

# **2009 E-learning Benchmarking Survey**

**Report**

**I & J Management Services**

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**Australian Government**

**Department of Education, Employment  
and Workplace Relations**

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## Summary

The national training system's e-learning strategy, the Australian Flexible Learning Framework's (Framework<sup>1</sup>) annual E-learning Benchmarking Survey<sup>2</sup> shows that for many vocational education and training (VET) clients it is no longer a question of 'if' their training involves e-learning; it is 'how' they use e-learning that matters. The survey clearly demonstrates the value students and employers place on a flexible learning experience, where the use of information and communication technology (ICT) gives them control over where and when training takes place. It also highlights the use of e-learning as a teaching tool that enables students to have an engaging and personalised learning experience that they and their teacher/trainer can tailor to suit their learning and skills needs.

The 2009 E-learning Benchmarking Survey builds on surveys conducted in previous years with a doubling of the sample size of employers participating in the survey and capture of additional information on in-house provision of training to employees, as well as an increased focus on the way in which teachers and trainers are using e-learning in different aspects of the teaching and training process.

The latest results from the 2009 survey of registered training organisations (RTOs) shows that 39% of all VET activity now formally involves e-learning (on average across all states/territories and provider types). This continues an upward trend which has seen e-learning grow from around 3-4% of all VET unit enrolments in 2003-2004. The survey of VET students, teachers and trainers also indicate that e-learning approaches are now mainstream across a variety of teaching and training activities – course activities, gathering information, research, communication and collaboration, and assessment.

Eighty-seven percent of VET teachers and trainers and the same proportion of VET students now say that their VET experience includes at least some online access to and downloading of learning materials and resources, remote and/or classroom use of multimedia interactive learning resources, electronic submission of work, online assessment, and/or even the use of web 2.0, mobile and voice technologies.

Yet while the majority of VET students, teachers and trainers report use of e-learning which varies from 'a lot' to 'a little' (depending on the skills and experience of the teachers, trainers and students, the vocational area, and the level of access to computers and the internet and e-learning resources), and while employers increasingly use e-learning within their own training delivery and expect it as part of a work-ready training experience, there remain significant parts of the VET system that do not engage with e-learning. And there has been little change to this in the past 12 months.

Fifty-six percent of RTOs participating in the 2009 E-learning Benchmarking Survey reported that they delivered some units involving e-learning (compared with 58% in 2008 and 57% in 2007). This leaves 44% of RTOs, often smaller private and industry-based RTOs, saying that they deliver no e-learning. In fact 55% of very small RTOs participating in the survey reported that they do not use e-learning.

As in 2008, 45% of RTOs have organisational business strategies that incorporate e-learning. Thirty-nine percent have no e-learning strategy and 16% see no need for their training organisation to have an e-learning strategy.

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<sup>1</sup> The Australian Flexible Learning Framework is collaboratively funded by the Australian Government and all states and territories and provides the VET system with the essential e-learning infrastructure and expertise needed to respond to the challenges of a modern economy and the training needs of Australian businesses and workers: <http://www.flexiblelearning.net.au>

<sup>2</sup> The 2009 E-learning Benchmarking Survey is conducted by the Framework's Benchmarking and Research business activity: <http://www.flexiblelearning.net.au/research>

Seventy-five percent of RTOs provide their VET clients with access to at least some e-business services (eg online information, online enrolment, online payments and forms), up from 69% in 2008. Still, 25% of RTOs do not offer e-business services.

While some in this ‘non-user’ group report that they are currently looking at ways to introduce e-learning, many more do not see e-learning and e-business as relevant to their training or beneficial to their clients, and are not motivated to explore more flexible and engaging training that also helps to develop students’ computer skills and preparedness for work. This is despite the expectation among employers that training be more flexible to suit workplace needs, and the view among students that technology can provide more engaging and personalised training.

The most common use of e-learning by VET teachers and trainers is the use of multimedia interactive learning resources either within the classroom (73%) or remotely (58%). VET students also identified these as among the most used applications of e-learning. Flexible Learning Toolboxes (Toolboxes<sup>3</sup>) are being used by around 40-45% of VET teachers, trainers and students. The use of newer technologies (including web 2.0, mobile, voice, social networking and podcasting) is less widespread, although around 35% of both VET teachers, trainers and students report that web 2.0 technologies such as blogs and wikis are being used as part of teaching and learning. It is notable that the use of these newer technologies by VET teachers and trainers has increased significantly over the past year.

The survey shows that e-learning is being used across the range of pedagogical elements, from directed learning activities to independent research, communication and collaboration, and assessment. While the most common uses are related to accessing online learning resources and content, more than 50% of VET teachers and trainers report that they use a fair degree of e-learning throughout their teaching process. This is true across different provider types and across different training areas, despite the claims from some RTOs, VET teachers and trainers and VET students that there are entire courses where e-learning is simply ‘not appropriate’ or ‘relevant’ to the training delivered.

The responses from more than 700 RTOs, 1,685 students, 1,500 VET teachers and trainers and 800 employers have been included in the analysis of the Framework’s 2009 E-learning Benchmarking Survey. In practice completed surveys were received from more than 3,600 students and 1,800 VET teachers and trainers.

Overall, students’ and teachers/trainers’ attitudes toward, and experiences of, e-learning in VET demonstrate an underpinning acceptance of and expectation for e-learning, often as part of a blended learning experience.

- 90% of VET students say that they would like at least ‘a little’ e-learning in their course. Ninety-six percent of VET teachers and trainers think students want at least ‘a little’ e-learning, with three quarters saying students want ‘some’ or ‘a lot’ of e-learning.
- 42% of VET students said that e-learning was a factor in their choice of training provider, with 47% saying that e-learning influenced their choice of course to some degree. The flexibility offered through e-learning in terms of choice of when and where learning takes place is very important to students looking to upgrade skills while continuing to work, students seeking to re-enter the workforce and remote learners.
- 56% of VET students said that the e-learning in their course had increased their confidence and computer skill levels.
- 59% of VET students thought the e-learning in their course and the computer skills they had acquired in undertaking their learning would in the future help them to get a better job, a promotion or more responsibility in their job.
- The proportion of VET teachers and trainers who thought they were supported in e-learning by their organisation increased relative to 2008, in terms of access to

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<sup>3</sup> <http://flexiblelearning.net.au/toolboxes>

computers for themselves and their students, access to e-learning resources and access to professional development.

The Framework's 2009 E-learning Benchmarking Survey has captured an enormous amount of quantitative and qualitative information on the uptake, use and impact of e-learning in VET – in different states/territories, in different provider types (eg TAFE, community providers, schools, private and enterprise providers) and for different types of students and teachers/trainers.

More detailed analysis of the information gathered through the 2009 survey will be undertaken and published on the E-learning Indicators website<sup>4</sup> by the Framework's Benchmarking and Research business activity over the next three months.

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<sup>4</sup> <http://flexiblelearning.net.au/e-learningindicators>

# 2009 E-learning Benchmarking Survey

## ***The 2008-2011 Framework Strategy***

The emphasis of the *2008–2011 Framework Strategy*<sup>5</sup> is on making e-learning an integral part of the national training system. In this way, the Framework will contribute to a VET system that is best equipped to respond to the challenges of a modern economy and the training needs of Australian businesses and workers.

The *2008–2011 Framework Strategy* outlines a vision for a future in which:

- *“learning is tailored to learners”* – not restricted by place and time, personalised to suit individual learning needs and an engaging collaborative and ‘networked’ experience
- *“learners are more in control”* – able to choose their training provider using pathways to advantage and acquiring ICT learning skills with mechanisms for recognising and recording the skills they acquire in ways that make sense to employers
- *“teachers are effective ‘managers of learning’”* – skilled at using ICT to enhance the learning experience, freely accessing up-to-date quality learning resources, facilitating and managing learning and more engaged with their clients
- *“businesses invest in workforce development”* – and recognise that flexible learning can fit around other business priorities
- *“there is a sustainable e-learning infrastructure”* – through a pool of national resources, a system of national technical standards, and evolving and innovative approaches to the use of new technologies.

## ***E-learning indicators***

The Framework evaluates its success using data that measures:

- uptake and use - the uptake of e-learning and the volume and sophistication of use by clients (individual learners and industries/businesses), by training providers and by the VET system
- impact - the degree to which the application of ICT to VET learning has changed behaviours and outcomes for clients.

The primary data source for assessing uptake, use and impact is the annual E-learning Benchmarking Survey of e-learning in VET. The survey of RTOs, VET students, VET teachers and trainers, and employers with employees undertaking accredited training is based on a set of 12 indicators, originally developed by the Flexible Learning Advisory Group (FLAG<sup>6</sup>) in 2004 to measure the uptake and use of e-learning and e-business in the national VET system, and the impact of e-learning on VET clients and VET providers. These indicators were refined and supplemented in 2008 to incorporate additional indicators included in the *2008-2011 Framework Strategy* (see Appendix 1). Collectively, these indicators examine e-learning in terms of its uptake, use and impact on:

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<sup>5</sup> The *2008-2011 Framework Strategy*:

[http://www.flexiblelearning.net.au/flx/webdav/site/flxsite/shared/Secretariat/2008\\_2011\\_Framework\\_Strategy.pdf](http://www.flexiblelearning.net.au/flx/webdav/site/flxsite/shared/Secretariat/2008_2011_Framework_Strategy.pdf)

<sup>6</sup> The Flexible Learning Advisory Group (FLAG) is an advisory group of the National Senior Officials Committee (NSOC) and provides advice on strategic directions in flexible delivery, with particular reference to e-learning. FLAG is also responsible for leading and managing the Australian Flexible Learning Framework, as well as providing advice on vocational education and training (VET) sector perspectives to both the Australian Information and Communication Technology in Education Committee (AICTEC) – for example, on the Digital Education Revolution – and to the education.au Board: <http://flag.edu.au>

- individuals (VET students)
- business and industry (as clients of the VET system and providers of training to employees)
- training providers (public, private, industry, enterprise and community)
- the VET system.

The 2009 E-learning Benchmarking Survey primarily captured information on e-learning experience and views of individuals, business and industry, and training providers (including VET teachers and trainers). The body of this *2009 E-learning Benchmarking Survey - Final Report* is structured around these four stakeholder groups.

## **Survey methodology**

The Framework's E-learning Benchmarking Survey was first conducted in 2005. The methodology has been refined from year to year to increase the sample size of responding organisations and individuals, and to improve the value of the information captured for the Framework, the VET system and individual training organisations. Additional information on the survey methodology can be found in Appendix 2 and at the Framework's E-learning Indicators website (<http://www.flexiblelearning.net.au/e-learningindicators>).

The number of responses used in analysis of the 2009 surveys is shown in the table below, along with the figures from previous years.

Survey	Number of responses used in analysis				
	2009	2008	2007	2006	2005
Registered training organisations	705	579	536	487	403
VET students	1,685	1,500	1,121	875	443
VET teachers and trainers	1,500	1,400	1,017	733	478
Employers	801	-	400	-	400

Due to the way in which VET providers, and TAFE institutes in particular, were encouraged to participate in the surveys from 2007, some providers generated many more VET student and VET teacher/trainer responses than others (eg three TAFE institutes generated more than 300 student responses each). In order to avoid biasing the sampling toward those VET providers that were more active in their recruitment of VET students and teachers/trainers to the survey, random sampling of responses from some providers has been undertaken to maintain as far as possible the relative weight of different states and territories, and the integrity of the overall survey response pool. In 2009 this has meant that only 45% of 3,640 survey responses from VET students and 80% of 1,844 responses from VET teachers and trainers have been used in the final survey datasets for analysis. The full response sets will be used for state and territory and, where requested and statistically valid, individual VET provider analysis.

## **Definitions of e-learning and e-business**

The surveys 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
- online access to and participation in course activities (eg online simulations, online group discussions)
- directed use of the internet, mobile and voice technologies for learning and research purposes
- structured learning-based email communication
- online assessment activities.

It does not include:

- email dissemination of course information
- email communication between a teacher/trainer and learner on a single learning issue
- online administration of learning activities.

When asking VET students about their experience of e-learning, the following uses were identified:

- access to and downloading of online learning materials and resources
- classroom or remote use of multimedia interactive learning resources (eg web-based or CD-ROM learning resources, Flexible Learning Toolboxes<sup>7</sup>)
- use of Flexible Learning Toolboxes
- access to and participation in online course activities
- online simulations
- online group discussion (synchronous/asynchronous)
- posting messages to a group through an online bulletin board
- structured learning-based email communication and collaboration between learners and other learners or between learners and teachers/trainers
- electronic submission of work
- online assessment activities
- use of web 2.0 technologies (eg blogs, wikis) for learning
- use of social networking technologies (eg Facebook, MySpace, Twitter)
- use of mobile technologies for learning, assessment or communication
- use of voice technologies for learning
- use of podcasting for learning.

VET teachers and teachers were asked about similar uses of ICT in their training delivery (as well as use of online tools to gain recognition of workplace based and self-directed learning), but also about the extent to which they used e-learning in the following teaching and training activities.

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<sup>7</sup> Flexible Learning Toolboxes (Toolboxes) are high quality, cost effective interactive e-learning and assessment resources featuring scenarios, images and activities. All Toolboxes support nationally endorsed training packages and are designed for use by RTOs, business and industry. A Toolbox Champion Support Service operates in every state and territory to support the implementation of Toolboxes. For more information: <http://www.flexiblelearning.net.au/toolboxes>

- accessing online resources and content
- undertaking targeted internet research
- undertaking learning activities
- collaborative learning with other students
- communicating with teachers/trainers
- submission of work
- assessment.

When asking training providers and VET students 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 enrolment
- online payments and electronic forms
- online access to student records
- online library services
- online information on student support services
- online access to and delivery of student support services
- online access to results.

### ***Analysis and report***

This report presents high-level analysis of the results of the three surveys. It includes an overall analysis of findings and in Appendices 3 to 6 presents the aggregate responses for each of the questions in the four surveys. More detailed analysis of the final responses, including analysis against demographic factors such as state, organisation type, and age and gender of survey respondent (for the student and teacher/trainer surveys), is published separately on the Framework's E-learning Indicators website.

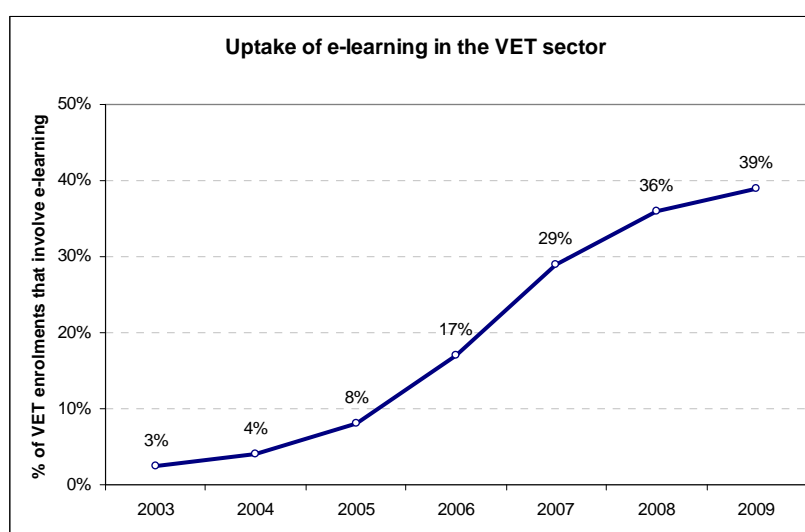
All results must be interpreted in light of the statistical variations that exist in any survey process of this type. The nature of most of the questions in the survey means that with sample sizes of 1,685 VET students and 1,500 VET teachers/trainers a difference of less than +/- 3% between years on an overall result is not statistically significant. With 705 RTO responses, a difference of less than +/- 4% between years on an overall result is not statistically significant. The estimate of the overall uptake of e-learning in VET activity is calculated using different methods and changes of this magnitude would be considered significant.

## Uptake of e-learning

The uptake of e-learning in VET continues to increase. Information captured from RTOs and VET teachers and trainers through the Framework's 2009 E-learning Benchmarking Survey shows that the use of e-learning in VET is more widespread than ever before.

### ***VET unit enrolments that use e-learning***

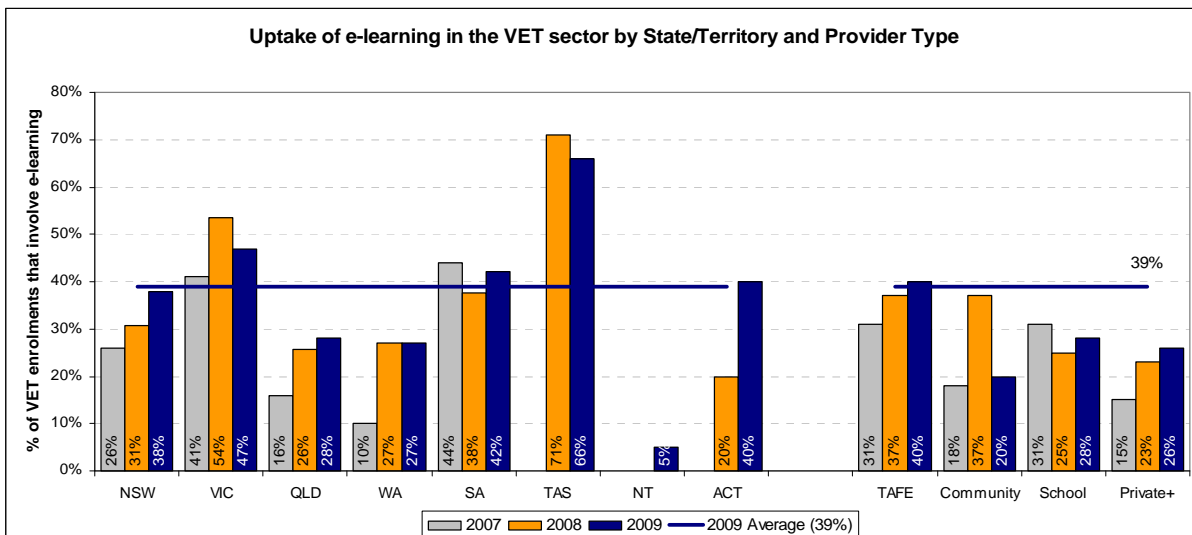
The Framework's primary indicator of the uptake of e-learning shows that the proportion of all VET unit enrolments that use e-learning has grown from 3-4% in 2003-2004 to around 39% in 2009.



