

2005 E-learning Benchmarking Project – Final Report

I & J Management Services
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Part of the 2005 Australian Flexible Learning Framework

Table of Contents

Summary.....	1
2005 E-learning Benchmarking Project	3
<i>Uptake of e-learning.....</i>	<i>3</i>
<i>Uptake of e-business.....</i>	<i>4</i>
<i>Teaching and training practices.....</i>	<i>4</i>
<i>2005 E-learning Benchmarking Project.....</i>	<i>4</i>
<i>Baseline surveys of e-learning.....</i>	<i>5</i>
<i>Definitions of e-learning and e-business.....</i>	<i>5</i>
Uptake of e-learning.....	6
<i>Indicator 1 - % of VET unit enrolments that use e-learning</i>	<i>6</i>
<i>Indicator 2 - % of VET providers offering units that use e-learning.....</i>	<i>7</i>
<i>Indicator 3 - % of VET learners who through e-learning have increased skills and confidence in using ICT.....</i>	<i>8</i>
<i>Indicator 4 - % of VET learners who through e-learning have or expect to have improved employment outcomes.....</i>	<i>9</i>
<i>Indicator 5 - % of VET clients who believe e-learning and e-business gave them flexibility in when, where and how they engaged with VET.....</i>	<i>9</i>
<i>Indicator 6 - Client satisfaction with e-learning experiences in VET.....</i>	<i>10</i>
Uptake of e-business	11
<i>Indicator 9 - Client satisfaction with e-business experiences in VET.....</i>	<i>13</i>
Teaching and training practices.....	14
<i>Indicator 10 - % of teachers/trainers delivering units that use.....</i>	<i>14</i>
<i>e-learning.....</i>	<i>14</i>
<i>Indicator 11 - % of VET teachers/trainers who through e-learning have changed teaching practices in the design, development and delivery of units.....</i>	<i>15</i>
<i>Indicator 12 - % of VET teachers/trainers who believe increased access to e-learning resources has improved teaching and learning outcomes.....</i>	<i>15</i>
Conclusions.....	16
<i>Next steps</i>	<i>16</i>
Appendix 1: Registered training organisations	18
<i>Sampling frame and methodology.....</i>	<i>18</i>
<i>Survey questions</i>	<i>19</i>

<i>Summary results</i>	19
Appendix 2: VET students	22
<i>Sampling frame and methodology</i>	22
<i>Survey questions</i>	23
<i>Summary results</i>	23
Appendix 3: Employers with employees undertaking VET training	26
<i>Sampling frame and methodology</i>	26
<i>Survey questions</i>	27
<i>Survey response</i>	27
<i>Summary results</i>	27
Appendix 4: VET teachers and trainers	29
<i>Sampling frame and methodology</i>	29
<i>Survey questions</i>	30
<i>Summary results</i>	30

Summary

E-learning is a critical means for transforming the central vocational education and training (VET) business of teaching, learning and assessment. By integrating information and communications technologies (ICT) into the way VET is done, it becomes more flexible, more responsive to client needs, improves quality and access, and fosters innovation.

To demonstrate the benefits of e-learning to VET clients and the community, and show how e-learning contributes to the achievement of national training goals it is necessary for the VET system to collect data on, analyse and report on the uptake and outcomes of e-learning activity.

Through the 2000 – 2004 Australian Flexible Learning Framework (Framework), the Flexible Learning Advisory Group (FLAG) strategically supported the uptake of e-learning through National, State, Territory and organisational initiatives targeted at development of e-learning content, skills and knowledge.

In 2004 the Framework established a set of 12 performance indicators which can be used to assess the uptake, use and impact of e-learning in VET. The E-learning Benchmarking Project is an initiative of the 2005 Australian Flexible Learning Framework (2005 Framework) and has undertaken national surveys using these performance indicators which for the first time demonstrate the level of uptake and use of e-learning in Australia's VET system.

The surveys show a modest but increasing level of uptake of e-learning.

- Around 6-8% of all VET unit enrolments involve some form of e-learning. For TAFE and other large non-TAFE providers this figure is closer to 10%. More than 50% of 'smaller' training providers report having no e-learning activity.
- 53% of all registered training organisations (RTOs) participating in the 2005 baseline survey reported that they delivered some units involving e-learning.

However, the response of one medium-sized private RTO to the survey, which was indicative of other responses from providers ...

"We do not deliver or train online, except for chat rooms, bulletin boards, student support services and emailing of assignments or feedback."

... suggests that these figures may underestimate the true level of use of e-learning.

The surveys also show:

- 65-70% of VET students said that the e-learning in their course had increased their confidence and computer skill levels. This is despite the finding that 75-80% of students said they were confident and skilled in the use of ICT prior to their course.
- 38% of VET students said that they thought the e-learning in their course had already helped them to get a better job, get a future promotion, or get more responsibility in their job. 73% of VET students said that they thought the e-learning in their course would in the future improve their employment outcomes.
- Around 80% of VET students said that the e-learning components of their course gave them flexibility in where (eg home, workplace, campus) and when (ie the time of day)

they did their study. Students and employers also report e-learning offering other flexibility in the way they engaged with their training provider.

- As a measure of client satisfaction, 74% of VET students and 58% of employers with employees undertaking accredited VET training would recommend e-learning to their peers.

The baseline surveys captured information about the level of uptake and use of e-business services offered by providers.

- 68% of all RTOs report that they deliver some e-business services to their VET clients. The most common forms of e-business service were online publication of general course information and relevant policies, regulations and strategies, with 63% of RTOs making this information available to their students and employer clients. 39% of RTOs provide online information on student support services.
- 81% of VET students and 38% of employers reported that they used at least one of the listed e-business services, most commonly general course information online, online payments and electronic forms, or accessing student results.
- 65% of VET students and 67% of employers with employees undertaking accredited VET training would recommend e-business to their peers.

Finally, the baseline survey of VET teachers and trainers found that 95% of teachers have changed their teaching practices through greater use of technology and access to high quality e-learning resources.

- Although only 60% of VET teachers and trainers initially indicated that they delivered VET units that used e-learning, when asked about the way in which they used ICT in their teaching and learning activities, 86% said they used at least one of the e-learning activities mentioned. These included online access to learning materials and resources, electronic submission of work, remote and classroom use of multimedia interactive learning resources, and use of online chat, bulletin boards and simulations.
- 90% of VET teachers and trainers indicated that they now use technology to draw on a wider pool of teaching resources and 84% said that they now encourage students to draw on more web- and computer-based resources.
- 86% of VET teachers and trainers participating in the survey indicated that teaching and learning outcomes had improved in some way through having increased access to e-learning resources. 80% said that they now have access to more learning resources than they did two years ago and 69% said that they now use more e-learning resources than they did two years ago.

It was intended that implementation of these indicators from 2005 would provide a baseline on the uptake of e-learning, and over time illustrate trends in the uptake and impact of e-learning on skills, employment and system service outcomes. It was envisaged that these indicators might also be adapted and used by individual education and training providers to establish their own organisational goals and benchmarks for e-learning.

In support of this the 2005 E-learning Benchmarking Project will:

- undertake further more detailed analysis of the results of the baseline surveys and publish the results to the VET system through the 2005 Framework
- establish a website that provides RTOs and other stakeholders with access to the survey findings and also provides online tools that enable training providers to run their own benchmarking surveys and compare the results against the national benchmarks
- develop case studies that illustrate how different training providers have used information on the uptake and use of e-learning to enhance their training delivery and teaching and learning outcomes
- undertake additional research on the uptake of e-learning in the Adult and Community Education (ACE) sector
- advocate for the inclusion of the e-learning indicators in standard VET data collection processes and data systems used by state training authorities and RTOs.

The surveys conducted in 2005 will be repeated in 2006 to measure the change in the uptake, use and impact of e-learning over the next 12 months.

2005 E-learning Benchmarking Project

In 2004 FLAG sought to identify a small set of indicators that could be used to measure the uptake and use of e-learning and e-business in the national VET system, and measure the impact of e-learning on VET clients and VET providers.

An environmental scan of Australian and international research and education agencies identified approximately 250 potential indicators of e-learning. Through consultation over a period of months these were progressively reduced to produce a short list of 12 indicators which best address the uptake, use and impact of e-learning.

The 12 indicators include measures of uptake, use and impact for by VET clients and VET providers. VET clients include students undertaking VET courses and employers with employees who are undertaking accredited training. The indicators can be grouped under three broad headings.

Uptake of e-learning

Six primary indicators of e-learning demonstrate the uptake and impact of e-learning in the VET system.

1. % of VET unit enrolments that use e-learning.
2. % of VET providers offering units that use e-learning.
3. % of VET learners who through e-learning have increased skills and confidence in using ICT.
4. % of VET learners who through e-learning have or expect to have improved employment outcomes.

5. % of VET clients who believe e-learning and e-business gave them flexibility in when, where and how they engaged with VET.
6. Client satisfaction with e-learning experiences in VET.

Uptake of e-business

Three indicators are related to the uptake and impact of e-business.

7. % of VET providers offering e-business client, support and administrative services.
8. % of VET clients using e-business client, support and administrative services offered by providers.
9. Client satisfaction with e-business experiences in VET.

Teaching and training practices

Three indicators are related to the uptake, use and outcomes of e-learning on VET teachers and trainers.

10. % of VET teachers/trainers delivering units that use e-learning.
11. % of VET teachers/trainers who through e-learning have changed teaching practices in the design, development and delivery of units.
12. % of VET teachers/trainers who believe increased access to e-learning resources has improved teaching and learning outcomes.

