

Online learning on location: perspectives from regional Australia

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Abstract

This study sought to examine the factors that influence the uptake and effectiveness of online learning in regional Australia, looking in particular at the benefits and barriers this mode offers either ‘stand alone’ or as part of a structured program of delivery. Our methodology focused on interviewing and discussing aspects of planning, delivering and experiencing online learning with managers, educational developers, teachers and students, in order to investigate some of the organisational aims and understandings, and contrast and compare them to the actual lived experience of learners and teachers.

The research team wanted to test out the “anywhere, anytime...” promises that accompany online learning; the promotion of “learning in a time and place that suits you...” and also the organisational motivations behind providing online learning options.

The target organisations provided a wide geographical VET program spread. However, their systems did not allow for separate identification and tracking of “online” students, so it was more difficult to find learner and teacher participants than originally anticipated.

Decisions by teachers to engage in online delivery appeared to be related to their motivation, preference and previous experience. The practice we identified and tracked predominantly included online within “mixed-mode”, often classroom-based activity.

Managers’ perspectives identified a number of online strategy and implementation issues including; infrastructure difficulties inherent to effective implementation; problems with accessing and maintaining skilled staff; and the lack of co-ordination in the development of policy and platforms between state and national authorities.

Introduction

The expansion of online learning opportunities since the development and implementation of the 1999 ANTA Collaborative Framework Plan has certainly enhanced access to education for some communities, groups and individuals. The purpose of this investigation was to look in depth at how regional and rural Australians are experiencing and capitalising on these innovations.

The Research Focus

In part, the need to investigate online learning in regional environments arises because of the shortage of information for policy makers, communication platform providers and educational developers as they devise strategies to enable people in regional and rural Australia to access education online and to improve their experiences and outcomes. The team set out to ascertain

- whether there were different drivers of choice in rural and regional Australia than those affecting learning providers and learners in metropolitan Australia,
- whether the generic problems identified in other research on online program provision and learning were exacerbated by being at a distance from metropolitan centres,
- how online alternatives had been exploited by VET providers and learners in regional areas, and
- the extent to which flexible learning options with an online component are viable options for providers and users in regional areas.

This research explored online learning from the perspective of the learners, teachers, flexible learning managers, and CEOs of four VET providers in different regional parts of Australia.

Research dimensions and questions

The study was deliberately and specifically focused on *regional* centres and their associated *rural* 'territory'. 89% of Australia's non-metropolitan population (about 4.7 million people) live in such areas. The issues for, and needs of, *remote* communities and populations are not directly addressed. However the outcomes of this research may also clarify some aspects of the benefits of online learning and the barriers to online learning in remote Australia.

The selection of participating providers/learners was made so as to ensure a spread across states and regional environments, from organisations with a stated commitment to the development and support of online learning. The provider sample and their locations offer some useful similarities for comparative purposes, particularly in terms of organisational dimensions, and the hub and spokes pattern of regional location/ delivery from a key regional centre (or metropolitan fringe) to smaller towns and rural settlements. There is also a rich spread of demographic and occupational patterns across the provider locations, and a diversity of client needs and programs.

The providers and regional locations selected were:

Onkaparinga Institute of TAFE, SA. Onkaparinga is based in outer suburban Adelaide, but its delivery covers much of the south east of South Australia. It has five campuses, located at Mount Barker, Murray Bridge, Noarlunga, O'Halloran Hill and Victor Harbor, and learning centres on Kangaroo Island and at Pinnaroo. These facilities service a population of approximately 191,000. TAFE in South Australia has a rich history of participating in the development and implementation of online learning approaches, with many teachers having been involved in a variety of types of online professional development for several years. Onkaparinga's strategic goals for flexible learning (2001-

2004) are: increased availability and range of flexible delivery options, and increased enrolments in flexible delivery (target 5% per annum over 3 years).

Goulburn Ovens Institute of TAFE, Victoria. Goulburn Ovens TAFE has its administrative centre and largest campus located in Shepparton, with major campuses in Seymour, Benalla and Wangaratta, plus a number of smaller operational sites. The Institute services a regional population of approximately 170,000. Its strategic goals for flexible learning include: provide ICT infrastructure to support learners' needs; integrate information technology practices in program delivery options; support the development of 'online' program/course resources to meet customer needs; and provide all clients with access to a range of teaching delivery methodologies and options.

