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Key findings

About the 2013 e-learning benchmarking survey

- The National VET E-learning Strategy’s 2013 E-learning Benchmarking Survey addressed the uptake, use and impact of e-learning in VET.
- 677 RTOs responded to the 2013 survey. This included nearly 500 private, enterprise, industry and government RTOs from all states and territories, around 50 TAFE institutes, 70 community-based RTOs and 60 VET in Schools providers. Reflecting the broad profile of Australian training organisations, most respondent RTOs were relatively small to medium size RTOs providing targeted vocational education and training to clients in discrete industry sectors. The most recent RTO survey was conducted in 2011.
- 1,991 VET teachers and trainers participated in the 2013 e-learning survey. Also reflecting the profile of VET delivery in Australia, approximately three quarters of respondent teachers and trainers were employed by TAFE institutes. The most recent survey of VET teachers and trainers was conducted in 2010.
- As always, sample survey results and trends should be interpreted with care. In particular, in interpreting the percentage responses against any survey question it must be understood that the RTO response group is predominantly made up of small private RTOs (as is the RTO population), while the VET teacher/trainer response group is predominantly made up of TAFE teachers and trainers (as is the VET teacher/trainer population).

Major findings – Uptake, use and impact of e-learning

- RTOs estimate that 48% of all VET activity in 2012 formally involved e-learning (on average across all states/territories and provider types). [The definition of e-learning provided in the survey is included on p13.] This figure has shown an upward trend from around 3-4% of all VET unit enrolments in 2003-2004. Uptake of e-learning varies – across public, private and community training providers, and across states and territories.
- Small RTOs are polarised in their approach to e-learning. 57% of very small RTOs (representing a large number of RTOs but a very small proportion of total VET delivery) do not ‘formally’ report using e-learning. However, 26% of small RTOs report that all of their training activity involves e-learning. Only 17% sit between the extremes of all or none.
- The actual level of e-learning uptake is thought to be much greater than is reported by RTOs – with an estimated 90% of training activity involving e-learning. This is due to continuing misconceptions about what e-learning actually involves. That is, the purposeful use of electronic media in training activities that occur at an RTOs’ premises, offsite and/or in the workplace, and as part of a completely online training program or as part of a blended mix of training delivery.
- Overall, 95% of VET teachers and trainers said that they used one or more technologies in their training (up from 90% in 2010). The 2013 e-learning survey shows that compared to 2010:
  - more VET teachers/trainers are now using technology in their training
  - the VET teachers/trainers that use particular technologies are increasing their use of those technologies (shifting up from a little use to some or a lot)
  - VET teachers/trainers are using a greater number of different technologies in their training (moving from one or two different technologies to three, four or five)
  - VET teachers/trainers are using e-learning across a wider range of training activities
  - VET teachers/trainers are increasing their use of e-learning in those training activities.

Major findings – Supporting the use of e-learning

- VET teacher/trainer feedback on the impact of e-learning on teaching practice was in most cases notable for the absence of variation between 2010 and 2013. One area of significant change was that in 2013 65% of teachers and trainers agreed that they were confident in using e-learning, compared with 54% in 2010.
- VET teachers and trainers also reported accessing a wider range of online learning resources from within and outside their training organisation, as well as developing their own online resources (65%) or customising resources for their own use (60%).
- VET teachers and trainers’ access to computers for teaching and learning, professional development and e-learning resources has improved since 2010.
The major barriers to greater uptake and use of e-learning are: cost – for RTOs; time – for teachers and trainers; and access to computers and the internet – for VET students.
Summary

The National VET E-learning Strategy’s 2013 E-learning Benchmarking Survey has found that e-learning continues to be more widely and more deeply incorporated into vocational education and training activity across all provider types and all states and territories. While the survey results show that in many ways RTOs’ and VET teachers and trainers’ attitudes toward e-learning have not changed significantly since the most recent e-learning benchmarking surveys (2011 for RTOs, 2010 for VET teachers/trainers), RTOs are providing increased access to computers, professional development and e-learning resources and teachers and trainers are more confident in using technology in more and different ways within their teaching and assessment activities.

