 per cent and 80 per cent (Tyler-Smith, 2006). At a more conservative estimate, Carr (2000) reports that attrition rates are 10 per cent to 20 per cent higher for students studying at a distance than those studying face-to-face, which has a reported historical consistency of between 40 per cent and 45 per cent (Berge & Huang, 2004). Higher dropout rates for online learners continue to be reported (Hachey, Wladism, & Conway, 2012; Patterson & McFadden, 2009), despite this cohort's tendency to have higher GPAs upon enrolment than their face-to-face counterparts (Hachey, et al., 2012).

Not surprisingly, rural and remote students studying online often experience feelings of isolation (Rao, Eady, & Edelen-Smith, 2011), which in turn can impact on successful completion of studies. The UNE Distance Education Review report (2005, in Stewart & Adlington, 2010) identified feelings of isolation and lack of timely appropriate feedback as key factors contributing to attrition. Further, isolation and attrition can be cyclical in nature, with attrition from online courses leading to lower confidence and ultimately feelings of social isolation (Lee, Choi, & Kim, 2013). At UNE, residential schools for off-campus students provide a prime opportunity to foster relationships between students and lecturers. However, the relationships developed at residential schools did not necessarily promote engaged learner-centred communities and dialogue in online environments between students, or between students and teachers (Stewart & Adlington, 2010).

Similar to students enrolled in distance education, teaching in rural and remote schools can also provide a unique set of challenges. This is especially the case for beginning teachers. Teachers in rural and remote schools can experience both professional and personal isolation (Irinaga-Bistolas, Schalock, Marvin, & Beck, 2007; Sullivan & Johnson, 2012). High levels of teacher attrition are also common in rural and remote areas (Sullivan & Johnson, 2012). Teachers in rural and remote areas often lack access to professional development and experience professional isolation (Irinaga-Bistolas et al., 2007). Significantly, many of the unique challenges of teaching in rural and remote areas are poorly addressed in pre-service teacher education courses (Sullivan & Johnson, 2012). These challenges can also interact with factors affecting rural and remote communities more broadly such as educational and social disadvantage to further exacerbate what are often complex situations (Morrison, 2013).

Taking these factors into consideration, the purpose of this research was twofold. First, was to identify the unique challenges faced by students in rural and remote areas who were learning online. Second, was to identify particular skills and behaviours that could be modeled to all students to better prepare them for teaching in rural or remote schools.

## METHOD

The study sought to explore the experience of five lecturers concerning issues associated with online teaching to students in rural and remote areas. The study could loosely be termed as 'ethnographic' with the authors adopting a broad conception of the term ethnography; this being, small scale research that is both contextual and reflexive that focuses on the meanings of individuals' actions and actions rather than their quantification (Savage, 2000). Utilising semi-structured interview techniques, the authors shared their experiences of teaching online at a rural university. To assist analysis, the interview was audio recorded and fully transcribed.

### *Data Collection*

The data was collected through a two-hour focus interview session with a conveniently selected focus group facilitated by the lead author. The focus group interview addressed four open-ended seed questions from which emerged further questions and discussion based on the responses provided. The four seed questions were:

- What do you perceive to be the main challenges in the delivery of distance education to Education students in rural and remote areas?
- What accommodations do you make in the development and delivery of unit materials, resources and activities to take into account some of the unique challenges faced by Education students in rural and remote areas?
- What are some of the online teaching strategies you have found to be effective in the delivery of distance education to Education students in rural and remote areas?
- How important do you think that strategies for teaching students in rural and remote areas be modeled by lecturers to Education students who may find themselves as teachers in rural and remote areas?

### *Participants*

Participants were four Lecturers and one then, Senior Lecturer from the ICT in Education lecturing team in the School of Education. Two of the lecturers were female and three were male. The lecturers have a wide range of both online and face-to-face teaching experience at the tertiary level with several of them having taught online for over ten years. All lecturers teach into undergraduate and postgraduate pre-service teacher education programs as well as postgraduate units in the Graduate Certificate in eLearning and Master of Education (eLearning). With approximately 40 per cent of the university's students located in regional, rural and remote areas, lecturers have extensive experience in working with regional and remote students. A number of the lecturers have also had experience in teaching in rural primary or secondary schools. This includes schools in the Northern Tablelands, Mid-North Coast and the Riverina in New South Wales. All lecturers have extensive experience in the planning, design, creation, implementation and evaluation of online learning environments to support their teaching.