These indicators may be adapted and used by individual providers to establish organisational goals and benchmarks for e-learning, and assist VET providers to establish and maintain good data systems.

2005 E-learning Benchmarking Project

The objectives of the 2005 E-learning Benchmarking Project are:

- to provide data to assess the uptake, use and impact of e-learning in VET
- to provide agreed national performance measures.

The Project set out to conduct four e-learning baseline surveys targeted at VET providers, VET students, employers with employees undertaking VET training, and VET teachers and trainers.

The results of the baseline surveys will be promoted to encourage establishment of State/Territory-based data collections on flexible learning for long-term measurement of uptake and impact. Some of the data gathered through the benchmarking process may also contribute to the overall evaluation of the efficiency and effectiveness of the 2005-2007 Framework.¹

Strategies will also be pursued to embed the indicators used in the surveys into national and ongoing data collection processes to allow the longer-term capture and use of relevant information on e-learning uptake and impact.

¹ Contingent upon funding approval for the entire 2005 – 2007 Framework

Baseline surveys of e-learning

The four baseline e-learning surveys conducted as part of the 2005 E-learning Benchmarking Project were administered through different methods, chosen to most efficiently capture information from the respective target groups. The survey of RTOs was a print-based mail survey. VET students and VET teachers and trainers completed a short online survey. Information on the views of employers was captured through a telephone survey.

A requirement of the development and conduct of the surveys was that they gain approval from the Australian Government Statistical Clearing House. This approval process ensured that the surveys did not capture information that already existed, that the surveys did not represent an unnecessary or undue burden on respondents, and that the surveys and proposed sampling approach were methodologically sound.

After Statistical Clearing House approval was obtained the surveys were released into the field from mid-July 2005.

Information on the survey method, the sampling frame and methodology, survey questions and response rates are included in Appendices 1 to 4, which also summarise the results of each of the four surveys. More than 400 responses were received for each of the four surveys.

Survey	Method	Number of responses
Registered Training Organisations	Print-based survey	403
VET students	Online survey	443
Employers with employees undertaking VET training	Telephone survey	400
VET teachers and trainers	Online survey	478

This report presents high-level analysis of the results of the surveys against the 12 e-learning indicators. More advanced analysis of the final responses, including analysis against demographic factors such as State/Territory, organisation type, and age and gender of respondent, will be undertaken in September/October 2005 as an extension of the Benchmarking Project.

Definitions of e-learning and e-business

The survey used the following definition of e-learning.

E-learning uses electronic media to deliver flexible vocational education and training. It includes access to, downloading and use of web, CD-ROM or computer-based learning resources in the classroom, workplace or home. It also includes online access to and participation in course activities (eg online simulations, online group discussions), directed use of the Internet for learning and research purposes, structured learning-based email communication and online assessment activities. E-learning does not include email dissemination of course information, email communication between a teacher/trainer and learner on a single learning issue, or online administration of learning activities.

When asking teachers about the way in which they used ICT in delivering VET units the following activities were identified:

- online access to and downloading of learning materials and resources
- use of multimedia interactive learning resources (eg web-based or CD-ROM learning resources, Flexible Learning Toolboxes) in the classroom
- remote use of multimedia interactive learning resources (eg web-based or CD-ROM learning resources, Flexible Learning Toolboxes)
- use of Flexible Learning Toolboxes
- online access to and participation in course activities
- online simulations
- online group discussion (synchronous/asynchronous)
- posting messages to a group through an online bulletin board
- structured learning-based email communication between learners and other learners or between learners and teachers/trainers
- electronic submission of work
- online assessment activities.

When asking RTOs, VET students and employers about the provision of and use of e-business services the following services were identified:

- online publication of general course information and relevant policies, regulations and strategies
- online library services
- online information on student support services
- online access to results.
- online access to and delivery of student support services
- online access to student records
- online payments and electronic forms
- online enrolment.

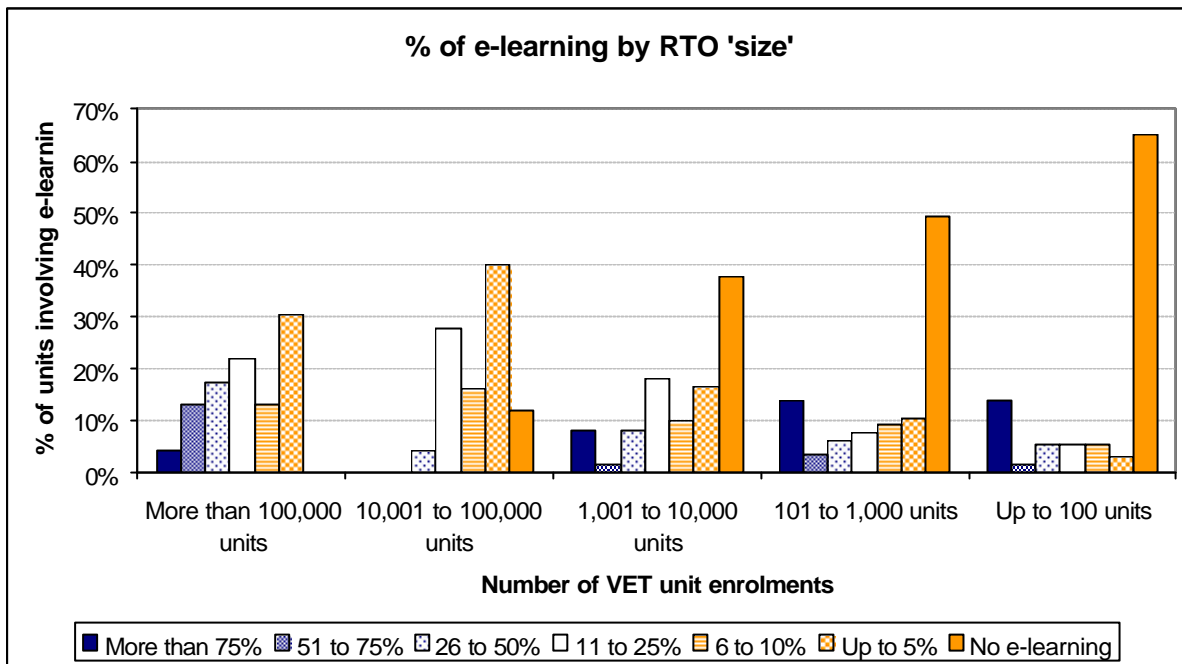
Uptake of e-learning

There are six primary indicators of the uptake and impact of e-learning in the VET system. The 2005 baseline surveys of RTOs and VET clients (ie VET students and employers with employees undertaking VET training) indicate that there is a modest but increasing level of uptake of e-learning, and that clients are generally satisfied and supportive of e-learning as a means of enhancing education and training outcomes.

Indicator 1 - % of VET unit enrolments that use e-learning

It is estimated that in the last 12 months around 6-8% of all VET units involved some form of e-learning. This varied by provider type and size with estimates for TAFE and other large non-TAFE providers closer to 10%, although some of these RTOs report that in excess of 75% of their VET unit enrolments involve e-learning. As shown below, while more than 50% of 'smaller' RTOs report having no e-learning activity (in many cases because e-learning is not

seen as an appropriate means of delivering training to meet the needs of their particular clients), 14% report high levels of e-learning activity.



Indicator 2 - % of VET providers offering units that use e-learning

Across the entire set of survey respondents, which represents more than 10% of all RTOs, 53% reported that they delivered some units involving e-learning.

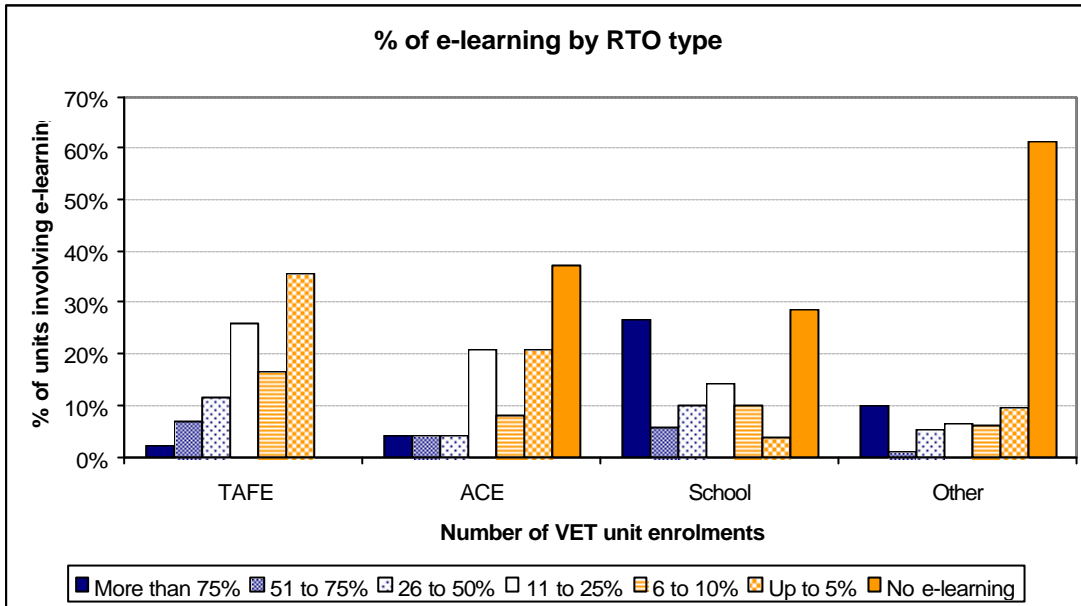
The chart above shows that all of the 24 'large' RTOs that reported delivery of more than 100,000 VET units (all except one of which were TAFE institutes) are offering some units that use e-learning. In addition, only 12% of the 'mid- to large' RTOs (again, predominantly TAFE institutes with a number of commercial providers) reported no e-learning activity.