This estimate is based on information provided by RTOs in response to a direct question about the proportion of their VET enrolments that involved e-learning (as defined in the previous section of this report). This is a difficult question to answer as whether or the extent to which technology is used in VET delivery is not something that tends to be 'formally' captured in RTOs' business or learning management systems. This is especially true in large RTOs which deliver a wide range of courses over multiple locations, and where there is no single person who is familiar with all that takes place in different vocational areas. In some cases the information provided through the E-learning Benchmarking Survey is known to represent only that delivery which is explicitly 'tagged' as entirely online and off-campus. This ignores the e-learning that occurs on campus, in the workplace and in blended delivery modes.

Therefore, the estimate of 39% of VET unit enrolments involving e-learning is acknowledged as understating the actual level of use of electronic media to deliver flexible VET.

The level of uptake of e-learning as measured by this indicator varies between different provider types and between states and territories. Uptake of e-learning has been greatest in Tasmania, Victoria and South Australia, and is now higher in New South Wales and the Australian Capital Territory than in Queensland, Western Australia and the Northern Territory. TAFE providers estimate higher levels of these 'formal' e-learning enrolments than schools (28%), private and other training providers (26%), and community-based education and training providers (20%). In line with the national figure, on average most provider types had estimated increases in uptake of e-learning of 3% from 2008 to 2009.

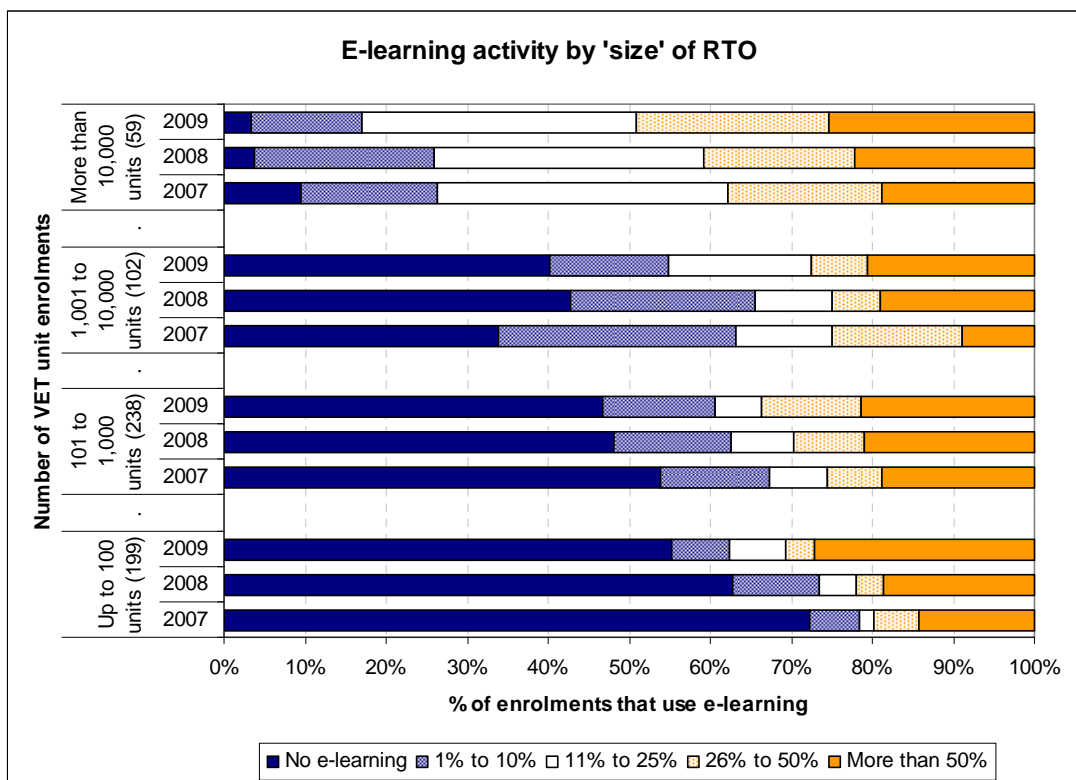


\* 'Private+' includes all private, enterprise, industry and government training providers.

\*\* Due to sampling restraints, estimates were not published for Tasmania and the Australian Capital Territory in 2007 and for the Northern Territory in 2007 and 2008.

Over the past two years the E-learning Benchmarking Survey has reported on the differential levels of uptake of e-learning among training providers of different size. The 2009 data continues to show a slow but steady increase in the uptake of e-learning across RTOs of different size.

However, while most large RTOs use e-learning to varying degrees (and around 50% now report that more than 25% of their unit enrolments involve e-learning), the level of uptake among small RTOs is much lower. There are around 4,700 RTOs in Australia, and the overwhelming majority of these have fewer than 1,000 unit enrolments in a year. The 2009 E-learning Benchmarking Survey shows that around 50% of these small RTOs report that none of these enrolments involve e-learning. The proportion of small RTOs using e-learning has been increasing over recent years, but there are still many who have yet to explore the potential of e-learning for their clients.

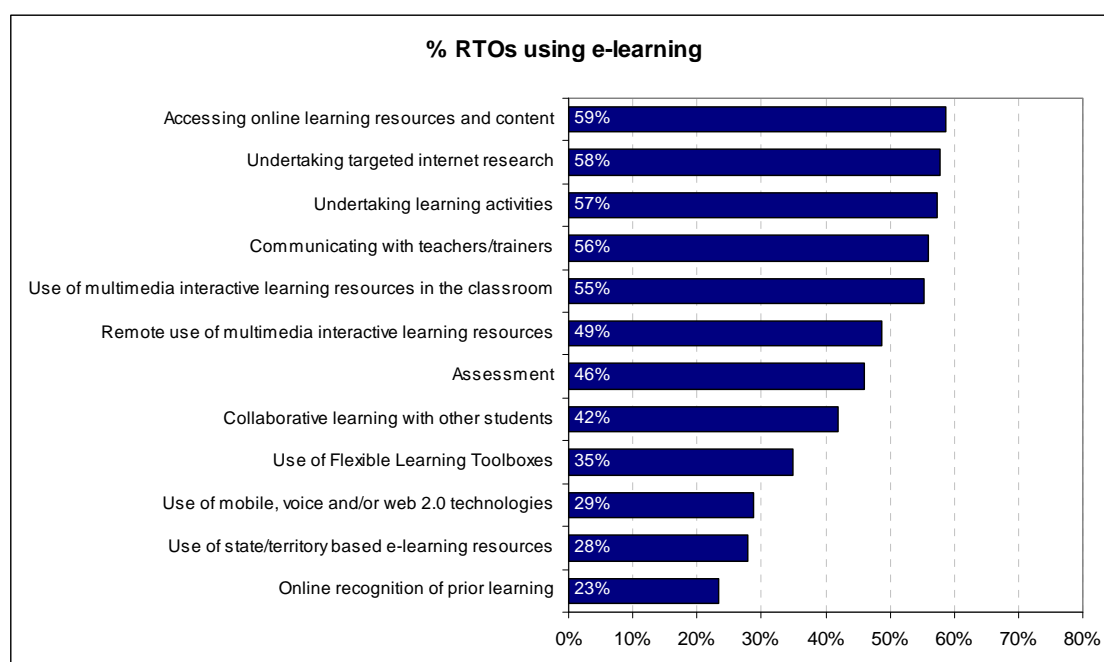


Of particular interest among the very small RTOs is the polarisation in terms of the uptake of e-learning. For while 55% report that they use no e-learning in their training delivery, 27% report that more than 50% of their training delivery involves e-learning (up from 18% in 2008). This suggests that some smaller RTOs are finding niche delivery areas where they are able to use e-learning as a significant feature of their training profile.

### ***A different view of e-learning uptake***

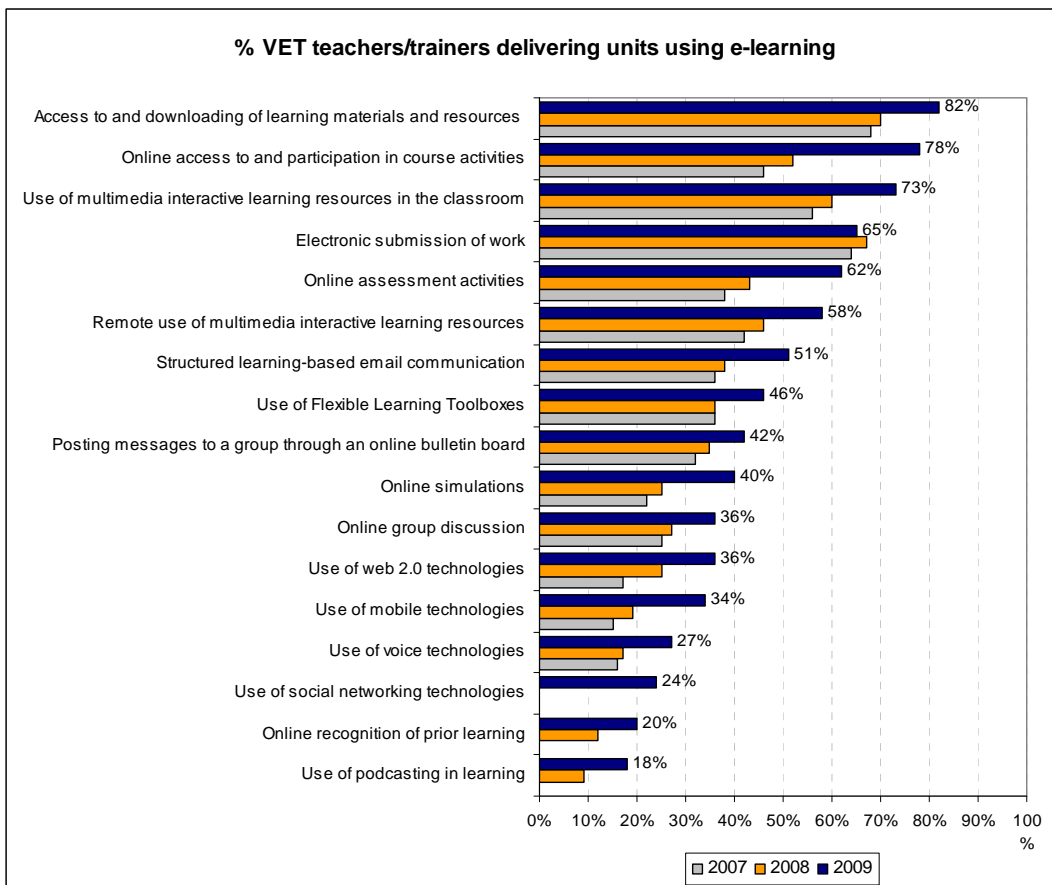
The ‘formal’ information on enrolments involving e-learning is only one view of the uptake of e-learning in VET. Another comes from through the E-learning Benchmarking Survey’s questions of RTOs and VET teachers and trainers on their use of different e-learning approaches. A series of benchmarking questions asked over the past four years suggest that the true level of uptake of e-learning in at least some form is much higher than 39%.

Fifty-six percent of RTOs responding to the RTO survey indicated that they delivered VET units involving e-learning. However, when asked if they used any of the e-learning approaches listed in the following chart, 73% of RTOs answered ‘Yes’ to one or more of these options. The most common forms of e-learning used involved students accessing online learning resources and content or undertaking targeted internet research.



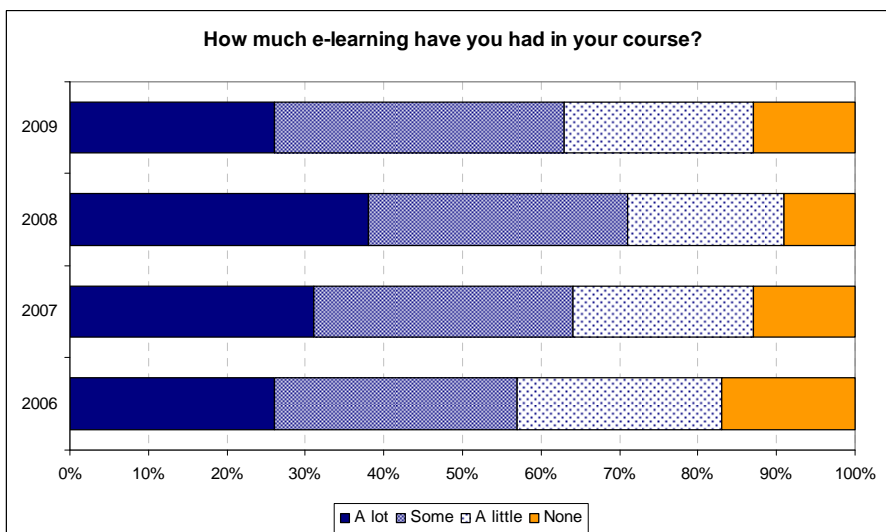
Similarly, when VET teachers and trainers were asked in the 2009 survey if they delivered units that use e-learning, 65% said ‘Yes’ (compared with 68-71% in the previous three years). Yet, 87% of teachers and trainers said that they used one or more of the e-learning approaches listed in the survey (in line with the responses from 2006 to 2008). This included 82% of VET teachers and trainers who encouraged students to access online learning resources and content, 78% who engaged students in online course activities, 36% who used web 2.0 technologies (eg blogs, wikis) for learning and 18% who used podcasting for learning.

Compared with the results from the 2008 survey, teachers and trainers in 2009 reported significantly increased use of most of the listed e-learning approaches as part of their pedagogy (see graph over page).



Feedback from VET students in 2009 reinforced these findings about the broader level of uptake of e-learning. While 87% of VET students reported that their course involved at least a little e-learning, 91% identified one or more of the listed e-learning applications as having occurred in their course. As with teachers and trainers, the most common use of e-learning was in accessing and downloading online learning materials and resources (76%), followed by electronic submission of work (63%), and access to and participation in online course activities (56%).

### The student experience



As indicated previously, when asked how much e-learning they had had in their course, 87% of VET students in 2009 said that they had had at least ‘a little’ e-learning in their course. This is consistent with the high levels reported in previous years, although a little below the high of 91% from 2008. The 2009 responses from students across a wide variety of training providers and training areas indicate fewer students having ‘a lot’ of e-learning in their course and more where ‘a little’ e-learning was involved.

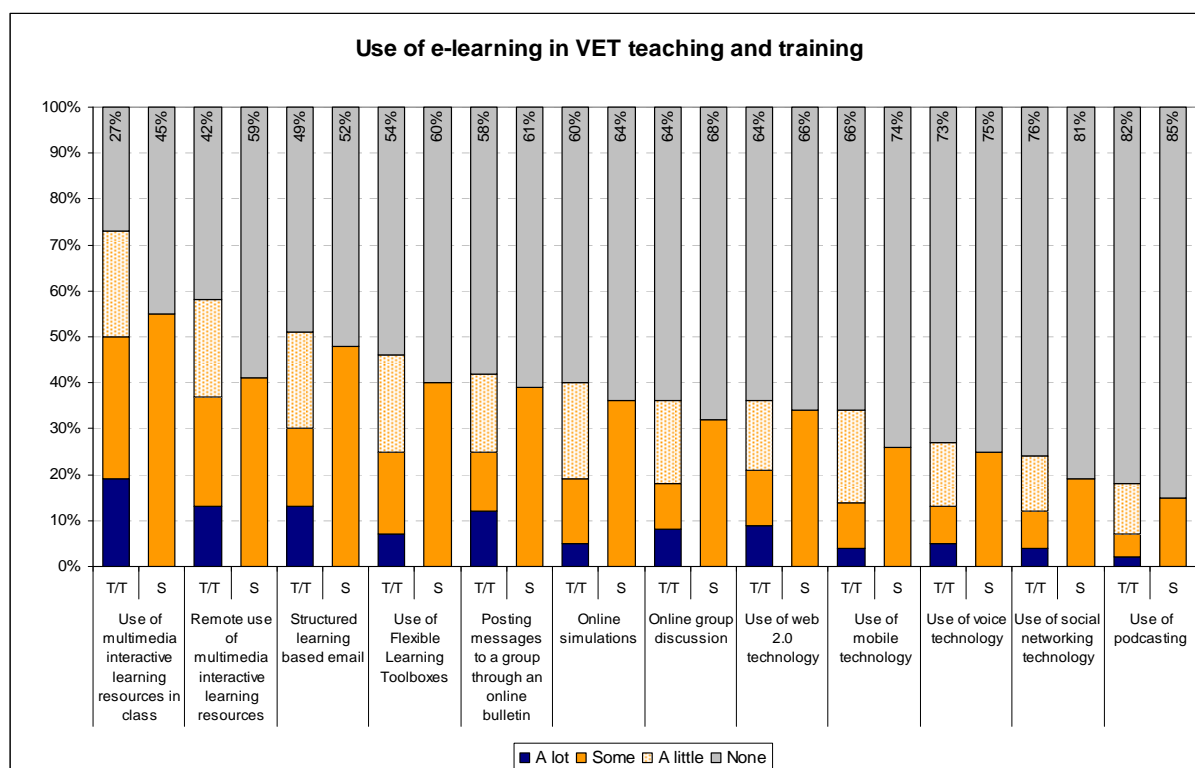
Overall, these indicators show widespread uptake of e-learning in VET, with 85-90% of VET teachers, trainers and students reporting at least some form of e-learning in what is usually a blended training experience.

