



## Mobile Learning Engagement is Location Neutral

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### ABSTRACT

Some Aboriginal and Torres Strait Islander pre-service teachers undertake Initial Teacher Education through Community Based Programs which enable them to study while living in their own communities. The use of mobile devices – laptops, tablets and mobile phones – has not been integral to these Community Based Programs. Yet many of these pre-service teachers already own and use mobile devices for social purposes. This research examines their perspectives about the use of mobile devices for professional study. Face-to-face qualitative interviews and focus groups were conducted with sixty four pre-service teachers and Aboriginal and Islander Education Workers in Queensland and South Australia. Locations were categorised as very remote, outer regional and inner regional. This paper shows that voluntary engagement with mobile devices for tertiary professional study among Aboriginal and Torres Strait Islander pre-service teachers enrolled in these Community Based Programs is location neutral. If there is mobile network coverage and mobile Internet access at a location, then there is similar uptake of the use of mobile devices, regardless of the remoteness classification of that location.

### Keywords

mobile devices, remote communities, Aboriginal and Torres Strait Islander, Initial Teacher Education, engagement, mLearning

### INTRODUCTION

Aboriginal and Torres Strait Islander people in remote communities are using social media, making online purchases, doing Internet banking, creating new forms of cultural material and using a range of other services (Kral & Schwab, 2012). Huggins (2014, p. viii) recently pointed out “... Indigenous people have really embraced digital technology, in particular in remote communities”. Not all remote communities have mobile phone coverage or Internet access, yet in coming years, services are expected to improve (BFBA, 2013; RTIRC, 2012). Given the popularity of mobile devices for social purposes among Aboriginal and Torres Strait Islander people in remote communities, what is happening about the use of mobile devices by pre-service teachers in the same contexts?

This question is raised against the backdrop of workforce and higher education issues. The number of Aboriginal and Torres Strait Islander teachers and leaders in the school workforce is below parity. Aboriginal and Torres Strait Islander children and young people make up 5% of the school student population, but around 1% of teachers and leaders (McKenzie, Weldon, Rowley, Murphy, & McMillan, 2014, p. 28). Initial Teacher Education courses offered to Aboriginal and Torres Strait Islander people through Community-Based Programs have completion rates of 15% or less. (Mitchell & Linkson, 2012). This paper suggests that positive engagement with study through mobile devices can occur regardless of geographic remoteness. If, over time, strong engagement improves completion rates, then this could increase the number of Aboriginal and Torres Strait Islander school

teachers. Hence, this research raises significant implications for the delivery of Initial Teacher Education through Community Based Programs.

### INITIAL TEACHER EDUCATION THROUGH COMMUNITY BASED PROGRAMS

Two Community Based Programs for Initial Teacher Education for Aboriginal and Torres Strait Islander people have been operating in Queensland and South Australia for twenty five years. The aim of these Programs is to enable a person to gain a qualification while studying in his or her own community, rather than leaving and living away for four or more years. These Programs have two main features: in selected communities there is a classroom dedicated as a tertiary study centre (with Internet access), and a supervisory teacher who assists pre-service teachers with their study.

At the time the research commenced mobile devices were not an integral part of either Community Based Program. However, worldwide trends indicate Higher Education Institutions will increasingly utilise mobile devices for teaching and learning (Johnson, Adams Becker, Estrada, & Freeman, 2014). In commenting on the international scene Vosloo (2012, p. 35) argued “There is a significant opportunity to more fully explore how mobile technology can support teachers ...”. This paper presents research which took up that challenge to explore how mobile devices can contribute to the training, motivation and retention of Aboriginal and Torres Strait Islander pre-service teachers in Community Based Programs for Initial Teacher Education.

### METHODS

This paper reports on qualitative data that is part of a wider mixed methods PhD project. All the participants were Aboriginal and Torres Strait Islander volunteers, most of whom were pre-service teachers from two Community Based Programs as well as some Aboriginal and Islander Education Workers not enrolled in an Initial Teacher Education course. Semi-structured face-to-face interviews were held with individuals and focus groups. Interviews were conducted in English with audio recording from which transcripts were made. A set of thirteen questions were used in the interviews. Participants could choose not to answer all questions and withdraw at any time.

### RESULTS

Data was obtained from fifteen sites: five in South Australia and ten in Queensland. Overall there were 64 volunteer informants (55 females and 9 males). Information about the sites and participants is presented in Table 1. For each site this includes the state, remoteness classification, existence of mobile networks, presence of study centre, and the number of participants. Sites were labelled according to the Australian Standard Geographic Classification Remoteness Structure (ABS, 2000).

**Table 1: Sites and Participants**

Site	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	#
State	SA	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	SA	SA	SA	SA	
Remoteness	VR	OR	IR	VR	VR	VR	VR	VR	VR							
Mobile network	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	
Study centre	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	N	
<b>Total participants</b>	5	2	4	3	5	2	1	1	1	6	5	6	10	7	6	64

*Legend* SA = South Australia; Q = Queensland  
 VR = Very Remote; OR = Outer Regional; IR = Inner Regional  
 Y = Yes; N = No  
 # = Number of cases

The following table (Table 2) restricts data to current pre-service teachers and graduates who had finished their course in the past three years, and shows their uptake of mobile devices by location.

