

# **Report: Rural and Remote Learners (R018R)**

**Access and Equity in Online Learning**

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*Managed by the Flexible Learning Advisory Group on behalf of the Commonwealth, all States and Territories in conjunction with ANTA*



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## Executive Summary

### Introduction

The purpose of this paper is to provide a discussion of the issues identified through research of the relevant literature and consultation with VET online learners through telephone interviews, as well as outlining future directions for online learning in rural and remote Australia. This research was conducted under the auspices of the *Access and Equity in Online Learning (Stage 2) Strategy 2001 Australian Flexible Learning Framework*. The Project Plan for the *Australian Flexible Learning Framework* defines the project's scope as:

*.... including distance, time, ICT literacy, functional literacy, and information literacy. Existing online initiatives that provide resources to this group of learners will be identified. The resources will be evaluated...to determine good practice that addresses the factors/barriers.*

### Issues

Online learning has been proffered as a solution to a range of access issues with regards to vocational education and training. The ability of personal computers to contain substantial amounts of data in interactive formats creates the potential for learning provision via a computer and the interactivity of the technology is further enhanced by telecommunications and Internet services. Most importantly, computer technology offers the possibility of enhanced flexible learning, learning which is freed from the need for a classroom but retaining the same richness of experience that is found in the classroom environment.

It is in this vein that online learning is suggested as a solution to many of the barriers which are encountered by vocational education and training students in rural and remote areas. Research literature has expressed a hope in the possible benefits of online learning and, more recently, reservations about the limitations of the online mode.

This report examines the common experiences of online learners in rural and remote Australia in the light of the literature with a view to laying out future directions of inquiry.

### Methodology

The methodology for this project was to:

- Conduct of a literature review and analysis on issues affecting online learners in rural and remote areas;
- Have external evaluation undertaken on the literature review and analysis;
- Development of a research framework that included the issues identified in the literature review;
- Conduct of a telephone survey for rural learners and remote learners enrolled in selected online courses (online only and mixed mode of online and other) in VET;
- Identification and summary of the generic and specific access and equity issues as they apply to rural and remote learners in VET;
- Identification of best practice models from among learning providers in line with the results of telephone interviews conducted; and
- Preparation of an issues paper with actions and recommendations for Strategy 2001/2 projects.

The literature review produced in the first stage of this project established that there were four main categories of barriers to online learning in rural and remote Australia. These barriers were related to: cost (Qayyum & Ruhe, 2000); the availability of online technology (EdNA, 2001); learner and community perceptions (Kilpatrick & Bell, 1998); and the baseline level of skills amongst learners (Kilpatrick & Bell, 1998). Baseline skills also included computer literacy and general language literacy. The survey instrument was drawn up with these four issues as the main themes. The purpose of the survey was to sample the population of online learners in rural and remote contexts and to use their experiences to review the current state of research into online learning and to provide guidelines for future research.

## Definitions and Parameters

### Rural and Remote

The use of terms such as regional, rural and remote can be problematic, because of the lack of uniformly accepted definitions for the terms. The Office of Employment, Training and Tertiary Education (OETTE) has indicated in some literature that rural, regional and remote areas can be defined as any area which cannot otherwise be defined as a capital city (Office of Employment, Training and Tertiary Education, 2001). This definition does not however provide parameters for delineating between remote, rural and regional.

In January 2001 Australian Bureau of Statistics (ABS) proposed incorporating the concept of remoteness into the census data, in a published information paper, *ABS views on Remoteness* (ABS, Cat. No.1244.0). The paper proposed the introduction of the Accessibility/Remoteness Index of Australia (ARIA) (ABS, 2001). The ARIA index is a “continuous variable...in which remoteness is defined on the basis of road distance from any point to the nearest town (service centre)” (ABS, 2001; p9).

The ARIA allows for remoteness to be defined in strict terms and was used as a point of reference in analysing the data collected from the telephone surveys. This is not the only method for assessing remoteness and there are in fact numerous competing definitions, which are extant at both state and federal level (OETTE, 2001).

Using the ARIA as a measure, the ABS divides the non-metropolitan areas of Australia into four categories of increasing distance from urban centres. These four categories are Inner Regional, Outer Regional, Remote and Very Remote. These areas are defined by the range of the ARIA index values which they encompass and these are listed as:

Remoteness Area	Defining ARIA value
Inner Regional	ARIA 0.2 – 2.4
Outer Regional	ARIA 2.4 – 5.92
Remote Australia	ARIA 5.92 – 10.53
Very Remote Australia	ARIA 10.53 or greater

From the point of view of this study, the term rural has been used as a rubric for Inner and Outer Regional. However, this is a problematic definition, since the term rural has land use implications as well as geographical area implications. As can be seen in the survey data, it is possible for people to live in an Inner or Outer Regional location and to consider themselves to live in neither a rural nor a remote location. As a guideline to future study, the term rural would be best avoided as a geographic descriptor.

## Online Learning

Online learning has become something of a catch all phrase. Initially in computing parlance the term online referred to a computer, which was connected to a network or to the Internet, as in *on-the-phone-line*. When coupled with learning, the phrase has been expanded to encompass any form of education process that involves the use of computer and communications technology (Booker, 2000).

Various formats can be encompassed in online learning. These can include: for a for direct contact with staff and other students; course materials provided on CD ROM; web based interactive learning environments, such as Toolboxes and computer laboratory style learning activities.

## Population in rural, regional and remote areas

A survey of the 1996 Census figures reveals that more than 48% of population in the Northern Territory live in remote and very remote regions of Australia (ARIA values of 5.92 or greater). Seventy seven percent of the population in the other Territories, except the Australian Capital Territory, lives in very remote areas (ABS, 2001). In the State of Western Australia more than 9% of population lives in remote and very remote areas. The states of South Australia, Victoria, Queensland, and Tasmania have less than 5% of population in the remote to very remote areas.

More than 51% of the population of the Northern Territory lived in outer regional areas. In the states, the population in the inner and outer regional areas ranges from nearly 6% in Victoria, through 8% in New South Wales, 13% in South Australia, 15% in Western Australia, 22% in Queensland to nearly 36% in Tasmania.

## VET Student Representation in Remote areas

In 1999 there were approximately 1.65 million students undertaking publicly funded vocational education and training programmes with 1.23 million in TAFE. Nearly 64% had a capital city as their home address, indicating that the majority of students were not from rural or remote areas (NCVER, 2000).

The provision of traditional vocational education and training in many regional areas of Australia has presented difficulties. To some degree stagnating population growth, social alienation and low skill levels have influenced this (ANTA, 2001). The need to flexibly accommodate diverse learner requirements is high. Development of online material that provides efficient and affordable access to flexible learning products and services, is proposed as a key strategy to address this need. The survey is designed to assess the success of current online learning products at meeting this need.

## Survey

The survey was conducted with current online learners in rural and remote contexts. It was a telephone survey of people who were engaged in or had completed a course with an online learning component as delineated by the definition for online learning adopted by this study.

A list of possible respondents was drawn up by contacting TAFEs and private RTOs servicing rural and remote areas. The training providers obtained permission from the students who were doing, or had done, online learning with their institution. These names were then made available to the project and from this list the telephone surveys were undertaken.

The survey implement (Appendix 3) was drawn up in five main sections: Biographical and Background Details; Access to Facilities; Orientation and Induction; Course/Unit Information; Support for Online Delivery. These sections were decided on because it was believed that these would give the best possible picture of the experience of online learners. One question was added after piloting the survey, asking the respondents to outline in general terms the types of online learning activities that they undertook in their course.

## Main Findings

The survey results point to three main findings.

1. **Distance from service hubs:** The survey data indicates that the majority of online learners are concentrated around service hubs, that is, rural or regional centres where there is a learning provider, reliable telecommunications service and a computer supplier/retailer. Also frequently present is a learning centre or telecentre, often attached to a major learning provider, such as a TAFE.
2. **Learning Communities:** There is an increasing call for populations in rural and remote contexts to establish themselves as learning communities. Such communities would have as their focus the coordination of services for online learning. Such plans constitute active decisions to create the kinds of service hubs observed in finding 1. The survey data would seem to indicate that such plans would be successful in supporting online learning.
3. **Industry Involvement/Professional Development:** Industry and business, as key stakeholders in building the population's skill base, are reported to be supportive of online learning in regional and remote contexts, as a method of staff development. In many remote contexts the only institution with a presence is industry based, such as a mining company.

Possible best practice models have been developed through the research as well. They are, the Certificate IV of Instrumentation offered by West Pilbara TAFE, the online professional development developed by TAFE SA and the *Grains Online* online staff development course implemented by Cooperative Bulk Handling in association with CY O'Connor TAFE in WA.

This study addressed online learning in rural and remote contexts from the point of view of those already undertaking the learning or those who have successfully completed the learning. This resulted in a possible bias in the study sample, which were caused by the particular requirements of a telephone survey. Since names had to be obtained of survey participants, as well as their express permission, prior to undertaking the surveys themselves, the only participants were those who were chosen by the learning provider. It is likely that the learning providers naturally erred toward or favoured successful students and it is almost unavoidable that they did not provide the names of dropouts or even of less successful students. Over and above this is the fact that any person who might wish to be an online learner but has not enrolled in a course is by definition not represented in the survey sample.

Future research would be well served if it attempted to engage the aspirant online learners in rural and remote contexts; those who would wish to undertake online learning but may be prevented or else find it too difficult for some reason. It is this population especially who will feel the bite of access and equity issues.

## Survey

The survey instrument was divided into five sections designed to acquire as much information as possible on the online learning experience of rural and remote learners. The nature and title of the sectional divisions was not communicated to the respondents. The divisions only existed to assist researchers. The five sections are:

1. Biographical and Background Details – The purpose of this section was to position the respondent with regard to what could be described as baseline equity issues.
2. Access to Facilities – This section’s aim was to collect data on the kinds and extent of online learning services which the respondents have access to and the issues associated with that access.
3. Orientation and Induction – Questions in this section asked respondents to report on their prior skill levels in computer operations and what additional preparation for online study was made available to them by their learning provider.
4. Course/Unit Information – This section collected data on the specifics of online learning being undertaken by the respondents, including the name and types of study, the amounts and types of work and the modes and formats of learning provision.
5. Support for Online Delivery – The purpose of this section was to collect data on the kinds of learner support, which the respondents utilised during their online learning, including those not supplied by the learning provider. Since this was the last section in the survey a space was also included for final comments from respondents.

A copy of the survey implement is provided in Appendix 3.

A breakdown of respondents by state, with Remoteness Area (where able to be determined) is as follows:

State	No. of Respondents	By Remoteness Area (RA)				
		Inner Regional	Outer Regional	Remote	Very Remote	Unknown
New South Wales	5	5	-	-	-	-
Northern Territory	6	-	1	3	-	2
Queensland	1	-	-	1	-	-
South Australia	16	10	5	-	-	1
Tasmania	8	-	5	-	-	3
Victoria	10	9	1	-	-	-
Western Australia	36	1	19	13	3	-
<b>Total</b>	<b>82</b>	<b>25</b>	<b>31</b>	<b>17</b>	<b>3</b>	<b>6</b>

## Section 1: Biographical and Background Details

The first series of questions in the survey were designed to establish the respondent's position within the matrix of factors, which makes up 'equity issues'. It is the position of ANTA that "Australia [must work] towards making the VET system more responsive to the diverse needs of clients and potential clients" (OETTE, 2001).