The chart also shows that 50-65% of small RTOs report that they are not offering units that use e-learning. However, two significant points were noted in the responses provided by RTOs.

The first was that while some medium to small RTOs reported no or little use of e-learning, in describing the way in which they used ICT to deliver training to their students, they are clearly using e-learning more than they believe. This suggests that there is a misunderstanding that if training is not wholly delivered online it is not e-learning.

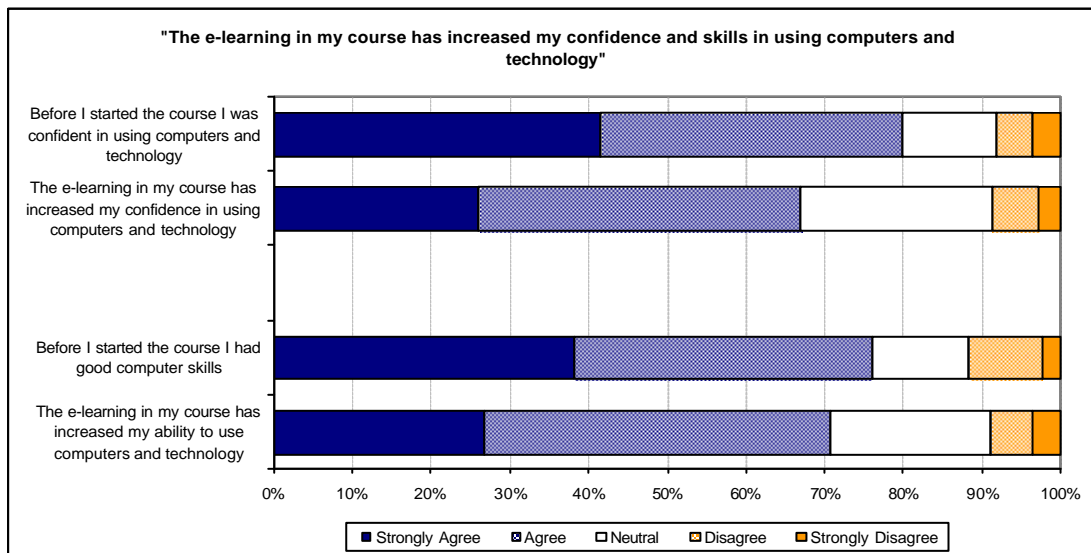
The second point was that a significant number of smaller RTOs indicated that while they were currently delivering few or no units involving e-learning, that they were in the process of or had plans to increase the amount of e-learning in their training in the next 12 months.

The following chart shows that all TAFE institutes are offering VET units that use e-learning, as are 62% of ACE providers, 71% of schools and 39% of other providers (including private, commercial, enterprise, industry and all other provider types).



Indicator 3 - % of VET learners who through e-learning have increased skills and confidence in using ICT

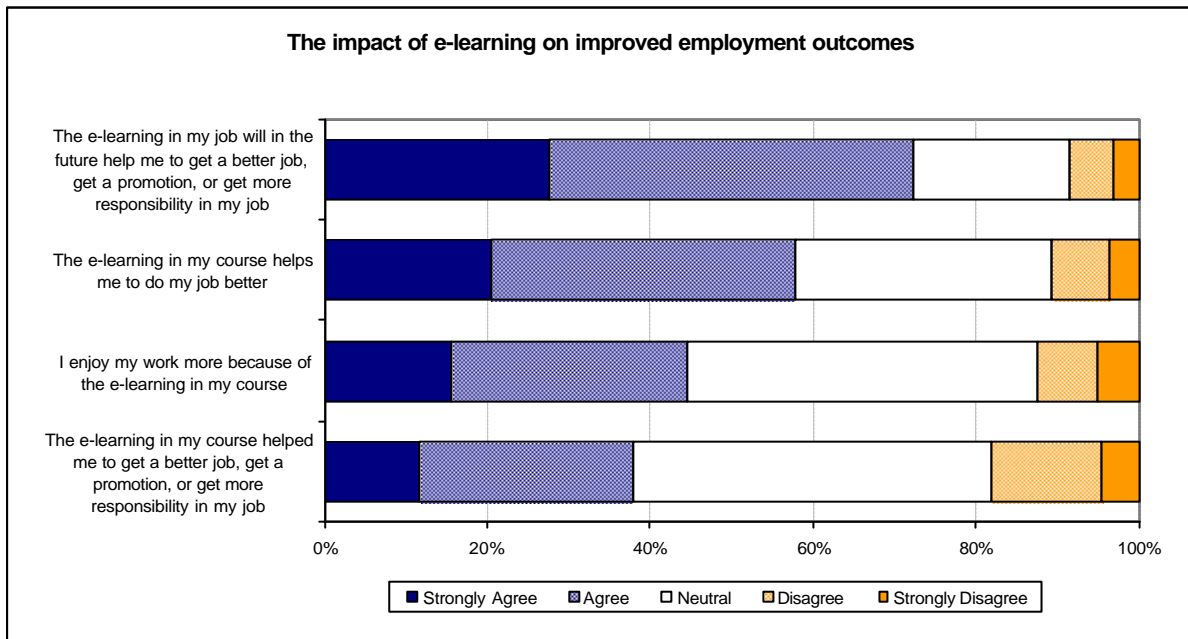
Although 75-80% of students said they were confident and skilled in the use of ICT prior to their course, around 65-70% said that the e-learning in their course had increased their confidence and computer skill levels. Only 9% said that the e-learning in their course had not increased their skills and confidence.



It is also notable that 54% of students said that the e-learning in their course had led them to use computers and technology more in other areas of their life. In this way, e-learning is not only assisting VET students to achieve their education and training goals, but enhancing their general skill base for using technology at work and home.

Indicator 4 - % of VET learners who through e-learning have or expect to have improved employment outcomes

VET students have positive expectations of the impact of e-learning on their current and future employment outcomes. 38% of VET students said that they thought the e-learning in their course had already helped them to get a better job, get a future promotion, or get more responsibility in their job. 73% of VET students said that they think the e-learning in their course will in the future help them to get a better job, get a promotion, or get more responsibility in their job. Whilst the issue of employment outcomes was not immediately relevant to all students participating in the survey, the perceptions of the actual impact of e-learning and the expectations of improved outcomes are significant.



VET students also indicated that e-learning enhanced their ability to do their job and their enjoyment of their job.

Indicator 5 - % of VET clients who believe e-learning and e-business gave them flexibility in when, where and how they engaged with VET

VET students indicated that e-learning offered flexibility in the way they engaged with VET and their VET provider.

- 81% of students said that the e-learning components of their course enabled them to choose where they did their study (eg home, workplace, campus).
- 80% of students said that the e-learning components of their course enabled them to choose when they did their study (ie the time of day).

These findings reinforce the results of previous analysis of the impact of e-learning, particularly in the flexibility given to students in when and where they undertake their vocational education and training.

The baseline survey also showed that e-learning gave VET students flexibility in what they chose to study (64%), how they undertook their learning activities (62%) and when they started and finished their course (61%).

Students also recognised that e-business services offered by their training provider offered flexibility in enrolment and more efficient communication with providers and ease of access to services.

Many employers who participated in the baseline survey said that they had very little actual knowledge of the e-learning and e-business services offered by their providers. However, where employers were aware of or had used these services they indicated a modest degree of appreciation of the flexibility and convenience offered.

- 60% of employers said that 'e-business services were convenient for gathering information about the training organisation and course options'.
- 48% of employers 'found it easy to access e-business services'.
- 41% of employers said that e-business services 'enabled me to choose when my employees enrolled in their courses'.
- 39% of employers thought that 'using e-business services was more efficient than using the telephone, personal attendance or written communication'.
- 39% of employers said that 'e-business services gave me flexibility to select convenient payment options'.

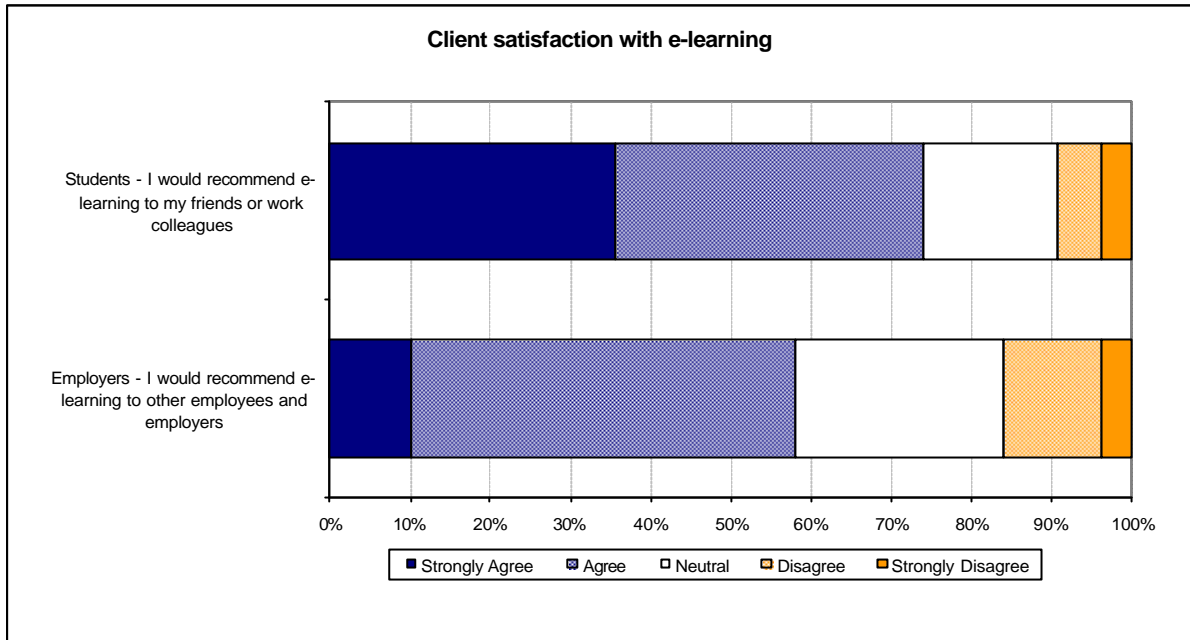
Indicator 6 - Client satisfaction with e-learning experiences in VET

Client satisfaction can be measured in a number of ways, and the results against Indicators 3, 4 and 5 illustrate to some degree the level of satisfaction of VET clients with e-learning activities. The baseline surveys asked a number of questions related to client satisfaction, the results of which are included in Appendices 2 and 3.