**Table 2: Use of Mobile Devices by Pre-Service Teachers & Graduates by Remoteness Classification**

Site Remoteness	Informants using mobile devices for study					
	<i>Qld</i>	Yes	No	<i>SA</i>	Yes	No
<i>Inner Regional</i>	1	1	0	0	0	0
<i>Outer Regional</i>	7	16	1	0	0	0
<i>Very Remote</i>	2	11	0	5	0	17

## DISCUSSION

It is clear there are differences between South Australian and Queensland sites regarding mobile network coverage, and between pre-service teachers from the two states about using mobile devices in their study.

### Uptake of Mobile Devices Regardless of Location

Queensland participants from each remoteness classification of location demonstrated spontaneous voluntary embracement of mobile devices for professional study. There was no difference due to the location itself. Pre-service teachers at sites in each of the three Remoteness categories of Inner Regional, Outer Regional and Very Remote areas reported using mobile devices for their tertiary study. This indicates that physical distance from larger centres of population and services in itself does not affect the uptake of mobile devices. The impact of geographic location on the usage of mobile devices for these participants is neutral: it neither increases nor decreases the participants' actual use of mobile devices in their teacher training course. Other factors influencing uptake of mobile devices are discussed below.

### Infrastructure and Internet Access and Mobile Coverage

None of the South Australian pre-service teachers used mobile devices in their community for study purposes. All five communities were classed as Very Remote. Internet access and mobile network coverage was present in only one of the five communities and absent in the other four. The absence of such services can limit the types of usage of mobile devices for study reasons. The provision of Information Communication Technology infrastructure is out of the control of both the training provider and the tertiary students. When Internet access and mobile network coverage are not present, this limits the expectations of students, lecturers and administrative personnel about what can be attempted for study reasons. In contrast to South Australia, each of the Queensland communities in the research had Internet access, and all but one of the Queensland pre-service teachers used mobile devices in various ways for their study. Hence the findings indicate that presence of Internet access and mobile coverage contribute to the uptake of mobile devices for these pre-service teachers. However, despite these being present in one South Australian community, none of the pre-service teachers there indicated they used mobile devices in their study. Thus other factors must be sought to explain the non-use of mobile devices.

### Online Learning

South Australian pre-service teachers had access to the Internet at their study / work sites in schools. However, they were not required to use their university's learning management system, whereas it was compulsory for those in Queensland. This resulted in Queensland pre-service teachers having highly developed skills for online learning. They were familiar with writing and uploading assignments, checking course outlines for due dates, looking at set readings, using web-conferencing tools, downloading podcasts, using chat rooms, lodging requests for extensions and sending and receiving emails. In contrast, the South Australian pre-service teachers had no experience with online learning which could be transferred from use with desk top computers to mobile devices.

## **Spontaneous Integration of Mobile Devices for Study Purposes**

Research findings show Queensland pre-service teachers' skills in online learning enabled incorporation of mobile devices into their study. They took the initiative to use their own personal mobile devices even though this was not a requirement of the course provider. Pre-service teachers said features of mobile devices were engaging and helped make learning personal. Their study was not restricted only to the designated classroom, but could continue in various places. It was no longer limited to business hours when the study centre was open; rather, they could study whenever it suited them. They formed mobile digital communities of learning and practice, initially through social media, which demonstrated three functions: academic support, administrative procedures and personal encouragement.

## **RECOMMENDATIONS**

The majority of Aboriginal and Torres Strait Islander pre-service teachers in this study already owned and skillfully used mobile devices for social purposes. These strengths can be enhanced. In the light of the finding that engagement with mobile learning is location neutral, and that the uptake of mobile learning is facilitated by previous experience with online learning, then the author makes the following recommendations.

Institutions offering Community Based Initial Teacher Education Programs can

- deliver training to pre-service teachers about online learning and the use of learning management systems as a mandatory course requirement;
- deliver training to pre-service teachers about the affordances of mobile devices and ways these can be utilised in completing assignments both off-line and online;
- support pre-service teachers implementing Bring Your Own Device (BYOD) by ensuring the institutions have appropriate policies, practices, staffing, infrastructure, software and funding.

These recommendations align with a recent report which indicated that BYOD will be common across most of Australia's universities before 2016, and stated : "... the act of a student using his or her own device for learning has proven to increase productivity and engagement" (Johnson, Adams Becker, Cummins, & Estrada, 2014, p. 5).

## **CONCLUSION**

This PhD research has provided evidence that Aboriginal and Torres Strait Islander pre-service teachers enrolled in a Community Based Program for Initial Teacher Education in Queensland, spontaneously incorporated mobile devices in their tertiary study, even though this was not mandated by their course provider. They used existing skills in online learning and initiated digital communities of learning and practice. These skills and the necessary infrastructure form the basis of the voluntary integration of mobile devices into such courses. Geographic remoteness of the location itself is not a factor to the use of mobile devices. Increased engagement could enhance completion rates and thereby increase the number of registered Aboriginal and Torres Strait Islander school teachers.

## **DISCLAIMER**

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