Wodonga Institute of TAFE, Victoria. Wodonga Institute of TAFE is situated approximately 300km north of Melbourne on the Victorian-NSW border. The Institute has its main campus in Wodonga, and regional learning centres in the towns of Corryong and Mt. Beauty. It services a regional population of approximately 120,000 on both sides of the Murray River. The Institute's identified goals related to flexible delivery are to: maximise learning opportunities and choices for the community; develop and promote progressive teaching practices; and develop and promote a flexible learning environment.

Tropical North Queensland Institute of TAFE, Far North Queensland. This Institute is based around a major campus in Cairns with seven other campuses extending to the north as far as Thursday Island and south as far as Tully. The eight campuses in Far North Queensland service an approximate population of 222,500. Enrolments for 2001 totalled 15,856 of which more than 670 enrolments were for partially or wholly online courses. Tropical North Queensland TAFE is progressively offering selective courses and course units via their online learning management system.

Research Methodology

We wanted to explore what the process of being an online learner or teacher was like from the perspective of the individual, and how these perceptions changed over time. The investigation used a layered and sequential mix of enquiry methods, which included identifying online learners at four organisations/sites, and carrying out in-depth interviews with them near the beginning of their course. 46 learners were interviewed.

Focus groups with a sample of learners during the first visit to each site, to discuss attitudes, perceptions, difficulties, etc. Twenty learners participated in three focus groups. Follow-up interviews with twenty-one of the original learners were held approximately six weeks after the commencement interviews to discuss changes in perceptions/attitudes over time. Thirteen learners were identified to participate in "Learner Diaries" - exchanges of more personal accounts over time with a researcher (via email) about the process of being an online learner - with eight completing diaries.

In-depth commencement and follow up interviews were held with teachers working online. Twenty-three teachers participated in initial interviews and sixteen in follow-up

interviews. Organisational case study and operational data came from interviews with organisational stakeholders (CEO's/Flexible Learning Managers = 10), who also provided corporate information and contextual data about their organisations and regions.

Methodological Constraints

Research, like the course of true love, never runs smooth, and this project was no exception. The problems encountered are similar to those raised by other NCVER projects in the field. The volatility of the area being researched is accepted as being part of the territory. The problems tell us a lot about teacher and learner behaviour in an online environment. The specific difficulties encountered by the researchers included:

- the lack of available institutional data on the numbers and contact details of learners studying online and the accompanying privacy issues that complicate the release of contact information
- some attrition of both learners and teachers between site visits
- confusion in the minds of teachers and learners about what constitutes online teaching and learning
- flexible patterns of enrolment and completion meaning that learners were at very different stages of their courses, making comparisons across cohorts difficult
- low numbers of identifiable online learners in participating case study organisations
- changes of staff involved in online delivery during the investigation period
- difficulty in engaging learners to commence and participate in diaries
- characteristic lack of persistence demonstrated by the online diary participants in spite of a lot of electronic encouragement.

Responding to these constraints resulted in modifications to the original methodology. The learner and teacher questionnaires originally proposed were reworked and the project team elected to carry out additional online learner diaries. The decision to concentrate on collecting contextual information was also made on the basis of researcher expertise and the literature. The research team members met, analysed and synthesised the available data from the site visits, confronted the methodological problems and value added to the project on the basis of their experience, not only with research but with the content area being researched (Limerick, Burgess-Limerick & Grace 1996).

Findings and discussion

Learner Findings

We were interested in this research to ascertain information about the actual experience of online learning, but we also wanted to contrast this with what learners had been expecting, in terms of benefits. In this way, we wanted to find out whether learners' expectations were realistic and how this might have affected outcomes for learners.

Generally, learners' expectations about the experience of learning online were positive, anticipating that it would provide: worthwhile challenges; convenience and flexibility; the opportunity to develop their computer / internet skills; an opportunity to tailor the learning experience around their lifestyle; quick and easy learning options and outcomes; and greater choice.