In order to locate survey data within this context, respondents were asked to provide their gender, their age, whether they felt that they lived in a rural or remote area as well as whether or not they identified themselves as members of a number of equity groupings, including indigenous Australians and people with a disability. Their answers are shown in the graphs below.

Age Group	Male	Female	Total
Under 17	0	5	5
17 – 25	6	18	24
26 – 35	5	11	16
36 – 45	3	14	17
46 – 55	5	11	16
56 – 65	1	2	3
Unspecified	0	1	1

Figure 1. Age and Gender of Survey Respondents.

As the table shows, there were three times as many female respondents as male. This is the reverse of the oft-held belief that men are more likely to be involved in the uptake of new technology than women. Although the survey's sample size was far too small, and the implementation of online learning too uneven, for any general conclusions to be derived from the proportional gender representations in the statistics, there are indications that this breakdown of gender may be typical.

A literature review conducted into women learners in VET and the issues impacting their access to online learning found that "while research in the 1970s and 1980s frequently showed that men were more disposed than women to adopt new technologies, there is growing evidence that women are fast catching up and in some cases surpassing men in engaging with the digital world" (ANTA, 2000).

A study by Mott (2000) of online learners found that more women (82%) than men (34%) reported "intrigue, interest or curiosity with the technology" as their primary reason for enrolling in online learning. Current research thus indicates that the above statistics may not be anomalous but may instead show a genuine trend.

Statistics gathered on the age of respondents show a spread across age categories. As might reasonably be expected, the two smallest groupings were at the extreme ends of the scale, being Under 17s and the 56-65 age groups. It appears that there is a level of equity in the ages of participants in online learning in VET in rural and remote contexts, although the 17 – 25 age group had a higher representation than any other. This could reasonably be attributed to the process of school leavers seeking post secondary employment training.

A breakdown of the various age groupings shows that the proportion of males to females is fairly consistent across age groups. Two groups do however provide results outside this norm. The under seventeen group had no male students and the 36-45 age group had a markedly lower proportion of males to any other group. In the case of the 36-45 age group the higher proportion of female learners may be due to mothers seeking preparatory training in the home

prior to re-entering the workforce. Conrole (2000) reports that many women participate in vocational education and training to improve their chances of employment, to change careers or to upgrade their qualifications. These activities appear to be reflected in the fact that the proportion of female respondents does not significantly drop off until the 56-65 age group, the age group closest to retirement age.

It should be emphasised that the survey sample size is not especially large and that results given for age and gender constitute trends only, not conclusive findings.

	<b>Indigenous</b>	<b>Disability</b>	<b>Literacy or Numeracy Problems</b>	<b>English as a Second Language</b>
Survey Respondents	3.7%	0%	4.9%	0%
National Average	2.19%	21.2%	5.8%	12%

Figure 2. Breakdown of survey respondents into conventional equity groupings. National averages taken from Australian Bureau of Statistics *Australian Social Trends 2001* Cat. No. 4102.0; Australian Bureau of Statistics *Aspects of Literacy: Profiles and Perceptions Australia 1996* Cat No. 4226.0.

Very few of the respondents identified themselves in any way with the conventional equity groups. The proportions of two of the groupings (Indigenous and Literacy or Numeracy) were similar to that found in the wider population by the ABS. Two groups however, people with disabilities and people from non-English speaking backgrounds, were not represented at all in the survey sample.

According to *Strategy 2000: Access and Equity in Online Learning Project Report* (ANTA, 2000) people for whom English is a second language often find that their reading and writing skills form a barrier to learning and that this barrier is “compounded when computers and other information technology are introduced” into the learning environment.

For learners with a disability, similar issues have been observed.

*Learners with a disability, although they may not be disadvantaged in terms of low English literacy levels, face the same need to understand and learn the mechanics of computing and the syntactic and semiotic organisation of Web pages (ANTA, 2000).*

The lack of representation for these groups in the survey sample is in line with this observed trend. The fact that no rural or remote disabled or non English speaking background learners were found in the sample is a reflection of the fact that such learners are rare generally, and not just in rural or remote contexts.

<b>Reported Region</b>	<b>Number of Respondents</b>
Neither	11
Remote	18
Rural	39
Rural & Remote	14
<b>Total</b>	<b>82</b>

Figure 3. Region which respondents reported living in, by self-assessment.

The largest number of respondents considered themselves to live in a rural area. While the term rural generally refers to land use, it has been used in this study as a recognisable term for what the Australian Bureau of Statistics refers to as Inner and Outer Regional Australia. This table demonstrates the difficulty with the term rural when seeking to delineate geographical locations. Over 10% of respondents believed that they lived in neither a rural nor a remote location, yet all of the respondents were in regional or remote areas according to the ARIA ratings of the nearest population centre to where they lived.

Remoteness Area		Number of Respondents
Inner Regional		25
Outer Regional		31
Remote		16
Very Remote		3
Unknown		7
<b>Total</b>		<b>82</b>

Figure 4. Region where survey respondents dwell according to remoteness area (RA). Remoteness area definitions taken from Australian Bureau of Statistics *Urban Centres/Localities 1996 with Remoteness Area 2001 (whole of Australia)* Cat. No. 9921.0.

Above is a table showing the breakdown of respondents by Remoteness Area, the system by which the Australian Bureau of Statistics measures remoteness within Australia (ABS, 2001). The above chart shows that while a sizable proportion of students identified themselves as neither remote nor rural, none of the respondents were in fact outside of the ABS defined areas of remote and regional Australia. These statistics bear out an observation made in *National Vocational Education and Training Policies: Issues and Lessons from Regional and Remote Australia – Final Report* (ANTA, 2001). In this document it is observed, “regional and remote covers an enormous diversity of experiences. It includes people for whom life is an urban experience...[through to] those whose nearest neighbour may be many hundreds of kilometres away” (ANTA, 2001). Given this diversity of experience, which is borne out in the survey data, future research would be better served to avoid problematic terms, such as “Rural”.

Respondent is...			Number of Respondents
Not a Teacher/Lecturer			61
A Teacher/Lecturer not involved in Online Delivery			13
A Teacher/Lecturer involved in Online Delivery			8
<b>Total</b>			<b>82</b>

Figure 5. Respondents who are teachers or lecturers and their involvement with online delivery.

The above table shows the number of respondents who, while being online students, were also teachers and lecturers (over 24%) and of those teachers and lecturers, the percentage who were involved in online learning delivery (9.8%). This means that nearly ten percent of the respondents answering the survey had experience of online delivery as both a teacher and a student. A large number of these learners who were also teachers, were members of TAFE SA staff who were undertaking a staff development course in the use of WebCT software, which is designed to facilitate online learning provision. So, these respondents were utilising online learning in order to develop skills in online learning provision. Future research could be applied to examine the short and long term success of such professional development programmes

within VET learning provision, as such a system could provide extra value to online teachers by giving them the experience of first being online learners. This would be in line with other recommendations for online VET, such as that made by *National Vocational Education and Training Policies: Issues and Lessons from Regional and Remote Australia*, which reports that “calls continued in the consultations for more professional development for trainers in remote locations, particularly in adapting instructional design, learning support and cultural relevance” (ANTA, 2001: p18).

## Section 2: Access to Facilities

This section's aim was to collect data on the kinds and extent of online learning services, which the respondents have access to and the issues associated with that access. Distance from services was a central feature in the questions. Online learning has been proposed as a mode well suited to overcoming the barrier of distance from VET learning services (Qayyum & Ruhe, 2000). By assessing the distance at which respondents live from online learning services, that data provides a de facto assessment of whether the online mode is being utilised in this fashion. After all, if online learning were being taken up by those who dwelt at a substantial distance from the learning provider, then that would be prima facie for the mode being successful at overcoming distance.

<b>Travel Time to the Nearest Town</b>			<b>Number of Respondents</b>
Less than 30 min			75
30 min – 1 hour			4
1-2 hours			1
2-4 hours			1
More than 4 hours			1
<b>Total</b>			82

Figure 6. Reported time taken to travel to the nearest town by motor vehicle.

Over ninety percent of respondents dwelt less than one half hour's drive from the nearest town centre. This question was used as a proxy measure of distance from telecommunications services, in particular telephone lines capable of Internet and World Wide Web services. What is important to note was the extent to which town centres form hubs for learning activity.

The notion of the town locality functioning as a learning hub is taken up in previous research, such as in a paper prepared by the Western Australian Department of Commerce and Trade (DCT, 2001). In assessing the online service infrastructure in the WA Wheatbelt, this report observed that there was a marked division between the quality of telecommunications services in Wheatbelt towns and Wheatbelt areas more than five kilometres distant from a town (DCT, 1998).

<b>Travel Time to the Nearest Computer Shop</b>			<b>Number of Respondents</b>
Less than 30 min			57
30 min – 1 hour			11
1-2 hours			5
2-4 hours			4
More than 4 hours			3
Don't know			2
<b>Total</b>			82

Figure 7. Reported time taken to travel to the nearest computer retailer by motor vehicle.

<b>Travel Time to the Nearest Computer Repairer</b>			<b>Number of Respondents</b>
Less than 30 min			58
30 min – 1 hour			8
1-2 hours			4
2-4 hours			4
More than 4 hours			3
Don't know			5
<b>Total</b>			<b>82</b>

Figure 8. Reported time taken to travel to the nearest computer repairer by motor vehicle.

Figures 7 and 8 provide a guide to the personal access to computer technology that the respondents possessed. While ninety percent of respondents lived within half an hour's travel from the nearest town, only seventy percent lived within the same distance from the nearest computer shop or computer repairer. In spite of this, the majority still live relatively close to computer sales and service centres.

<b>Travel Time to the Point of Internet Access</b>			<b>Number of Respondents</b>
Don't Know			3
Less than 30 min			31
30 min – 1 hour			2
N/A – Access at Home			43
N/A – No Internet Access			3
<b>Total</b>			<b>82</b>

Figure 9. Reported time taken to travel by motor vehicle, to the locale where the respondent accesses the Internet.

Over half of all respondents had access to the Internet through a computer in their home. Over ninety percent of respondents had access to the Internet either in their home or within thirty minutes travel time. The respondents as a group could be said to have a generally high level of Internet access, although, just over seven percent did not access the Internet at all.

<b>Travel Time to the Nearest TAFE</b>			<b>Number of Respondents</b>
Less than 30 min			52
30 min – 1 hour			15
1-2 hours			7
2-4 hours			3
More than 4 hours			4
Don't know			1
<b>Total</b>			<b>82</b>

Figure 10. Reported time taken to travel by motor vehicle to the nearest TAFE for studying the respondent's course.

Over eighty percent of respondents lived within an hour's travel from the TAFE that provided their course. This mirrors the closeness to other services already noted.

<b>Travel Time to the Location where Online Learning was Undertaken</b>			<b>Number of Respondents</b>
Less than 30 min			46
1-2 hours			2
30 min – 1 hour			7
N/A – Access at Home			27
<b>Total</b>			<b>82</b>

Figure 11. Reported time taken to travel by motor vehicle to the site where the respondent undertook their online learning.

Respondents were asked to estimate the time it took them to travel to the location where they did their online work, or to nominate their home computer if that was the location. Importantly, substantially fewer respondents undertook their online learning from home than had Internet access at home. Many more respondents had home access to the Internet than undertook online learning from home. This would seem to indicate that Internet access is not currently the central limiting factor to uptake of online learning.