Introduction

Since 2005 FLAG has overseen an ongoing series of e-learning benchmarking surveys that have sought to gather information in response to both of these areas of interest, with a primary focus on assessing the broad uptake, use and impact of e-learning in VET. That is:

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

A further round of e-learning benchmarking surveys was conducted in April/May 2013, involving surveys of RTOs and VET teachers/trainers in each state and territory. A total of 677 RTOs completed the RTO survey, including a mix of around 500 private, enterprise, industry and government RTOs, 50 TAFEs, 70 community-based training organisations and 60 VET in Schools providers. Just under 2,000 VET teachers and trainers from nearly 300 different RTOs responded to the teacher/trainer survey.

This report presents the national results from the two e-learning benchmarking surveys. It contains information on the uptake, use and impact of e-learning in VET, analysis of factors which have influenced the adoption and support of e-learning, and some feedback from RTOs and VET teachers/trainers on their awareness of some of the Strategy’s programs and activities and the nationally endorsed VET E-standards for Training. Complementary reports will be produced to compare the survey results by state and territory and by provider type.

Uptake of e-learning

The e-learning benchmarking survey’s ‘formal’ estimate of the proportion of VET training activity that involves e-learning suggests that there has been a modest increase in the uptake of e-learning since the conduct of the 2011 survey. It is now estimated that 48% of VET training involves e-learning, up from 44% in 2011.

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. RTOs have repeatedly indicated that 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. For this and other reasons the estimate of 48% of VET unit enrolments involving e-learning is acknowledged as understating the actual level of use of electronic media to deliver flexible VET.

“Our organisation does not deliver e-learning. The data in our survey is taken from our learning management system and shows the number of students who access our online modules during class.” (Manager of a small RTO)

The uptake of e-learning as measured by this indicator varies between provider types and between states and territories. Tasmania (65%) and Victoria (63%) have typically reported the highest level of uptake of e-learning, while the trends in NSW (43%) and WA (32%) have been for steady growth in e-learning in VET. Uptake of VET e-learning in the Northern Territory is estimated to have increased from around 5% of all VET activity in 2011 to 12% in 2013.

The most significant variation in these ‘formal’ estimates of the uptake of e-learning was reported in Queensland (43% in 2013 vs 31% in 2011) which has a relatively higher proportion of its VET activity occurring through VET in Schools programs. The significant increase in the estimated proportion of VET activity in schools (67% in 2013 vs 42% in 2011) contributed to the overall increase in e-learning uptake in Queensland.
Among very large RTOs (including TAFE institutes and some large private and enterprise providers), 51% report that more than 25% of their unit enrolments involve e-learning, with 30% reporting that less than 10% of their VET activity involves e-learning.

The polarisation in the uptake of e-learning among very small RTOs that was noted in previous benchmarking survey reports was again evident in 2013. While 57% of very small RTOs report that they use no e-learning in their training delivery, another 26% report that all of their training activity involves e-learning. Overall, only 17% of very small RTOs fit in between the two extremes – all or nothing.

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 surveys’ questions of RTOs and VET teachers/trainers on their use of different e-learning approaches. These questions suggest that e-learning is more likely to be a feature of around 90% of training activity.

That is, 62% of RTOs reported that they delivered VET units involving e-learning. However, when asked if they used any of a list of technologies in delivering training, 87% of RTOs answered ‘Yes’. And 88% of RTOs indicated that they used e-learning technologies in one or more of a list of training activities. Similarly, although only 72% of VET teachers and trainers said, when asked directly, that in the last 12 months they had delivered units that used e-learning, later in the survey 95% of respondents said that their teaching and training activity involved technologies in a way that would be considered as e-learning. This reflects a continuing misconception about what e-learning actually is.

Use of e-learning

In 2013, 71% of RTOs said that they delivered training using interactive learning resources onsite (vs 63% in 2011). Sixty six percent said that their training used these e-learning resources offsite (either at home or in the workplace). Around half of the RTOs said that at least some of their training delivery used mobile technologies, with 45% using a Learning Management System (LMS) for training delivery.