How learners felt about the experience afterwards, however, was revealing. While many still felt it had realised many positive outcomes, some revealed distinct dissatisfaction. The experience for these learners had been challenging, but not in a positive way: it was slow, difficult and inconvenient, particularly for those without home access to a PC.

Initial interviews showed that some learners anticipated difficulties. Among the negative expectations recorded were that this form of learning might bring with it or heighten problems to do with: isolation; not knowing enough about technology; being excessively time consuming; requiring high levels of self discipline; and IT failure / breakdown.

These issues were a reality for many learners participating in the study, compounded for some by difficulties imposed by: having only one phone line at home (and having to share the internet connection with the phone); missing the face to face experience; difficulties in juggling a number of different priorities (work, study, home etc). A few experienced poor turn around times in teachers responding to enquiries. Finally, most learners found that the time it took to study in this mode was far greater than expected.

Learner Characteristics

The first round interviews revealed a highly diversified group of participants. The range and level of the courses being studied was highly diverse, from AQF Certificate level II through to Diploma level. Subjects studied included Occupational health and safety; Information technology; Nursing and community services; Business and management studies; and Education / Workplace Trainer and Assessor.

Significantly, most of the learners interviewed had not previously participated in distance learning. Many had used simple communication tasks (such as emailing and chatting), but very few had used it as an educational access medium.

The majority of learners indicated that they had not had an alternative choice of study mode for their course, and were compelled to undertake a component of their course online. Some courses had a compulsory online component; some learners were unable to attend "traditional" classes (due to personal commitments such as family and work

responsibilities); or the course or subject was only available online. It is significant that in regional areas most learners do not select online study from other options. It is their only choice due to issues such as small numbers undertaking the course, or widely spread/isolated participants. For those learners who did have a choice, reasons given for choosing online study included that it would be a “good experience” or “a challenge”.

Most learners we spoke with found studying online to be generally a positive experience. This was mainly attributed to the convenience and flexibility of the mode. Learners also appreciated that it gave them broader access to information and that it was the “modern way of learning”. Many learners indicated that they would study online again due to the convenience and flexibility the mode offered. There were also those who stated that they would not undertake online study again having had difficulties with the delivery mode which in turn was affecting their overall progress in the course.

Responses were equally divided between those who like online and those who preferred face-to-face. Those expressing a preference for online learning mostly spoke of the flexibility it allows, whereas those who prefer face-to-face find online frustrating, confusing and slow, or said they lacked the required motivation and missed contact / interaction with their peers.

The researchers anticipated that time availability and allocation might cause concern for learners. When asked about allocating time, and the success of their strategies, some explained that they set about developing quite deliberate study strategies, such as having a regular time/ place to access information and/ or study. Many however, commented that finding time for study was never easy and with this form of study, it was easy to procrastinate and generally allow the priority for study to slide. Time management issues come to the fore not only when learners experience difficulties with the medium, but also if they lack the experience and disposition to be a self-directed learner.

Learners indicated that they used a variety of methods to communicate with their teachers/ tutors including phone, online modes (email, chat rooms and discussion boards) and face-to-face contact. When asked why they used these methods, learners said that they chose what was convenient, easy to access and reliable. Most learners found the online resources were easy to follow, although many still make “hard copies” of materials (shifting the burden / cost of resource production from organisations to individuals).

Technology was mentioned frequently throughout the interviews as an issue pervading almost all others explored. Learners suggested the need to address issues such as the provision of better bandwidth; the provision of backup resources (disk copies of materials, hardcopies of resources etc.); training (for staff and learners) to address skills gaps; and more practice and feedback.

The researchers anticipated that the cost of technology may have been an issue for some learners, however the majority of those interviewed indicated that they have not found any major prohibiting factors to do with technology costs. This does not eliminate technology cost as a general barrier to choosing online study, it simply indicates that for this sample any technology cost barrier had already been overcome. However, having only one phone line at home was mentioned frequently as an access issue. This suggested

to us that the cost of installing and servicing a second line was a cost burden that most learners were not prepared to address.

The researchers had difficulty contacting learners and teachers for re-interviewing. Some had dropped out, or moved on. 21 of the 46 learners were re-interviewed, to ascertain how they were progressing with the medium, and how attitudes might have changed.