### *Data Analysis*

Thematic analysis was selected to analyse the evidence collected in an interpretive manner (Davidson, Halcomb & Gholizadeh, 2010; Mason, 2006). The collected narratives were grouped into main themes and refined into *primary themes* (Carroll, Kaltenthaler, FitzGerald, Boland & Dickson, 2011, p. 138). Once the emergent themes had been identified, an individual representative descriptive word was extracted from each thematic description in order to objectively record their prevalence and focus the analysis (Osborne et al., 2012).

To visually represent the results, the frequency of each theme's descriptive words was uploaded into *Wordle* (<http://www.wordle.net>) a web-based word cloud generation tool. A 'word cloud' is a visual depiction of the frequency of words used in a given piece of text (Osborne et al., 2012). Any material that can be studied using content analysis can be visualised in this manner (Cidell, 2010). The advantage of using such visualisation tools is that data can be quickly displayed and summarised (Osborne et al., 2012). Visualisation tools are also useful as a means of preliminary analysis as they are

able to quickly highlight differences and possible points of interest and so can be used as a starting point for more detailed analysis (McNaught & Lam, 2010).

## RESULTS AND DISCUSSION

Word clouds using the frequency of the descriptive words of the themes were created for each of the four questions and the overall responses. The descriptive words frequencies are provided in the Appendix.

### *Individual Questions*

Question 1: *What do you perceive to be the main challenges in the delivery of distance education to Education students in rural and remote areas?*

The word cloud for Question 1 is presented in Figure 2.



**Figure 2:** *Word Cloud for Question 1*

The most common response for Question 1 was *access*, reflecting the difficulty students in rural and remote areas face. A range of access issues were identified. These included:

- The imbalance in Internet bandwidth between both on-campus students and students in urban areas compared to the often lower bandwidth available to students in rural and remote areas.
- Access to ICT support in rural and remote areas. Generally, such support is not as readily available as it is in urban or larger regional areas.
- Ready access for computer servicing and repair. Typically, computers have to be sent to larger populations centres sometimes with lengthy turnaround times.

Bell and Federman (2013) acknowledge that while online learning has the potential to improve access to further education, this potential can be difficult to realise. Accordingly, the group felt that it is imperative that the academic staff be mindful that whilst we have a very good Internet connection at UNE, this was not always the case for our students. Some students, particularly those in rural and remote areas, often had very poor access to the Internet and unit materials had to cater for this level of connectivity. So, when designing study materials, the academic staff had to provide study materials in a variety of formats to cater for this. For example, if students were provided with a copy of the on-campus lecture in the form of a video or slides, they were also provided with separate audio lectures and a variety of different versions of the slides, such as six slides to the page, black and white versions and PDF versions.

The focus group felt that academics should acknowledge that some students have to travel some distance to access the Internet to be able to connect through libraries or other access points. Students have reported that this can be more than 50 kilometres from their home, just to be able to access their study materials and/or participate in online forums. When students are required to travel to access their study materials, academics had to ensure that the materials were easy to download and files

weren't too large, had logical file names, so that these students could save the materials easily onto a USB stick to take back home to continue their studies.

Students residing in rural or remote locations often lacked access to people with ICT knowledge for support. For example, if their computer or printer stopped working, it could take them a considerable amount of time to get this technology fixed. ICT support was not as readily available as support in urban areas. If machines had to be fixed, they would often have to be shipped away for repairs, and this can take considerable time (out of their study). This support could fall into technical support, but it could also fall into general ICT support. Additionally, students will often lack experience or access to computer savvy friends to be able to troubleshoot and solve their own problems. Students in rural and remote areas are continually 'playing catch up' as technology is continually progressing, but they may not be upgrading their equipment as often. Very often, students from rural and remote locations will lose Internet connection in the middle of online activities.