However, one of the most effective ways of measuring overall client satisfaction is to assess the extent to which clients would recommend e-learning to their peers.

Both VET students and employers with employees undertaking accredited training said that they would recommend e-learning to their friends, work colleagues, other students, other employers and employees. Although the baseline surveys used different methodologies and drew on different VET client groups with different experience of e-learning and e-business services, the responses to these questions were very consistent.

74% of VET students and 58% of employers with employees undertaking accredited VET training would recommend e-learning to their peers. 36% of students said they would strongly recommend e-learning.

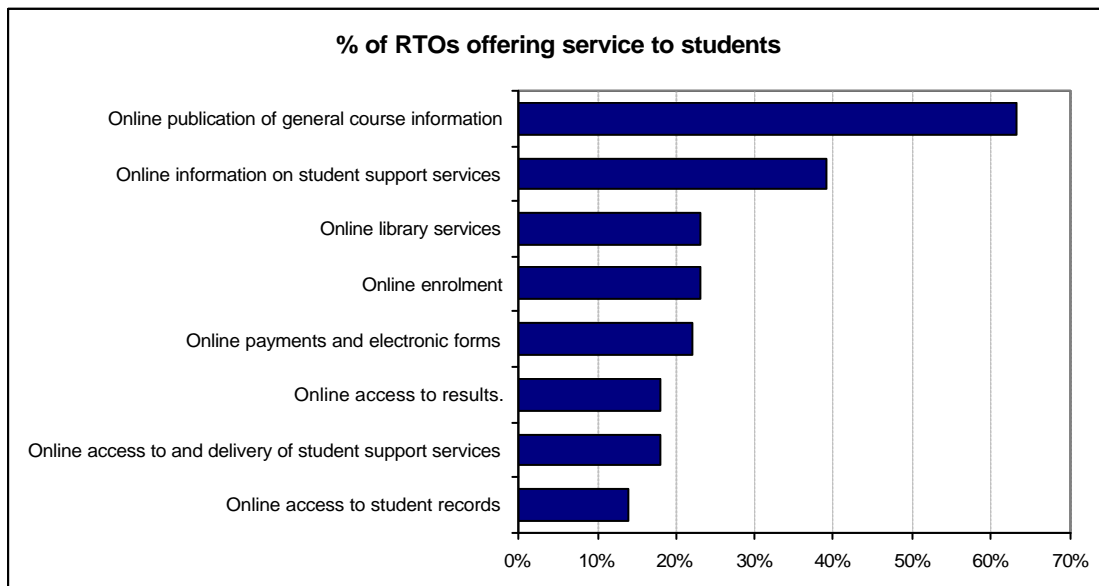


Uptake of e-business

There are three indicators of the uptake and impact of e-business in the VET system. The 2005 baseline surveys of RTOs and VET clients (ie VET students and employers with employees undertaking accredited training) indicate that there is a solid level of uptake of some forms of e-business and online provision of information, and that even though VET clients may not have used e-business services they are supportive of e-business as a means of efficiently delivering VET information and support services.

Indicator 7 - % of VET providers offering e-business client, support and administrative services

68% of all RTOs report that they deliver some e-business services to their VET clients. The most common form of e-business service was online publication of general course information and relevant policies, regulations and strategies, with 63% of RTOs making this information available to their students and employer clients. Online information on student support services is made available to students by 39% of RTOs. Other forms of e-business are less frequently offered by RTOs, as shown in the following chart.



Responses vary by provider type as shown in the following table.

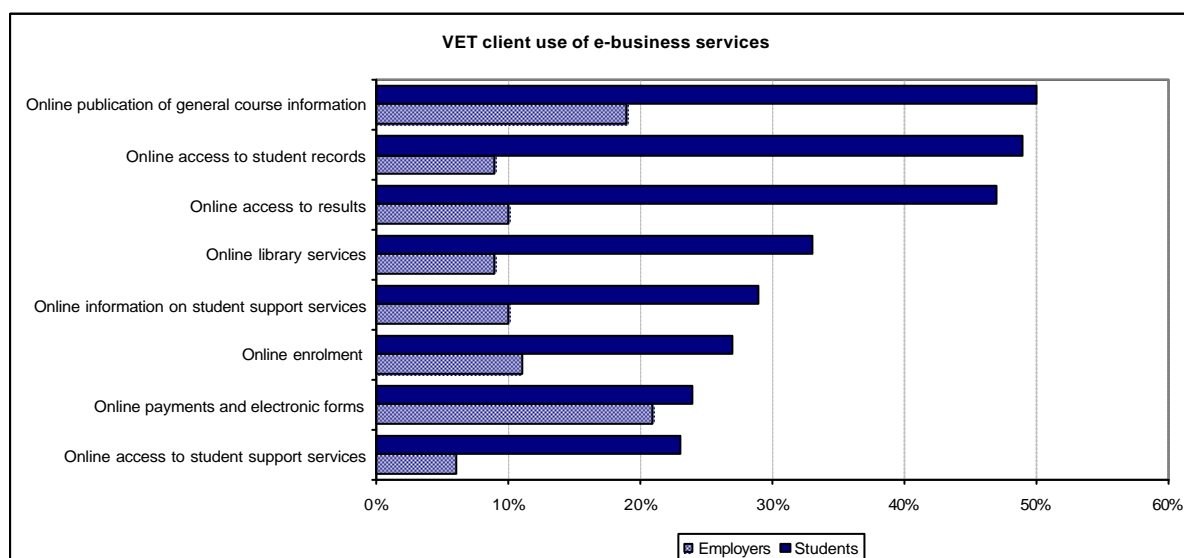
E-business service	TAFE	ACE	School	Other*
Online publication of general course information and relevant policies, regulations and strategies	96%	48%	65%	58%
Online library services	93%	4%	41%	10%
Online information on student support services	91%	24%	41%	32%
Online access to results	48%	12%	20%	13%
Online access to and delivery of student support services	43%	12%	12%	15%
Online access to student records	41%	8%	18%	9%
Online payments and electronic forms	39%	16%	14%	21%
Online enrolment	33%	28%	6%	24%

* 'Other' includes private, commercial, enterprise, industry and all other provider types.

Indicator 8 - % of VET clients using e-business client, support and administrative services offered by providers

50% of VET students access general course information online and other online information about their training provider. 49% use online payment services and 47% access results online. Other e-business services offered by RTOs, where they are offered, are used by a smaller proportion of VET students.

Online payments and use of electronic forms is the most common type of e-business service used by employers with employees undertaking accredited VET training. 21% use this service, while 19% access general course information online.



Overall 81% of VET students and 38% of employers reported that they used at least one of the listed e-business services.

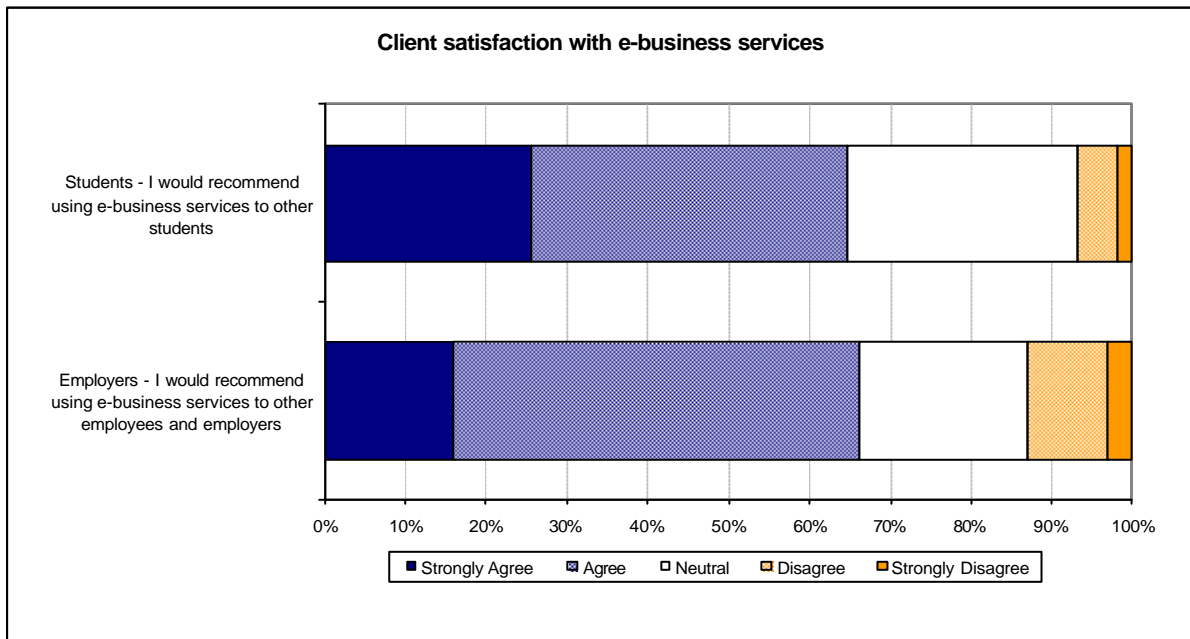
Indicator 9 - Client satisfaction with e-business experiences in VET

Client satisfaction can be measured in a number of ways, and the baseline surveys asked a number of questions related to client satisfaction with e-business services, the results of which are included in Appendices 2 and 3.