## Use of e-learning in teaching and training

The disconnection between RTOs’ and VET teachers and trainers’ initial assessment of their use of e-learning and their actual uptake is a feature of discussions on e-learning, and one that has been observed in all of the E-learning Benchmarking Surveys. It comes from the idea that e-learning is a form of distance education involving a completely remote learner undertaking all of their training and assessment online. In practice, e-learning can involve many different uses of technology and electronic media in different elements of the teaching and training process. E-learning can occur in the classroom, in the workplace and at home. The 2009 E-learning Benchmarking Survey included some new questions to examine in more detail the way in which e-learning is being used in vocational education and training.

### What e-learning is being used in VET?

VET teachers and trainers are using a variety of different technology and electronic media in their delivery of VET units.



Note: VET teachers/trainers reported on the extent of use of these e-learning activities. Students were asked if their course used these e-learning activities – Yes/No.

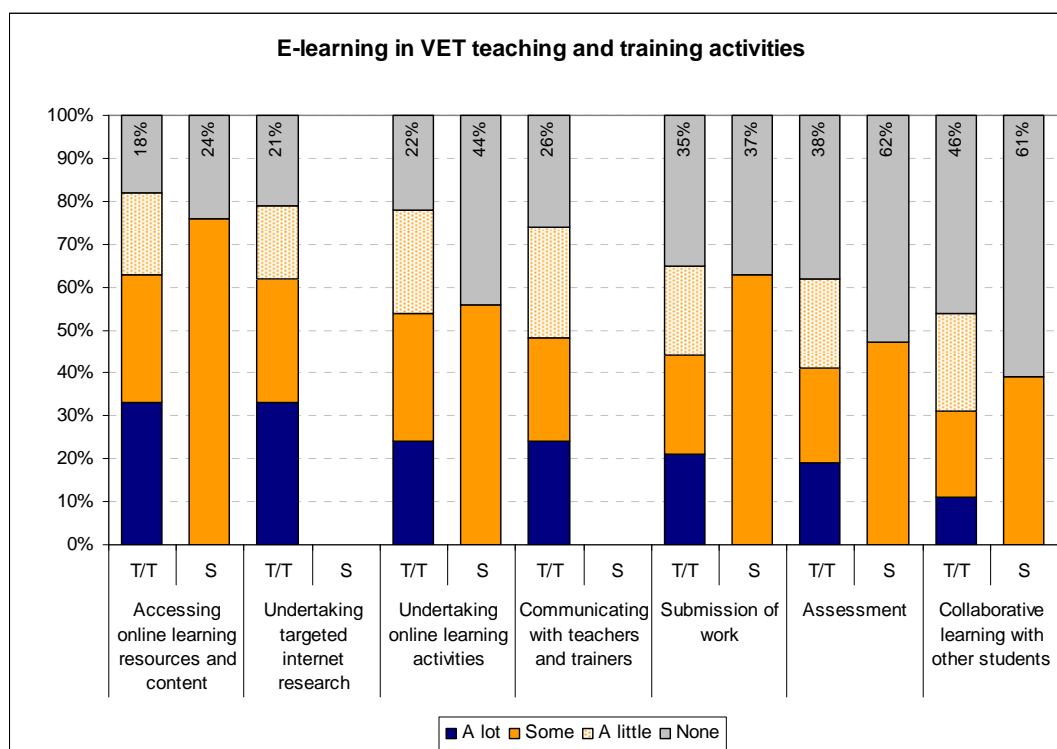
The most common use of e-learning by VET teachers and trainers is the use of multimedia interactive learning resources either within the classroom (73%) or remotely (58%). VET students also identified these as among the most used applications of e-learning. Flexible

Learning Toolboxes are being used by around 40-45% of VET teachers, trainers and students. The use of newer technologies (including web 2.0, mobile, voice, social networking and podcasting) is less widespread, although around 35% of both VET teachers and trainers and students report that web 2.0 technologies such as blogs and wikis are being used as part of teaching and learning. It is notable that the use of these newer technologies by VET teachers and trainers has increased significantly over the past year (average increase from 2008 to 2009 of 10% of teachers and trainers).

The responses from VET teachers and students in 2009 present a fairly common picture of the spread of use of different e-learning technologies, with teacher and trainer use levels generally about 3-5% higher than the student estimates.

## Teaching and training activities

E-learning is being used across the range of pedagogical elements, from directed learning activities to independent research, communication and collaboration, and assessment. While the most common uses are related to accessing online learning resources and content, more than 50% of VET teachers and trainers report that they use a fair degree of e-learning throughout their teaching process. This is true across different provider types (ie TAFE, community, school, private providers) and also true across different training areas (eg business, computing, automotive, building and construction).



Note: VET teachers/trainers reported on the extent of use of these e-learning activities. Students were asked if their course used these e-learning activities – Yes/No.

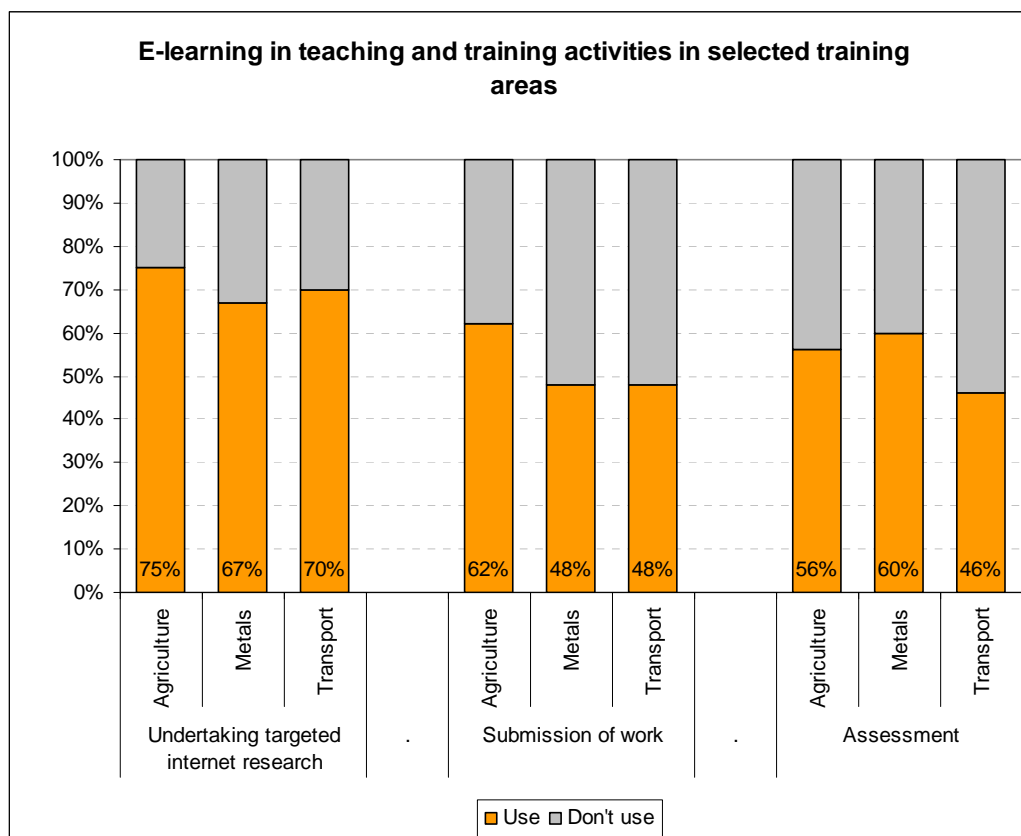
This is an important observation, as many RTOs reported to the E-learning Benchmarking Survey that they did not use e-learning as it was 'not relevant' to their area of training, which was 'hands on' and required 'practical, face-to-face training'. The survey shows that there are VET RTOs and teachers/trainers delivering in those same training areas that use e-learning. In some cases this is through creative use of online resources and new technologies. More often it is that e-learning is used by teachers and trainers in selected elements of their training.

*"Next to none for the nursing course. A primary requisite of nursing practice is that nurses demonstrate clinical skills. E-learning has little to contribute to this aspect of their education. In addition, patients are people, and people are the focus of nursing."* (NSW TAFE teacher)

*“Every unit in the nursing course has an online component.”* (Victorian TAFE teacher)

*“We are the first TAFE to use a blended delivery model for the Diploma of Nursing and Advanced Diploma of Nursing, where students undertake their theory delivery online and come to on-campus residential schools every semester.”* (Queensland TAFE teacher)

For example, teachers and trainers in the areas of agriculture, metals and transport all encourage their students to use the internet for targeted research, accessing information about their area of study and increasing their knowledge and skills. However, teachers and trainers delivering units in transport and storage are much less likely to have their students use e-learning as part of their assessment process.



### ***Tailoring training to individual training needs***

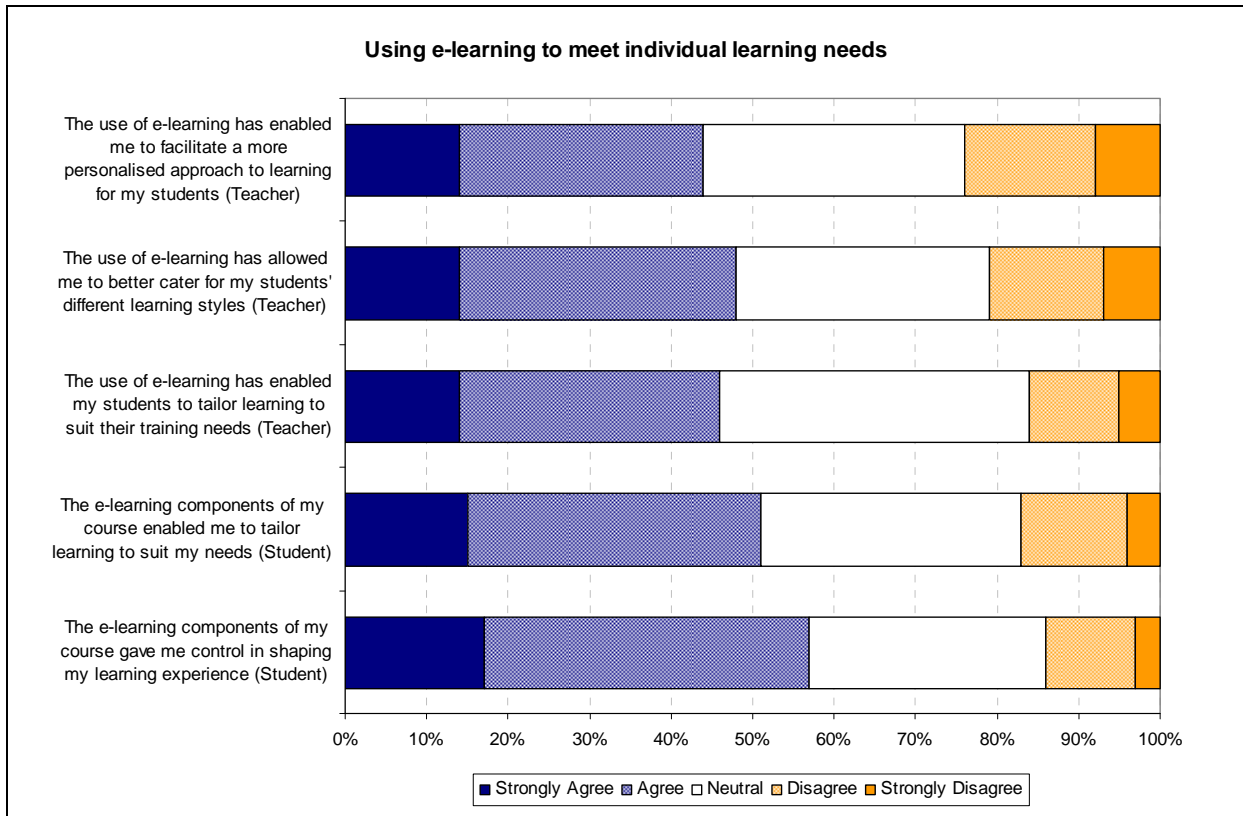
The 2009 E-learning Benchmarking Survey shows that some teachers and trainers are selectively choosing when and how they use e-learning to best meet the teaching and training needs of their students, just as they differentiate between other pedagogical techniques. Around 45% of VET teachers and trainers agree that the use of e-learning has:

- enabled them to facilitate a more personalised approach to learning for their students (44% vs 51% in 2008)
- allowed them to better cater for their students' different learning styles (48%)
- enabled their students to tailor learning to suit their training needs (46% vs 51% from VET students).

Feedback from students is slightly stronger with 57% agreeing that the e-learning components of their course gave them control in shaping their learning experience.

Fifty-two percent of VET teachers and trainers also reported that they encouraged greater interaction between their students through the use of technology (vs 56% in 2008 and 46% in 2007).

In these findings it can be seen that there are not only different technologies that can be used in VET, but also that e-learning can be used at times when it is appropriate within a training program, and also to tailor training to students' individual needs.



*“It enables me to cater to different needs of students and to have students be engaged whatever is happening in the class.”*

*“Collaborative learning follows good pedagogy principles.”*

*“E-learning allows you to expand the material and demonstrate real life processes.”*

### **Recognition of prior learning**

Ten percent of VET students surveyed said that they had been able to gain recognition of workplace-based and self-directed learning through online tools (compared with 15% in 2008). Given some of the written responses to the survey questions it is thought that this might overestimate the true extent to which RPL (recognition of prior learning) is being recognised through online tools, although there is no doubt that this is occurring.

*“Electronic submission of on the job developed project plans and evidence.”*

*“Certificate awarded and two points on the QCE!”*

Twenty-three percent of RTOs and 20% of VET teachers and trainers said that they would or had used online tools to enable students to gain recognition for workplace based and/or self-directed learning (vs 14% and 12% in 2008 respectively).

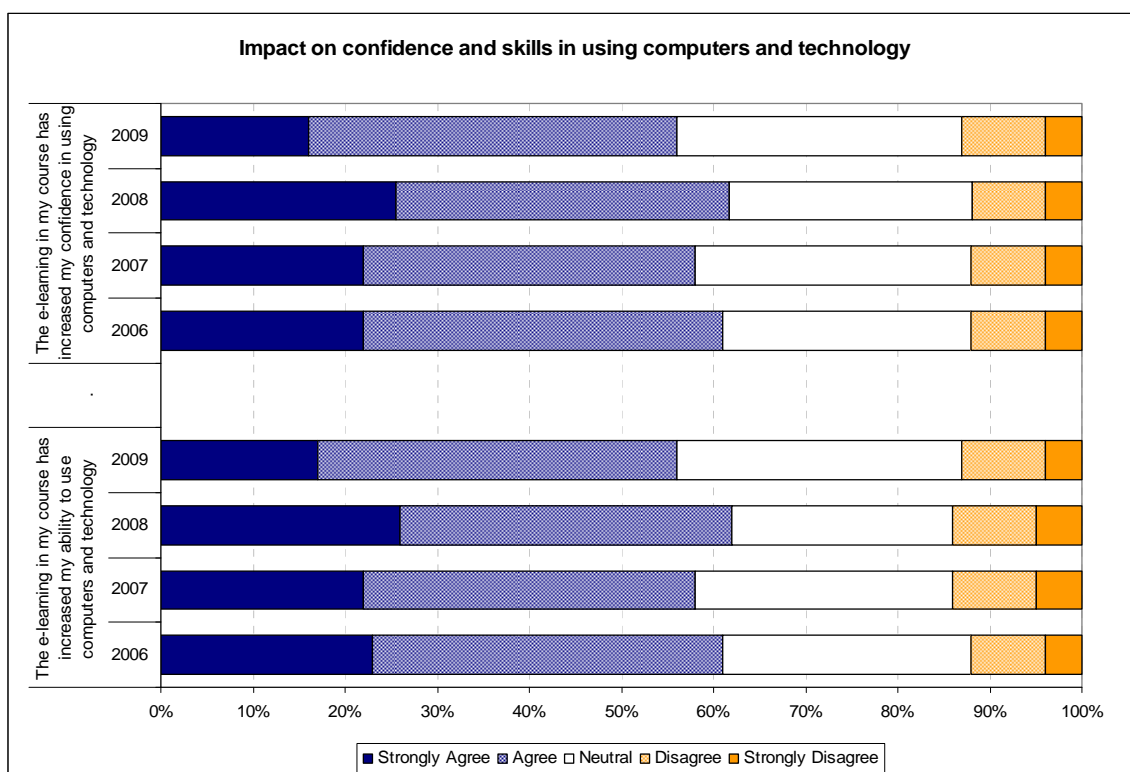
## Impact of e-learning on individuals

The 2009 E-learning Benchmarking Survey shows that e-learning has a significant impact on the way in which students engage with VET and enhance their vocational skills and employment prospects.

### Learning outcomes

The use of e-learning provides a range of skills, employment and flexibility benefits that VET students value.

In 2009, 56% of students said that the e-learning in their course had increased their confidence in using computers and technology, with 56% also saying that e-learning had increased their ability to use computers and technology. These results were around the levels established in previous E-learning Benchmarking Surveys, although about 6% below the 2008 figures. The proportion of ‘negative’ responses was in line with the results from previous years.