VET teachers and trainers exhibited a similar profile of responses when asked about their use of technologies in their individual teaching and training. Eighty five percent of teachers used interactive learning resources onsite, up significantly on 73% from 2010. And the proportion of teachers who use them a lot was up from 20% in 2010 to 34% in 2013. The use of six of the ten listed technologies by VET teachers and trainers in their training was up significantly from the 2010 survey, with mobile technologies now used by 55% of teachers compared with 19% in 2008.

Overall, 95% of VET teachers/trainers said that they used one or more of these technologies in their training (up from 90% in 2010), with 75% using three or more and one third using six or more different technologies.

However, just as the VET teacher/trainer survey responses demonstrated increased use of technologies in training, they are now using e-learning technologies in a much wider range of training activities. Ninety one percent of VET teachers/trainers are encouraging use of e-learning when learners are conducting research, 90% have learners access e-learning resources and content, and 88% use technology in learning activities. Across all eight training activities listed in the 2013 survey there had been a significant increase in teachers’ use of e-learning in seven of these activities from 2010 to 2013. In summary:

- more VET teachers/trainers are now using technology in their training
- the VET teachers/trainers that use particular technologies are increasing their use of those technologies (shifting up from a little use to some or a lot)
- VET teachers/trainers are using a greater number of different technologies in their training (moving from one or two different technologies to three, four or five)
- VET teachers/trainers are using e-learning across a wider range of training activities
- VET teachers/trainers are increasing their use of e-learning in those training activities.

Impact of e-learning

VET teacher/trainer feedback on the impact of e-learning on teaching practice was notable for the absence of variation between the 2010 and 2013 results. One area where there was a significant change was in VET teachers’ and trainers’ confidence in using e-learning as part of their teaching/training. In 2013, 65% of teachers/trainers agreed that they were confident in using e-learning compared with 54% in 2010.

As described in Section 2 of this report, VET teachers/trainers’ 2013 assessment of the impact of e-learning on
students was broadly unchanged from 2010. In particular, VET teachers and trainers’ attitudes to e-learning (in terms of providing accessible, interesting and engaging training) were found to be consistent with those from previous years.

However, over time teachers and trainers have become less confident about the impact of e-learning on their training practices and also the extent to which e-learning improves students’ learning outcomes. In 2013, 43% of VET teachers and trainers said that ‘the use of e-learning has improved learning outcomes for my students’, well down on the 59% reported in 2006. This is not to say that students’ learning outcomes are worse with e-learning, 43% still said that learning outcomes are improved. But while there are benefits in terms of access to resources and more engaging learning, relatively fewer teachers/trainers are seeing incremental learning benefits from e-learning over alternative methods. This may reflect the maturing of e-learning where the incremental improvements that might be observed have already been factored into teaching practices and expectations about student outcomes.

Anecdotally, RTOs report that there are a range of student benefits associated with e-learning. These include:

- ready access to learning resources and teachers/trainers without having to attend the RTO’s premises
- greater flexibility in access to training and learning programs … any time, from anywhere
- greater flexibility to manage learning around work, family and personal commitments
- capacity for students to learn at their own pace
- capacity to network with other learners via online forums
- embedding employability skills (use of ICT) in learning.

“Students have ready access to their learning materials and assessment tasks at any time, which means they can capitalise on any opportunity to complete work. It also means that they can continue to be employed while studying, without trying to manage work hours around a lecture/session timetable.”

Driving and supporting use of e-learning

Student demand

Past e-learning benchmarking surveys indicate that one quarter of VET students wanted a lot of e-learning in their course, with only 10% saying that did not want any e-learning. In addition, 44% of students said that access to e-learning was a factor in their choice of course, with around 20% saying that it was a major factor in their choice of course and training provider. Data from the 2013 survey suggests that VET teachers/trainers’ perceptions of student demand are about right. On average, 20% of VET teachers think students want a lot of e-learning in their course, 60% think students want just some e-learning, 15% say students want only a little e-learning while 5% say students do not want any e-learning.