A typical off-campus student from rural and remote regions are more likely to be mature age, as can be seen in Figure 1; are more likely to be female; have children; live on farms with ever changing financial conditions; and work long hours assisting in making ends meet. All of these factors make studying difficult. Time is a big issue for these students. Furthermore, apart from the above situations, these students often have to travel large distances or live away from home to attend professional experience days, in some cases almost taking a day either end to attend.

Finally, rural and remote students are more prone to natural disasters and special consideration should be taken for these students at these times. Often, at the university there will be a blanket extension provided to students in such situations. However, on a one-to-one basis, academics need to be mindful of isolated/individual situations occurring and take into consideration the circumstances that these students are attempting to study under.

Question 2: *What accommodations do you make in the development and delivery of unit materials, resources and activities to take into account some of the unique challenges faced by Education students in rural and remote areas?*

The word cloud for Question Two is presented in Figure 3.



**Figure 3: Word Cloud for Question 2**

The most common response for Question 2 was *flexibility*. Accommodations need to be as flexible as possible to best meet the diverse needs of students in rural and remote areas. A range of accommodations were identified by the focus group including:

- Providing learning resources in multiple formats.
- Providing a range of opportunities for making contact with the lecturer, such as via telephone, Skype, email and discussion forums. Availability out of hours was also an important consideration.
- Scaffolding assessments tasks into a single template with embedded instructions and all required assessment information included. This means a reliable Internet connection become

less of an issue as all work is self-contained and the need for repeatedly accessing assessment support documentation and material is reduced.

- Providing flexible assignment submission because large files (e.g., audio and video) can be problematic due to poor access and connections. In such instances, allowing students to submit work on USB or CD/DVD through regular mail is often the best option.
- Giving students the knowledge to reduce file sizes. For example, cropping out unwanted parts of images or file compression. Reduced file sizes can significantly decrease upload time.

Overall, the focus group felt that they had to assist students as much as possible to help ensure that all students had access, of some type, to study materials. Podcasts were kept relatively short and focussed to help ensure file sizes weren't too large and that students only had to listen to them in short snippets. Such resources should be delivered at the point of need (such as after a lecture or before an assessment task).

Another strategy to overcome poor or intermittent Internet connections was to have assessment tasks scaffolded into one template with all required assessment information for ease of downloading and reading. This meant that connection to the Internet did not become as much of an issue as all work became more self-contained.

However, access to materials is insufficient in itself so further support is necessary particularly to overcome the feelings of isolation that rural and remote students can feel (Rao, Eady, & Edelen-Smith, 2011). In response to this, the focus group lecturers made sure that they were always available to provide personal support to students. Such lecturer availability can assist students even simply through knowing that there would be someone available to assist them if help was required. Lecturers also ensured that if there were issues with the LMS, they emailed students to let them know. When students are unable to access the LMS, they will often think that it is a problem at their end and so can spend a lot of time troubleshooting trying to resolve the issue. If students are informed in a timely manner when there is an issue, this puts the student at ease and means they will not have to waste valuable time attempting to resolve something outside of their control.

A number of lecturers also used Facebook as an adjunct to chat sessions so that students can chat to each other without the need to log onto the LMS chat feature. This enables students to chat where access is easier and straightforward. Also, there are typically more students accessing their Facebook account and can respond in a timely manner. Facebook is not used by the academics to provide information about the units but is used to provide resources found on the Internet to share that may be useful for the students as future teachers. Both formal and informal contact are important as the literature has demonstrated the importance of promoting dialogue in online learning environments between students, and between students and teachers (Stewart & Adlington, 2010).

At times, assignment submission has been problematic and the focus group lecturers have always ensured that there are other submission options for students such as 'snail-mailing' assignments on CD/DVDs or USB memory sticks. While this need has diminished with students having more readily available and reliable access to the Internet, it is important to be mindful that Internet access can still be an issue especially for rural and remote students. To further assist in assignment submission, students are provided with strategies to reduce their file sizes so that this does not become an issue when submitting assessment tasks. As these students are enrolled in ICT units, they will often be required to submit audio, video and images that are large and slow to upload. To help alleviate this issue, students are provided with information on how to reduce file size, such as cropping out unwanted parts of an image or compressing them, to enable easy upload. Students have been provided with guides on how to do this and recently, students have uploaded their videos to YouTube (ensuring that they close these off to the public) to make access easier.