This shift in students’ response profile was typical of both the quantitative and qualitative feedback through most of the 2009 student survey. This suggests that the increased uptake and ‘normalised’ use of technology across the population, in areas which include but are not limited to education, has meant that the incremental benefits of using technology in delivery and enhancement of services are lower than in previous years. As technology has become for many people a normal part of everyday life there is less scope for it to deliver ‘increased’ value in uptake, although there still remains scope for ICT, and in this case for e-learning, to deliver better quality, more engaging and more personalised teaching and training.

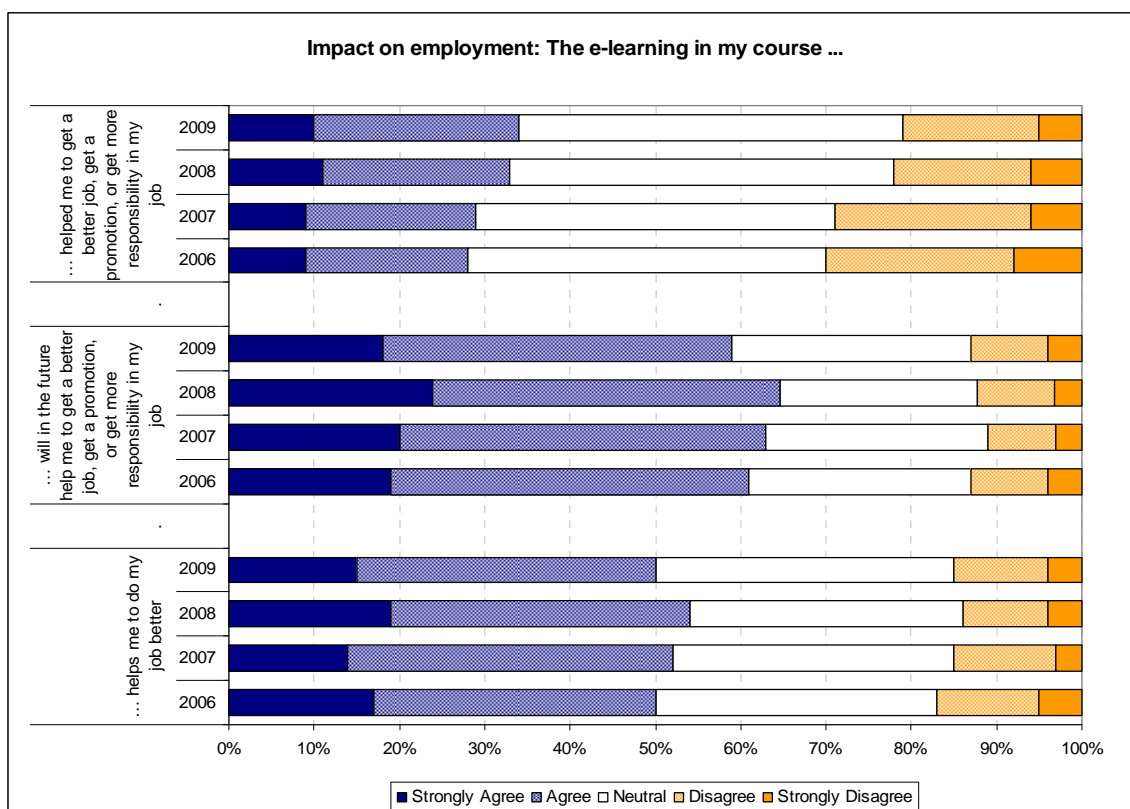
Nearly half of the students surveyed said that the e-learning in their course had led them to use computers and technology more in other areas of their life, which indicates that e-learning is not only assisting VET students to achieve their education and training goals, but enhancing their general skill base for using technology at work and home. From 2005 this figure has gradually dropped from 54% to 47%.

*“Everything these days is electronic!!!! I have been a manual worker and by doing the last 10 months of this course I can honestly say that I can do so much on a computer now that I was frightened of then. It is amazing what it can do and my mind is like a sponge. I want to learn MORE !!!!!”*

VET students also have positive expectations of the impact of e-learning on their current and future employment outcomes. The results from the 2009 survey show that 34% of students 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. Fifty-nine percent of VET students said that they think the e-learning in their course will in the future help them to get a better job, a promotion or more responsibility in their job, and 50% thought that e-learning enhanced their ability to do their job.

*“E-learning has opened my eyes to how the world is now communicating with each other. It has brought me out of the dark ages. It will be a great benefit to re-entering the workforce.”*

*“It will produce a better knowledge of computers when I enter the workforce.”*



## Flexible training

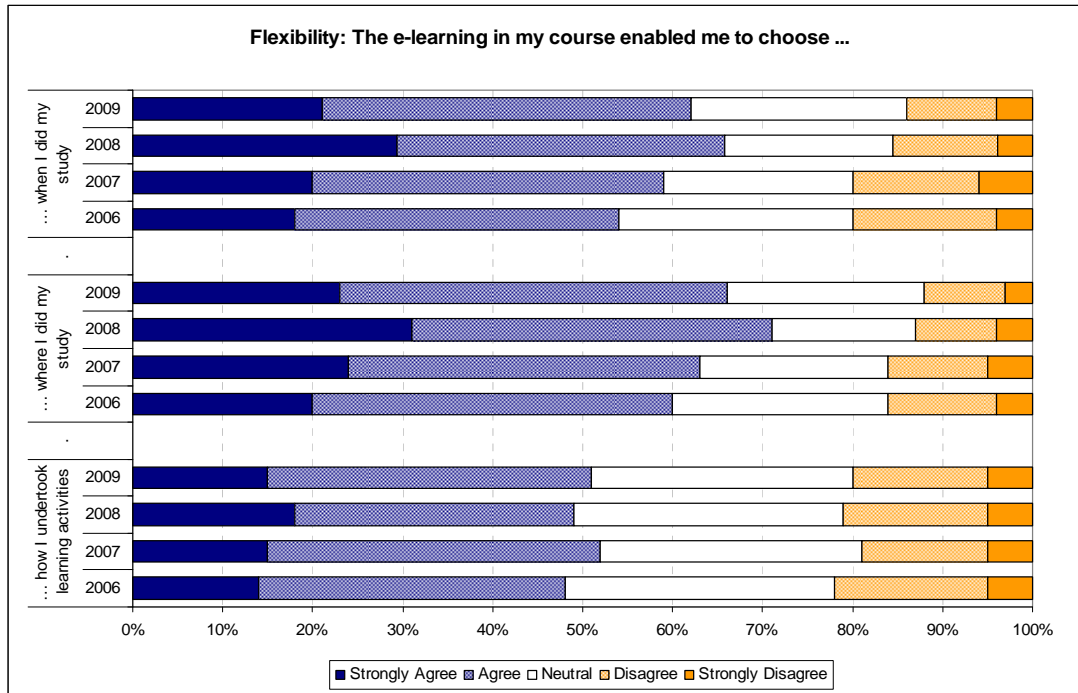
Students highly value the flexibility offered through e-learning, particularly the flexibility given to students in when and where they undertake their training. Through the E-learning Benchmarking Surveys, VET students have repeatedly highlighted benefits related to flexibility, choice and the capacity to balance home, life and work commitments, especially for remote learners.

*“Residing in Darwin (and studying with an interstate provider), being able to carry out the training online with resources that are being made available, including the assessments/help files/movies, etc. is a benefit. It allows both the continuation of my training and allows me to continue working without having to take time off.”*

*“I believe e-learning delivery would help students like me who do not need a lot of face-to-face instruction or intensive help. It would allow me to schedule learning at times suitable to me, not be held hostage to the inconvenience of our timetabling.”*

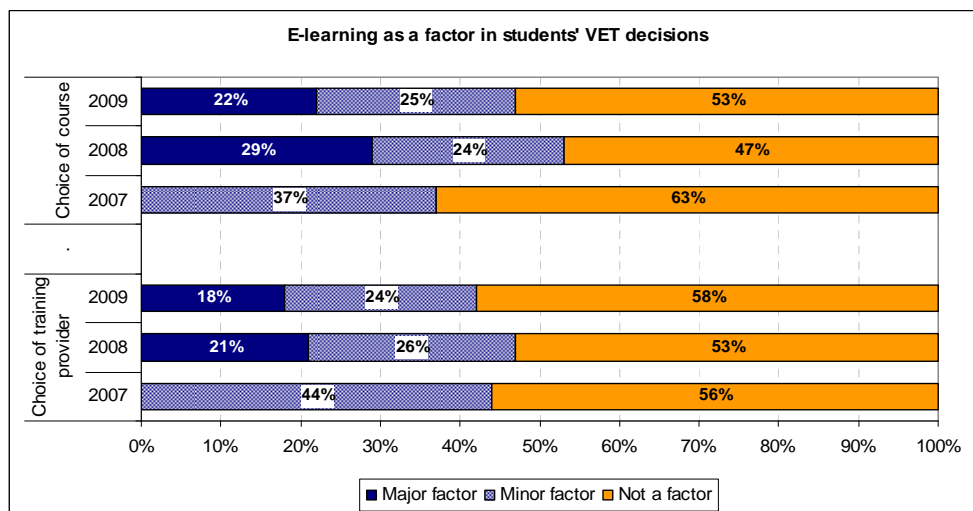
*“It takes me 1.5 hours to travel to TAFE, and I have health problems, so being able to do more of my course at home would be great.”*

Again, while the 2009 results were slightly below the 2008 figures, they are in line with data from 2007 and 2006, and the shift has come about from movement between the ‘positive’ and ‘neutral’ categories, not movement into the ‘negative’ categories.



### Training preferences

Students undertake VET courses at different stages of their career to acquire and upgrade skill sets that are valuable in the workplace. Among the 1,685 respondents to the 2009 E-learning Benchmarking Survey, one third reported that personal interest or self-development was a reason for undertaking their course. Thirty percent said they were training to get a job, 22% said they wanted extra skills for their job and 19% were trying to get a better job or promotion. For nearly half of these students, access to e-learning played at least some part in their decision over choice of course and/or choice of training provider.



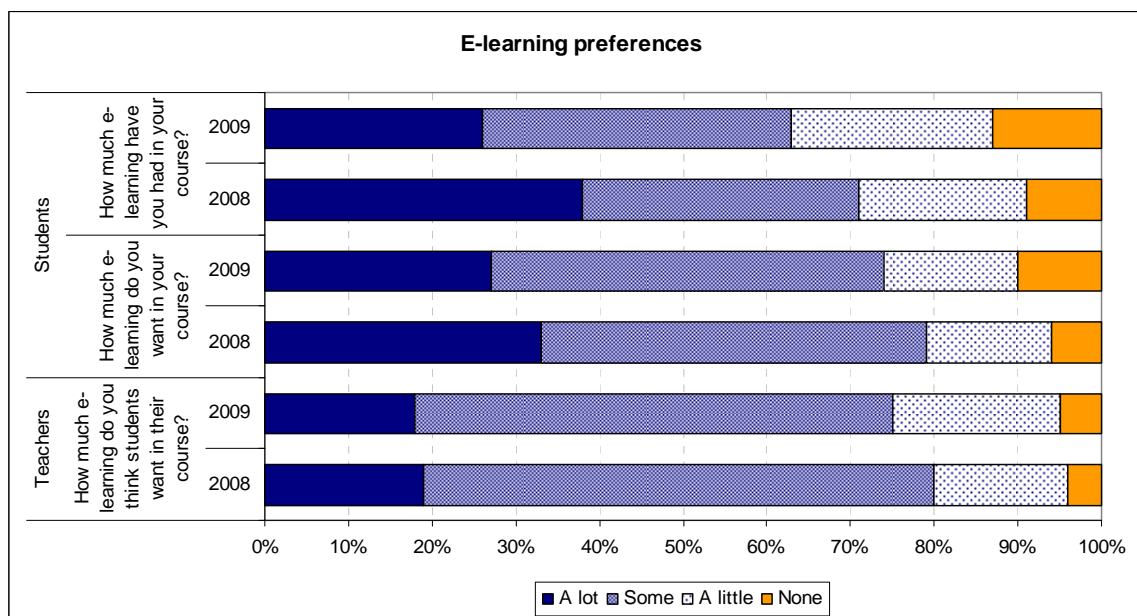
\* The questions were asked differently in 2007.

Access to e-learning tended to be more of a factor for students looking to undertake a significant part of their training online, and understandably less of a factor for VET in School

students. Significantly, access to the flexibility offered through e-learning is seen as very important to students looking to upgrade skills while continuing to work or students seeking to re-enter the workforce.

*“E-learning is part of a broad spectrum of ways I and most others learn.”*

While 90% of students would like at least ‘a little’ e-learning in their course (meaning 10% would like no e-learning), and one-quarter would like ‘a lot’ of e-learning, the majority are looking for a blended learning experience which incorporates ‘some’ use of e-learning.



This is backed up by the qualitative responses of students and the feedback from teachers and trainers who acknowledge that while most students expect and want to use online technology within their learning, there are different cohorts of students with different expectations about the extent to which technology is used.

*“Employers in the mining industry have a strong emphasis on experience and proficiency with equipment and machinery, so for me more hands on learning would be greater than more theory.”*

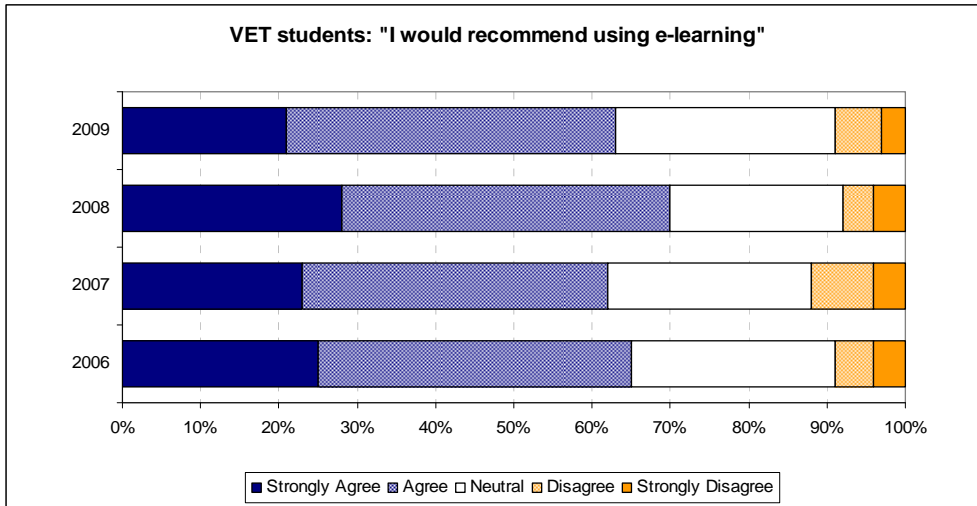
Of particular interest in the 2009 survey responses were a couple of students who, beyond not liking e-learning or thinking it did not suit their course of study or learning style, did not see e-learning as ‘proper’ teaching.

*“I would prefer that the teacher didn’t rely so much on e-learning and teach properly.”*

*“Teachers are paid to teach - they are not teaching if the students have to source the information themselves.”*

### Student recommendations

One effective way of measuring overall VET student satisfaction with e-learning is to assess the extent to which students would recommend e-learning to their peers. In 2009, 63% of VET students surveyed said that they would recommend e-learning to their friends or work colleagues (refer graph overleaf). This was consistent with the levels reported in 2007 and 2006, but down on the 2008 level. The shift from 2008 came as more students were ‘neutral’ about recommending e-learning to their peers, with 9% saying they would not recommend e-learning to their peers (equivalent to the 8% reported in 2008).

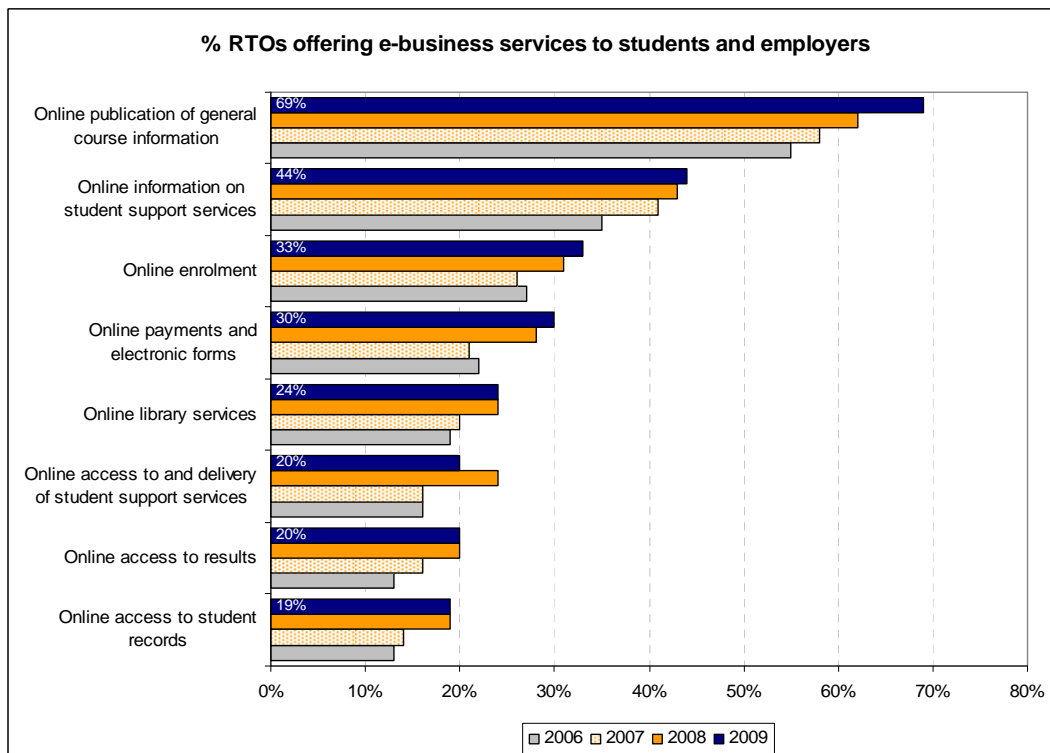


## Impact of e-learning on training providers

The 2009 E-learning Benchmarking Survey captured a range of information on the provision of and use of e-learning and e-business services by training providers.