RTO strategy

In 2013 57% of RTOs indicated that their organisation had a business strategy that incorporated e-learning in some way. Nine percent had a stand-alone e-learning strategy, primarily enterprise and large private providers, as well as a small number of TAFEs. Forty-two percent of RTOs incorporated e-learning into their business strategy and 6% allowed business units to develop their own e-learning strategies, both of which were more prevalent among larger providers including TAFEs. Small and medium sized RTOs were much more likely to say that they had no e-learning strategy (29%), or that they did not need an e-learning strategy (14% - often because they did not use e-learning.

Access to e-learning resources

The 2013 survey results reinforce earlier findings on the source of e-learning resources, with the most common being resources developed outside the RTO (68%) and those developed by other people within the RTO (67%). Given the increased use of e-learning by VET teachers/trainers, the proportion of teachers accessing these different sources of resources had increased from 2010. Teachers and trainers are also developing their own resources (65%) or adapting resources for their own use (60%). This suggests a degree of self-confidence among teachers and trainers in using technology to produce materials tailored to the needs of their students. The results were higher for TAFE teachers and trainers than those in other RTOs, and highest in the ACT and SA.

Support for teachers and trainers

In 2013 RTOs had more positive views on VET teachers/trainers’ understanding of e-learning and teachers/trainers’ skills at using technology-based teaching tools.
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 70% to 80% of VET teachers and trainers said that they had adequate to excellent levels of support. Since 2008 the reported levels of access to these supports has been steadily increasing, with significant improvements observed between 2010 and 2013. Despite this, there are still around 10% of VET teachers and trainers who report that the support they receive for e-learning from their RTO is poor (most notably among teachers and trainers from the Northern Territory and Tasmania).

Anecdotal feedback from VET teachers and trainers highlighted some of the positive support provided by their RTO and managers, as well as some of the issues they face in using e-learning. For example:

- the RTOs’ financial capacity to provide access to sufficient computers, up to date computers, high speed internet access and e-learning resources (especially in smaller and community-based RTOs)
- staff being responsible for identifying and sourcing their own professional development (especially casual and sessional staff)
- IT staff not supporting technology as an educational resource
- support and encouragement being offered by the RTO but workloads being set at a level that provides no or limited time for professional development, research and e-learning development.

Barriers to adoption of e-learning

When RTOs were asked about barriers to and enablers of e-learning there were several areas where there were significant changes from 2011 to 2013.

- Cost issues are seen as more of a barrier to e-learning in 2013 than they were in 2011. In particular, the cost of e-learning resources as well as the cost of e-learning infrastructure (e.g. computers).
- RTOs believe their staff now have better skills in using technology-based learning tools, but it seems that this improvement has not kept pace with RTOs’ expectations of what will be required to meet future demand for e-learning. While 50% of private RTOs saw trainers’ skills as a barrier to use of e-learning, this was the case for 73% of TAFEs and 71% of community-based RTOs.
- The one positive change was the improved view of the NBN as an enabler of e-learning. While 50% of RTOs remain neutral on the impact of the NBN, 2013 saw a 5% shift from the barrier to the enabler rating. TAFEs and RTOs in South Australia and Tasmania were most optimistic about the impact of the NBN.

VET teachers/trainers identified several key barriers to their uptake and expanded use of e-learning – limited access to computers and the internet and inadequate internet speed; limited access to quality e-learning resources; insufficient knowledge of recent developments in e-learning and insufficient skills to take advantage of new technologies; and organisational constraints on use of IT systems and resource development.

However, the one barrier which pushed all those concerns into the background was time. VET teachers and trainers say that they do not have enough time to keep up to date with e-learning developments, to develop e-learning resources, to incorporate e-learning into or more strongly into their teaching, to plan and prepare classes (in any delivery mode), or to undertake relevant professional development.