More than half of those re-interviewed (13) indicated they would study online again for reasons including the access and flexibility the mode afforded. For a similar number, online had become a preferred mode of delivery, which was surprising, given the mixed responses recorded during the first interviews. However, the follow-up interviews were with learners who had persisted, and were experiencing success with the online mode.

When asked about how the learning experience had changed during the study period, most said that it had become easier. This change was attributed to having had more experience and familiarity with the IT aspects of studying online.

The application of the online teaching and learning experience was one of the most interesting aspects of the study. We found very little practice in the area of fully online, fully “flexible” learning. What most learners were doing online was accessing components of learning resources, checking administration issues/requirements, and communicating with teachers/learners. Many learners interviewed were from institutes that only offered specific components of courses online, rather than entire qualifications.

Teacher findings

Teachers were interviewed about their perspectives of their learners’ online learning experience to provide insights into the experiences of the learners, which the learners either had not identified or could not articulate / distinguish between particular aspects of the online learning experience.

Teachers commitment to online learning derived from a variety of experiences. Some had been involved in online learning as program / content developers, and several explained their involvement as resulting from their participation in organisational / professional development programs.

Teachers said they were initially optimistic that online learning could deliver a range of benefits including increased IT skills, convenience, better access, interaction, better quality and more current resources, and the development of problem solving skills. They felt that these goals were generally being realised. They also felt that it would be a positive experience for their learners as it provided: a necessary exposure to the technology; the excitement of another mode; greater learner flexibility; the capacity to cater for a range of learner needs; and the creation of access for some learners.

Teachers were asked to identify negative aspects of online learning that they had considered prior to delivery, and the extent to which these perceptions had been confirmed or refuted by their learners’ experiences. Practitioners expected learners to have problems with time management, particularly with procrastination in commencing

tasks. They were also concerned that the learners would not have the IT skills to cope, and that the technology itself would let learners and staff down. They felt that the extent of teacher induction to use the technology effectively was not sufficient to guarantee confidence and that the support needs of learners could not be met. They also noted that the absence of class interaction and their inability to respond to learner questions immediately would be a disadvantage.

The teachers were then asked to comment on the extent to which these projected negatives had turned into reality. Problems such as the inadequacy of the learner technology, the speed of the phone lines and the low take up rates of online courses had dampened their enthusiasm a little, and in some cases caused major disjunctions in provision.

While many of the projected problems had been realised, teachers had put in place some strategies to minimise any possible negative effects and to increase learner retention. These strategies included: providing greater levels of learner support and initial guidance; screening learners to establish levels of IT ability; and using chat facilities more extensively to overcome a sense of isolation amongst learners. Problems that teachers were not able to plan for or overcome included: poor levels of technical assistance available to learners; lack of time management skills; and general technology failures.

Specific issues that teachers identified as being barriers to effective online learning included: lack of co-ordination between TAFE providers across Australia, resulting in resource replication and time wastage; the over-enthusiasm of course developers; slow uptake rates; poor quality sound and video streaming; ill-matched IT skills amongst the learner cohort; learner styles and preferences that do not match the demands of the technology; lack of technical support; Internet connection costs; and limited access to appropriate technology.

Suggested consequences for not addressing these issues teachers saw as: continued technology problems, leading to high dropout rates and learner frustration; time management/motivational problems, leading to slow learner progress and possible attrition; and learning style mismatches, leading to greater consideration of how well the mode of learning suits individual learners' preferences and styles.

A number of teachers mentioned difficulties that they were having in sustaining their existing online courses. Part of the sustainability issue came about because learners were finding it difficult to maintain their original motivation. Some of the reasons teachers thought motivation may have been difficult to maintain included learners finding employment (and leaving the course); insufficient computers available for learner study at TAFE; learners electing to go 'paper based'; insufficient new enrolments, creating low numbers of peers in course; and learners 'dropping off the radar', with no specific reasons given.

Approximately half the teachers had made modifications to the course content and style of delivery in response to learner feedback and perceptions of learner satisfaction. These modifications included: abandoning some online editing processes, adding more structure

to chat facilities, changing course content for reasons of currency, assessment refinement and improvements to the presentation of materials.