<b>Reported Barrier</b>			<b>Number of Respondents Reporting Barrier</b>
Computer repairer			2
Internet access			1
Nearest TAFE			7
No Response Given			4
No Barriers			68
<b>Total</b>			<b>82</b>

Figure 12. The distances from specific services, which were reported to be barriers to TAFE study.

Almost ninety percent of respondents stated that the distance to the services listed in section two did not in any case provide a barrier to their study. For the 12.2% for whom the distance from one or more of these services was a barrier, by far the most commonly reported barrier was the distance to the nearest TAFE for studying their subject. This is not atypical of rural and remote learners; “many rural Australians do not have access to TAFE institutions because of the distance between where they live and work and the location of TAFE” (Kilpatrick & Bell, 1998: p12). However, this is precisely the problem which it is hoped that online learning will overcome. Given that the majority of respondents lived comparatively close to the learning provider for their course, it appears that online learning is not yet fulfilling the hoped for role of overcoming learner distance from learning provider.

This limitation of online learning is anticipated in the ANTA report *Eyes Wide Open* (1998b) a supporting paper to *A Bridge to the Future: Australia's National Strategy for Vocational Education and Training 1998 – 2003* (1998a). In this report it is stressed that online learning is not a cure all for distance issues experienced in rural and remote contexts, but that it still holds significant potential (OETTE, 2001). The survey data indicates that this potential is not yet being reached.

It is important to note that even though only a very small percentage of respondents (1.2%) reported that Internet access was a barrier, when extrapolated across the population of VET students in rural and remote Australia, this represents over five thousand learners (NCVER, 2000).

	<b>Do you have a telephone line at home, which can access the internet?</b>	<b>Did not having internet access at home impact on your study?</b>
Don't know	1	1
N	23	14
Y	58	7
N/A	-	58
No Answer	-	2
<b>Total</b>	<b>82</b>	<b>82</b>

Figure 13. Home Internet access and its reported impact on respondents' learning.

The majority of respondents reported having a telephone line at home that could access the Internet. The respondents who did not have internet access at home, who could say categorically that this provided a barrier for their TAFE study was only 8.5% of the entire sample.

	<b>Does the quality of your internet connection affect your study?</b>	<b>Does the quality of your power supply affect your study?</b>
N/A	24	24
Never	35	48
Sometimes	16	7
Often	5	3
Almost Always	2	-
<b>Total</b>	<b>82</b>	<b>82</b>

Figure 14. Respondents were asked to assess the extent to which the quality of their power supply and Internet service provision negatively impacted their online learning.

Of those respondents who had an Internet connection at home, most reported never having any problems with their service, which impacted on their study. Even fewer reported problems with their power supply, which impacted on their study.

Taking access to services as a whole, the majority of respondents reported that they were living within relatively close proximity to sets of providers of the services that are necessary for effective online learning provision. This is contrary to the research referred to above, which indicates that distance from teaching providers is a significant barrier to VET study (Kilpatrick & Bell, 1998). Thus if the majority of students surveyed report a low distance between where they live and the services which support online learning, then the most likely conclusion is that online learning is only being taken up by those who dwell relatively close to service hubs. Such a trend is not new; "the focus of much formal VET provision tends to be in the oldest and largest regional centres" (OETTE, 2001; cf Falk & Golding, 1999). This runs counter to the hoped for impact of online learning in rural and regional contexts, which is to overcome the "tyranny of distance".

Careful reading of these statistics is important when referred to the Key Performance Measures (KPM) for Vocational Education and Training outlined by ANTA Ministerial Council for the key objectives listed in *A Bridge to the Future* (OETTE, 2001: cf ANTA, 1998a). KPM 5: includes the participation in VET of relevant client groups, including remote and rural learners. This data could provide a sense that there is a low rate of exclusion from online learning because so few respondents report experiencing distance from services as a barrier. However this may only be because the mean distance from services among the respondents was low.

The majority of respondents also reported that the quality of the basic services was of sufficient level, that service provision could be said to be reliable and not a barrier to online study. Again, this is most likely to be a result of a biased sample, being those students for whom access to services is high. The expansion of quality online services is currently a policy priority in national government funding allocation, under the *Networking the Nation* programme, a five-year fund to improve regional telecommunications infrastructure (OETTE, 2001). As this improvement in infrastructure is implemented there should be a marked increase in proportion of students living further from regional service hubs.

### Section 3: Orientation and Induction

Prior to commencing your online study did you know how to:						
	Use a Personal Computer	Use CD ROMs	Use email	Use Chatrooms or Bulletin Boards	Use the World Wide Web	Use Floppy Disks
Yes	75	64	64	37	67	69
No	7	18	18	45	15	13
<b>Total</b>	82	82	82	82	82	82

Figure 15. Respondents were asked whether they had experience with using a variety of computer and online features prior to commencing their online course work.

Section 3.1 of the survey was a series of questions aimed at gaining a sense of the baseline computer use skills of online learners, before they began online learning. The results obtained indicate that the majority of online learning participants have effective prior experience in personal computer use. Of all the basic computer use experiences assessed, only the use of chatrooms or bulletin boards had not been experienced by a majority of respondents.

Just as the high level of reliable services reported in Section 2 indicated that online learning was mainly being taken up by those with access to quality services, so the high rate of reported prior experience suggests that the uptake of online learning is highest among those students with substantial prior computing experience.

Research suggests that computer literacy and language skills are of generally lower levels in regional and remote areas than in metropolitan areas (ANTA, 2001). If this is correct, then the high level of prior computer experience reported, along with the lack of literacy and numeracy problems reported in Section 1, indicates that online learning is currently undertaken only by those learners who already possess high levels of computer and language skills.

Which areas was training offered in?	Mode of Training Offered					
	Face-to-face	Online	Written Material	Other - includes mixed mode	None	Don't Know
Computer Use Skills	25.6%	6.1%	0%	9.8%	45.1%	13.4%
Study Skills for Online Learning	13.4%	4.9%	3.7%	6.1%	61%	11%
Orientation/ Induction	30.5%	3.7%	2.4%	12.2%	46.3%	4.9%
Other	1.2%	0%	1.2%	1.2%	95.1%	1.2%

Figure 16. The table above shows the proportions of respondents who were offered additional skills training by their online learning provider. Respondents were asked whether their online learning providers offered them skills training in addition to their online course and if so, what skills were trained and what format did that training take.

Survey participants were asked whether additional training was made available to them by their TAFE, prior to the commencement of their online coursework. Respondents were asked if training was made available in the use of computer hardware or software; in specialist study skills for online learners; in the form of a specialised induction or orientation for the course; any

other form of pre-course training. The largest proportion reported that no preparatory training was made available to them in any of the categories nominated.

For the majority of those for whom training was made available, face-to-face training, in a classroom or learning centre context, was the form that was offered. Naturally this will have meant that in order to access the training the respondents would have had to travel to the location where the training was provided. This would undermine the proposed advantage of online learning in distance education, as does the fact that most online learning is still being implemented in formats that contain some requirement for attendance.

	Yes	No	N/A	Total
Access Training?	38	25	19	82
Did the Training Meet your needs?	33	7	42	82

Figure 17. Respondents were asked whether they took up any additional skills training which was offered and whether the training met their needs. The N/A column represents those respondents who did not have additional skills training offered to them.

**NB.** In the above table there is a greater proportion of respondents represented in the “Did the training meet your needs?” row than in the “Access Training?” row. This is because some respondents who did not take up the training still answered that they felt their needs had been met regardless.

After ascertaining whether additional training was made available to online learners, questions were asked to assess the extent to which that training was taken up and how effective it was felt to be by the respondents who did take it up. Additional training in one of the areas specified was only available in just over forty percent of cases. However, the level of satisfaction with the courses provided was quite high.

This tends to reinforce the notion that online learning is only being taken up by learners who already have a higher degree of experience with computer usage. Over seventy percent of respondents had some form of pre training offered to them, and nearly half of those did not take up the training. 46.3% of respondents did take up the training and only 8.5% found the training unsatisfactory.

When asked why they had found the pre course training unsatisfactory responses given included that “the training was not specific enough and should have included more handy tips” and that the training “was not sufficiently oriented to the final course”. It is important to note that only one respondent who found the training provided was insufficient to his needs also reported having no prior computer experience.

As has been noted previously, this survey has a somewhat biased sample, in that the only people surveyed were those either undertaking online learning or those who had already successfully undertaken online learning. As such, online students who failed their course or withdrew from study because of a lack of prerequisite computing skills are not represented. If, as ANTA has stated, the vocational education and training sector is the sector which will increasingly be “critical” to bridging the gap between the information “poor” and the information “rich”, then online learning programmes in rural and remote contexts will need to account for those learners with low computing skills levels (OETTE, 2001). Otherwise, online learning will not be effective in overcoming distance issues in rural and remote contexts.

## Section 4: Course/Unit Information

The purpose of this section of the survey was to collect details on the kinds of online learning currently being undertaken in the rural and remote context.

<b>Level of Course</b>	<b>Number of Respondents</b>
Certificate I	8
Certificate II	12
Certificate II/III	3
Certificate III	17
Certificate IV	10
Diploma/Advanced Diploma	2
Other	27
Unknown	3
<b>Total</b>	<b>82</b>

Figure 18. The level of courses which respondents studied online.

Respondents were asked the name and the level of the course in which they undertook online learning. The course names are listed in Appendix 2. The chart above shows the breakdown of course level. Many of the courses, which are listed as “Other”, were continuing adult education courses and professional development courses including degree and post-graduate courses.

It is important to note that very few respondents from the Northern Territory (1.2% of the total responses) were studying certificate level courses. The rest of the respondents from the Northern Territory (6.1% of the total) were studying degree and postgraduate level university courses through the Northern Territory University (NTU). These respondents were accepted into the survey because vocational education and training is also provided by NTU as well as university level education and so the online learning courses in the university and post graduate context were developed by the same experts as were developing the vocational education and training online learning.

<b>Method of finding out about course:</b>	<b>Number of Respondents</b>
Personal Enquiry	17
At School or Already Enrolled in TAFE	12
Workplace or Employer	16
Advertising or Promotion	10
Word of Mouth	11
Online	6
Other	1
No Answer – Unknown	9
<b>Total</b>	<b>82</b>

Figure 19. The ways in which respondents found out about the course that they were studying.

The above table shows the breakdown of the various ways in which online learners found out about their courses. Particularly significant is the small number who found out about their courses online.

Twenty percent of respondents found out about their online course through their work. Industry representatives in regional and remote areas are reported as being supportive of online learning formats because of the possibilities for staff development provided thereby (OETTE, 2001).

The highest number of respondents reported finding out about their courses via personal enquiry then via their workplace or employer. Both of these factors are positive indicators towards the interest shown by learners and also by their employers in gaining further skills and qualifications. Given the high proportion of female respondents, this result is in line with Connole’s observations (2000) about the motivations of female learners in vocational education and training.

	Yes	No	Total
Did you have to purchase Hardware to study your course	5	77	82
Did you have to purchase any software to study your course	4	78	82

Figure 20. Respondents were asked if they needed to purchase any hardware or software in order to study online course.

Respondents were asked if they were required to purchase any computer hardware or software in order to study their course. The overwhelming majority purchased neither, either because they already possessed the requisite technology or they were able to access it elsewhere.

Of the respondents who purchased computer hardware, the average expenditure reported was \$2,350. The mean expended on software among those who needed to purchase software was \$184.50. It should be noted that not all respondents who answered “Yes” to having purchased hardware or software were willing nominate the amount of money, which they spent. The mean figures given here are therefore only indicative.