### E-business services

Seventy-five percent of all RTOs report that they deliver some e-business services to VET students, up from 69% in 2008, 68% in 2007 and 63% in 2006. The most common form of e-business service was ‘online publication of general course information and relevant policies, regulations and strategies’, with 69% of RTOs making this information available to their clients. Online information on student support services is made available to students by 44% of RTOs. Other forms of e-business are less frequently offered by RTOs, as shown in the following chart. In most cases the shifts in reported provision of e-business services from 2008 to 2009 are generally not statistically significant.

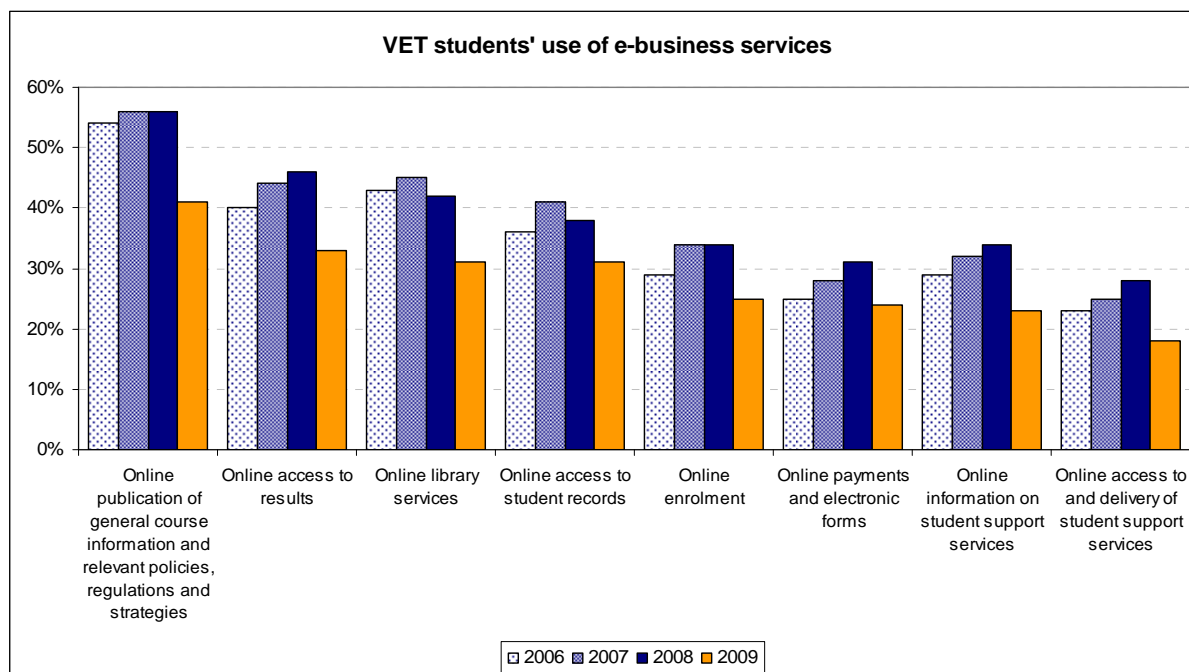


The provision of e-business services by TAFE providers in 2009 increased slightly from 2008 (as shown in the following table), as did provision of e-business services by schools.

2009 e-business service (2008 figure in brackets)	TAFE	Private+	ACE	School
Online publication of general course information and relevant policies, regulations and strategies	100% (100%)	67% (59%)	70% (64%)	65% (59%)
Online information on student support services	98% (93%)	39% (38%)	36% (38%)	52% (47%)
Online enrolment	48% (42%)	33% (34%)	29% (27%)	13% (8%)
Online payments and electronic forms	54% (47%)	29% (29%)	23% (21%)	27% (12%)
Online library services	96% (89%)	17% (15%)	15% (11%)	46% (47%)
Online access to and delivery of student support services	58% (55%)	16% (22%)	11% (15%)	27% (18%)
Online access to results.	76% (71%)	15% (18%)	8% (6%)	27% (12%)
Online access to student records	67% (61%)	16% (17%)	6% (7%)	27% (12%)

\* 'Private+' includes private, enterprise, industry and government training providers.

In 2009, 41% of VET students reported accessing general course information online and other online information about their training provider. Thirty-three percent accessed results online, 31% used online library services and 31% accessed online student records. The usage rates were much higher among TAFE students than they were for students from private or community-based training providers and schools.



However, around 50% of VET students said that, although they were not currently using a range of e-business services, they would use them if they were available from the training provider. It is important to note that in some cases the e-business services that students

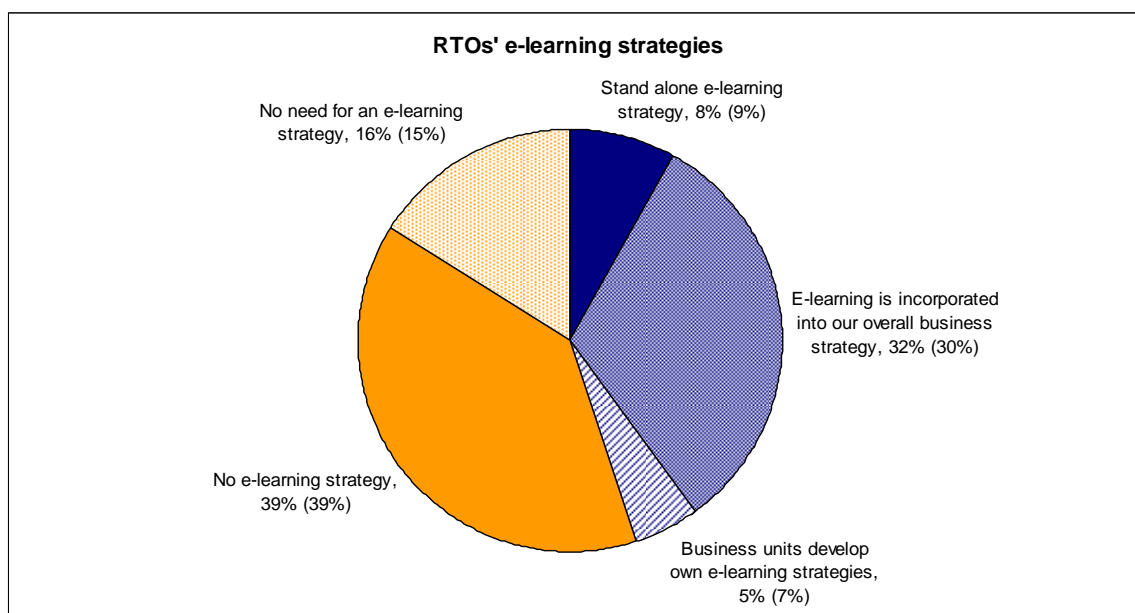
wanted and would use were actually provided by their training organisation, the student just wasn't aware of this. There was no change from 2008 to 2009 in the proportion of students that said they would not use any of the listed e-business services.

Overall 62% of VET students reported that they used at least one of the listed e-business services (compared with 68% in 2008 and 2007).

## ***E-learning strategies***

Forty-five percent of RTOs participating in the 2009 E-learning Benchmarking Survey indicated that their organisation had a business strategy that incorporated e-learning in some way. Eight percent had a stand alone e-learning strategy, primarily large public training providers, but also including some very small training providers for whom e-learning is critical to their training delivery. Thirty-two percent of RTOs incorporated e-learning into their business strategy and five percent allowed business units to develop their own e-learning strategies, both of which were more prevalent among larger providers. Small and medium sized RTOs were much more likely to say that they had no e-learning strategy, or that they did not need an e-learning strategy (often because they did not use e-learning).

These findings are almost identical to the results from the 2008 survey.



## ***Teacher/trainer attitudes to e-learning***

VET teaching and training practices show a generally wide-spread use of e-learning and positive attitudes to its use in a blended learning format.

- 59% of VET teachers/trainers said that 'the use of e-learning has made learning more interesting for my students'.
- 54% of VET teachers/trainers said that 'the use of e-learning has made learning more engaging for my students'.
- 66% of VET teachers/trainers said that 'the use of e-learning has increased my students' access to learning resources'.
- 51% of VET teachers/trainers said that 'the use of e-learning has improved my teaching practices'.
- 45% of VET teachers/trainers said that 'the use of e-learning has improved learning outcomes for my students' (vs 56% in 2007).

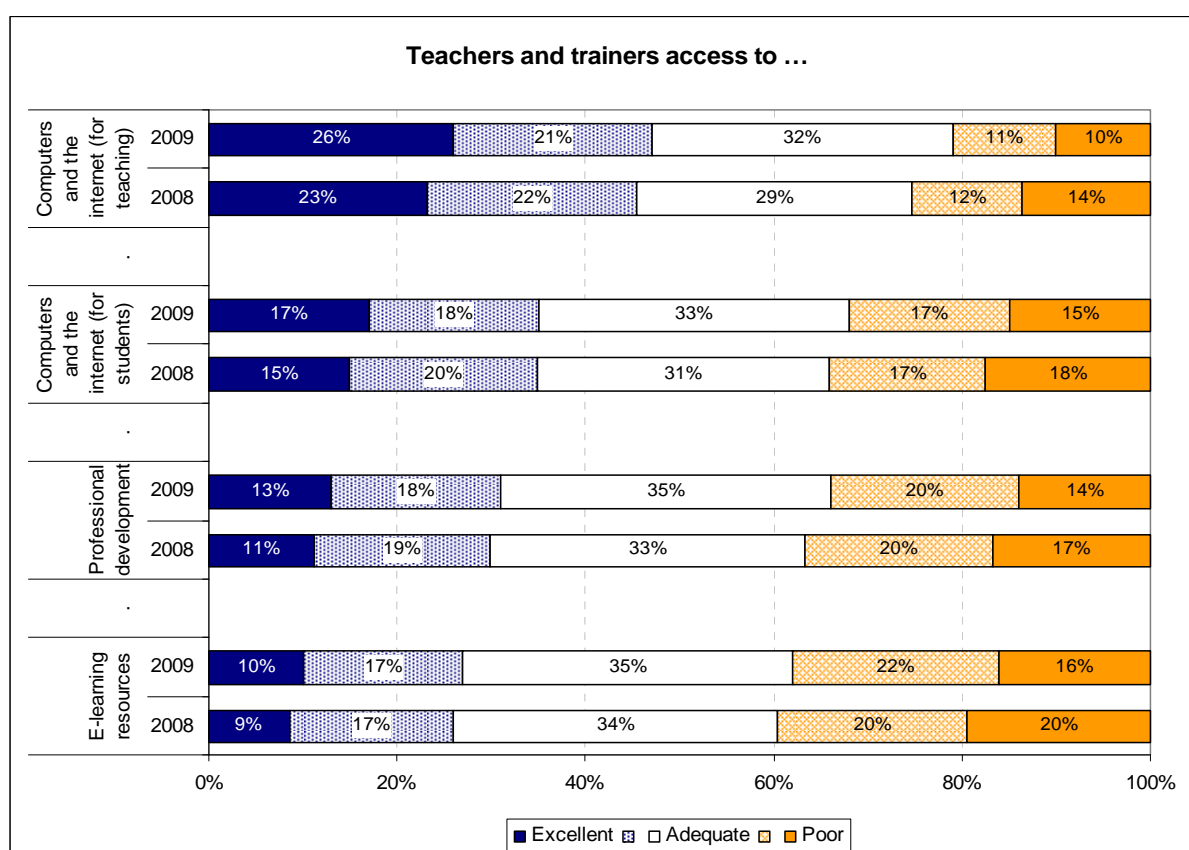
These ‘positive’ response levels were generally about 10% lower than the 2008 levels. As with some of the student responses to the 2009 E-learning Benchmarking survey, most of the shift in attitudes related to e-learning was from a ‘positive’ to a ‘neutral’ viewpoint (not a ‘negative’ viewpoint). The qualitative feedback suggests a normalisation of responses where there is less incremental benefit from e-learning as it becomes a standard part of teaching and training activities.

Fifty-four percent of teachers and trainers said that they were confident in using e-learning as part of their teaching/training (highest in Victoria, the Australian Capital Territory and South Australia), and 45% said that the use of e-learning had increased their job satisfaction (most strongly among teachers in community-based training providers).

### Support for e-learning

Sixty-two percent of VET teachers/trainers said that ‘the use of e-learning was a priority for their training organisation’, with 48% saying that they were well supported by their training organisation in using e-learning (23% said they were not well supported and 29% were neutral).

When asked about their access to computers and the internet for teaching and learning purposes, professional development and e-learning resources to support their use of e-learning, around 60-80% of teachers/ trainers said that they had adequate levels of support. The 2009 responses showed small increases in teachers’ assessment of e-learning support from their training organisation across all categories, although there are 10-16% who still report that the support they receive for e-learning is poor.



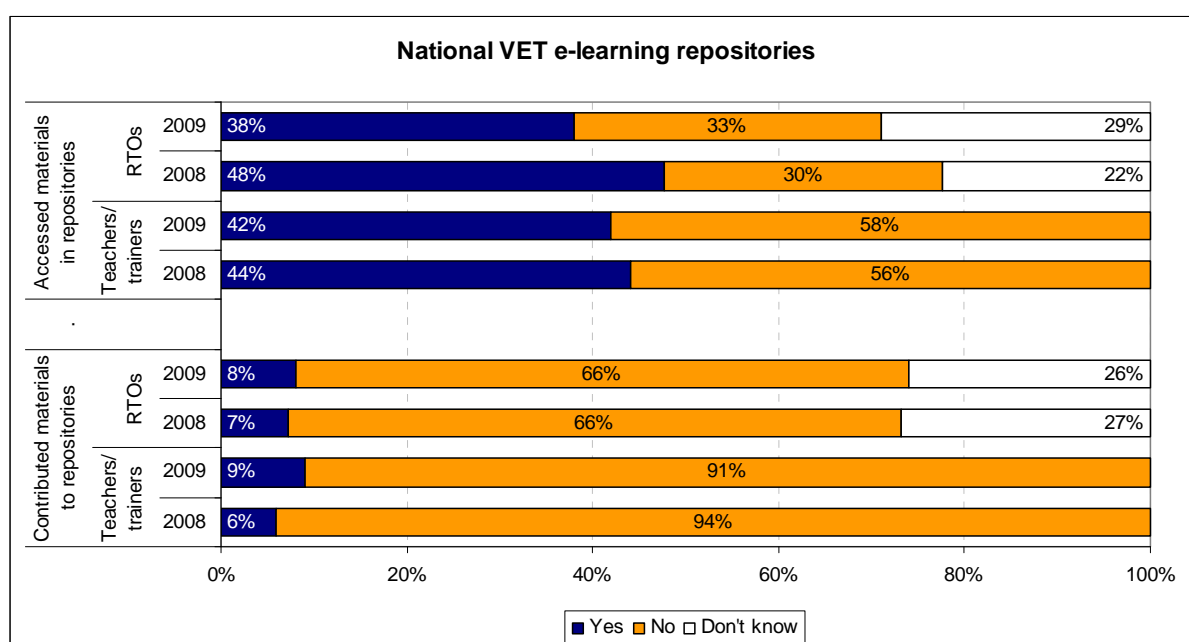
In 2009 VET teachers and trainers in schools tended to have more satisfactory levels of access to computers and the internet than their peers in TAFE, private and community-based training providers. Similarly, access to e-learning resources and professional development was reportedly strongest for VET teachers in schools, and lowest among community-based training providers.

## Impact of e-learning in the VET system

### Accessing e-learning resources

From 2008, the E-learning Benchmarking Surveys have included two questions on the level of access of, and contribution to, national VET learning object repositories. In 2009 these show that 42% of VET teachers/trainers have accessed materials in VET learning object repositories outside their organisation. This is roughly aligned with the 38% of RTOs that report their teachers/trainers having accessed material from national VET learning object repositories.

The response to this question was higher among those RTOs with a relatively greater level of e-learning activity than those with little or no e-learning activity. The 2009 response was also below that from 2008, although most of this change came from RTO respondents not knowing whether or not their teachers and trainers accessed national VET learning object repositories.



Eight percent of RTOs report that teachers/trainers in their organisation have contributed to national VET learning object repositories, matched by the 9% of individual teachers/trainers who report having done this.

## Vocational training and the impact of e-learning on business and industry

The *2008-2011 Framework Strategy* sets the platform for a greater level of engagement between training providers and employer clients through the use of e-learning. The results of the Framework's 2009 E-learning Benchmarking Survey of employers are presented in a separate report available from the Framework's E-learning Indicators website<sup>8</sup>.

The survey found that more than 10 years after e-learning first became part of a more flexible VET system, Australian businesses are starting to see that e-learning is here to stay, and offers real benefits to businesses and their employees.

The Framework's survey of more than 800 employers showed that the use of e-learning in workplace training and the uptake and impact of e-learning and e-business services by RTOs continues to increase.

- More than a third of Australian organisations use e-learning as part of the structured training they provide to their employees, and a quarter use e-learning as part of unstructured informal training activity.
- Employers' knowledge of e-learning is significantly higher than in previous surveys (conducted in 2005 and 2007) with 41% of all employers reporting that their knowledge of e-learning rated a 4 or 5 out of 5.
- 49% of all employers said that they expect their organisation's use of e-learning in provision of training to employees to increase in the next two years.
- 81% of employers said that they would encourage their employees to use e-learning if it was available.
- 61% of employers said that they would influence their training provider to deliver more flexible training to their employees.