The focus group found that students have become very resourceful as a result of being remote and are able to overcome many of the barriers that they have encountered.

Question 3: *What are the some of the online teaching strategies you have found to be effective in the delivery of distance education to Education students in rural and remote areas?*

The word cloud for Question 3 is presented in Figure 4.



**Figure 4: Word Cloud for Question 3**

Perhaps unsurprisingly, considering the nature of question, the most common response for Question 3 was teaching *practice*. A range of online strategies were identified by the focus group as being effective in the delivery of distance education to rural and remote areas. These strategies included:

- Encouraging social presence by creating online learning environments with a relaxed and friendly atmosphere to help reduce isolation. While feelings of isolation are common to online students in general, they can particularly impact upon rural and remote students.
- The provision of FAQs (Frequently Asked Questions) providing ‘just in time’ access to relevant information. Such ‘question and answer’ banks can reduce the number of forum posts thereby reducing reading and access time.
- Avoid excessive email and posts to students helps prevent overload and the need for constant online access.
- As a lecturer, being proactive with class lists and knowing student locations, and being aware of who the students in the rural and remote areas are means the lecturer can pre-empt and make any necessary accommodations.
- Encouraging students in their introductory posts to provide their geographical locations. Allowing students in rural and remote regions to more easily build up support networks amongst themselves.

The lecturers felt that it was important for the turnaround time to be quick when responding to student queries. Again, this reduces the feeling of isolation and is supported by frequent student comments. Also, regular reminders are sent to students to assist in keeping them on track. This was particularly important for groups working on assessment tasks. Feelings of isolation and timely feedback have been identified as key factors to contributing to attrition (Stewart & Adlington, 2010). Thus, strategies that reduce feelings of isolation and provide timely feedback are necessary to assist in reducing attrition rates which tend to be higher for students studying at a distance (Carr, 2000).

The learning environment encouraged a formal and informal collaborative learning environment. The lecturers ensured that they had created and monitored a relaxed atmosphere by providing a strong online social presence. Feedback was often provided by audio, which provided the students with a connection to the lecturer by being able to hear their voice.

The lecturers posted regularly to the forums so that students felt connected (to their study, peers or lecturer). However, as outlined, posts were kept brief and the lecturers avoided sending excessive messages to students so as not to overwhelm them. Rather than being deleted, old forum posts were moved regularly into an archive to reduce main forum clutter. Archiving posts meant that students could refer to them if required. Students were informed with what was core and what was not, so that they could make informed choices about which items they directed their attention.

Question 4: *How important do you think that strategies for teaching students in rural and remote areas be modelled by lecturers to Education students who may find themselves as teachers in rural and remote areas?*

The word cloud for Question Four is presented in Figure 5.





**Figure 5: Word Cloud for Question 4**

*Modelling* was the most common response for Question Four. The next three frequent responses, *practice*, *scenarios* and *resources* provide some indication of what might best be modelled by lecturers. The importance of modelling good practice cannot be over-emphasised; particularly in online learning environments. It is the nature of online learning that lecturers' actions are overt and often students are quick to judge (and point out) what is 'good' or 'bad' practice. Students also need to be presented with a wide range of teaching scenarios. This is particularly the case for students who may find themselves in rural and remote areas teaching in multi-stage/multi-age classrooms. There may also be the expectation for teaching across a range of disciplines. Finally, students need to be shown how they might make best use of limited resources. Here, resources such as the Internet can help reduce the access gap allowing students in rural and remote areas access to the same web-based resources as their counterparts in the larger population centres. Specific practices identified requiring modelling included:

- Modelling good teaching in general.
- Better addressing remote school level issues with teachers having to deal with teaching multiple subjects and sometimes out of own discipline area.
- Dealing with composite classes, which are relatively common in rural and remote schools.
- Demonstrating how ICT can be used in such situations to good effect.
- Providing strategies for resourcing - often an issue with rural/remote schools