During the second visit teachers reiterated their preference for a mixed mode of delivery that blends face-to-face instruction with online support. The reasons given for this opinion included that technology is only a 'tool'; the lack of learner / teacher engagement achievable in an online environment; learners expressed dislike of fully online learning; and lack of contact with learners resulted in learner tracking difficulties.

Teachers were asked if the experience of online learning had changed for their learners over the period between visit one and visit two. Most felt that the experience had changed, and that (continuing) learners had become more comfortable and confident with the medium. Most of the teachers maintained their original forms of contact with learners but felt that both parties were 'getting better at it'.

Teachers reported that online learning had been beneficial to their learners in a number of ways. Their learners had developed more sophisticated technological skills, had access to a wider range of resources, and in some cases learners had become more self-managing with regard to their time and their learning. The majority of teachers said that convenience and flexibility were important factors for learners accessing online learning that had been realised by the learners. The only qualifier to this enthusiasm was that learners' personal "home" technology might compromise speed and ease of access.

The Management View

Flexible learning managers and CEOs placed a strong emphasis on the value of providing options for people within their communities. They talked about helping communities stay together and develop new pathways and opportunities. They also mentioned the needs of seasonal, and very isolated workers, for whom online can form a link representing continuity. One interesting observation was that learners and communities may currently see online learning as "less serious" and that communities may therefore not place a high value on it. Alternatively, some saw online learning as a means of both reaching across remote areas and alleviating isolation and increasing the social dimensions of learning.

Flexible learning managers and CEOs did not see online learning as a cost cutting exercise, and appeared well aware of the issues involved in implementing it. (These included teachers having 'home access', addressing the new industrial relations issues that non-classroom based practice presents, looking for new ways to value, maintain and replace infrastructure related to IT services etc). Amongst the most frequently mentioned barriers were; telecommunications and bandwidth issues culminating in long download times and inaccessibility during business hours; technical barriers (knowing what software to use; having appropriate hardware); skills deficits (for teachers and learners); keeping equipment up to date; learner readiness; literacy and comprehension issues; and slow teacher adoption and adaptation.

Conclusions

For learners, the main benefits anticipated from online learning were convenience and flexibility, choice, challenges, and the opportunity to develop ICT skills. There was strong evidence from persisting learners that this occurred. Negative aspects of the online mode that learners anticipated were: isolation; that it would be slower; not knowing how to use the technology; study would be more time consuming; greater need for self-discipline; likely technology failure; and a long response time to queries. Some of those learners who were re-interviewed (but not the majority) indicated that many of these negative expectations had also been realised. We can only speculate that the group of non-persisting learners would more strongly identify these as difficulties.

The main barriers identified by learners were preparation and technology related issues. Remedies to overcome these were seen to include: the provision of a better delivery system, based on more reliable infrastructure and more instruction for users, including classes/ tutor support for beginners to enhance their ICT skills; and more technical and tutor support throughout the course. Learners also commented that levels of prior knowledge should be assessed, not assumed.

For many practitioners in the study, online was not their preferred mode of teaching. Reasons for this related to: perceptions that their learners disliked this method of teaching and learning; opinions that learners would learn best in a mixed mode; communication with learners being more restricted in an online environment, creating a sense of distance and isolation; low levels of ICT literacy and general literacy amongst learners contributing to their problems. The provider voices generally expressed concerns that access and equity factors inhibited some learners' progress on a number of levels including language and literacy, online access, and access to equipment.

There was a general sense of continuous improvement and action learning embedded in the teacher comments and discussion about their practice, and about the way it was received and responded to by learners. A major difficulty faced by many online teachers involved finding the time to reflect on their practice and discuss it with other teaching professionals, both inside their own organisation and in other organisations. Learning and practice improvement seems to be coming about at fairly high costs to the individual practitioner, without a sense that this is improving systems and practice more broadly.

Ultimately, the concern remains that for as long as regional and rural telecommunication systems are inadequate to sustain reliable and speedy links, learners will struggle and become disheartened with the online mode. This, coupled with teacher concerns that they are not yet resourced and supported within their Institutes and state systems to maintain an adequate quality of service, leaves regional VET providers and public systems with significant barriers to overcome before the acknowledged benefits of reliable online delivery to regional and isolated learners, operating in an environment of adequate choice and support, can be realised.

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