Employer attitudes to e-learning show that two-thirds of employers believe e-learning offers flexibility in access to and undertaking training, and that e-learning provides valuable computer skills for employees. There are also higher proportions of employers who feel strongly about the benefits and flexibility offered through e-learning.

*"Any knowledge is good, and (e-learning) is obtaining knowledge which is quick, efficient and from a credible source."*

*"I did it myself and I think it's a valuable tool to have."*

*"I think it's the way of the future. (It) makes things more efficient and gets things done quicker with less fluffing around."*

The challenge for the VET system is to respond to this emerging demand pressure and flexibly support skills development and qualifications in the Australian workforce in an environment where unstructured informal training is the most common type of training used by employers.

The Framework's E-learning Benchmarking Surveys of RTOs have in the past shown that successful provision of e-business services is often a precursor to RTOs providing more flexible training through the use of technology. Therefore, it was with interest that the latest employer surveys showed the use of e-business services offered by training providers was significantly higher in 2009 than in previous years. In 2009, 44% of employers said that they used their RTO's online payments and electronic forms, compared with 21% in 2005, and 33% of employers used online enrolment facilities compared with 11% in 2005. In addition,

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<sup>8</sup> <http://www.flexiblelearning.net.au/e-learningindicators>

employers were more satisfied with the efficiency and convenience offered by their RTO's e-business services.

## ***Industry analysis***

The survey found that 93% of Australian employers rate their employees' current skills at or above the level required to meet the needs of the organisation. While the results were consistently high for most employer groups, slightly higher in the ACT and slightly lower in Tasmania, the results were significantly lower for manufacturers and small businesses with less than 10 employees, notably the automotive sector, hairdressers and retailers.

The survey found that small businesses were less likely to use accredited or formal training options to support skill development of their workforce. The construction industry and manufacturers often employ apprentices and trainees, and employers in the government, education, health and financial services sectors commonly use nationally recognised and accredited or unaccredited formal training. However, this was not the case for wholesalers, retailers and employers providing agricultural or personal services.

Across all industry sectors the larger the employer, particularly those with hundreds or thousands of employees, the more likely they were to use accredited or formal training. In addition, the larger the employer the higher their level of engagement with the VET system.

Regardless of size, sector or location, Australian employers universally agree that employees should be able to do some of their training in the workplace. This is seen as a way of ensuring training is directly relevant to the work they do, and a more efficient and productive use of employees' time.

When thinking about more efficient training delivery, employers see e-learning as a viable option. Across all employers, including those who are currently engaged with the VET system and those who are not, around two-thirds said that e-learning was an efficient and flexible method of training, that it contributed to employees developing increased computer and other work-related skills, and that they would recommend e-learning to their employees and other employers.

These opinions are based on a modest but increasing knowledge of e-learning. In 2005 employers rated their average knowledge of e-learning as only 1.9 out of 5. This increased to 2.3 in the 2007 survey and 3.0 in the Framework's 2009 survey.

Once again, large employers were much more likely than smaller employers to be knowledgeable about e-learning, more likely to be using e-learning in their own structured training activity, and more likely to increase their use of e-learning in in-house training over the next five years. Large employers were also more likely to expect their RTOs to be using and increasing their future use of e-learning in training delivery.

Across different industry sectors, the finance industry had the greatest awareness of and highest expectations of use of e-learning. Employers in the administration, government, education and health sectors also had above average knowledge of and use of e-learning.

## Additional analysis

### Demographic analysis

This report presents the national responses to the 2009 E-learning Benchmarking Survey. As it has done in past years, the Benchmarking and Research business activity will also publish, on the Framework's E-learning Indicators website, a series of presentations that show the benchmarking data from a range of different perspectives. These will include analysis of:

- survey responses by state and territory
- survey responses by different provider types (eg TAFE, community, school, private and other)
- student and teacher/trainer responses by a range of demographic characteristics (eg age, gender, metropolitan vs regional, Indigenous status, disability status, vocational area).

### Further analysis

There is scope for more detailed analysis of trends in the uptake, use and impact of e-learning. For example, the surveys have more than 3,500 VET student responses to qualitative questions that asked them to explain why they would or would not like e-learning in their course in terms of the benefits and disadvantages of e-learning.

*"E-learning helps people gain more confidence with computers and technology (which is important in a course which primarily uses computers)." (Student, business)*

*"When you work ten or more hours a day you need to be able to get technical answers online or via e-book." (Student, electrical trades)*

*"E-learning has proved to be very helpful in my studies, but I still like having access to traditional study materials (ie books). Video tutorials, especially, have proved to be a useful study aid." (Student, community services)*

*"The major benefit was that I was able to work from home. I am a mother that works part time and didn't want to use up time travelling. I also needed to fit the learning around my children and to be there when they got sick. The drawbacks were that sometimes my computer was not functional and I was unable to do my work online. I also found not sitting in a classroom with like minded students meant that I didn't receive the extra learning that comes from other's experiences and questions." (Student, library and information services)*

*"Advantage: Quicker: Disadvantage: No facial expression." (Student, accounting)*

*"I hope to see all courses being accessible by e-learning. This will give all people the right to access education." (Student, community services)*

Similarly, there are more than 1,800 responses from VET teachers and trainers who were asked to describe the main benefits of and barriers to delivering VET using e-learning.

*"Benefits: Provides pedagogical choice ... Can keep materials more up to date and distribution is immediate ... Reduced overheads in distribution of materials ... Greater student participation. Barriers: Bandwidth to remote locations ... Need developer expertise." (Teacher, business)*

*"Benefits: Caters for students' learning needs ... Improves skills ... Improves our image as a leader of vocational education and training. Barriers: Access to computers and lack of computer confidence for mature age students ... Time ... A decent computer platform." (Teacher, sciences)*

*"Benefits: Exciting engaging interactive learning tools ... Flexibility on work location ... Saving on printing, electricity, room maintenance, etc. Barriers: Students not owning a computer or insufficient computer rooms ... Limited platforms, network problems, cost of multimedia courses ... Funding the development of a variety of resources." (Teacher, hospitality)*

Of particular interest will be the opportunity to examine the way in which and the extent to which teachers and trainers are using e-learning to provide engaging learning experiences that equip their students with the skills they need.

As in 2008, there will also be analysis of the uptake, use and impact of e-learning in different VET learning areas – construction and automotive trades, business, health and community services, hospitality and tourism.

## Appendix 1: Indicators of e-learning uptake, use and impact

In 2004, the Framework identified 12 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. The indicators can be grouped under three broad headings.

Indicator group	E-learning indicator
<p><i>Uptake of e-learning</i></p> <p>Six primary indicators of e-learning demonstrate the uptake and impact of e-learning in the VET system</p>	<ol style="list-style-type: none"> <li>1. % of VET unit enrolments that use e-learning.</li> <li>2. % of VET providers offering units that use e-learning.</li> <li>3. % of VET learners who, through e-learning, have increased skills and confidence in using ICT.</li> <li>4. % of VET learners who, through e-learning, have or expect to have improved employment outcomes.</li> <li>5. % of VET clients who believe e-learning and e-business gave them flexibility in when, where and how they engaged with VET.</li> <li>6. Client satisfaction with e-learning experiences in VET.</li> </ol>
<p><i>Uptake of e-business</i></p> <p>Three indicators relate to the uptake and impact of e-business</p>	<ol style="list-style-type: none"> <li>1. % of VET providers offering e-business client, support and administrative services.</li> <li>2. % of VET clients using e-business client, support and administrative services offered by providers.</li> <li>3. Client satisfaction with e-business experiences in VET.</li> </ol>
<p><i>Teaching and training practices</i></p> <p>Three indicators address the uptake, use and impact of e-learning on VET teachers and trainers</p>	<ol style="list-style-type: none"> <li>1. % of VET teachers/trainers delivering units that use e-learning.</li> <li>2. % of VET teachers/trainers who through e-learning have changed teaching practices in the design, development and delivery of units.</li> <li>3. % of VET teachers/trainers who believe increased access to e-learning resources has improved teaching and learning outcomes.</li> </ol>

The *2008-2011 Framework Strategy* included another 15 specific indicators to demonstrate the extent to which e-learning was becoming integrated into and embedded in the national VET system. The indicators are grouped under four broad headings in the table overleaf.

Indicator group	E-learning indicator
<i>Individuals</i>	<ul style="list-style-type: none"> <li>▪ Importance of availability of e-learning, as compared to other factors, in individuals' decisions about courses and training providers.</li> <li>▪ % of students whose learning outcomes were improved because of e-learning and ways in which they benefited (a mixture of measurement of learning outcomes and perceptions of learning outcomes).</li> <li>▪ Number of students gaining recognition of work-based and self-directed learning through e-tools.</li> </ul>
<i>Business and industry</i>	<ul style="list-style-type: none"> <li>▪ % of businesses offering e-learning opportunities to employees.</li> <li>▪ E-learning as a % of all structured training provided by employers.</li> <li>▪ Number of industries investing in e-learning for long-term workforce development.</li> </ul>
<i>Providers</i>	<ul style="list-style-type: none"> <li>▪ Extent to which public, private and community providers are accessing VET e-learning resources.</li> <li>▪ % of VET providers offering online enrolment, information and student support services and assessment.</li> <li>▪ % of courses offered by providers off-campus.</li> <li>▪ % of providers with an organisation-wide e-learning strategy.</li> <li>▪ % of practitioners who are using e-learning tools to facilitate a personalised approach to learning.</li> </ul>
<i>The VET system</i>	<ul style="list-style-type: none"> <li>▪ Range and affordability of VET learning materials available for electronic download.</li> <li>▪ Progress towards agreement on national standards for e-portfolios.</li> <li>▪ Use of common technology standards within VET.</li> <li>▪ Number of training providers accessing and contributing to national VET learning object repositories.</li> </ul>

## Appendix 2: E-learning Benchmarking Survey methodology

The methodology used in the Framework's E-learning Benchmarking Survey has evolved over the years to increase the sample size, improve the value of the information captured, and respond to learnings about survey uptake and dissemination (as well as changing preferences for survey completion).

### ***2005 baseline data collection***

In 2005 the Framework's E-learning Benchmarking Project measured for the first time the national uptake, use and impact of e-learning in the VET system. It conducted four baseline surveys targeted at RTOs, VET students, employers with employees undertaking VET training, and VET teachers and trainers. The employer survey was conducted via computer assisted telephone interviews. The other three provider-based surveys gave respondents four different response options, with each survey able to be completed online, as an electronic form for return email, or in a print form that could be returned via mail or fax.

The surveys were approved through the Australian Government Statistical Clearing House to ensure that they did not capture information that already existed, did not represent an unnecessary or undue burden on respondents, and were methodologically sound.

The results of the 2005 baseline surveys were published on the Framework's E-learning Indicators website<sup>9</sup>. This included breakdowns by state and territory, provider type and demographic characteristics of VET students, teachers and trainers. The results were promoted to raise awareness of the uptake of e-learning and encourage establishment of state and territory-based data collections on e-learning for long-term measurement of uptake and impact.

It was also intended that the 12 e-learning indicators could be adapted and used by individual VET providers to establish organisational goals and benchmarks for e-learning, and to assist them to establish and maintain good data systems. As a result, the 2005 E-learning Benchmarking Project developed resources and tools to enable VET providers to undertake their own e-learning benchmarking activities through surveys of their students, teachers and trainers, and employer clients.

### ***Benchmarking from 2006 to 2008***

Building on the 2005 baseline, and with some minor modifications to the survey questions, the surveys of VET providers, VET students and VET teachers and trainers were repeated in 2006. The 2006 surveys were supplemented to capture specific data on the uptake and impact of e-learning in traditional trades training.

In 2007 there were further additions to the survey questions to capture information on the factors which influence the uptake and impact of e-learning and the potential role of the Framework in supporting VET providers to implement e-learning. Changes in 2008 reflected some of the new indicators in the *2008-2011 Framework Strategy*, and amendment or removal of some questions to minimise the response burden on participants. For example, questions on RTOs' provision of e-business services to students and employers were combined; questions on students' general attitudes to computer use, workplace skills and e-business services were removed; and some questions on teachers' and trainers' attitudes to use of resources and technology were revised.

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<sup>9</sup> <http://www.flexiblelearning.net.au/e-learningindicators>

The surveys were run during July/August each year, with response timeframes in each state and territory scheduled to avoid term breaks.

The employer survey was not repeated in 2006 as it was considered that a two-year survey cycle would be more appropriate for capturing the views of employers and their changing experiences of and attitudes to e-learning in VET. The employer survey came back into the survey process in 2007.

Each year the results of the E-learning Benchmarking surveys have been published on the Framework's E-learning Indicators website.

## ***Benchmarking in 2009***

The Framework's 2009 E-learning Benchmarking surveys have continued the methodology adopted in previous years. Additional questions in the VET student and VET teacher/trainer surveys aimed at capturing more information about the various uses of technology in different aspects of the teaching and learning process (eg learning activities, research, assessment, communication and collaboration).

Survey Monkey survey software was used for the first time with the RTO, VET student and VET teacher/trainer surveys.

The employer survey was again undertaken in 2009 as a computer assisted telephone interview.

More information on the 2009 survey methods, the sampling frame and methodology, survey questions and response rates are included in Appendices 3 to 6, which also summarise the results of each of the surveys.

## ***Survey responses***

The 2005 E-learning Benchmarking Surveys each had more than 400 responses. Increased sampling expectations in 2006 saw significant increases in the number of responses from VET students and VET teachers/trainers.

The adoption of a survey methodology from 2007 that encourages providers, particularly TAFE institutes, to reach or exceed a minimum response threshold has substantially increased the number of responses for the VET student and VET teacher/trainer surveys. The responses are also considered to be more representative of the broader VET sector with student and teacher/trainer surveys received from more and different VET providers than in earlier years. The number of responses received for each of the surveys is shown in the table below.

<b>Survey</b>	<b>Number of responses used in analysis</b> (number of responses received)				
	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>	<b>2005</b>
RTOs	705	579	536	487	403
VET students	1,685 (3,640)	1,500 (2,738)	1,121 (2,625)	875	443
VET teachers and trainers	1,500 (1,844)	1,400 (1,745)	1,017 (1,575)	733	478
Employers	801	No survey	400	No survey	400

In order to avoid biasing the sampling toward those VET providers that were more active in their recruitment of VET students and VET teachers/trainers to the surveys, random sampling of responses from some providers has been undertaken to maintain as far as possible the relative weights of different states and territories and the integrity of the overall survey response pool.

In 2009 this has meant that only around 45% of survey responses from VET students and 80% of responses from VET teachers/trainers have been used in the final survey datasets for analysis. The full response sets will be used for state and territory and, where requested and statistically valid, individual VET provider analysis.

## Appendix 3: Registered training organisations

The RTO survey captured information from training organisations on the uptake of e-learning and the provision of e-business services.

### *Sampling frame and methodology*

The short RTO survey could be completed online, as an electronic form, or as a print survey to be returned via mail or fax. Most respondents completed the survey online.

The invitation to participate in the survey was made through an email to the Chief Executive Officer (or equivalent) of each RTO. Prizes of a Flexible Learning Toolbox or book vouchers were offered to encourage RTOs to complete the survey. CEOs and Directors of TAFE institutes received personalised emails as the sampling requirements for completion of the student and teacher/trainer surveys were unique to TAFEs in each state and territory.

The population for the survey included all current RTOs. A full list of approximately 4,700 RTOs was obtained from the National Training Information Service (NTIS<sup>10</sup>). In providing this list, the Department of Education, Employment and Workplace Relations (DEEWR) advised that there may be some inaccuracies in the data contained, in particular the data related to provider classification and contact details.

The following table shows the number of responses from RTOs by provider type in each state and territory. The classification of provider type in the table below is that provided by each RTO in their survey response, and not the classification provided by NTIS (which is not consistently interpreted or recorded by different states and territories).

State/Territory	TAFE	ACE	School	Private+	Total	% of RTOs
NSW	10	18	5	108	141	14%
VIC	15	34	16	128	193	15%
QLD	12	3	22	127	164	12%
WA	6	6	1	86	99	20%
SA	3	3	1	52	59	20%
TAS	2	-	1	11	14	13%
NT	1	2	2	7	12	20%
ACT	1	1	5	16	23	19%
<b>Total</b>	<b>50</b>	<b>67</b>	<b>53</b>	<b>535</b>	<b>705</b>	<b>15%</b>

\* 'Private+' includes private, enterprise, industry and government providers.

### *Survey questions*

The survey contained three questions related to the number of accredited and non-accredited VET unit enrolments and the proportion of these estimated to involve e-learning. RTOs were also asked to what extent and in what way they used different types of e-learning. There were also questions about the use of national VET learning object repositories, organisational e-learning strategies, e-business services, information sources, and the benefits of and barriers to delivering training using e-learning. RTOs were asked in which training areas they provided training.

<sup>10</sup> National Training Information Service, <http://www.ntis.gov.au>

## Summary results

There were 705 responses received from RTOs. The results of these surveys are shown below, inserted into a copy of the survey form. Where there is a statistically significant difference from 2008 to 2009, the question is marked # (for 'significant increase') or ~ (for 'significant decrease').