Respondents’ answers indicate that cost of having to purchase computer hardware or software was not a barrier to their learning because of already having access to computing facilities. Over 50% of respondents stated that they did not have to make purchases of computer hardware and software in order to study and also undertook their study at a public access point, such as a telecentre, TAFE or learning centre. This indicates that in as many as half of all respondents’ cases, cost as a barrier may have been overcome by public provision of services, rather than cost simply not being a barrier to the respondents. Such an analysis is in keeping with the notion of service hubs being the main locales for online learning, as well as indicating that programmes to develop Learning Cities are likely to be successful in the Australian Context.

The indication that over 50% of respondents did not have to purchase any hardware or software because they either had it at home or accessed it at a public access point defeats a major barrier or perception of a barrier, with regards to computer equipment. Increasing access, whether at home or at a public access point, will go a long way in promoting online learning. However, caution is required in interpreting the data, as it is likely that greater attempts are required to survey those who neither have the requisite computer equipment at home nor access to public equipment due to cost or distance. The survey process, by dint of being a telephone survey, may have skewed responses to those who at least have telephone access.

	None	Less than Twenty Five Percent	Twenty Five to Fifty Percent	Fifty to Seventy Five Percent	More than Seventy Five Percent	One Hundred Percent	Total
Internet at Home (or Other)	48	7	5	4	3	15	82
Learning Centre or TAFE	30	3	4	1	6	38	82
CDROM at Home (or Other)	65	2	4	0	0	11	82

Figure 21. The proportion of online study reported by respondents in each typical online learning context.

Respondents were asked to nominate what proportion of the units which had online learning components was done in each of the three nominated modes, over the internet at home (or the locale at which the internet was accessed), over the internet or LAN at either a TAFE or Learning centre and by CD ROM at home.

The least common online learning format is delivery of learning materials by CD ROM, with less than twenty percent of respondents receiving CD ROM delivered materials. Significantly, almost half of all respondents had their online course work delivered 100% in a public context. This has significant implications for the development of CD ROM based online learning, such as Toolboxes. Web enabling CD ROM learning, as is intended with some Toolbox projects via WebCT, would create a format more in line with current learner engagement.

	Face to Face	Postal	Other
Respondents whose units included other modes of delivery	31	9	17

Figure 22. Teaching modes that were used in conjunction with online learning and the number of respondents who reported their utilisation.

Questions 4.6a to 4.6c of the survey asked respondents what additional forms of delivery were utilised with their online units or modules, if any. Almost forty percent reported that in addition to the online learning, the module included face-to-face learning. This statistic is indicative of the notion that online learning may be being implemented as a tool to support traditional learning delivery formats rather than a format in its own right. If this is the case, then it must have implications for rural and remote learners, where distance from TAFE is the barrier to study most highly reported.

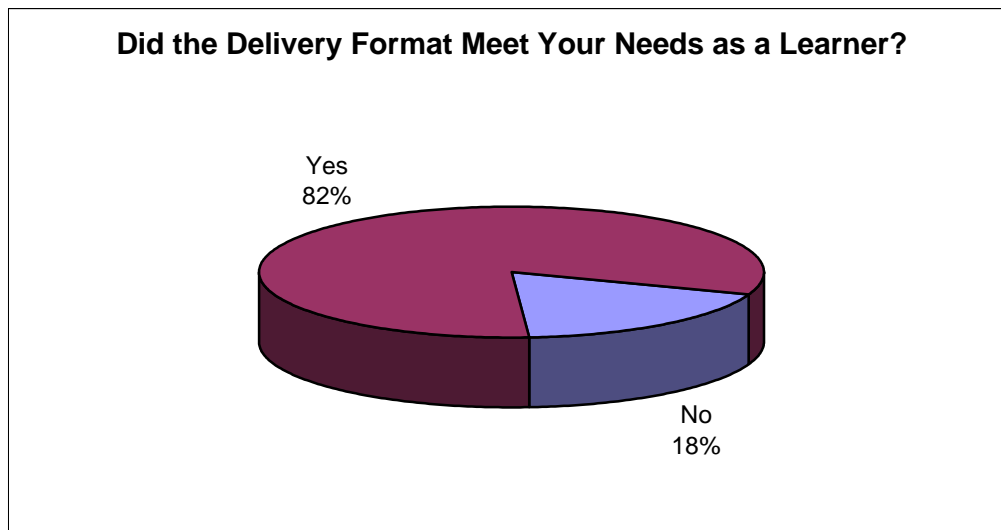


Figure 23. Learner satisfaction with the format of their online learning unit. (n=82)

A very high proportion of respondents reported that the format of their online modules/units met their learning needs. This is a trend which is at odds with reported attitudes in rural and remote contexts, and only serves to reinforce the notion that online learning is undertaken mostly by those learners who live and work in service hubs. It also lends positive support to the belief that online learning is only being taken up by those with adequate literacy and computer literacy. Familiarity with the medium may create a higher level of satisfaction with the learning overall.

Recent research into vocational education and training in rural and remote Australia indicates a widespread level of dissatisfaction with service provision within the sector (OETTE, 2001). Since the respondents in this survey reported having their needs met, they may represent a biased sample.

Typical activities in online course	Number of respondents
No Answer Given	21
Read online; assess by email	13
Read online; assess online	18
Read online; snail mail assessment	4
Read from CD; assess from CD	3
Read from CD; snail mail assessment	1
Emailed course material; email assessment	3
Software use/skills training	17
Other	2
<b>Total</b>	<b>82</b>

Figure 24. Summary of typical activities which respondents reported undertaking during online learning.

Respondents were asked to describe briefly the kinds of online learning activities, which they undertook as a part of their online learning modules/units. A substantial proportion (21%) undertook computer skills training online and frequently were not assessed. This was especially the case in those instances where continuing adult education was being undertaken. The high

proportion of online skills training being undertaken lends support to the assertion made by ANTA (1998) that:

*[in the] future vocational education and training will be increasingly critical in bridging the gap between the information "poor" and the information "rich" through providing information technology access and training...(ANTA, 1998)*

Another issue connected to these statistics is the involvement of non-online formats in the assessment of online courses. There is evidence in the literature to suggest that learning providers are reluctant to provide online learning because they do not wish to incur the increased costs which can result if the online learning needs to be supplemented with face to face assessment, as is often the case in technical skills courses such as the Instrumentation course undertaken by respondents from West Pilbara TAFE (ANTA, 2001). One respondent even reported that he was unable to complete the course because he could not arrange to travel the 900 kilometres necessary to attend an assessment centre.

It is interesting to observe that only 4% of respondents reported undertaking the entire of their course work and assessment from a CD ROM and another 1% receiving course material via CD ROM and then mailing their assignments through conventional postage. This low level of uptake of CD ROM based learning may have implications for the development of online coursework.

Nearly a quarter of respondents undertook both their course work and their assessment completely online. There have been concerns expressed in research about the validity and applicability of completely online delivery, especially by learning providers for more practical courses (ANTA, 2001).

It is overall outcomes like this which lead to the dissatisfaction with VET in rural and remote Australia mentioned above. "Travel...is the key barrier to participation in VET" (OETTE, 2001). What the answers shown above indicate is that in many instances online learning may be as vulnerable to this problem as any other mode.

## Section 5: Support for Online Delivery

This section of the survey sought to determine the extent and types of support which learners had available to them and which they drew upon.

	Helpdesk?	Have You Used It?	Did It Meet Your Needs?
Yes	63	27	44
No	13	35	5
Unsure	6	-	-
N/A	-	20	33
<b>Total</b>	82	82	82

Figure 25. Availability and usage of Helpdesk services reported by respondents.

NB: There is an apparent error in the above table, the number of Yes responses for “Did it meet your needs?” exceeds the value of those who reported using the service. However, several respondents who reported never using the Helpdesk service nonetheless reported that it met their needs “simply by being there”. The knowledge that the service was available if needed was sufficient for several respondents.

Respondents were asked whether their Registered Training Organisation (RTO) provided a helpdesk service to assist with problems. The majority reported that some form of technical service assistance or helpdesk was made available to them. Substantially fewer reported that they had felt the need to make use of the service however. This fact also supports the previously raised notion that online learning may predominantly be being taken up by those with extensive previous experience in using computers.

Forms of Helpdesk Availability	Number of Respondents
24 Hours	7
By email	2
In Class	7
During Office Hours or at Specific Times	34
Unsure	14
N/A	18
<b>Total</b>	82

Figure 26. The reported availability times of Helpdesk services provided by learning providers.

When questioned about the provision of helpdesk services, the respondents were also asked to nominate the times at which the helpdesk service was available. This is significant because one of the frequently given reasons for implementing online learning is that it would provide flexibility for the learner, especially in terms of time commitment. The notion advanced is that online learning should make it possible for learners to study at the time of their choosing. However, very few respondents reported having helpdesk services available twenty four hours a day and so, the flexibility in their time use could or would be significantly reduced by the times for available technical assistance.

Future research could look into whether learning is enhanced by the provision of twenty-four hour technical assistance or inhibited by the lack of such services.

	Specialist Learning Support	Did You Use the Specialist Learning Support?	Did You Receive Support from Any Other College Staff
Yes	30	3	46
No	30	28	36
N/A	-	51	-
Unknown	22	-	-
<b>Total</b>	82	82	82

Figure 27. Availability and usage of other forms of learner support by respondents.

The provision of other support services by the learning provider was also surveyed. Extremely few respondents reported using specialist-learning support. This indicates that people who need specialist learning support are either not taking up online learning or else are not confident to admit their need. Further research needs to examine this area to identify whether or not people with higher level educational needs feel excluded from or disadvantaged by online learning as a format.

Amount of contact per week	Face to Face	Email	Telephone	Online
3+ Hours per Week	10	-	-	1
2-3 Hours per Week	2	3	-	3
1+ Hour per Week	3	18	8	4
Fortnightly	5	2	1	-
Infrequently	6	10	9	1
In Class Only	18	-	-	1
None	37	48	63	72
Unknown/Unspecified	1	1	1	-
<b>Total</b>	82	82	82	82

Figure 28. Reported contact with teachers, specifying amount and type of contact.

When asked about the type and amount of contact, ranging from none to 3+ hours per week, which they had with teachers for their online module/unit, in each major format, face to face, email, telephone and online, the most common answer was none at all. This is a striking result, which indicates that the majority of online learning is currently being designed in such a way as to minimise contact between learners and teaching staff.

Another important result is that the most common form of contact that did occur was in the face-to-face category. This points to several possible trends; firstly, that this indicates online learning is being implemented as an adjunct to traditional teaching modes, the most common of which is face to face. However, if this were the case then one would expect more contact to occur between teachers and learners overall.

Another trend indicated by the high relative proportion of face-to-face contact is that there may be preference on the part of learners for such contact. Question 5.4 in the survey indicated that this may in fact be the case.

Another significant issue brought up by these results is the relative paucity of online contact. Online learning communities are one of the features, which it is suggested can further enhance

the effectiveness of online learning. The use of email for contact between learners and teachers was higher than for other forms (other than face to face), but the use of an online environment is the least common form of contact. When coupled with the fact that chatrooms and bulletin boards were the least commonly experienced features of computer usage reported (Section 3), this indicates that the full potential of the online environment is not yet being engaged by learners, nor by learning providers. This area needs further research to assess whether this is because these online services are of less use to learners and learning or if a lack of familiarity or skills may be involved.