The surveys measured overall client satisfaction as the extent to which clients would recommend e-business services to others. Both VET students and employers with employees undertaking accredited VET training said that they would recommend e-business to their peers.

Both VET students and employers with employees undertaking accredited VET training said that they would recommend e-business to their friends, work colleagues, other students, other employers and employees. As was the case with e-learning, although the baseline surveys used different methodologies and drew on different VET client groups with different experience of e-learning and e-business services, the responses to these questions were very consistent.

65% of VET students and 66% of employers with employees undertaking accredited VET training would recommend e-business to their peers, despite the fact that neither client group tended to use all of the e-business services available.



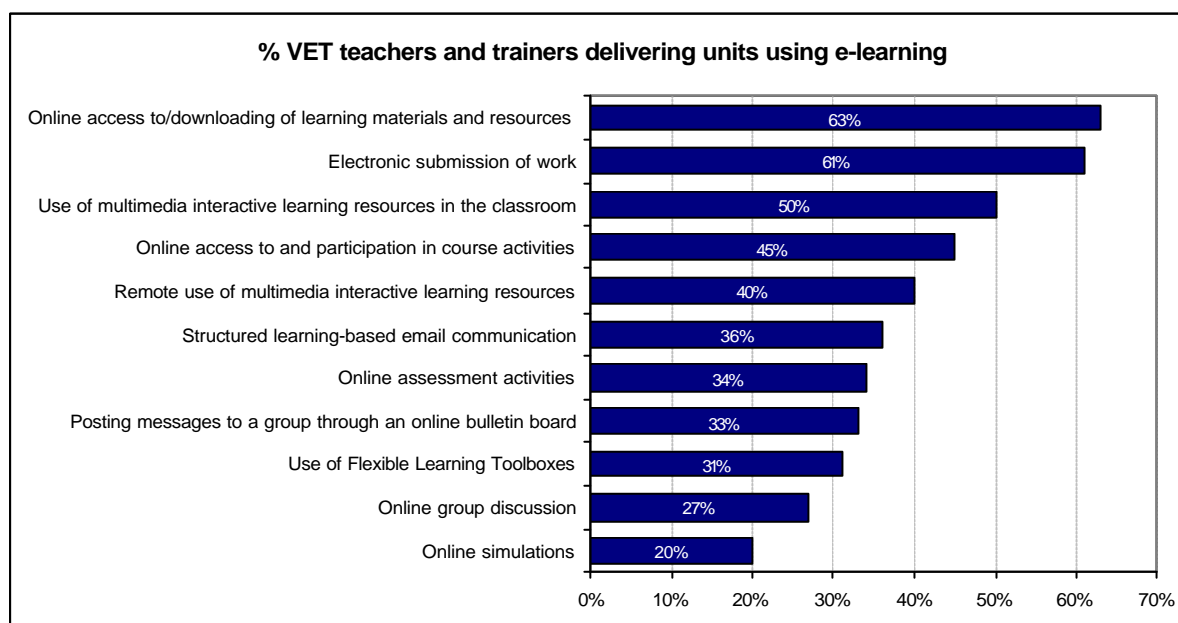
Teaching and training practices

The 2005 baseline surveys of VET teachers and trainers indicate that a high proportion of VET teachers and trainers are using e-learning in some way. VET teachers and trainers are also generally positive about the impact of e-learning and their ability to access quality e-learning resources. There are three indicators related to the uptake, use and outcomes of e-learning on VET teachers and trainers.

Indicator 10 - % of teachers/trainers delivering units that use e-learning

Although only 60% of VET teachers and trainers initially indicated that they delivered VET units that used e-learning, when asked about the way in which they used ICT in their teaching and learning activities, 86% said they used at least one of the activities covered by the survey's definition of e-learning.

The discrepancy between the two responses was primarily due to VET teachers saying they did not use e-learning but that they did encourage their students to access and download online learning materials and resources and/or submit their work electronically.



Using the broader definition from the survey, 86% of respondents deliver VET units that use e-learning. Although there may be some bias in these results due to methodological sampling constraints, it is reasonable to assume that the true proportion of VET teachers and trainers using e-learning in some way is in excess of 50%.

Indicator 11 - % of VET teachers/trainers who through e-learning have changed teaching practices in the design, development and delivery of units

VET teachers and trainers have clearly changed their teaching practices over recent years through the use of technology.

- 90% of VET teachers/trainers said they 'now use technology to draw on a wider pool of teaching resources'.
- 86% of VET teachers/trainers said they 'now encourage students to draw on more web- and computer-based resources'.
- 61% of VET teachers/trainers said that 'through technology I am able to create more individualised learning for my students'.

Overall, 95% of survey respondents indicated that they had changed their teaching practices in some way through the use of technology.

Indicator 12 - % of VET teachers/trainers who believe increased access to e-learning resources has improved teaching and learning outcomes

VET teachers and trainers also believe that increased access to e-learning resources has improved teaching and learning outcomes.

- 80% of VET teachers/trainers said they 'now have access to more learning resources than I did two years ago'.
- 69% of VET teachers/trainers said they 'now use more e-learning resources than I did two years ago'.
- 62% of VET teachers/trainers said that 'the e-learning resources I can now access are of high quality'.

Overall, 84% of survey respondents indicated that teaching and learning outcomes had improved in some way through having increased access to e-learning resources.

Conclusions

The 2005 E-learning Benchmarking Project shows a modest level of uptake of e-learning and e-business services. Estimates that around 6-8% of all VET unit enrolments involve some form of e-learning are consistent with previous isolated pieces of research and anecdotal information on the level of uptake and use of e-learning², in that this level represents continued growth in uptake over recent years from a very low base in 2000. Through the surveys conducted for this Project a baseline has now been established from which future analysis can be measured.

While around 50% of RTOs, particularly smaller RTOs, are not yet offering e-learning in their VET units, reports from RTOs participating in the baseline surveys that they are increasing their adoption of e-learning suggest that this growth in uptake will continue in coming years.

Nearly all VET students (94%) report that they have some component of e-learning somewhere in their VET course. 86% of teachers and trainers also indicated that they used some form of e-learning in their training delivery, most commonly through encouraging students to access and download learning materials and resources from the Internet or local learning management systems or electronic submission of work.

E-learning and e-business services are viewed favourably by VET clients. Both VET students and employers with employees undertaking accredited VET training expressed satisfaction with their e-learning and e-business experiences, by being prepared to recommend these to their peers. Notably, VET students report that the e-learning in their course increased their skills and confidence in using computers and technology, and had led to them using computers more in other areas of their life. 73% of VET students also said that they thought the e-learning in their course would in the future help them to get a better job, get a promotion, or get more responsibility in their job. 38% said the e-learning had already improved their employment outcomes.

RTOs are offering a range of e-business services to their VET clients, most commonly online publication of general course information and relevant policies, regulations and strategies (63%) and online information on student support services (39%). The use of these services by students and employers is also at a moderate level, although 81% of students indicated that they used at least one form of e-business service provided by their RTO.

95% of VET teachers and trainers indicated that they had changed their teaching practices through the use of technology. Most significantly, 90% said that they now use technology to draw on a wider pool of teaching resources and 86% said that they now encourage students to draw on more web- and computer-based resources.

Next steps

The conduct of the four baseline surveys and the establishment of a baseline level of uptake and use of e-learning was the primary component of the 2005 E-learning Benchmarking Project. However, it also had a broader role to support and encourage the use of e-learning indicators and e-learning benchmarking across the VET system. In fulfilling this role the project will:

² 2004 Evaluation of the Australian Flexible Learning Framework, I & J Management Services 2004.

- undertake further more detailed analysis of the results of the baseline surveys and publish the results to the VET system through the 2005 - 2007 Framework³
- establish a website that provides RTOs and other stakeholders with access to the survey findings and also provides online tools that enable training providers to run their own benchmarking surveys and compare the results against the national benchmarks
- develop case studies that illustrate how different training providers have used information on the uptake and use of e-learning to enhance their training delivery and teaching and learning outcomes
- undertake additional research on the uptake of e-learning in the ACE sector
- advocate for the inclusion of the e-learning indicators in standard VET data collection processes and data systems used by state training authorities and RTOs.

The surveys conducted in 2005 will be repeated in 2006 to measure the change in the uptake, use and impact of e-learning over the next 12 months.

³ Contingent upon funding for the entire 2005 – 2007 Framework

Appendix 1: Registered training organisations

The RTO survey aimed to capture information from organisations delivering accredited vocational education and training on the uptake of e-learning and the provision of e-business services.