		2009	2008		
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?	39%	36%		
	What proportion of the enrolments involving e-learning do you estimate were:				
#	a. Completely delivered on campus	55%	40%		
	b. Completely delivered off campus	21%	26%		
~	c. A mix of on campus and off campus/workplace learning.	24%	34%		
Q2	To what extent does your organisation use e-learning in the following ways?	A lot	Some	A little	None
#	a. Use of multimedia interactive learning resources in the classroom (eg web-based or CD-ROM learning resources, Flexible Learning Toolboxes).	12%	23% 2008 (46%)	20%	45% (54%)
#	b. Remote use of multimedia interactive learning resources (eg web-based or CD-ROM learning resources, Flexible Learning Toolboxes).	9%	19% (42%)	21%	51% (58%)
#	c. Use of Flexible Learning Toolboxes.	3%	13% (28%)	19%	65% (72%)
#	d. Use of state/territory-based e-learning resources.	2%	10% (18%)	16%	72% (82%)
#	e. Use of mobile, voice and/or web 2.0 technologies (eg blogs, wikis).	3%	10% (24%)	16%	71% (76%)
#	f. Online RPL (ie online tools to gain recognition of workplace-based and self-directed learning).	2%	7% (14%)	14%	77% (86%)
Q3	To what extent does your organisation use e-learning in the following training activities?	A lot	Some	A little	None
	a. Accessing online learning resources.	18%	24%	17%	41%
	b. Undertaking targeted internet research.	14%	26%	18%	42%
	c. Undertaking learning activities.	16%	21%	20%	43%
	d. Collaborative learning with other students.	7%	15%	20%	58%
	e. Communicating with teachers/trainers.	14%	22%	20%	44%
	f. Assessment.	10%	18%	18%	54%
Q4	In the last 12 months have teachers/trainers in your organisation:				
~	a. Accessed materials in national VET learning object repositories?			38%	48%
	b. Contributed materials to national VET learning object repositories?			8%	7%
Q5	Does your organisation have an organisation-wide e-learning strategy?				
	a. Stand alone e-learning strategy			8%	9%
	b. E-learning is incorporated into our overall business strategy			32%	30%
	c. Business units develop own e-learning strategies			5%	7%
	d. No e-learning strategy			39%	39%
	e. No need for an e-learning strategy			16%	15%
Q6	a. What (if any) do you believe are the three main business benefits to your organisation of delivering training using e-learning?				
	b. What (if any) do you believe are the three main barriers to your organisation of delivering training using e-learning?				

Q7	Does your organisation offer the following e-business services to individual VET students?		
#	a. Online publication of general course information and relevant policies, regulations and strategies	69%	62%
	b. Online enrolment	33%	31%
	c. Online payments and electronic forms	30%	28%
	d. Online access to student records	19%	19%
	e. Online library services	24%	24%
	f. Online information on student support services	44%	43%
~	g. Online access to and delivery of student support services	20%	24%
	h. Online access to results.	20%	20%

## Appendix 4: VET students

The survey of VET students captured information on their e-learning experience and their use of e-business services.

### ***Sampling frame and methodology***

The VET student survey could be completed online, as an electronic form or as a print form to be mailed or faxed.

The population for the survey included all VET students, including those in TAFE institutes, private, enterprise and community-based providers and VET in Schools programs. Although the survey targeted issues of e-learning, all VET students were in scope.

As there is no central list of VET students, participants were recruited through RTOs. An email was sent to the Chief Executive Officer (or equivalent) of each RTO asking them to forward information on the survey and its various response options to students. These were to be selected randomly, so as not to bias the sample toward those known to be undertaking units involving e-learning. Prizes to the value of \$150 were offered to encourage students to complete the survey.

All non-TAFE RTOs were asked to forward the survey and/or survey link to 10 VET students. Some smaller RTOs indicated that they were either unwilling to forward the survey to their students or indicated that they would forward the survey but anticipated minimal response as they did not deliver VET units involving e-learning. While most non-TAFE RTOs chose not to participate in the surveys, some schools, community and private providers did forward the survey and student responses were received from 127 different non-TAFE RTOs.

TAFE institutes were asked to forward the URL or survey to a random selection of students. Targets were set at 40 responses from each TAFE in NSW, South Australia and the Australian Capital Territory, with target numbers lower in Victoria, Queensland, Western Australia and the Northern Territory (20 each), and Tasmania (30 each). The targets were based on population distribution and the number of large public training providers in each state/territory.

TAFEs were also advised that if they were able to generate at least 30 VET student responses the 2009 Benchmarking and Research business activity would be in a position to produce a comparative analysis of their results benchmarked against the national figures. This was intended to motivate TAFE participation in the survey. Twenty-two TAFEs exceeded this threshold (three had more than 300 responses) with another five having 20 or more student responses.

### ***Response rates***

RTOs adopted different dissemination strategies, with some taking a very targeted approach to student selection, some targeting students in a number of different classes, and others choosing to put the link on their website and direct all students to the survey. As a result response numbers by RTO varied considerably.

On receipt of all student responses, via different methods and from different RTOs, a core dataset was selected to form the basis of the analysis for the national benchmarking results. This dataset was first produced by random sampling within VET provider, where an individual provider produced more responses than were needed. [All responses from a provider may be used in producing individual RTO benchmarking summaries.] There was then further random sampling of the remaining responses where there were more responses received in a state or territory than were required to best reflect the national VET training profile. [All responses from a state or territory may be used in producing jurisdictional benchmarking summaries.]

The overall number of VET student responses included in the core dataset was maximised to the extent possible, given that some states and territories were relatively under-represented in the response rates and would have been significantly underweight if all available surveys had been used. The total number of survey responses received from VET students by state and territory and provider type is shown in the following tables, along with the actual number of responses used in the core dataset.

State/Territory	NSW	VIC	QLD	WA	SA	TAS	NT	ACT	Total
Responses received	584 16%	1,192 33%	953 26%	180 5%	205 6%	127 3%	10 0%	384 11%	3,635*
Responses used	496 30%	420 25%	344 20%	174 10%	132 8%	55 3%	10 1%	54 3%	1,685
Australian population	33%	25%	20%	10%	7%	2%	1%	2%	100%

\* 5 students did not identify in which state/territory they lived.

Provider type	TAFE	ACE	School	Private+	Total
Responses received	3,180 88%	44 1%	159 4%	211 6%	3,594*
Responses used	1,348 80%	43 3%	93 5%	201 12%	1,685

\* 'Private+' includes private, enterprise, industry and government providers.

\* 44 students did not fully identify their training provider. None of these were used in the analysis.

## Survey questions

The survey was targeted at the general VET student population and RTOs were encouraged to seek responses from different vocational areas and classes.

The survey contained 10 questions including scaled questions on students' actual and preferred level and experience of e-learning and an open-ended question on the benefits or disadvantages of e-learning. There were also questions on awareness and use of e-business services.

The survey also captured demographic information on each student related to the name of their training organisation, the unit they were enrolled in, where training was delivered, sex and age, state/territory, location, employment status, Aboriginal and Torres Strait Island origin and disability.

The total survey was timed at around 15 minutes, including demographic questions.

## Summary results

Of the 3,640 student responses, 1,685 were selected for analysis of the overall student response to the survey. The results of these surveys are shown in the following pages, inserted in a copy of the survey form. Where a question repeated one asked in 2008, the 2008 figures are shown in brackets after the 2009 responses. Where there is a statistically significant difference from 2008 to 2009, the question is marked # (for 'significant increase') or ~ (for 'significant decrease').

Q1.	In your opinion, how much e-learning have you had in your course?	A lot 26% (38%)	Some 37% (33%)	A little 24% (20%)	None 13% (9%)
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Q2.	Where was your course delivered? (one or more)	On-campus 75%	In the workplace 6%	Off campus 15%	Other 8%	
Q3.	Did your course use e-learning in any of the following ways?				% Yes	
	a. Access to and downloading of specified learning materials and resources.				76%	
~	b. Access to and downloading of general learning materials and resources.				76% (85%)	
~	c. Use of multimedia interactive learning resources in the classroom.				55% (61%)	
~	d. Remote use of multimedia interactive learning resources.				41% (52%)	
~	e. Use of Flexible Learning Toolboxes.				40% (53%)	
~	f. Access to and participation in online course activities.				56% (68%)	
~	g. Online simulations.				36% (42%)	
~	h. Online group discussion.				32% (39%)	
~	i. Posting messages to a group through an online bulletin board.				39% (48%)	
~	j. Structured email communication between learners, other learners and teachers/trainers.				48% (62%)	
	k. Structured email collaboration between learners, other learners and teachers/trainers.				39%	
~	l. Electronic submission of work.				63% (70%)	
~	m. Online assessment activities.				55% (63%)	
	n. Use of web 2.0 technologies (eg blogs, wikis) for learning.				34% (36%)	
	o. Use of social networking technologies (eg Facebook, MySpace, Twitter).				19%	
	p. Use of mobile technologies for learning, assessment or communication.				26% (26%)	
	q. Use of voice technologies for learning.				25% (27%)	
	r. Use of podcasting for learning.				15% (14%)	
<i>Please rate your level of agreement with the statements in Questions 4 to 6 using the following scale. SA – Strongly Agree A – Agree N – Neutral D – Disagree SD – Strongly Disagree NA – Not Applicable</i>						
Q4.	Please rate the impact of your e-learning experience on your skills and confidence in using information and communication technology.	SA	A	N	D	SD
~	a. The e-learning in my course has increased my confidence in using computers and technology.	16% (26%)	40% (36%)	31% (26%)	9% (8%)	4% (4%)
	b. The e-learning in my course has increased my skills in using computers and technology.	17% (26%)	39% (36%)	31% (24%)	9% (9%)	4% (5%)
	c. The e-learning in my course has led me to use computers and technology more in other areas of my life.	16% (22%)	31% (28%)	34% (28%)	13% (17%)	6% (5%)
Q5.	Please rate the impact of your e-learning experience on your employment opportunities and outcomes.	SA	A	N	D	SD
	a. The e-learning in my course helped me to get a better job, get a promotion, or get more responsibility in my job.	10% (11%)	24% (22%)	45% (45%)	16% (16%)	5% (6%)
~	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.	18% (24%)	41% (41%)	28% (23%)	9% (9%)	4% (3%)
~	c. The e-learning in my course helps me to do my job better.	15% (19%)	35% (35%)	35% (32%)	11% (10%)	4% (4%)
Q6.	Please rate the following aspects of your e-learning experience.	SA	A	N	D	SD
	a. The e-learning components of my course enabled me to choose when I started and finished my course (eg time of year).	13% (18%)	29% (26%)	31% (26%)	20% (22%)	7% (8%)
	b. The e-learning components of my course enabled me to choose when I did my study (eg time of day).	21% (29%)	41% (36%)	24% (19%)	10% (12%)	4% (4%)

Q6.	Please rate the following aspects of your e-learning experience.	SA	A	N	D	SD
~	c. The e-learning components of my course enabled me to choose where I did my study (eg home,	23% (31%)	43% (40%)	22% (16%)	9% (9%)	3% (4%)

	workplace, campus).					
	d. The e-learning components of my course enabled me to choose how I undertook learning activities (eg face-to-face, using technology).	15% (18%)	36% (31%)	29% (30%)	15% (16%)	5% (5%)
	e. The e-learning components of my course gave me control in shaping my learning experience.	17%	40%	29%	11%	3%
	f. The e-learning components of my course enabled me to tailor learning to suit my needs.	15%	36%	32%	13%	4%
	g. My teacher/trainer encouraged the use of e-learning.	21%	45%	26%	6%	2%
	h. My teach/trainer has a good understanding of e-learning.	25%	43%	25%	5%	2%
~	i. E-learning increased my enjoyment of learning.	18% (22%)	38% (38%)	32% (27%)	8% (8%)	4% (5%)
~	j. I would recommend e-learning to my friends or work colleagues.	21% (28%)	42% (42%)	28% (22%)	6% (4%)	3% (4%)
Q7.	Were you able to gain recognition of workplace based and self-directed learning through online tools? If 'Yes', please describe.					10% (14%)
Q8.	To what extent was e-learning a factor in your ...	Major factor	Minor factor	Not a factor		
~	a. Choice of course?	22% (29%)	25% (24%)	53% (47%)		
~	b. Choice of training provider? Briefly explain your answer.	18% (21%)	24% (26%)	58% (53%)		
Q9.	If you could choose the way your course was delivered, how much e-learning would you want in it? Please explain your answer in terms of the benefits or disadvantages of e-learning.	A lot	Some	A little	None	
~		27% (33%)	47% (46%)	16% (15%)	10% (6%)	
Q10.	In the last 12 months have you used any of the following e-business services offered by your training organisation?	I used this service	I would use this service	I would not use this service		
~	a. Online publication of general course information and relevant policies, regulations and strategies.	41% (56%)	40% (28%)	19% (16%)		
~	b. Online enrolment.	25% (34%)	49% (41%)	26% (25%)		
~	c. Online payments and electronic forms.	24% (31%)	48% (40%)	28% (29%)		
~	d. Online access to student records.	31% (38%)	48% (42%)	21% (20%)		
~	e. Online library services.	31% (42%)	51% (40%)	18% (18%)		
~	f. Online information on student support services.	23% (34%)	56% (41%)	21% (25%)		
~	g. Online access to and delivery of student support services.	18% (28%)	57% (44%)	25% (28%)		
~	h. Online access to results.	33% (44%)	52% (43%)	15% (13%)		

## **Appendix 5: VET teachers and trainers**

The survey of VET teachers and trainers delivering VET units captured 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 could be completed online, as an electronic form, or as a print form to be mailed or faxed.

The population for the survey included all VET teachers and trainers, including teachers in TAFE institutes as well as trainers in private, enterprise and community-based RTOs. Although the survey targeted issues of e-learning, all VET teachers and trainers were in scope.

As there is no central list of teachers and trainers, participants were recruited through RTOs. An email was sent to the Chief Executive Officer (or equivalent) of each RTO asking them to forward information on the survey and its various response options to teachers and 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. Prizes to the value of \$150 were offered to encourage teachers and trainers to complete the survey.

All non-TAFE RTOs were asked to forward the survey and/or survey link to four VET teachers or trainers. Some smaller RTOs indicated that they were either unwilling to forward the survey to their teachers and trainers or indicated that they would forward the survey but anticipated minimal response as they did not deliver VET units involving e-learning. While most non-TAFE RTOs chose not to participate in the surveys, some schools, community and private providers did forward the survey and teacher/trainer responses were received from more than 150 different non-TAFE RTOs.

TAFE institutes in New South Wales, South Australia and the Australian Capital Territory were asked to forward the URL to a random selection of teachers and trainers with the aim of generating at least 40 responses from each TAFE. Target numbers were lower in Victoria, Queensland, Western Australia and the Northern Territory (20 each), and Tasmania (30 each). The targets were based on population distribution and the number of large public training providers in each state/territory..

TAFEs were also advised that if they were able to generate at least 30 VET teacher/trainer responses the 2009 Benchmarking and Research business activity would be in a position to produce a comparative analysis of their results benchmarked against the national figures. This was intended to motivate TAFE participation in the benchmarking surveys. Twenty-two TAFEs exceeded this threshold with another 10 having 20 or more teacher/trainer responses.

### ***Response rates***

RTOs adopted different dissemination strategies, with some targeting teachers/trainers across different faculties while others chose to put the link on their website and direct all teachers and trainers to the survey. As a result response numbers varied, with a maximum of 170 responses being received from one TAFE institute.

On receipt of all teacher and trainer responses, via different methods and from different RTOs, a core dataset was selected to form the basis of the analysis for the national benchmarking results. This dataset was first produced by random sampling from VET providers, where an individual provider produced more responses than were needed. [All responses from a provider may be used in producing individual RTO benchmarking

summaries.] There was then further random sampling of the remaining responses where there were more responses received in a state or territory than were required to best reflect the national VET training profile. [All responses from a state or territory may be used in producing jurisdictional benchmarking summaries.]

The overall number of VET teacher/trainer responses included in the core dataset was maximised to the extent possible, given that some states and territories were relatively underrepresented in the response rates and would have been significantly underweight if all available surveys had been used. The total number of survey responses received from VET teachers and trainers by state and territory and provider type is shown in the following tables, along with the actual number of responses used in the core dataset.

State/Territory	NSW	VIC	QLD	WA	SA	TAS	NT	ACT	Total
Responses received	579 31%	430 23%	420 23%	100 5%	115 6%	101 6%	46 3%	53 3%	1,844 100%
Responses used	477 33%	385 25%	311 21%	98 6%	113 8%	46 3%	34 2%	36 2%	1,500 100%
Australian population	33%	25%	20%	10%	7%	2%	1%	2%	100%

Provider type	TAFE	ACE	School	Private+	Total
Responses received	1,612 88%	25 1%	40 2%	159 9%	1,836* 100%
Responses used	1,286 86%	25 2%	34 2%	155 10%	1,500 100%

\* 'Private+' includes private, enterprise, industry and government providers.

\* 8 teachers/trainers did not fully identify their training provider. None of these were used in the analysis.

## 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 vocational areas and classes.

The survey contained an introductory question on the delivery of accredited and non-accredited e-learning. VET teachers/trainers were also asked to what extent and in what way they used different types of e-learning in teaching and training activities, and whether they accessed and used e-learning resources. There were two scaled questions on access to computers, e-learning resources and professional development, and the impact of technology on teaching practices. The survey included one open-ended question on the benefits of and barriers to use of e-learning in teaching and training, as well as a question asking teachers/trainers to assess the extent to which they believe VET students are actively looking for e-learning as part of their training program.

The survey captured the following demographic information on the teacher/trainer: name of training organisation, main field of teaching, teaching status, length of VET teaching experience, state/territory, sex and age.

## Summary results

Of the 1,844 teacher/trainer responses, 1,500 were selected for analysis of the overall teacher/trainer response to the survey. The results of these surveys are shown in the following pages, inserted in a copy of the survey form. Where a question repeated one asked in 2008, the 2008 figures are shown in italics/brackets beside/below the 2009 responses.