VET teachers and trainers identified several main barriers to student use of e-learning, the major ones being access to computers and the internet. Low levels of digital literacy and lack of motivation or capacity for independent learning were also mentioned.

According to VET teachers and trainers the main barrier to organisational uptake of e-learning is money.

Awareness of the National VET E-learning Strategy

The e-learning benchmarking surveys asked both RTOs and VET teachers/trainers whether they were aware of any of the programs and initiatives of the National VET E-learning Strategy.

- 71% of RTO respondents said that they were aware of Australian Flexible Learning Toolboxes, a level of awareness matched by 68% of VET teachers and trainers.
- 51% of RTOs were aware of the National Repository (formerly the Toolbox Repository), as were 48% of VET teacher/trainer respondents.
- For most of the other Strategy programs and initiatives listed in the survey around 30% to 40% of RTO respondents said that they were aware of them, while a lower 20% to 30% of VET teachers and trainers indicated
awareness of these programs.

Across the 11 programs and initiatives listed the average level of awareness among RTO respondents was 41%. However, within this group the average level of awareness among people who completed TAFE responses to the RTO survey was 90%, with 100% awareness of Flexible Learning Toolboxes and at least 80% awareness of all other Strategy programs and initiatives. This compared with average awareness of 41% among community-based RTO respondents, 37% for private RTOs and 28% for schools.

The surveys also asked specifically about respondent awareness of the nationally endorsed VET E-standards for Training. Thirty six percent of RTOs indicated that they were aware of the E-standards with 15% of VET teachers/trainers reporting awareness of the E-standards. From the RTO survey awareness of the E-standards was highest among TAFEs and RTOs in the Northern Territory and SA, and lowest in the ACT and schools. VET teacher/trainer awareness was highest in the ACT and lowest in TAFEs and schools.

Where respondents indicated that they had used the E-standards, the Accessibility and Content Format standards were the most commonly used.

**National Broadband Network**

The 2013 surveys asked respondents to estimate the impact of the NBN on the organisation’s use of new learning technologies.

Twenty seven percent of RTOs reported that the NBN will have a high impact on their use of new learning technologies. A further 31% said the NBN would have moderate impact, with 17% reporting no impact. TAFE institutes anticipated the greatest impact on their operations, with 43% rating this as high and another 51% rating moderate. RTOs in the Northern Territory and the ACT envisaged the least impact of the NBN.
1. Measuring the uptake, use and impact of e-learning

National VET E-learning Strategy

The National Vocational Education and Training E-learning Strategy 2012–2015¹ (‘the Strategy’) is aimed at:

- strengthening the Australian training sector’s use of new learning technologies
- stimulating innovative approaches to increasing participation in training and employment
- improving the skill levels of the Australian workforce.

The Strategy is driven by a vision and three goals supported by a number of interconnected approaches.

Vision: A globally competitive Australian training system underpinned by world class e-learning infrastructure and capability

Goal 1: Develop and utilise e-learning strategies to maximise the benefits of the national investment in broadband

Goal 2: Support workforce development in industry through innovative training solutions

Goal 3: Expand participation and access for individuals through targeted e-learning approaches

Developed as a three-year program of action with a series of ongoing business activities reflecting its strategic objectives, the Strategy is playing a key role in enabling the Australian training sector to take advantage of the rollout of the National Broadband Network (NBN). Coordinated action to develop sector-wide capability in using the new technological environment will, at the same time, stimulate innovative approaches to increasing participation in training and work, and improving the skill levels of the Australian workforce.

Key characteristics of the 2012–2015 Strategy are:

- the pursuit of leverage from the rollout of the NBN, and partnerships with industry, registered training organisations (RTOs) and the community to harness resources available through different channels
- the promotion of broadband-enabled training progressively as the NBN rollout unfolds
- research and system support for the technical and educational aspects of using broadband-enabled and emerging technologies
- support for practitioners to develop and share e-learning content using contemporary technologies
- engagement with peak industry bodies and peak support groups for disadvantaged individuals to coordinate plans for e-learning approaches
- sponsorship of innovative training approaches giving priority to individual participation and access, and industry-based workforce development
- support for learner pathways through the pursuit of a national e-portfolio-based approach to recognition of learning
- evaluation processes with a feedback loop into further planning, including: measurement of outcomes for learners in sponsored programs to reflect relationships with government targets; and measurement of training provider impacts from e-learning, including sustainability and ability to respond to need
- online and jurisdictional support for RTOs, industry and the community to access the available opportunities, resources and advice.