Amount of contact per week	Face to Face	Email	Telephone	Online
3+ Hours per Week	19	2	3	1
2-3 Hours per Week	3	2	1	3
1+ Hour per Week	8	7	4	6
Fortnightly	3	-	-	-
Infrequently	3	2	-	-
In Class Only	14	-	-	2
None	31	66	73	66
Unknown/Unspecified	1	3	1	4
<b>Total</b>	82	82	82	82

Figure 29. Reported contact with other students, specifying amount and type of contact.

A greater level of contact between students was reported than between students and teachers. However, the type of contact most commonly reported was still face-to-face contact. Higher rates of online contact were reported with fellow students than with teachers, but the rate was still low.

	Were You Satisfied With the Amount of Contact which You had with Your Teachers?	Were You Satisfied With the Amount of Contact which You had with Your Teachers Other Students?
Yes	71	67
No	11	15
<b>Total</b>	82	82

Figure 30. Satisfaction with levels of contact in online learning unit.

High levels of satisfaction with the contact between learners and teachers and learners and each other were reported.

	Help from Teachers	Help from Support Staff	Help from Friends or Family	Access to Computers or Other Equipment	A Place to do Online Work	Help from Colleagues at Work	Help from a Community Advocate
Yes	15	7	15	12	11	21	-
No	67	75	67	70	71	61	82
<b>Total</b>	82	82	82	82	82	82	82

Figure 31. The proportion of respondents who received support with their online learning from a source other than their learning provider and the specific source.

In order to ascertain whether support provided by learning providers was genuinely sufficient, respondents were asked if they received support from any other source and what form that support took. In all but one category, three quarters or more of respondents reported that they had found no need to seek any help additional to that provided by their learning provider.

Over a quarter of respondents reported receiving support from work colleagues or employers with their online learning. This statistic may be a reflection of the support from industry for online learning in rural and regional Australia, mentioned above (OETTE, 2001). Also, support from work colleagues or supervisors was the most common form of outside assistance used by respondents. This indicates that the utilisation of industry groups as a potential vehicle for VET in remote and regional areas could be an effective strategy from the learner's point of view. There is a significant correlation with the statistics in Figure 20, where 20% of students had found out about their course via their employer or workplace. The two statistics together provide strong evidence for the support by industry of online vocational education and training.

			<b>No. of Respondents</b>
Prefer to Study Online from Home			48
Prefer to Study in TAFE or Learning Centre			47
Preferred both			16
Preferred neither			3

Figure 32. Respondents' preferred locales for online study.

Students were asked whether they preferred to study online from home or in a TAFE classroom or learning centre context. What was most significant about the answers given is that many respondents (19.5%) reported that they preferred both alternatives. Only 3.7% of respondents reported favouring neither locale.

The literature suggests that many learners prefer to have an element of social contact in their learning experience and that this preference is actually higher in the regional and remote contexts, where the lower population density often results in an attendant increase in feelings of loneliness and isolation (ANTA, 2001). There is a suggestion that online mechanisms, "such as chatrooms, may be able to address this issue at low cost" (ANTA, 2001:p18). However, the survey statistics indicate that either current online pedagogy does not sufficiently incorporate these online mechanisms or else the mechanisms themselves are insufficient.

<b>Reason for preferring to study online from home:</b>			<b>No. of Respondents</b>
Convenience or Flexibility			28
Pace of Learning			13
Travel			4
Don't Know			1
Technical Reasons			2
No Comment			34
<b>Total</b>			<b>82</b>

Figure 33. Number of respondents' for each given preference for online study from home.

A substantial number of respondents emphasised the convenience of working from home, especially flexibility in terms of time. Another reason given for preferring to work from home was that the student had control of the pace of learning. This was not always the case however. As one respondent observed about their particular course “It can get tricky – like if you miss a step in the instructions and if you are not already familiar with the Internet it can be hard to follow”.

Significantly, only five percent of survey respondents reported that they would prefer to study online from home in order to avoid difficulties related to travel. It has already been observed that travel and distance is the number one barrier to vocational education and training and online learning is advanced as a potential solution. Yet so few students reported using online learning to overcome distance. This would seem to imply that online learning is not yet being implemented to overcome distance barriers.

<b>Reason for preferring to study in a Learning Centre:</b>			<b>No. of Respondents</b>
Social Contact			18
Convenience or Flexibility			7
Pace of Learning			2
Face to Face Learning Preferred			29
Travel			2
Motivation			4
Don't Know			1
No Comment			19
<b>Total</b>			<b>82</b>

Figure 34. Summary of reasons given for respondents' preference to study in a learning centre context.

A substantial proportion of respondents stated that they preferred to study at a TAFE or Learning Centre because they had a preference for face-to-face learning. This may reflect a cultural predilection for face-to-face study, which, while it may not inhibit online learning, may reduce learner satisfaction with online learning over a greater length of time. This preference may also contribute to the trend observed in Section 2, of online learning being concentrated in areas close to service centres.

ANTA's research indicates that the social element of learning can be very important for learners in remote and rural contexts, “[people] who are isolated...enjoy social learning in a setting where they can talk directly to others” (ANTA, 2001). This is reflected in the survey data, with 36% of respondents saying that they preferred public learning contexts because of the face to face learning and another 22% preferring public contexts purely for the socialisation involved. Thus, over fifty percent of survey respondents had a social interaction based reason for preferring a public learning context.

The ANTA research also suggests that online features, such as chatrooms, may be able to provide a sense of social interaction to learners at distance (ANTA, 2001). The notion is supported by other studies, where online learners reported enjoying the social context provided in an online environment (OETTE, 2001). However, the survey data indicates that this may not be the case in all instances. Chatrooms and bulletin boards were the features of computer use which respondents were least likely to have had previous experience with. Only 45.1% of respondents had used chatrooms or bulletin boards prior to their online learning course.

Chatrooms and bulletin boards are the tools most commonly utilised in generating social interaction online. The fact that these features were the ones least used by respondents prior to undertaking online learning indicates that implementing an online social context to support online learning would be problematic. Current levels of user skills and experience would be a barrier to the success of online learning in this context and the potential for online learning to expand access to remote learners is limited by this low level of skills. There is research to indicate that rural and remote learners are already aware of the barrier to vocational education and training imposed by lower computer use skills in their context (ANTA, 2001). There are moves being made in Western Australia to introduce computer use into more courses with a view to preparing the learner population for the use of online learning to provide a social context for remote learners (ANTA, 2001).

## Comments

After answering the preset questions, survey respondents were asked if they wished to make any further comment. Many took the opportunity to summarise their experience of online learning.

### From the Literature

Many of the comments offered touched on the conventional issues raised by the literature. The notion of online learning overcoming the tyranny of distance, which was at the core of much early thinking regarding online learning in rural and regional contexts, was raised. One respondent commented "It was good to be able to do the course over the computer, it saved me on travel." Another concurred, "It's a wonderful tool for people in remote or rural areas..." but they qualified their statement by further saying, "if there are good telephone lines and power supply".

With regards to reading online learning as a solution to overcoming distance from learning providers, one respondent had an excellent counter point; "Internet access is more expensive for me because I pay STD rates for my telephone dial up access." This is a potential barrier to online learning in the remote and rural context, which has been raised by other research (Elsden, 1997; Qayyum & Ruhe, 2000). It may also be a reason why online learners appear to be clustered closely around services centres.

### Flexibility

Flexibility with regards to time and location was emphasised by many of the respondents. "The flexibility of online learning makes it easier to fit around other time commitments" is how one respondent summed up their position. One respondent felt obliged to acknowledge the flexibility of online learning even though they disliked other aspects of it; "This is not my preferred way to learn but it did fit into my schedule OK."

When study was being done at telecentres or TAFE learning centres then time flexibility, more specifically the lack thereof, becomes a barrier to online learning; as one respondent observed, "I would have preferred to study in my own time – outside of telecentre hours or at home."

Many other comments emphasised the flexibility of studying from home, but often qualifiers were added. Contact with teachers or students were two issues, which were raised; "Working online from home makes for much greater flexibility but there must be more contact to motivate the learner." Another respondent commented, "It is a good way to learn but it can be very impersonal." This sort of experience may be of the kind that the creation of online learning communities is designed to counteract, by creating a sense of personal interaction online.

## **Pedagogy**

Some respondents emphasised the fact that online learning allowed them to work at their own pace. “I can go at my own pace”; “The CD ROM lets you go back to redo or to check on things.” One respondent even claimed “it enabled me to complete the course in about two thirds of the time required.”

Many respondents felt that the online format added to their enjoyment of the learning; “I love the possibilities available through online learning”.

“I really enjoyed the online experience. I found it easier than using a book.”

“I really enjoyed the course, it was very helpful and something different.”

Others felt that the format detracted from their experience; “I hope they don’t put everything online. It’s not an easy way to study.”; “It can be tricky – like if you miss a step in the instructions. If you are not already familiar with the Internet it can be hard to follow.” This particular comment also points to the issue of learner’s baseline skills.

Lack of basic computer experience was alluded to by another respondent, who said, “The language used [with reference to technical terms] can be confusing and I felt belittled by experts [in computer use].” Another respondent commented in a similar vein, “I often feel like I’m imposing on staff [when consulting them].”

## **Social Interaction**

Social interaction, or the lack thereof, was a priority for some respondents; “I would have liked it to be more like school, where you could learn from your partners [other students] and from the teacher.” Another reported “I got good support from fellow students”.

One person attributed personal growth to their experience in a telecentre; “it has given me a lot more confidence in dealing with people.” This is a first hand example of the “social capital” value which regional and remote communities are observed to possess and are said to be able to exploit in vocational education and training development (ANTA, 2001).

## **Teachers’ Opinions**

Several of the respondents were themselves teachers or lecturers. These people were able to offer an additional element to their reflections, that of teaching professionals. Some examples are,

“I’m currently involved in developing online learning resources. In particular, I’m developing a web hub for a course in viticulture. I think online technology works better when applied as a resource than as a pure teaching tool. I also feel that online learning must be interactive to be effective. It shouldn’t just be a textbook on a computer screen, with the learner just reading text and answering questions.”

“[Online learning] is on the verge of something good but time is needed for students to feel comfortable with the online mode. I believe that online learning will never replace face to face learning in the classroom context.”

“The courses which are on offer are of good quality but the uptake of online learning [by teaching institutions] seems very low. This is probably because most people feel that they need a mentor or other such person to help them with their online learning.”

The respondents who were themselves teachers or lecturers tended to touch on several broad themes which are relevant to online learning, such as the fact that there would be preference among learners to retain face to face learning. The teacher's skills and training made it easier for them to pick up on the salient issues like this. The comment that learners might require mentors to assist in computer usage reflects the issue of learner support and the baseline level of computing.

## Other Issues

<b>Comparative incidence of Internet service problems as a function of Remoteness Area (RA)</b>		<b>Overall</b>		<b>Remote &amp; Very Remote</b>
N/A		28%		26.3%
Never		42.7%		36.8%
Some.		19.5%		26.3%
Often		6.1%		10.5%
Always		2.4%		-
No Answer		1.2%		-
<b>Total</b>		100%		100%

Figure 35. Comparative rates of Internet service problems between overall respondents (n=82) and those living in the Remote and Very Remote Remoteness Areas (n=20).

It was assumed in the literature review that access to technology would be the primary inhibition to the uptake of online learning in remote and very remote learner populations. However, this may in fact be less inhibitive than other factors.