Sampling frame and methodology

The survey was a one-page print-based survey.

The population for the survey included all current RTOs. A full list of RTOs was obtained from the National Training Information Service (NTIS). In providing this list the Department of Education Science and Training (DEST) advised that there may be some inaccuracies in the data contained, in particular the data related to provider classification and contact details.

Given that there are a relatively small number of TAFE institutes (59) and that these represent a significant proportion of the VET market (at least 70% of total accredited VET activity), it was decided that all TAFEs be included in the baseline survey sample.

Although the NTIS list did not include a true measure of the amount of training delivered by each RTO, to enable identification of the relative size of each provider and allow a weighted sample to be selected, the list did contain a count of the number of 'scope items' recorded against each provider (ie the number of units of competency offered). Using this as a proxy for size, 189 RTOs were selected as being the 'largest' non-TAFE providers.

A further 1,833 'smaller' providers were randomly selected from the remaining providers on the list and invited to participate in the survey. This made a total RTO survey sample of 2,081 providers, or around 55% of all RTOs.

The sample requested from RTOs Australia-wide was distributed across the States and Territories, with oversampling in smaller States and Territories. RTOs were selected to give coverage by State and Territory and by different provider types. The sample sought in each State and Territory by provider type is shown in the following table using the provider type classification included in the NTIS list.⁴ The table also shows the number of responses received by jurisdiction and provider type and the average response rate (19% overall).

State/Territory*	TAFE	ACE	School	Other**	Total
NSW	9 (10) 90%	57 (429) 13%	1 (9) 11%	4 (54) 7%	71 (502) 14%
VIC	15 (19) 79%	18 (81) 22%	8 (42) 19%	40 (284) 14%	81 (426) 19%
QLD	11 (15) 73%	4 (17) 24%	21 (160) 13%	50 (273) 18%	86 (465) 18%
WA	7 (10) 70%	0 (4) 0%	3 (14) 21%	41 (184) 22%	51 (212) 24%
SA	2 (3) 67%	4 (12) 33%	1 (4) 25%	33 (174) 19%	40 (193) 21%
TAS	1 (1) 100%	1 (2) 50%	8 (34) 24%	22 (98) 22%	32 (135) 24%
NT	-	0 (1) 0%	1 (7) 14%	11 (45) 24%	12 (53) 23%
ACT	1 (1) 100%	-	5 (16) 31%	24 (78) 31%	30 (95) 32%
Total	46 (59) 78%	84 (546) 15%	48 (286) 17%	225 (1,190)	403 (2,081)

⁴ The NTIS classification of provider type is not consistently interpreted or recorded in NTIS by different States and Territories.

				19%	19%
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* Each cell in the table shows 'x (y) z%' where 'x' is the number of responses, 'y' is the survey sample, and 'z%' is the response rate.

** 'Other' includes private, commercial, enterprise, industry and all other provider types.

The Chief Executive Officer (or equivalent) of each selected RTO was sent a letter inviting their participation in the survey. Five prizes (a Flexible Learning Toolbox valued at \$400 or a book voucher valued at \$350) were offered to encourage RTOs (particularly smaller RTOs) to complete the survey.

Survey questions

The survey contained two questions related to the number of VET unit enrolments and the proportion of these that are estimated to involve e-learning. RTOs were also asked 'Yes/No' questions related to the type of e-learning involved and the provision of e-business services to VET students.

Demographic information was captured to enable later more detailed analysis of responses.

Summary results

403 responses were received from RTOs. To address the inconsistencies in the NTIS recording of 'provider type', all 403 responses were reclassified to the appropriate provider group. The results of these surveys are shown below, inserted in a copy of the survey form.

Q1	How many VET unit enrolments were there at your organisation in the past 12 months?	
	What proportion of these unit enrolments do you estimate were enrolments in units that involved e-learning?	6-8%
Q2	Did any of these units use e-learning in the following ways? (Yes or No)	
	a. Use of multimedia interactive learning resources in the classroom (eg web-based or CD-ROM learning resources, Flexible Learning Toolboxes).	46%
	b. Remote use of multimedia interactive learning resources (eg web-based or CD-ROM learning resources, Flexible Learning Toolboxes).	39%
	c. Use of Flexible Learning Toolboxes.	31%
	d. Use of State/Territory-based e-learning resources.	22%
	e. Electronic communication between students or between teachers and students (other than communication on a single learning issue).	46%
Q3	Does your organisation offer the following e-business services to individual VET students? (Yes or No)	
	a. Online publication of general course information and relevant policies, regulations and strategies	63%
	b. Online enrolment	23%
	c. Online payments and electronic forms	22%
	d. Online access to student records	14%
	e. Online library services	23%
	f. Online information on student support services	39%
	g. Online access to and delivery of student support services	18%
	h. Online access to results.	18%
Q4	Does your organisation offer the following e-business services to employers? (if appropriate – Yes or No)	
	a. Online publication of general course information and relevant policies,	63%

regulations and strategies	
b. Online enrolment	22%
c. Online payments and electronic forms	23%

The results show the average response across all providers that responded to the survey, which as indicated was slightly biased toward larger providers through the inclusion of all TAFE institutes and 'large' non-TAFE providers in the survey sample. However, the results are indicative of the average level of provision of e-learning and e-business services across all RTOs. Variation in the results by provider type will be examined in subsequent analysis.

Respondents generally found the survey very easy to complete, except for Question 1. Different providers record information on their enrolments differently. For some, the simplest form of recording is number of students enrolled in courses. For others, information is captured at individual unit of competency level for student for each course type. Large TAFE providers reported hundreds of thousands of individual units of competencies, and in a small number of cases more than a million enrolments in units in a year. Where this approach was used even small provider reported tens of thousands of unit enrolments.

This variation in interpretation of Question 1a, had implications for the response to Question 1b. That is, if an organisation counted course enrolments, then under Question 1b an enrolment involving e-learning would occur if a student had any e-learning in their entire course. Where the unit of competency was the counting measure, some units would involve e-learning and some would not. This means that providers reporting on 'course' or 'subject' enrolments were more likely to report a higher level of e-learning than those reporting at unit of competency level.

Notwithstanding this inconsistency in responses, it is possible to obtain a general indication of the level of uptake of e-learning. The following table shows the distribution of estimates of the proportion of enrolments in e-learning by provider 'size' (using reported enrolments as a proxy for size). 355 RTOs answered Question 1.

Estimate of enrolments involving e-learning*	Number of 'enrolments**					
	More than 100,000	10,001 to 100,000	1,001 to 10,000	101 to 1,000	Up to 100	Total
More than 75%	4% (1)	-	8% (5)	14% (16)	14% (18)	11% (40)
51 to 75%	13% (3)	-	2% (1)	3% (4)	2% (2)	3% (10)
26 to 50%	17% (4)	4% (1)	8% (5)	6% (7)	5% (7)	7% (24)
11 to 25%	22% (5)	28% (7)	18% (11)	8% (9)	5% (7)	11% (39)
6 to 10%	13% (3)	16% (4)	10% (6)	9% (11)	5% (7)	9% (31)
Up to 5%	30% (7)	40% (10)	16% (10)	10% (12)	3% (4)	12% (43)
0%	-	12% (3)	38% (23)	50% (58)	65% (84)	47% (168)
Total respondents	(23)	(25)	(61)	(117)	(129)	(355)

* Each cell in the table shows 'x% (y)' where 'x%' is the proportion of RTOs with that number of enrolments who reported an e-learning estimate at that level and 'y' is the actual number of RTOs of that size who responded to Question 1 of the survey.

** See notes on variation in interpretation of the number of enrolments.

This table highlights a number of key points.

- Smaller RTOs are less likely to be delivering VET units involving e-learning, with more than 50% of 'smaller' RTOs reporting no e-learning activity. At the same time, around 14% of smaller RTOs have more than 75% of their enrolments involving e-learning in some form.
- E-learning activity in 'mid-size' RTOs varies from reasonably high levels to low levels (under 5%) with a number still having no e-learning activity at all.
- All 'large' providers are delivering some units that involve e-learning. 43% of these have up to 10% of enrolments involving e-learning, and 65% up to 25% of enrolments.

Weighting estimates across all RTOs it is estimated that the overall level of VET units that involve some form of e-learning is in the order of 5-10%. Using different weights and testing for sensitivity, it is estimated that 6-8% of VET units involve e-learning.

Appendix 2: VET students

The survey of VET students undertaking accredited VET units aimed to capture information on their e-learning experience and their training provider's e-business services.

Sampling frame and methodology

The VET student survey was conducted online.

The population for the survey included all VET students who are currently undertaking accredited VET units. In 2002, 1.7 million people were enrolled in the publicly funded system, with more than one in eight working-age Australians doing VET. Three quarters of these were enrolled in TAFE. Around 40% of year 11 and 12 students now do VET as part of their schooling.

As there is no direct means of communicating with VET students, students were recruited to the survey through RTOs. RTOs were selected on the basis of information obtained from the NTIS. A letter was sent to the Chief Executive Officer (or equivalent) of each selected RTO asking them to forward the URL for the online student survey to a specified number of students. Students were to be selected randomly, so as not to bias the sample toward those students known to be undertaking units involving a high degree of e-learning.

It was estimated that a response rate of 25% might be achieved, and prizes (\$150 book vouchers) were offered to encourage VET students to complete the online survey. Requests were sent to RTOs seeking circulation of the survey URL to a total of 4,000 VET students.