¹ http://www.flexiblelearning.net.au/about.htm
The Strategy is managed by the Flexible Learning Advisory Group (FLAG), a key policy advisory group on national directions and priorities for ICT in the VET sector. It builds on the strengths of previous national strategies, including the former Australian Flexible Learning Framework (2008–2011).

**Information to support decision-making**

The Strategy’s Measurement, Research and Quality business activity aims to measure the impacts of e-learning activities conducted through the Strategy, research priority topics to inform strategic directions, and support quality e-learning practice. In capturing, analysing and presenting impact data two parallel streams of information are of interest. The first involves collection of both annual and longitudinal data to identify impacts on learners, providers and stakeholders of all activities undertaken through the Strategy. This form of data collection fulfils a typical evaluation role. The second involves capture of information about the general uptake, use and impact of e-learning in VET, independent of Strategy activities. By understanding trends in e-learning in the broader VET context FLAG is better informed about opportunities to target and maximise the value of its investment in Australia’s training sector.

Since 2005 FLAG has overseen an ongoing series of e-learning benchmarking surveys that have sought to gather information in response to both of these areas of interest, with a primary focus on assessing the broad uptake, use and impact of e-learning in VET. That is:

- uptake and use … the uptake of e-learning and the volume and sophistication of use by clients (individual learners and industries/businesses), by RTOs 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 program captured information against key e-learning indicators through surveys of four key stakeholder groups:

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

The following e-learning benchmarking surveys were conducted for FLAG between 2005 and 2011.

<table>
<thead>
<tr>
<th>Stakeholder group</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>VET students</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Employers</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>RTOs</td>
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<td>✓</td>
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<tr>
<td>VET teachers/trainers</td>
<td>✓</td>
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</tbody>
</table>

**2013 E-learning Benchmarking Survey**

A further round of e-learning benchmarking surveys was conducted in April/May 2013. This involved surveys of RTOs and VET teachers/trainers in each state and territory. All RTOs registered on training.gov.au were invited to participate (approximately 4,700), including TAFEs, private RTOs, enterprise organisations, industry and government RTOs, community-based training organisations and VET in Schools providers.

A total of 677 RTOs completed the survey and just under 2,000 VET teachers and trainers from nearly 300 different RTOs responded to the teacher/trainer survey.

This report presents the national results from the two e-learning benchmarking surveys. It contains information on the uptake, use and impact of e-learning in VET, analysis of factors which have influenced the
adoption and support of e-learning, and some feedback from RTOs and VET teachers/trainers on their awareness of some of the Strategy’s programs and activities and the nationally endorsed VET E-standards for Training.

Complementary reports will be produced to compare the survey results by state and territory and by provider type.

The definition of e-learning used in the surveys was as follows.

<table>
<thead>
<tr>
<th>E-learning uses electronic media to deliver flexible vocational education and training. It includes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- access to, downloading and use of web, CD-ROM or computer-based learning resources in the classroom, workplace or home</td>
</tr>
<tr>
<td>- online access to and participation in course activities (e.g. online simulations, online group discussions)</td>
</tr>
<tr>
<td>- directed use of the internet, mobile and voice technologies for learning and research purposes</td>
</tr>
<tr>
<td>- structured learning-based email communication</td>
</tr>
<tr>
<td>- online assessment activities.</td>
</tr>
</tbody>
</table>

**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.
2. Uptake, use and impact of e-learning

The results from the 2013 e-learning benchmarking surveys of RTOs and VET teachers and trainers indicate that the use of e-learning is now widespread among larger training providers and some smaller providers. Most VET teachers and trainers use technology as part of their training programs, within classrooms and as part of off-site and workplace learning, and across a range of different teaching and training activities. However, as has been found in previous benchmarking surveys, it is still the case that some training organisations and VET teachers/trainers do not consider their use of technology to represent e-learning.