Across the entire survey, 42.7% of respondents reported that the quality of their Internet connection never affected their study, 19.5% said it sometimes had an effect and only 2.4% reported that it almost always affected their study. The comparison to the exclusively remote and very remote learners is that 36.8% reported never having their study affected, 26.3% sometimes and 0% always. This is shown in the table above. From the table it can be seen that as remoteness from services increases then so too technology and infrastructure problems increase. This is in line with expectations. However, the rate of increase is not as extreme as might have been expected.

Future research should look into the development of computer moderated learning formats which minimise the time which the learner is required to spend on the WWW, and take account of dial up costs.

Another aspect of access to technology is the cost of the requisite computer technology to undertake online learning. The results of Question 4.3 indicate that very few online learners need to purchase computer hardware or software in order to undertake online learning (around 5% for either hardware or software). A simple response to these results is to suggest that online learning is only undertaken by learners who already possess personal computers. However, when the number of respondents who did not purchase computer hardware or software is cross-indexed with the list of those who did the majority of their study at a TAFE or Learning Centre, a different picture appears.

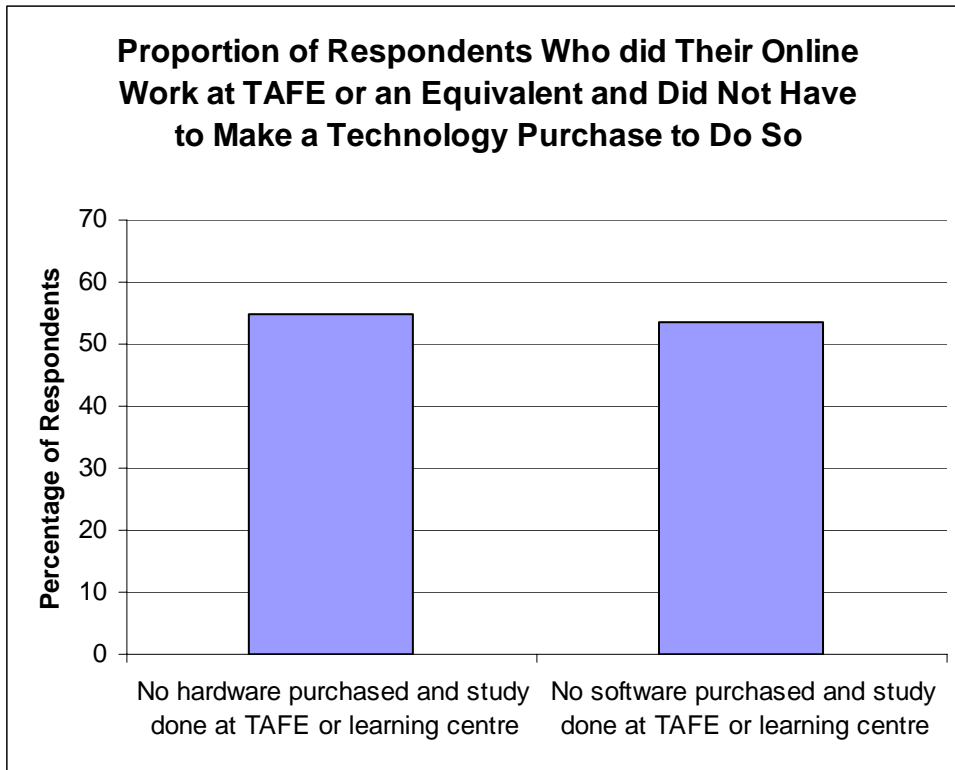


Figure 36. Proportions of Respondents who did not make software and hardware purchases and who also conducted their online learning in a TAFE or learning centre context. (N=82)

The figures shown in the preceding chart demonstrate that the majority of those who did not have to purchase technology, in the form of either computer hardware or software, were able to continue online learning because they made use of trainer provided resources. Only 4.9% of the total respondents did their online course entirely from home and needed to purchase computer hardware in order to do so.

Literature indicates that access to vocational education and training is reduced in rural and remote contexts because of higher costs of provision (ANTA, 2001). These costs are generated by the distances from capital cities and regional centres, and by the fact that the lower concentration of learners means that economies of scale are difficult to achieve. High costs can further reduce access because of the rationalisations which public providers are forced to make with limited budgets; “public provider efforts to maintain a presence in remote communities might not correspond with the provision of training most appropriate for community needs” (ANTA, 2001).

Research also indicates that online learning is no less vulnerable to cost as a barrier, especially with regards to the cost of computer technology and Internet access (Qayyum & Ruhe, 2000). Respondents’ answers indicate that cost was not a barrier to their learning. On the face of it, such data is at odds with the literature. However, over 50% of respondents stated that they did not have to make purchases of computer hardware and software in order to study and also undertook their study at a public access point, such as a telecentre, TAFE or learning centre. This indicates that in as many as half of all respondents’ cases, cost as a barrier may have been overcome by public provision of services, rather than cost simply not being a barrier to the respondents. Such an analysis is in keeping with the notion of service hubs being the main locales for online learning, as well as indicating that programmes to develop Learning Cities are likely to be successful in the Australian Context.

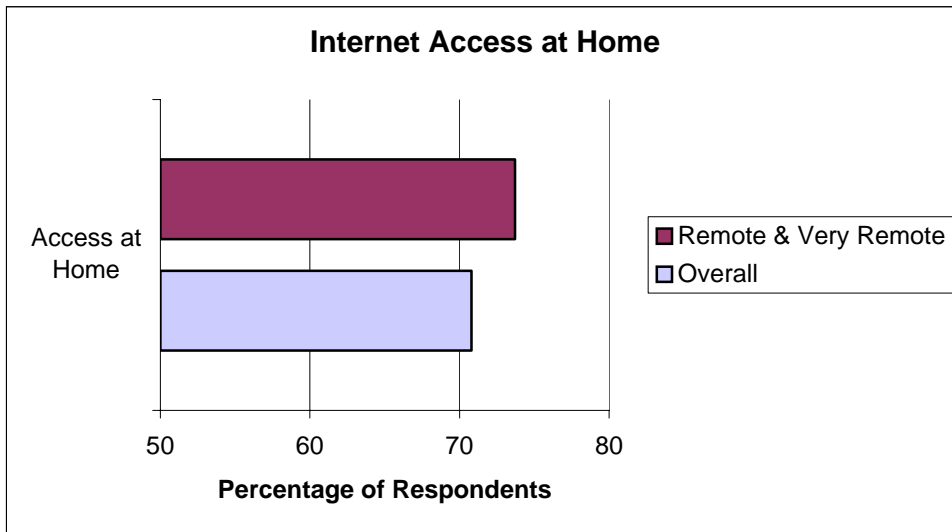


Figure 37. Comparative percentages of overall respondents with home Internet access (n=82) versus Remote and Very Remote respondents with home Internet access (n=20).

Access to the Internet at home was expected to decrease as remoteness increased. In fact, access increased, although not by a great percentage. This by itself is indicative that online access is not an inhibition to online learning in a rural or regional context. However, as already noted, the rate of previous computer use experience was very high among respondents, so the alternative explanation, that online learning is only being taken up by those already possessing access to computer technology, could also be applied.

It has been reported that there is virtually no online learning being undertaken in regional and remote Western Australia and seemingly no interest in its development (OETTE, 2001). It has further been claimed that online learning is in its infancy in Western Australia. This is extremely at odds with the experience of researchers on this project and the survey data indicates otherwise. Several courses delivered online learning as a component of mixed mode courses among Western Australian respondents and at least one course – a certificate IV course in Instrumentation – was delivered entirely online to students, many of whom were among the most remote respondents in the survey, working as they did on Pilbara mine sites.

## Best Practice Models

West Pilbara College of TAFE – this college is suggested as a possible best practice model. West Pilbara services clients who are at great distance (one respondent reported being 900km from the TAFE). All of the respondents studying courses from West Pilbara dwelt in either remote or very remote locations, as determined by ABS Remoteness Area. In spite of having such a high level of distance related barriers, West Pilbara has been able to implement a 100% online certificate course, the certificate IV in Instrumentation.

TAFE SA – South Australia's TAFE college network has made available elements of its professional development online. Many members of staff have undertaken a course offered by the college in the use of WebCT software. This staff development course was offered in several modes, including 100% online delivery and mixed mode seminars. As a nexus of teaching and learning, the lessons learnt by TAFE SA will have impact in the areas of tailoring learning modes to learner needs and in the area of institutional or industry involvement in developing online learning.

Cooperative Bulk Handling – CBH in Western Australia has developed a partnership with CY O'Connor College of TAFE and WestOne On-line Services to implement the *Grains Online*, which is a programme to teach the Certificate III in Grain Handling. This is an internal professional development programme, designed to make learning available to the remote employees of CBH. This programme is an example of industry as a vehicle for implementing online vocational education and training in remote areas.

## Difficulties and Problems

### Sample Space

The sample space for this survey is problematic, since all the respondents were engaged in or had successfully completed online learning in vocational education and training. ANTA research has stressed that access to computers, “interconnected or not”, is much lower in rural and remote areas than in metropolitan populations (ANTA, 2001). The survey respondents, by dint of their involvement in online learning, are not representative of the entire rural and remote population.

Future research will need to be undertaken with this sort of problem in mind and measures will need to be implemented to ensure a broader sample space. One method that could be implemented in the case of surveys would be to survey learners at a point in time shortly after the start of courses, within the first two months of the first semester for example. This would maximise the likelihood of surveying students who might be experiencing higher levels of difficulties but had not yet given up on their course.

### Telephone Interviews/Surveys

The difficulties encountered with the sample space were exacerbated by the technique nominated for the research, namely the use of telephone surveys. The survey was required to assess online learning in remote and rural vocational education and training. In order to assess students in this context, a way had to be found for contacting these students. In the case of a telephone survey, this required the researchers to obtain the name and telephone number of survey participants. In order to obtain a list of potential survey participants, training organisations were contacted and asked to provide students who would be willing to participate.

This request raised privacy issues, since the training providers could not legally provide student details without first obtaining the student’s permission. This created a difficulty, which served to prolong the research phase of the project and limit the sample space obtained. The survey participants were only those whom the training providers chose from among their students, further limited by those who agreed to participate. It is believed by project members that this may have served to skew the sample, which could be another reason why the majority of students were found to dwell close to service centres with TAFE or RTO campuses.

### Timing

The timeframe set for the project also created difficulties in conducting the research. The project was timed to commence in September of 2001. As such, by the time the requisite literature review had been conducted, the second semester of 2001 was already well advanced. As such, the names which learning providers were able and willing to provide tended to be only those students who had successfully completed courses. Students who had dropped out were extremely unlikely to be included. Also, the survey sample would be skewed by any problems, which were prevalent in the year 2001, since it was even more difficult for training providers to supply names and telephone numbers of students from previous years.

### Terms

As previously noted, the term rural was extremely problematic for the discussion of population groups. Research into equity and access issues related to populations in non-metropolitan regions needs to take into account the systems of defining population regions that are extant. The use of problematic or ill defined terms, such as rural, should be avoided.

## Summary of Findings

Research by the Office of Employment, Training and Tertiary Education lists the main barriers which stakeholders believe affect access to vocational education and training in regional and remote areas. Among the items on the list are distance, costs, numeracy and literacy and the low value placed on VET (OETTE, 2001). All of these impact on online learning as barriers as well. Although online learning allows for high data-density communications over distance, thereby making learning at a distance theoretically feasible, the cost of the requisite technology (re)presents a barrier to the learner. Instead of the distance causing a cost related barrier through the cost of transportation or travel, the distance causes a cost related barrier through the cost of technology infrastructure.