Where there is a statistically significant difference from 2008 to 2009, the question is marked # (for 'significant increase') or ~ (for 'significant decrease').

		2009	2008		
Q1.	Do you teach accredited and/or non-accredited units?				
	▪ Accredited	93%	94%		
	▪ Non-accredited	15%	14%		
Q2.	Have you ever delivered units that use e-learning?	65%	68%		
Q3.	In the last 12 months, to what extent have you used e-learning in the following ways?	A lot	Some	A little	None
#	a. Use of multimedia interactive learning resources in the classroom (eg web-based or CD-ROM learning resources, Flexible Learning Toolboxes).	19%	31% 2008 (60%)	23%	27% (40%)
#	b. Remote use of multimedia interactive learning resources (eg web-based or CD-ROM learning resources, Flexible Learning Toolboxes).	13%	24% (46%)	21%	42% (54%)
#	c. Use of Flexible Learning Toolboxes.	7%	18% (36%)	21%	54% (64%)
#	d. Online simulations.	5%	14% (25%)	21%	60% (75%)
#	e. Online group discussion (synchronous/asynchronous).	8%	10% (27%)	18%	64% (73%)
#	f. Posting messages to a group through an online bulletin board.	12%	13% (35%)	17%	58% (65%)
#	g. Structured learning-based email communication between learners and other learners or between learners and teachers/trainers.	13%	17% (38%)	21%	49% (62%)
#	h. Use of web 2.0 technologies (eg blogs, wikis) for learning.	9%	12% (25%)	15%	64% (75%)
	i. Use of social networking technologies (eg Facebook, MySpace, Twitter).	4%	8%	12%	76%
#	j. Use of mobile technologies for learning, assessment or communication.	4%	10% (19%)	20%	66% (81%)
#	k. Use of voice technologies for learning.	5%	8% (17%)	14%	73% (83%)
#	l. Use of podcasting for learning.	2%	5% (9%)	11%	82% (91%)
#	m. Online RPL (for recognition of workplace based and self-directed learning).	2%	5% (12%)	13%	80% (88%)
Q4.	In the last 12 months, to what extent have you used e-learning in the following teaching and training activities?	A lot	Some	A little	None
#	a. Accessing online learning resources and content.	33%	30% (71%)	19%	18% (29%)
	b. Undertaking targeted internet research.	33%	29%	17%	21%
	c. Undertaking learning activities.	24%	30%	24%	22%
	d. Collaborative learning with other students.	11%	20%	23%	46%
	e. Communicating with teachers/trainers.	24%	24%	26%	26%
	f. Submission of work.	21%	23% (67%)	21%	35% (33%)
#	g. Assessment.	19%	22% (43%)	21%	38% (57%)

Q5.	In the last 12 months have you accessed VET units that use e-learning from any of the following sources?					
	a. Your organisation's own learning management system.			56%		55%
	b. State/territory-based e-learning resources.			37%		34%
	c. EdNA Online.			14%		15%
	d. Other sources external to your training organisation.			45%		45%
Q6.	In the last 12 months have you ...?					
	a. Accessed materials in national VET learning object repositories.			42%		44%
	b. Contributed materials to national VET learning object repositories.			9%		6%
Q7.	Please rate your access to the following in terms of supporting your use of e-learning.	Excellent		Adequate		Poor
	a. Computers and the internet (for teaching).	26%	21%	32%	11%	10%
		(23%)	(22%)	(29%)	(12%)	(14%)
	b. Computers and the internet (for students).	17%	18%	33%	17%	15%
		(15%)	(20%)	(31%)	(16%)	(18%)
	c. E-learning resources.	10%	17%	35%	22%	16%
		(9%)	(17%)	(34%)	(20%)	(20%)
	d. Professional development.	13%	18%	35%	20%	14%
		(11%)	(19%)	(33%)	(20%)	(17%)
	Briefly explain your responses.					
<i>Please rate your level of agreement with the statements in this question using the following scale:</i>						
<i>SA – Strongly Agree A – Agree N – Neutral D – Disagree SD – Strongly Disagree</i>						
<i>NA – Not Applicable</i>						
Q8.	Please rate the following aspects of your e-learning experience.	SA	A	N	D	SD
	a. The use of e-learning is a priority for my training organisation.	20%	42%	25%	9%	4%
	b. I am well supported by my training organisation in using e-learning.	13%	35%	29%	15%	8%
	c. I am confident in using e-learning as part of my teaching/training.	18%	36%	23%	17%	6%
~	d. The use of e-learning has enabled me to facilitate a more personalised approach to learning for my students.	14%	30%	32%	16%	8%
		(15%)	(36%)	(30%)	(14%)	(5%)
	e. The use of e-learning has allowed me to better cater for my students' different learning styles.	14%	34%	31%	14%	7%
~	f. I encourage greater interaction between students through the use of technology.	15%	37%	31%	12%	5%
		(18%)	(38%)	(29%)	(11%)	(4%)
~	g. The use of e-learning resources has improved my teaching practices.	14%	37%	32%	11%	6%
		(17%)	(45%)	(28%)	(7%)	(3%)
~	h. The use of e-learning has increased my students' access to learning resources.	20%	46%	22%	7%	5%
		(26%)	(49%)	(17%)	(5%)	(3%)
~	i. The use of e-learning has made learning more interesting for my students.	18%	41%	30%	7%	4%
		(22%)	(47%)	(21%)	(7%)	(3%)
	j. The use of e-learning has made learning more engaging for my students.	17%	37%	33%	8%	5%
	k. The use of e-learning has enabled my students to tailor learning to suit their training needs.	14%	32%	38%	11%	5%
~	l. The use of e-learning resources has improved learning outcomes for my students.	12%	33%	38%	11%	6%
		(14%)	(40%)	(35%)	(8%)	(3%)
	m. The use of e-learning has increased my job satisfaction.	16%	29%	34%	13%	8%
Q9.	How much e-learning do you think students want in their course?	A lot	Some	A little	None	
		18%	58%	20%	4%	
		(19%)	(61%)	(16%)	(4%)	

- |      |  |     |
|------|--|-----|
| Q10. | a. What (if any) do you believe are the three main business benefits to your organisation of delivering training using e-learning? |     |
|      | b. What (if any) do you believe are the three main barriers to your organisation of delivering training using e-learning?          |     |
| Q11. | How do you like to access news and information related to your work? (one or more)   |     |
|      | ▪ Via email.   | 74% |
|      | ▪ Online/web.  | 64% |
|      | ▪ Face-to-face.  | 42% |
|      | ▪ In hard copy.  | 31% |

## Appendix 6: Employers

The survey of employers captures information about their provision of training to employees, the use of e-learning in this training, their knowledge of e-learning and e-business and their attitudes to e-learning.

### *Sampling frame and methodology*

The original survey of employers' attitudes to and experiences of e-learning in VET was conducted in 2005. The computer-assisted telephone survey, conducted on behalf of the Framework by I & J Management Services using the market research capabilities of Chant Link & Associates, randomly contacted employers by telephone based on information available through telephone and business directories. Screening questions were used to select only employers with employees who had undertaken accredited training in the preceding 12 months. Quotas were set to capture information from businesses in line with the state and territory distribution of the Australian population, with minimum quotas set in Tasmania, the Northern Territory and the Australian Capital Territory to allow for publication of results in all states and territories.

The survey of employers was repeated in 2007 with some refinements to the survey questions to capture additional quantitative and qualitative information on employers' attitudes toward flexibility in training and the value of ICT skills in the workplace.

To reflect the changed emphasis of the *2008-2011 Framework Strategy*, the 2009 employer surveys were restructured to capture information on training approaches and attitudes to e-learning from all employers, not just those who were formally engaged with the VET system through an RTO. The survey, with deletion of some questions from the 2007 survey and addition of some new questions, was structured into six key elements.

<b>Part A</b>	Screening questions <ul style="list-style-type: none"> <li>▪ identification of a person responsible for employee VET (including in-house training and accredited training delivered through a TAFE or other RTO)</li> <li>▪ agreement to participate in an 8 to 12 minute telephone survey</li> <li>▪ determination of whether the business had recently had an employee undertaking VET through an RTO as part of their employment.</li> </ul>
<b>Part B</b>	Questions related to the types of training used by the organisation and the delivery of structured and unstructured training to employees.
<b>Part C</b>	Questions related to attitudes to use of e-learning in training.
<b>Part D</b>	Questions related to the experience of e-learning with their RTO.
<b>Part E</b>	Questions related to the use of e-business services offered by their RTO.
<b>Part F</b>	Questions related to the size, location and industry of the organisation.

The third screening question was used to filter questions each respondent received. Where a business had recently had an employee undertaking accredited training through an RTO the respondent was asked all questions in Parts B to F. Where the business had not recently had an employee undertake accredited training the respondent was only asked the questions in Parts B, C and F. By using this approach the survey was able to capture standard information from all businesses that agreed to participate in the survey. Additional information on e-learning and e-business services provided by RTOs was then captured from those businesses that had recent experience with the VET system.

### *Response rates*

Sample sizes were set at a total of 800 respondents, of which 400 would have recent experience with the VET system. This compared with the samples in the previous years' surveys which were only of 400 businesses with recent experience with the VET system.

State/Territory	2005 sample	2007 sample	2009 sample (VET)	2009 sample (full)	2009 sample (full)
NSW	109	107	158	282	35%
VIC	80	74	101	189	24%
QLD	60	60	70	147	18%
WA	40	39	29	74	9%
SA	27	31	25	67	8%
TAS*	28	30	9 (23)	20 (50)	2%
NT*	29	30	2 (25)	7 (50)	1%
ACT*	27	29	6 (25)	15 (50)	2%
<b>Total</b>	<b>400</b>	<b>400</b>	<b>400</b>	<b>801</b>	<b>801</b>

\* As there are relatively fewer businesses in Tasmania, NT and ACT, additional sampling beyond the 800 threshold was undertaken to ensure there were sufficient results for analysis and publication of both 'VET' and 'full' results for every state and territory. These additional responses are not included in the 'national' results.

The net effect of the changes to the employer survey methodology in 2009 was that a total of 909 businesses participated in the survey and contributed to compilation of a large and rich database on the uptake, use and impact of e-learning on VET.

Of the 801 full respondents, nearly 400 or 47% had less than 10 employees, reflecting the high number of very small businesses in the economy. A further 34% had between 10 and 99 employees, with 19% having more than 100 employees. Thirty-six businesses (or 4% of the total) had more than 1,000 employees. The survey also had good coverage across many different industry sectors.

## Summary results

The survey captured standard information about each employer's:

- industry sector
- number of employees
- number of employees who would have undertaken VET through a RTO in the past 12 months
- state or territory of main business location.

The results of the employer survey are shown in the following pages, inserted in a copy of the survey script.

<b>Instr.</b>	I would like to ask you some questions about the structured and unstructured <b>training provided by your organisation</b> to your employees.		
<b>Q1</b>	What <b>types of training</b> are used by your organisation?		
	1. Vocational qualifications. [Note: Certificate III, Diploma etc]	Yes	51%
	2. Apprenticeship or traineeship.	Yes	37%
	3. Nationally recognised training. [Note: training that leads to a nationally recognised qualification, can include whole courses or components of a course]	Yes	51%
	4. Unaccredited formal training. [Note: Training that does not lead to a nationally recognised qualification. It is structured training and can include short courses, product specific training, and industry specific or technical training]	Yes	59%
	5. Unaccredited informal training. [Note: Unstructured ad hoc training that does not lead to a nationally recognised qualification]	Yes	68%
<b>Q2</b>	Overall, how would you rate the <b>current skill level</b> of your employees relative to the needs of the organisation? Is the current skill level.	Above what is required	41%
		Adequate	52%
		Below what is required	5%
		Can't say	2%

<b>Instr.</b>	I would now like to ask you some questions about <b>e-learning</b> . E-learning uses electronic media such as the internet, computer-based, mobile and voice technologies to deliver flexible vocational education and training.		
<b>Q3</b>	Using a 1-5 scale where 5 is “very knowledgeable” and 1 is “very little knowledge”, overall <b>how knowledgeable</b> would you say you are about e-learning?		3.0
<b>Q4</b>	Does the <b>structured training</b> (ie short courses, product training, technical training etc) provided by your organisation involve e-learning?	Yes 35%	No 60%
	If ‘Yes’, approximately what percentage of structured training provided by your organisation involves e-learning?		36%
<b>Q5</b>	Does the <b>unstructured training</b> (ie ad hoc onsite training) provided by your organisation involve e-learning?	Yes 24%	No 71%
	If ‘Yes’, approximately what percentage of unstructured training provided by your organisation involves e-learning?		35%
<b>Q6</b>	Do you think that there will be <b>increased use</b> of e-learning in training provided by your organisation in the next two years?	Yes 49%	No 43%
		Don't know	8%

<b>Instr.</b>	For each of the following statements please indicate the extent to which you agree or disagree with each using the following scale: SA – Strongly Agree, A – Agree, N – Neutral, D – Disagree, SD – Strongly Disagree, (DK – Don't know / refused / NA).						
<b>Q7</b>	Thinking about <b>e-learning</b> and your organisation's education and training experience, to what extent do you agree or disagree that:						
	<i>%s given as % of defined responses (excl. DK)</i>						
<b>7A</b>	E-learning is more flexible training for employees.	22%	42%	23%	10%	3%	(7%)
<b>7B</b>	E-learning improves employees' computer skills.	23%	49%	14%	12%	2%	(7%)
<b>7C</b>	E-learning improves employees' general skill levels.	12%	54%	18%	14%	2%	(8%)
<b>7D</b>	E-learning improves employees' work performance and productivity.	8%	44%	28%	17%	3%	(9%)
<b>7E</b>	Employees learn better face-to-face than when using computers.	28%	40%	22%	8%	2%	(4%)
<b>7F</b>	Employees should be able to do some of their training in the workplace.	41%	54%	2%	2%	1%	(1%)
<b>7G</b>	E-learning is an efficient way for people to undertake training.	15%	53%	19%	10%	3%	(5%)
<b>7H</b>	All people in the workforce need good computer skills.	23%	42%	12%	20%	3%	(1%)
<b>7I</b>	I would recommend e-learning to other employees and employers.	15%	49%	21%	13%	2%	(9%)
<b>7J</b>	In the future all training programs will involve e-learning.	8%	30%	22%	35%	5%	(7%)
<b>Q8</b>	Would you <b>encourage</b> your employees to use e-learning if it was available? Why? OR Why not?					Yes	81%

For employers who have currently or have had in the past 12 months an employee undertaking VET through an RTO as part of their employment.

<b>Q9</b>	What is the name of <b>your training organisation</b> provider (if more than one, think of main provider)?	
<b>Q10</b>	Using a 1-5 scale where 5 is “very knowledgeable” and 1 is “very little knowledge”, overall <b>how knowledgeable</b> would you say you are about e-learning offered by your training provider?	2.6
<b>Q11</b>	Using a 1-5 scale where 5 is “very satisfied” and 1 is “very dissatisfied”, overall <b>how satisfied</b> would you say you are with e-learning offered by your training provider?	3.0
<b>Q12</b>	Would you <b>prefer</b> your training provider to deliver more training using e-learning?	Yes 43%
<b>Q13</b>	Would you <b>try to influence</b> your training provider to deliver more flexible training to your employees?	Yes 61%

<b>Instr.</b>	I would now like to ask you some questions about <b>your use of e-business services</b> offered by your employees’ training organisation. E-business services include client, support and administrative services offered by training organisations that are delivered or supported by information and communications technologies.						
<b>Q14</b>	Which of the following best describes <b>your use (in the last 12 months) or possible use (in the next 12 months)</b> of XXX offered by your training organisation? (single response, read out as appropriate)						
<b>14A</b>	Online publication of general course information and relevant policies, regulations and strategies.	I used this service	32%	I would use this service	45%	I would not use this service	23%
<b>14B</b>	Online enrolment.	I used this service	33%	I would use this service	43%	I would not use this service	24%
<b>14C</b>	Online payments and electronic forms.	I used this service	44%	I would use this service	35%	I would not use this service	21%
<b>14D</b>	Online library services.	I used this service	22%	I would use this service	47%	I would not use this service	31%
<b>14E</b>	Online information on student support services.	I used this service	24%	I would use this service	48%	I would not use this service	28%
<b>14F</b>	Online access to results.	I used this service	28%	I would use this service	51%	I would not use this service	21%
<b>Q15</b>	Using a 1-5 scale where 5 is “very knowledgeable” and 1 is “very little knowledge”, overall <b>how knowledgeable</b> would you say you are about e-business services offered by your training provider?		2.6				
<b>Q16</b>	Thinking about the <b>e-business services</b> offered by your training organisation, to what extent do you agree or disagree that:						
	<i>%s given as % of defined responses (excl. DK)</i>	SA	A	N	D	SD	NA
<b>16A</b>	I found it easy to access e-business services.	11%	40%	31%	12%	6%	(19%)
<b>16B</b>	Using e-business services was more efficient than using the telephone, personal attendance or written communication.	18%	33%	29%	16%	4%	(17%)
<b>16C</b>	The e-business services enabled me to choose when my employees enrolled in their courses.	12%	49%	20%	16%	3%	(22%)
<b>16D</b>	The e-business services gave me flexibility to select convenient payment options.	11%	58%	16%	11%	4%	(22%)
<b>16E</b>	The e-business services were convenient for gathering information about the training organisation and course options.	15%	62%	12%	9%	2%	(20%)
<b>16F</b>	I would recommend using e-business services related to VET to other employers or employees.	17%	55%	14%	11%	3%	(15%)

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