Uptake of e-learning

The e-learning benchmarking survey’s ‘formal’ estimate of the proportion of VET training activity that involves e-learning suggests that there has been a modest increase in the uptake of e-learning since the conduct of the 2011 survey. It is now estimated that 48% of VET training involves e-learning, up from 44% in 2011 and continuation of a plateauing in the uptake of e-learning.

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 Section 1). Over the years RTOs have repeatedly indicated that 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 through blended delivery on- and off-campus, as well as e-learning that occurs as part of workplace-based training delivery.

Therefore, the estimate of 48% of VET unit enrolments involving e-learning is acknowledged as understating the actual level of use of electronic media to deliver flexible VET.

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2 RTOs report that they estimated the proportion of VET unit enrolments that involved e-learning using a variety of means. Overall, 38% of persons completing the RTO survey said that the information was from their organisation’s learning management system, 28% said it came from tracking student enrolments, 20% said it was an estimate based on other hard data, and 14% indicated that the estimate was not based on hard data. Private RTOs were more likely to be using an LMS to record e-learning than other types of RTOs.
Uptake of e-learning by state/territory and provider type

The uptake of e-learning as measured by this indicator varies between provider types and between states and territories, although over time the relativities have been fairly standard in the context of the increasing uptake of e-learning. Tasmania and Victoria have typically reported the highest level of uptake of e-learning, and this occurred again in 2013 (Tasmania 65% and Victoria 63%). The trends in NSW and WA have been for steady growth in e-learning in VET, and the 2013 results reinforce this finding. The 2013 figure for SA is below the 2011 figure (43% vs 54%), but is more consistent with the estimates from 2008 to 2010. Uptake of e-learning in VET in the Northern Territory is estimated to have increased from around 5% of all VET activity in 2011 to 12% in 2013. The 2013 estimate in the Australian Capital Territory (30%) is down on previous years.

The most significant variation in these ‘formal’ estimates of the uptake of e-learning has been the reported change in Queensland (43% in 2013 vs 31% in 2011). While the estimates in all states and territories are heavily influenced by the major public providers, who collectively deliver around 70% to 80% of all VET activity, more than any other state Queensland has a relatively higher proportion of its VET activity occurring in schools through VET in Schools programs. The significant increase in the estimated proportion of VET activity in schools in 2013 (67% vs 42% in 2011) contributed to the overall reported increase in e-learning uptake in Queensland.

In 2013 TAFE providers estimated higher levels of e-learning uptake than in previous years, continuing a fairly steady upward trend from 37% in 2008 to 54% in 2013. Uptake among private and community-based RTOs has not changed significantly in the last four years.

Uptake of e-learning by provider size

The e-learning benchmarking survey has previously reported on the differential levels of uptake of e-learning among RTOs of different size. The 2013 results are broadly in line with what was observed in 2010 and 2011 (see chart over page).

Fifty one percent of very large RTOs (including TAFE institutes and some large private and enterprise providers) report that more than 25% of their unit enrolments involve e-learning. Thirty percent of this group report that less than 10% of their VET activity involves e-learning (up from 18% in 2011). Within this group one notable change in 2013 was among the 27% of providers that report more than 50% of VET as involving e-learning.
Where in previous years these estimates had been around 50% to 65%, in 2013 they pushed up to 60% to 80% as e-learning became part of almost all training that they provide.

The proportion of mid-size RTOs with between 1,001 and 10,000 annual unit enrolments, who have 10% or less of their training delivered through e-learning, remained in the 50% to 60% range, with one third reporting that they do no e-learning.