Recommendations before ANTA currently include the proposal that small grants be made available to trial innovative technology based projects for remote and regional communities and to actively compare community based models to determine best practice (ANTA, 2001). The recommendation is made as a necessary step in reconciling local needs with national policies, in the hope of creating a set of flexible strategies to respond to the diversity of needs in regional and remote vocational education and training. The survey data tends to indicate that such projects, once established, are likely to be successful if they engage a coordination of services, especially technological, for the community involved.

Such models may however fail to develop solutions applicable to the individual learner, since the community based approaches, such as 'Learning Cities' tends to focus on the needs of that local community. Those individual learners whose needs are not in line with the community's are unlikely to benefit from such projects, even though, such projects would undoubtedly increase the number of rural and remote learners successfully engaging in VET. It is unlikely that online learning will ever be capable of completely overcoming access issues to vocational education and training in rural and remote Australia.

This is the position presented in the Office of Employment, Training and Tertiary Education Technical Report *Impact of National Strategies of the Provision of Vocational Education and Training in Regional and Remote Australia* (OETTE, 2001). This report emphasises that flexible delivery in general and online learning in particular, are not a "panacea to all the issues confronting the regional and remote provision of VET" (OETTE, 2001).

## Summary of Future Research Directions

The literature review identified four major barriers to online learning in rural and remote Australia. They were:

- Barriers related to cost.
- Barriers related to availability of technology (including infrastructure).
- Barriers related to learner and community perceptions.
- Barriers related to current relevant skills and the availability of learner services.

After undertaking the telephone surveys and analysing the data obtained, the issues in these four main areas have coalesced into three important fields for future research.

1. Distance from service hubs: The survey data indicates that the majority of online learners are concentrated around service hubs, rural or regional centres where there is a learning provider, reliable telecommunications service and a computer supplier/retailer. Also frequently present is a learning centre or telecentre, often attached to a major learning provider, such as a TAFE. The data does not indicate whether there are other students who have been excluded from online learning because they do not dwell near such learning centre hubs.

Future Research Direction: Research needs to be undertaken to determine whether students who are not close to such service hubs are being disadvantaged, to what extent the disadvantage impacts on study and what actions might be taken to overcome this. Potential focus groups for this research would include school leavers in high ARIA locations (for example, graduates and dropouts from School of the Air in the Northern Territory) or recently enrolled VET students. In the case of VET students it is imperative that they be recently enrolled, since a high dropout rate would be anticipated among the desired focus group and to survey only students who have successfully completed VET would automatically fail to include those students for whom distance proved too great a barrier to overcome

2. Learning Communities: There is an increasing call for populations in rural and remote contexts to establish themselves as learning communities. Such communities would have as their focus the coordination of services, such as those assessed in Section 2 of the survey. Such plans constitute active decisions to create the kinds of service hubs observed in finding 1. The survey data would seem to indicate that such plans would be successful in supporting online learning. However, they would perpetuate and perhaps accentuate the potential problem of distance as a barrier.

Future Research: Areas, which are embracing the 'Learning Community' or 'Learning City' model, such as Albury-Wodonga or Swan Hill, should be studied in relation to the services, which they currently provide to students distant from their location. The impact of 'Learning City' programmes should be examined to determine if the projected enhancements in local services also impact services at greater distance

3. Industry Involvement/Professional Development: Industry and business, as key stakeholders in building the population's skill base, are reported to be supportive of online learning in regional and remote contexts, especially as a method of staff development. The TAFE SA example, implementing staff development programmes flexibly, with multiple delivery modes, could serve as a pilot for use of industry and professional development as a vehicle for online learning. In many remote contexts, such as Tom Price in WA, the only institution with a presence is industry based, such as a mining company

Future Research: Research should identify regional and remote industry groups who are implementing online learning as a part of their professional development. These groups could be engaged as pilot programmes for implementing online learning in VET via professional development.

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## Appendix 1: Respondents by State and Remoteness

<b>State:</b> New South Wales					
<b>No. of Respondents:</b> 5					
<b>Break down of Remoteness:</b>					
Inner Regional: 5					
No.	State	Nearest Town	RA Code	ARIA Name	Rural or remote area
99	NSW	Albury (2640)	1	Inner Regional	Rural
100	NSW	Albury (2640)	1	Inner Regional	Rural
103	NSW	Albury (2640)	1	Inner Regional	Rural
110	NSW	Albury (2640)	1	Inner Regional	Rural
112	NSW	Albury (2640)	1	Inner Regional	Rural

<b>State:</b> Northern Territory					
<b>No. of Respondents:</b> 6					
<b>Break down of Remoteness:</b>					
Outer Regional: 1					
Remote: 3					
Unknown: 2					
No.	State	Nearest Town	RA Code	ARIA Name	Rural or remote area
93	NT	Adelaide River (0846)	3	Remote	Rural & remote
94	NT	Jabiru (0886)	3	Remote	Rural & remote
95	NT	Mutitjulu (0872)	-	Unknown	Remote
96	NT	Katherine (0850)	3	Remote	Rural
97	NT	Mundubbera (4626)	-	Unknown	Rural
116	NT	Humptydoo (0836)	2	Outer Regional	Rural

<b>State:</b> Queensland					
<b>No. of Respondents:</b> 1					
<b>Break down of Remoteness:</b>					
Remote: 1					
No.	State	Nearest Town	RA Code	ARIA Name	Rural or remote area
58	Que	Warakurna (0871)	-	Unknown	Remote

<b>State:</b> South Australia <b>No. of Respondents:</b> 16 <b>Break down of Remoteness:</b> Inner Regional: 10 Outer Regional: 5 Unknown: 1					
No.	State	Nearest Town	RA Code	ARIA Name	Rural or remote area
4	SA	Mt Gambier (5290)	1	Inner Regional	Neither
6	SA	Millicent (5280)	2	Outer Regional	Neither
8	SA	Meningie (5264)	2	Outer Regional	Rural
64	SA	Blyth (5462)	2	Outer Regional	Rural
65	SA	Tanunda (5352)	1	Inner Regional	Rural
66	SA	Nuriootpa (5355)	1	Inner Regional	Rural
67	SA	Clare (5453)	2	Outer Regional	Rural & remote
68	SA	Eudunda (5374)	1	Inner Regional	Rural & remote
69	SA	Mt Barker (5251)	1	Inner Regional	Rural
76	SA	Murray Bridge (5253)	1	Inner Regional	Rural
81	SA	Mt Gambier (5290)	1	Inner Regional	Rural
83	SA	Murray Bridge (5253)	1	Inner Regional	Rural
85	SA	Mt Gambier (5290)	1	Inner Regional	Neither
86	SA	Mt Gambier (5290)	1	Inner Regional	Neither
87	SA	Lucindale (5272)	2	Outer Regional	Rural
89	SA	Hynam (5262)	-	Unknown	Rural

<b>State:</b> Tasmania <b>No. of Respondents:</b> 8 <b>Break down of Remoteness:</b> Outer Regional: 5 Unknown: 3					
No.	State	Nearest Town	RA Code	ARIA Name	Rural or remote area
117	Tas	Henrietta (7325)	-	Unknown	Rural
118	Tas	Tullah	2	Outer Regional	Both
119	Tas	Rosebury (7470)	2	Outer Regional	Remote
120	Tas	Rosebury (7470)	2	Outer Regional	Remote
121	Tas	Ulverstone (7315)	2	Outer Regional	Rural
125	Tas	Scotsdale (7260)	2	Outer Regional	Rural
129	Tas	Colebrook (7027)	-	Unknown	Rural & remote
130	Tas	Neika (7054)	-	Unknown	Rural

<b>State:</b> Victoria					
<b>No. of Respondents:</b> 10					
<b>Break down of Remoteness:</b>					
Inner Regional: 9					
Outer Regional: 1					
No.	State	Nearest Town	RA Code	ARIA Name	Rural or remote area
102	Vic	Corryong (3708)	2	Outer Regional	Rural & remote
104	Vic	Benalla (3672)	1	Inner Regional	Rural
105	Vic	Wodonga (3690)	1	Inner Regional	Rural
109	Vic	Wodonga (3690)	1	Inner Regional	Rural
113	Vic	Wodonga (3690)	1	Inner Regional	Rural
132	Vic	Echuca (3564)	1	Inner Regional	Rural & remote
133	Vic	Neerim Junction (3821)	1	Inner Regional	Rural
134	Vic	Moe (3825)	1	Inner Regional	Rural
135	Vic	Neerim East (3831)	1	Inner Regional	Rural
136	Vic	Neerim South (3831)	1	Inner Regional	Rural

<b>State:</b> Western Australia					
<b>No. of Respondents:</b> 36					
<b>Break down of Remoteness:</b>					
Inner Regional: 1					
Outer Regional: 19					
Remote: 13					
Very Remote: 3					
No.	State	Nearest Town	RA Code	ARIA Name	Rural or remote area
9	WA	Bunbury (6320)	1	Inner Regional	Neither
10	WA	Kalgoorlie (6432)	2	Outer Regional	Rural
11	WA	Boulder (6432)	2	Outer Regional	Rural
12	WA	Kalgoorlie (6430)	2	Outer Regional	Rural
13	WA	Kambalda (6444)	2	Outer Regional	Rural & remote
14	WA	Kambalda (6444)	2	Outer Regional	Rural
15	WA	Laverton (6121)	4	Very Remote	Remote
16	WA	Leonora (6438)	3	Remote	Remote
18	WA	Kalgoorlie (6430)	2	Outer Regional	Remote
19	WA	Kalgoorlie (6430)	2	Outer Regional	Rural
20	WA	Kalgoorlie (6430)	2	Outer Regional	Neither
21	WA	Kambalda (6444)	2	Outer Regional	Rural & remote
22	WA	Kalgoorlie (6430)	2	Outer Regional	Remote

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<b>State:</b> Western Australia <b>No. of Respondents:</b> 36 <b>Break down of Remoteness:</b> Inner Regional: 1 Outer Regional: 19 Remote: 13 Very Remote: 3					
No.	State	Nearest Town	RA Code	ARIA Name	Rural or remote area
23	WA	Boulder (6440)	2	Outer Regional	Neither
24	WA	Hopetoun (6348)	4	Very Remote	Rural & remote
27	WA	Kalgoorlie (6430)	2	Outer Regional	Rural
28	WA	Karratha (6714)	3	Remote	Remote
29	WA	Karratha (6714)	3	Remote	Remote
30	WA	Karratha (6714)	3	Remote	Remote
31	WA	Tom Price (6757)	4	Very Remote	Remote
33	WA	Karratha (6714)	3	Remote	Rural & remote
36	WA	Geraldton (6530)	2	Outer Regional	Neither
37	WA	Leonora (6438)	3	Remote	Remote
38	WA	Albany (6330)	2	Outer Regional	Rural & remote
39	WA	Albany (6330)	2	Outer Regional	Rural
40	WA	Bremer Bay (6330)	3	Remote	Rural
41	WA	Albany (6330)	2	Outer Regional	Rural
42	WA	Albany (6330)	2	Outer Regional	Neither
43	WA	Albany (6330)	2	Outer Regional	Neither
44	WA	Albany (6330)	2	Outer Regional	Neither
45	WA	Broome (6725)	3	Remote	Remote
46	WA	Broome (6725)	3	Remote	Remote
47	WA	Broome (6725)	3	Remote	Remote
48	WA	Broome (6725)	3	Remote	Rural & remote
50	WA	Broome (6725)	3	Remote	Remote
51	WA	Broome (6725)	3	Remote	Remote

## Appendix 2: Courses and Providers

NB. The course names and levels are listed as reported by survey respondent.