The sample requested from RTOs Australia-wide was roughly proportional to the Australian population (that is, NSW 34%, VIC 25%, QLD 18%, WA, 10%, SA 8%, TAS 2.5%, NT 1.0%, ACT 1.5%), with oversampling in smaller States and Territories to provide a minimum of 30 responses.

RTOs were selected to give coverage by State and Territory and by different provider types (that is, TAFE, private, industry and ACE). TAFE institutes were asked to forward the URL to around 50 to 200 students (depending on the total State/Territory sample required). Smaller RTOs were asked to forward the URL to 15 students. In all 112 RTOs were asked to participate in the student survey.

In practice, the response rate was around 11%, with 443 responses received from VET students. The response rates also varied considerably across States/Territories and provider types, reflecting the methodological impact of relying on RTOs as the mechanism for distributing the survey URL to students. In some cases smaller RTOs indicated that they were either unwilling to forward the survey to their students or indicated that they would forward the URL but anticipated minimal response as they did not deliver VET units involving e-learning. There were also some issues with regard to the timeliness of the circulation of information on the survey.

The actual number of responses from VET students by State and Territory and provider type is shown in the following tables. Where there were a relatively small number of responses in a State or Territory or provider category, these have been collapsed together into an 'other' category for analytical purposes.

State/Territory	NSW	VIC	QLD	WA	SA	TAS	NT	ACT	Total
Responses (no.)	183	119	58	45	8	12	2	11	438*
Responses (%)	42%	27%	13%	10%	2%	3%	0%	3%	100%

* Five respondents did not identify which State/Territory their RTO was in.

Provider type	TAFE	Other	Total
Responses (no.)	371	25	396*
Responses (%)	94%	6%	100%

* 47 respondents did not identify which RTO they were training with.

Survey questions

As the survey was targeted at the general VET student population, communication did not overly emphasise the e-learning nature of the survey. RTOs were encouraged to seek responses from different curriculum areas and classes.

The survey contained one scaled introductory question on the level of e-learning involved, four questions with scaled responses and one question on awareness and use of e-business services requiring respondents to select one of three response options.

The survey captured demographic information on each student related to the name of their training organisation, where training was delivered, sex and age, State/Territory, location, Aboriginal and Torres Strait Island origin, disability.

The total survey was timed for completion at between five and ten minutes, including demographic questions.

Summary results

443 responses were received from students. This is well below the response that had been anticipated. The low response was primarily due to the time taken for surveys to find their way to an appropriate person to distribute the survey (particularly in TAFE and other large providers who made up the bulk of the sample) and partly due to some small RTOs selected in the sample either not having email addresses for their students or not wishing to participate in the survey.

The results of these surveys are shown below, inserted in a copy of the survey form.

Q1.	In your opinion, how much e-learning have you had in your current VET course?	A lot	Some	A little	None	
		38%	37%	19%	6%	
<i>Please rate your response to each statement below using the following scale: SA – Strongly Agree A – Agree N – Neutral D – Disagree SD – Strongly Disagree NA – Not Applicable</i>						
		SA	A	N	D	SD
Q2.	How would you rate the impact of your VET e-learning experience on your skills and confidence in using information and communications technology?					
a.	Before I started my course I was confident in using computers and technology.	42%	38%	12%	4%	4%
b.	The e-learning in my course has increased my confidence in using computers and technology.	26%	41%	24%	6%	3%
c.	Before I started my course I had good computer skills.	38%	38%	13%	9%	2%
d.	The e-learning in my course has increased my ability to	27%	44%	20%	5%	4%

use computers and technology.					
e. The e-learning in my course has led me to use computers and technology more in other areas of my life.	22%	32%	29%	12%	5%

<i>Please rate your response to each statement below using the following scale: SA – Strongly Agree A – Agree N – Neutral D – Disagree SD – Strongly Disagree NA – Not Applicable</i>					
	SA	A	N	D	SD
Q3. How would you rate the impact of your VET e-learning experience on your employment opportunities and outcomes?					
a. The e-learning in my course helped me to get a better job, get a promotion, or get more responsibility in my job.	12%	26%	44%	13%	5%
b. I think the e-learning in my course will in the future help me to get a better job, get a promotion, or get more responsibility in my job.	28%	45%	19%	5%	3%
c. The e-learning in my course helps me to do my job better.	21%	37%	31%	7%	4%
d. I enjoy my work more because of the e-learning in my course.	16%	29%	43%	7%	5%
Q4. How would you rate the following aspects of your VET e-learning experience?					
a. The e-learning components of my course enabled me to choose when I started and finished my course (eg time of year)?	27%	34%	20%	13%	6%
b. The e-learning components of my course enabled me to choose when I did my study (eg time of day)?	42%	38%	12%	6%	2%
c. The e-learning components of my course enabled me to choose where I did my study (eg home, workplace, campus)?	41%	40%	11%	6%	2%
d. The e-learning components of my course enabled me to choose what I studied (eg a particular unit, elective, module or course)?	26%	38%	19%	12%	5%
e. The e-learning components of my course enabled me to choose how I undertook learning activities (eg face to face, using technology)?	24%	38%	20%	12%	6%
f. E-learning increased my capacity for learning.	22%	43%	23%	8%	4%
g. E-learning increased my enjoyment of learning.	23%	39%	25%	7%	6%
h. I would recommend e-learning to my friends or work colleagues.	36%	38%	17%	5%	4%
Q5. In the last 12 months have you used, or been aware of, any of the following e-business services offered by your training organisation? (select one response for each statement)	Used service	Aware of service but not used	Not aware of service		
a. Online publication of general course information and relevant policies, regulations and strategies	50%	33%	17%		
b. Online enrolment	27%	52%	21%		
c. Online payments and electronic forms	24%	51%	25%		
d. Online access to student records	49%	31%	20%		
e. Online library services	34%	43%	23%		
f. Online information on student support services	29%	55%	16%		
g. Online access to and delivery of student support services	23%	54%	23%		

h. Online access to results.	47%	37%	16%
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<i>Please rate your response to each statement below using the following scale: SA – Strongly Agree A – Agree N – Neutral D – Disagree SD – Strongly Disagree NA – Not Applicable</i>					
	SA	A	N	D	SD
Q6. How would you rate the e-business services offered by your training organisation?					
a. The e-business services enabled me to choose what time of year I enrolled in my course.	21%	32%	30%	13%	4%
b. I found it easy to access e-business services.	17%	44%	29%	7%	3%
c. Using e-business services was more efficient than using the telephone, personal attendance or written communication.	22%	34%	29%	12%	3%
d. I would recommend using e-business services to other students.	26%	39%	28%	5%	2%

94% of VET students indicated that they have had some e-learning in their current VET course. 38% thought they had had 'a lot' of e-learning with the majority having 'some' or 'a little' e-learning.

Although 75-80% of students said they were confident and skilled in the use of ICT prior to their course, around 65-70% said that the e-learning in their course had increased their confidence and computer skill levels.

Students also indicated that e-learning provided them with flexibility in when and where they engaged with VET and their training provider.

VET students have a modest level of use of e-business services offered by their providers, and have a good level of awareness of what services are offered. 58% would recommend using e-business services to other students.

Appendix 3: Employers with employees undertaking VET training

This survey captured information from employers with employees undertaking VET units on their training provider's e-business services and the employer's e-learning experience.

Sampling frame and methodology

Employers were surveyed through a computer assisted telephone interview.

All Australian employers potentially have employees undertaking accredited vocational education and training. However, the population for this survey was defined as employers that:

- have employees who have undertaken accredited VET units within the last 12 months
- as a result of their employees' VET training have been a client of a registered training organisation.

The sample was drawn from telephone lists publicly available to market researchers. The telephone survey remained in the field until a total of 400 responses from employers across Australia were generated.

The sample was to be drawn from employers Australia-wide to be roughly proportional with the Australian population (Australian Bureau of Statistics, 2001). Sample allocations were biased to oversample in smaller States and Territories so that the minimum sample in any State or Territory was 30 employers. The actual number of responses requested and obtained by State/Territory is shown below.

State/Territory	Population distribution	Sample size to match population	Sample size (adjusted)	Sample (actual)
NSW	33.9%	136	105	109
VIC	24.8%	99	75	80
QLD	18.7%	75	60	60
WA	9.8%	39	40	40
SA	7.8%	31	30	27
TAS	2.4%	10	30	28
NT	1.0%	4	30	29
ACT	1.6%	6	30	27
Total	100%	400	400	400

Survey questions

The survey had three screening questions.

- Can I speak with the person responsible for employee VET, such as TAFE, RTOs etc?
- Do you have currently or have you had in the past 12 months an employee undertaking VET through an RTO as part of their employment? For example, TAFEs, private RTOs, enterprise RTOs, ACE RTOs.
- The survey takes approximately five minutes to complete and all responses you give will be treated in confidence. Would you be available to participate?

The survey contained four questions with scaled responses and one question on awareness and use of e-business services requiring respondents to select one of three options.

Demographic information was captured on the employers' size (ie number of employees), industry and State or Territory.

The questionnaire was timed at approximately five minutes as a phone survey including basic demographic questions and preamble.

Survey response

The telephone survey was conducted by Chant Link & Associates and completed in July 2005. Of the more than 10,000 telephone calls that were made, 7,300 contacts were made (with around 2,700 calls having no answer, engaged, or dead lines). Of the 7,300 contacts, around 3,300 did not proceed as they turned out to be residential numbers, required call backs, or there was an initial refusal. Of the 4,026 persons who agreed to an interview, 10% fitted the screening questions.

Summary results

The results of the employer survey are shown below. Question 1 asked the name of the employer's main training provider.