As access to professional development is problematic in rural and remote areas (Irinaga-Bistolas et al., 2007), the lecturers felt that they needed to model good teaching practices to the students who were learning to become teachers. They demonstrated how ICT could be used across many different mediums and across a multitude of experiences. They also showed how collegiality could enhance learning. Further supporting UNE graduate teachers has been the development of a resource website entitled UniServe ICT (<http://moodle.une.edu.au/course/view.php?id=4674>). This open access site has been designed to support graduate teachers into their professional careers. It provides links to resources and for teachers in rural and remote areas. It addresses the issue of professional isolation, which has been identified as affecting teachers in rural and remote schools (Irinaga-Bistolas et al., 2007).

### ***Overall Responses***

Thematic analysis of the entire focus group responses identified 21 emergent themes. The individual word analysis is presented in Figure 6.



**Figure 6: Word Cloud for responses to all questions**

This word cloud identified the common threads and recurring trends across the four focus group questions. The most frequently used word was *practice* followed by (in decreasing order), *barriers*, *access*, *flexibility* and *support*.

### ***Future directions***

Distance education trainers need to be aware of the best online pedagogical practices as well as the best delivery methods that would be of benefit to their learners. For example, in future, educators might want to consider producing video content to demonstrate appropriate practice. Currently the participants in this research utilise podcasting to deliver audio content to learners. These are usually small voice recorded files in which the lecturer discusses or shares an opinion on a given topic relevant to the unit of study. Podcasting is an efficient approach for delivering content to students with poor Internet connection.

Development and affordability in video production equipment now allows educators and learners to produce demonstration videos quite easily. However, video producers need to keep in mind that length of recording, editing style and quality may affect the file size. Having too large a file may affect viewers in remote area with poor Internet access. In addition, a long video may affect viewer attention. As the findings indicate some of the distance education learners are working and they may not have the time or inclination to view a long video. It is recommended that educators discuss these issues with technology support staff familiar with video compression for best online delivery.

One type of video production that both educators and learners could consider is digital storytelling. Such production usually requires the speaker to use visual cues to address a particular theme and is usually short, thus making them suitable to share with those who have poor Internet connections. Digital storytelling is also a useful task to engage learners to model certain themes or concepts.

Finally, work is currently being undertaken at the School of Education in developing a support network based around the website UniServe ICT. This site is available for all students while at UNE and also once they leave the university and begin teaching. Creating a Community of Practice (CoP) can help support all graduate teachers; particularly those in rural and remote areas. By networking with teaching staff and fellow graduates, feelings of isolation can be reduced and support can be provided with the aim of addressing the high levels of teacher attrition. Through such a network, graduate teachers would also have access to support, teaching resources and professional development opportunities.

## CONCLUSION

This paper has presented an analysis of the perceptions and actions of five Information Communication Technology (ICT) Education lecturers, at the University of New England (UNE), concerning issues associated with the online teaching to students in rural and remote areas. Using thematic analysis emergent themes were identified and individual descriptive words were extracted and represented in word clouds. By presenting data in this manner common threads and recurring trends across the four focus group questions could be identified. The most common recurring theme was *practice*; reflecting both the importance of lecturers employing best practice to help overcome the barriers students in rural and remote areas face and lecturers modelling best practice to their students who might one day find themselves as teachers in rural and remote schools.

The strategies used by lecturers in supporting and teaching pre-service teachers in rural and remote locations are in response to a number of the key issues faced by rural and remote students identified in the literature. These include feelings of isolation, an over-reliance on text-based learning and difficulty accessing the Internet. Associated with other factors such as family commitments and financial concerns, these all act to impact upon the quality of the learning experience of rural and remote students and can lead to higher attrition rates. As Bell and Federman (2013) have observed, ICT has the potential to improve access to education for students from rural and remote areas. However, it is important that ICT is used in such a fashion that it becomes part of the solution rather than simply adding to the problem. The practical strategies identified and discussed in this paper offer further insights into how the affordances of ICT can be leveraged to better support students in rural and remote areas.

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