<b>Course Name</b>	<b>Course level</b>	<b>Learning Provider</b>
Bachelor of Education	Other	Northern Territory University
Basic Computer Operations	Cert I	E-Learn Tasmania
Basic Online	Cert II/III	Wodonga Institute of TAFE
Business	Certificate III	Murray TAFE
Business - Office Administration	Certificate II	Murray TAFE
Business - Office Administration	Certificate III	South East TAFE
Business - Office Administration	Certificate III	Murray TAFE
Certificate II in Hospitality	Cert II	Gippsland TAFE
Certificate II in Information Technology	Cert II	Northern Territory University
Certificate II in Information Technology	Cert II	E-Learn Tasmania
Certificate III in Information Technology	Cert III	Wodonga Institute of TAFE
Certificate III in Information Technology	Cert III	Barrier Reef TAFE
Certificate III in Information Technology	Certificate III	South West Regional College
Childhood Studies	Certificate III	Great Southern TAFE
Community Services - Children's Services	Certificate III	Great Southern TAFE
Community Services - Children's Services	Diploma	Great Southern TAFE
E-Learn	Cert II	E-Learn Tasmania
E-Learn – Basic Computer Operations	Cert I	E-Learn Tasmania
Engineering: Instrumentation	Certificate IV	West Pilbara TAFE
Food Technology	Cert IV	Goulbourn TAFE
Getting Online: TAFE in Victoria	Professional Development	Wodonga Institute of TAFE
Graduate Certificate in Tropical Wildlife Management	Post Graduate Certificate	Northern Territory University
Graduate Certificate in Wildlife Management	Post Graduate Certificate	Northern Territory University
Graduate Diploma in Midwifery	Post Graduate Certificate	Northern Territory University
Implementing Online Learning	Cert III	Wodonga Institute of TAFE
Information Technology & Computing	Other	Curtin Uni - Kalgoorlie
Instrumentation	Certificate IV	West Pilbara TAFE

<b>Course Name</b>	<b>Course level</b>	<b>Learning Provider</b>
International Computer Drivers License	Other	Curtin Uni - Kalgoorlie
Introduction to Online Learning using Web CT	Other	South East TAFE
Introduction to Online Learning using Web CT	Other	TAFE SA
Introduction to Online Learning using Web CT	Other	Mt Barker TAFE
Introduction to online web hub	Cert I	Wodonga Institute of TAFE
Microsoft Publisher (level 2)	Other	Curtin Uni - Kalgoorlie
MS Applications	Other	Curtin Uni - Kalgoorlie
MS Office	Other	Curtin Uni - Kalgoorlie
Music Industry	Certificate I	Curtin Uni - Kalgoorlie
Online education for notebook recipients	Cert IV	Wodonga Institute of TAFE
Online education programme	Diploma	Wodonga Institute of TAFE
Operating Computer Packages and Integrated Commercial Packages	Cert I	E-Learn Tasmania
Preparing to facilitate an online course	Other	TAFE SA
Smartforce	Introductory	Curtin Uni - Kalgoorlie
Smartforce	Other	Curtin Uni - Kalgoorlie
Smartforce - Management	Other	Curtin Uni - Kalgoorlie
Tourism	Certificate II	Kimberley College of TAFE
Tourism	Certificate III	Kimberley College of TAFE
Tourism: Sales & Office Operations	Certificate II	Kimberley College of TAFE
Travel & Tourism	Certificate II	Kimberley College of TAFE
Travel & Tourism	Certificates II & III	Kimberley College of TAFE
Windows 98 Intro	Other	Curtin Uni - Kalgoorlie
Wine Tasting Online	Other	Wodonga Institute of TAFE
Workplace Assessor	Cert IV	Wodonga Institute of TAFE

## Appendix 3: Survey Implement

### TO BE READ TO THE SURVEY RESPONDENT

Hello. I'm conducting a survey as a part of a national project called Access & Equity in Online Learning.

We're looking at TAFE courses, which use computers to deliver all, or part of the learning materials.

**Online delivery means that all or part of your course/unit is delivered using computer technology such as, using the Internet and/or CD-ROM**

The purpose of this survey is to find out what barriers there might be for people studying online in rural and remote Australia. We received your name from

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Do you have the time to answer a few questions? – it will take about 10 minutes.  
This is a confidential survey. No one at your TAFE will receive any of your answers and your name will not be printed on any published material.

### SECTION 1 – Biographical and background details

<b>1.1</b>	<b>Name (for data purposes only, not to be reported)</b>	
<b>1.2</b>	<b>Gender</b>	

**1.3** Which age group do you fall into?

**Under 17      17 – 25      26 – 35      36 – 45      46 – 55      56 – 65      66 – 75      76+**

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<b>1.4</b>	Do you identify yourself as:	Yes/No
<b>a</b>	An Indigenous Australian	
<b>b</b>	A person with disability	
<b>c</b>	A person who has difficulty with reading or maths	
<b>d</b>	A person for whom English is a second language	

**1.5** What is the name of the town nearest to where you live, and its postcode?

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**1.6** Would you say that you live in

A rural area	A remote area	Both rural & remote	Neither

<b>1.7</b>	Are you a teacher or lecturer?	Yes/No
	If you are a teacher or lecturer, are you currently or have	Yes/No

	you ever been involved in online delivery?	
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**SECTION 2 – Access to Facilities**

		Less than 30 minute	30 mins - 1hour	1 – 2 hours	2 – 4 hours	More than 4 hours	Do n't Know
<b>a</b>	the nearest town						
<b>b</b>	The nearest computer shop						
<b>c</b>	The nearest computer repairer						
<b>d</b>	The place where you access the internet						
<b>e</b>	The nearest TAFE, for studying your subject						
<b>f</b>	The place where you do online work – if not your home						

**2.1** From where you live, how long does it take you to travel by motor vehicle to:

**2.2**

Has the distance or availability of any of these services been a barrier to TAFE study for you?	Which ones?
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**2.3**

<b>a</b>	Do you have a telephone line at home, which can access the internet?	YES/NO	Don't Know
<b>b</b>	If no, has this been a barrier to your TAFE study?	YES/NO	

		Never	Sometimes	Often	Almost always
<b>c</b>	Does the quality of your Internet connection affect your study?				
<b>d</b>	Does the quality of your power supply affect your study?				

### SECTION 3 – Orientation and Induction

<b>3.1</b>	Prior to starting this unit/module did you know how to :	Yes/No
<b>a</b>	Use a personal computer	
<b>b</b>	Use CD-ROMS	
<b>c</b>	Use email	
<b>d</b>	Use chatrooms or bulletin boards	
<b>e</b>	Use the World Wide Web	
<b>f</b>	Use floppy disks	

<b>3.2</b>	Before you started your study was any training from your college available in:	Yes/No
<b>a</b>	Using hardware and software	
<b>b</b>	Study skills for online learners	
<b>c</b>	Specific orientation to your chosen course - ie contact, hours of study, assessment, support, email contact	
<b>d</b>	Other, please describe	
<b>e</b>	What form did the training take? (f-2-f; online; CD-Rom; other)	
<b>f</b>	Did you take up the training?	Yes/No
<b>g</b>	Did the training meet your needs?	
<b>h</b>	If you did not take up the training, or if it didn't meet your needs, why not?	

### SECTION 4 – Course/Unit information

Define Course (there is more than one name for a program of study) and Subject, some students may be doing units or competencies that provide immediate skills and may not be aware of a course name. You may need other triggers for the interviewers to come up with consistent results.

<b>4.1</b>	What is the name of your course?		
<b>a</b>	What was the level of the course: Cert I, II, III, IV, Diploma, other?		
<b>b</b>	How did you find out about your course?		

<b>4.2</b>	Where do you do the online work for this subject	At home	TAFE Learning Centre or equivalent	If elsewhere, then where

<b>4.3</b>	Did you have to purchase		
<b>a</b>	any computer hardware to study this subject		YES / NO
<b>b</b>	any special software to study this subject		YES / NO
<b>c</b>	If yes to either – what was the approximate cost		
	Software		
	Hardware		

I'd like to ask you a few questions about one of your units which includes some online delivery so could you please nominate one?

**4.4** What is its name?

\_\_\_\_\_  
OK, I'd like to ask you a few questions about this unit?

<b>4.5</b>	What percentage of the unit is delivered						
<b>a</b>	Over the internet to your home	0%	less than 25%	25-50%	51-75%	more than 75%	100%

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<b>b</b>	In a learning centre on a campus or in a community centre or equivalent	0%	less than 25%	25-50%	51-75%	more than 75%	100%
<b>c</b>	Using CDROM to your home or other place of delivery	0%	less than 25%	25-50%	51-75%	more than 75%	100%

<b>4.6</b>	What, if any, other forms of delivery are used for this unit	YES/NO
<b>a</b>	Face to face (classroom)	
<b>b</b>	Postal	
<b>c</b>	Other (please specify)	
<b>d</b>	Does this format meet your needs?	
<b>e</b>	If no, what are the two most important things, which you think, would help meet your needs?	

## SECTION 5 –Support for Online delivery

### 5.1

<b>a</b>	Does your college provide computer support staff (eg helpdesk)	YES / NO
<b>b</b>	If yes have you ever used this service	YES / NO
<b>c</b>	Is it available for 24 hours a day or specified times of the day?	
<b>d</b>	Does this service meet your needs?	YES / NO
<b>e</b>	If not, what are the two most important things that would improve the service, for you?	
<b>f</b>	Does your college provide learning support from specialists eg literacy or numeracy	YES / NO
<b>g</b>	If so have you ever used this service	YES / NO
<b>h</b>	If you have not used the service then why not	
<b>i</b>	Does your college provide any other support from eg counsellors, librarians, administrators	YES / NO
<b>j</b>	Please describe briefly	

### 5.2

<b>a</b>	In this subject what kind of contact do you have with your teachers and approximately how many times per week for each type of contact	
	e-mail	
	chat room	
	telephone	
	face to face	
<b>b</b>	Is this contact sufficient for your needs	YES / NO
<b>c</b>	If not, how much more contact would you require and/or what form should it take?	
<b>d</b>	In this subject what kind of contact do you have with your fellow students and approximately how many times per week for each type of contact	
	e-mail	
	chat room	
	telephone	
	face to face	

<b>e</b>	Is this contact sufficient for your needs	YES / NO
<b>f</b>	If not, how much more contact would you require and/or what form should it take?	

<b>5.3</b>	Have you received any help from the following sources outside of your college – if so please give the source	
		Source
<b>a</b>	Help from teachers	
<b>b</b>	Help from support staff	
<b>c</b>	Help from friends or family	
<b>d</b>	Access to computers or other equipment	
<b>e</b>	A place for you to work	
<b>f</b>	Help from colleagues at work or work supervisors	
<b>g</b>	Help from a community advocate (eg for students with disability) or indigenous learners.	

**5.4**

<b>a</b>	Would you or do you prefer to study online from home?	YES/NO
<b>b</b>	Can you say why?	
<b>c</b>	Would you or do you prefer to study in a learning centre?	YES/NO
<b>d</b>	Can you say why?	

Is there anything else that you'd like to say on any of these subjects?

What sort of activities did you do in your online unit?

### **Project Team**

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