Q2.	In the last 12 months have you used, or been aware of, any of the following e-business services offered by your training organisation?	Used service	Aware of service but not used	Not aware of service	
a.	Online publication of general course information and relevant policies, regulations and strategies	19%	27%	54%	
b.	Online enrolment	11%	27%	62%	
c.	Online payments and electronic forms	21%	28%	51%	
d.	Online access to student records	9%	16%	75%	
e.	Online library services	9%	21%	70%	
f.	Online information on student support services	9%	25%	66%	
g.	Online access to and delivery of student support services	6%	22%	72%	
h.	Online access to results.	9%	19%	72%	
Q3.	Using a 1-5 scale where 5 is very knowledgeable and 1 is very little knowledge, overall how knowledgeable would you say you are about e-business services offered by your training provider?				
	5 – Very knowledgeable	4	3	2	1 – Very little knowledge
	3%	11%	18%	19%	49%

<i>Please rate your response to each statement below using the following scale: SA – Strongly Agree A – Agree N – Neutral D – Disagree SD – Strongly Disagree NA – Not Applicable</i>					
	SA	A	N	D	SD
Q4. Thinking about the e-business services offered by your training organisation, to what extent do you agree or disagree that:					
a. I found it easy to access e-business services.	9%	39%	25%	16%	11%
b. Using e-business services was more efficient than using the telephone, personal attendance or written communication.	12%	27%	27%	25%	9%
c. The e-business services enabled me to choose when my employees enrolled in their courses.	10%	31%	28%	22%	9%
d. The e-business services gave me flexibility to select convenient payment options.	9%	30%	33%	21%	7%

<i>Please rate your response to each statement below using the following scale: SA – Strongly Agree A – Agree N – Neutral D – Disagree SD – Strongly Disagree NA – Not Applicable</i>					
	SA	A	N	D	SD
e. The e-business services were convenient for gathering information about the training organisation and course options.	16%	44%	21%	14%	5%
f. I would recommend using e-business services related to vocational education and training to other employers or employees.	15%	51%	21%	10%	3%
Q5. Thinking about the e-learning aspects of your VET experience, to what extent do you agree or disagree that:					
a. E-learning increased my employees' capacity for learning.	10%	37%	25%	20%	8%
b. E-learning increased my employees' enjoyment of learning.	5%	33%	32%	23%	7%
c. I would recommend e-learning to other employees and employers.	10%	48%	26%	12%	4%
Q6. Using a 1-5 scale where 5 is very knowledgeable and 1 is very little knowledge, overall how knowledgeable would you say you are about e-learning services offered by your training provider?					
5 – Very knowledgeable	4	3	2	1 – Very little knowledge	
4%	10%	15%	17%	54%	

Overall, employers indicated that they had only a moderate level of use of e-business services offered by providers and very little knowledge of these services. However, 67% of employers said they would recommend using e-business services related to VET to other employers or employees. This suggests a broad employer view that the use of technology, especially for transactional type activities, is appropriate and does offer convenience and flexibility.

Similarly, while employers have very little knowledge of e-learning services offered by training providers, those that did have an opinion tended to view e-learning as favourable for their employees and would recommend it to their employees and other employers.

Appendix 4: VET teachers and trainers

The survey of VET teachers and trainers delivering accredited VET units aimed to capture information on their e-learning experience, access to e-learning resources and the impact of technology on teaching practices.

Sampling frame and methodology

The VET teacher and trainer survey was conducted online.

The population for this survey includes all VET teachers and trainers. This includes teachers in TAFE institutes as well as trainers in private, enterprise and community RTOs. Although the survey targets issues of e-learning, all VET teachers and trainers are in scope.

Teachers and trainers were recruited through RTOs. RTOs were selected on the basis of information obtained from the NTIS. A letter was sent to the Chief Executive Officer (or equivalent) of each selected RTO asking them to forward the URL for the online survey to a specified number of teachers or trainers. These were to be selected randomly, so as not to bias the sample toward those teachers and trainers known to be delivering units involving a high degree of e-learning.

It was estimated that a response rate of 40% might be achieved, and prizes (\$150 book vouchers) were offered to encourage teachers and trainers to complete the online survey. Requests were sent to RTOs seeking circulation of the survey URL to a total of 2,500 VET teachers and trainers.

The sample requested from RTOs Australia-wide was roughly proportional to the Australian population (that is, NSW 34%, VIC 25%, QLD 18%, WA, 10%, SA 8%, TAS 2.5%, NT 1.0%, ACT 1.5%), with oversampling in smaller States and Territories to provide a minimum of 30 responses.

RTOs were selected to give coverage by State and Territory and by different provider types (that is, TAFE, ACE, other). TAFE institutes were asked to forward the URL to around 20 to 120 teachers and trainers (depending on the total State/Territory sample required). Smaller RTOs were asked to forward the URL to six teachers and trainers. In all 156 RTOs were asked to participate in the teacher/trainer survey.

In practice, the response rate was closer to 20%, with 478 responses received from VET teachers and trainers. The response rates also varied considerably across States/Territories and provider types, reflecting the methodological impact of relying on RTOs as the mechanism for distributing the survey URL to teachers. In some cases smaller RTOs indicated that they were wither unwilling to forward the survey to their teachers or indicated that they would forward the URL but anticipated minimal response as they did not deliver VET units involving e-learning. There were also some issues with regard to the timeliness of the circulation of information on the survey.

The actual number of responses from VET teachers and trainers by State and Territory and provider type is shown in the following tables. Where there were a relatively small number of responses in a State or Territory or provider category, these have been collapsed together into an 'other' category for analytical purposes.

State/Territory	NSW	VIC	QLD	WA	SA	TAS	NT	ACT	Total
Responses (no.)	223	91	61	50	15	7	-	26	473*
Responses (%)	47%	19%	13%	11%	3%	1%	-	5%	100%

* Five respondents did not identify which state their RTO was in.

Provider type	TAFE	ACE	School	Other	Total
Responses (no.)	430	-	6	32	468*
Responses (%)	92%	-	1%	7%	100%

* Ten respondents did not identify which RTO they worked for.

Survey questions

As the survey was targeted at all VET teachers and trainers, communication did not overly emphasise the e-learning nature of the survey. RTOs were encouraged to seek responses from different curriculum areas and classes.

The survey contained one scaled introductory question on the level of e-learning involved, two questions with 'Yes/No' responses on e-learning and two scaled questions on access to e-learning resources and the impact of technology on teaching practices.

The survey captured the following demographic information on the teacher/trainer: name of training organisation, sex and age, State/Territory, main curriculum teaching area.

The total survey was timed for completion at between five and ten minutes, including demographic questions.

Summary results

478 responses were received from VET teachers and trainers. The results of these surveys are shown below, inserted in a copy of the survey form.

Q1.	Have you ever delivered VET units that use e-learning?	% Yes 60%
Q2.	In the last 12 months did you deliver any VET units that used e-learning in the following ways?	
	a. Online access to and downloading of learning materials and resources	63%
	b. Use of multimedia interactive learning resources (eg web-based or CD-ROM learning resources, Flexible Learning Toolboxes) in the classroom	50%
	c. Remote use of multimedia interactive learning resources (e.g. web-based or CD-ROM learning resources, Flexible Learning Toolboxes)	40%
	d. Use of Flexible Learning Toolboxes	31%
	e. Online access to and participation in course activities	45%
	f. Online simulations	20%
	g. Online group discussion (synchronous/asynchronous)	27%
	h. Posting messages to a group through an online bulletin board	33%
	i. Structured learning-based email communication between learners and other learners or between learners and teachers/trainers	36%
	j. Electronic submission of work	61%
	k. Online assessment activities.	34%

Q3.	Have you accessed VET units that use e-learning from any of the following sources?	
a.	Your organisation's own learning management system	50%
b.	State/Territory-based e-learning resources	30%
c.	Flexible Learning Toolboxes	43%
d.	EdNA Online	13%
e.	Other sources external to your training organisation.	46%

Please rate your response to each statement below using the following scale: SA – Strongly Agree A – Agree N – Neutral D – Disagree SD – Strongly Disagree NA – Not Applicable

	SA	A	N	D	SD
Q4.	How would you rate the impact of increased access to e-learning resources on your teaching and learning outcomes?				
a.	34%	46%	13%	5%	2%
b.	27%	42%	14%	10%	7%
c.	10%	52%	32%	4%	2%
d.	14%	41%	35%	6%	4%
e.	15%	41%	35%	5%	4%
Q5.	How would you rate the impact of technology on your teaching practices?				
a.	41%	49%	6%	3%	1%
b.	36%	50%	9%	4%	1%
c.	22%	39%	28%	9%	2%
d.	8%	18%	47%	22%	5%
e.	15%	33%	30%	18%	4%

Although only 60% of VET teachers and trainers indicated that they did deliver VET units that used e-learning, 86% answered 'Yes' to one or more of the 12 options under Question 2. The discrepancy between the two responses was primarily, but by no means exclusively, due to VET teachers saying they did not use e-learning but that they did encourage their students to access and download online learning materials and resources and/or submit their work electronically.

Using the broader definition from the responses to Question 2, 86% of respondents deliver VET units that use e-learning in some way. The potential for bias in the distribution of the survey and self-selection from VET teachers and trainers invited to respond to the survey suggests that this figure may overstate the true result. However, it is reasonable to assume that the proportion of VET teachers and trainers using e-learning in some way is in excess of 50%.

50% of respondents indicated that they have accessed e-learning resources from their organisation's own learning management system. This may reflect the bias toward TAFE respondents.

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