The polarisation in terms of the uptake of e-learning among very small RTOs (up to 100 units) has been noted in previous benchmarking survey reports, and is evident again in 2013. While 57% report that they use no e-learning in their training delivery, many of the rest report that more than 50% of their training delivery involves e-learning. In fact 26% of all very small RTOs report that 100% of their training activity involves e-learning. Overall, only 17% of very small RTOs fit in between the two extremes – all (26%) or nothing (57%).

This polarisation is also becoming evident among small RTOs (approximately 101 to 1,000 unit enrolments) with roughly two thirds of these RTOs either in the no e-learning group (34%) or the at least 50% e-learning group (30%).

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 surveys’ questions of RTOs and VET teachers/trainers on their use of different e-learning approaches. Benchmarking questions asked over the past few years suggest that the true level of uptake of e-learning in at least some form is much higher than 48%, and more likely a feature of around 90% of training activity.

Sixty two percent of RTOs responding to the RTO survey reported that they delivered VET units involving e-learning. However, when asked if they used any of a list of technologies in delivering training (excluding email communication between teacher/trainers and students), 87% of RTOs answered ‘Yes’, the same result as in the 2011 survey. And 88% of RTOs indicated that they used e-learning technologies in one or more of a list of training activities.

Similarly, although only 72% of VET teachers and trainers said, when asked directly, that in the last 12 months
they had delivered units that used e-learning, later in the survey 95% of respondents said that their teaching and training activity involved technologies in a way that would be considered as e-learning.

This reflects a continuing misconception about what e-learning actually is (despite the survey containing a definition which clearly explained the scope of e-learning). Part of this misconception is based on thinking that e-learning involves a learner completely absent from a training provider. In fact, 49% of the reported e-learning activity included in the ‘formal’ estimate of e-learning is reported to have occurred entirely on the providers’ premises or on campus. Only 21% occurred offsite or in the workplace, with 30% of e-learning reported to have occurred through a blended model of onsite/offsite delivery. Most schools clearly understood the scope of e-learning with 84% of their e-learning happening at the school, with most of the rest being blended delivery. Private and community-based RTOs reported that only 21% of their e-learning activity occurred completely onsite, with 44% happening completely offsite (at home, in the workplace) and 35% delivered in a mixed mode.

Use of e-learning in teaching and training

The e-learning benchmarking surveys asked RTOs and VET teachers and trainers about the extent to which different technologies were used in delivering training and the extent to which e-learning technologies were used in different training activities.

Different technologies

In 2013, 71% of RTOs said that they delivered training using interactive learning resources onsite. Sixty six percent said that their training used these e-learning resources offsite (either at home or in the workplace). Around half of the RTOs said that at least some of their training delivery used mobile technologies, with 45% using a Learning Management System (LMS) for training delivery. Eighty seven percent supported communication between learners and teachers/trainers through email.

The 2013 results were in some cases almost identical to the results from the 2011 e-learning benchmarking survey, with only two areas where there was a significant difference between 2011 and 2013.

- The proportion of RTOs using interactive learning resources onsite increased from 63% to 71%, with the proportion of RTOs using this a lot up from 16% in 2011 to 24% in 2013.
- The proportion of RTOs using email communication between VET teachers/trainers and learners to some extent increased from 26% in 2011 to 30% in 2013, with relatively fewer in the ‘a little’ category.
Across the ten different technologies listed in the question (excluding email communication) only 13% of RTOs said that their training used none of these. Ten percent of RTOs used only one of the listed technologies – typically interactive learning resources onsite or offsite, or mobile technologies. A further 23% used two or three of these technologies in their training – typically a combination of these three most frequently used technologies. One third of RTOs said that their training used at least six different technologies.

VET teachers and trainers exhibited a similar profile of responses when asked about their use of technologies in their individual teaching and training. Use of interactive learning resources onsite and offsite, LMS and mobile technologies were, as with the RTOs’ responses, the four most commonly used technologies. Eighty five percent of teachers used interactive learning resources onsite, up significantly on the 73% reported from the 2010 VET teacher/trainer survey. And not only are more teachers using these resources in their classrooms, the proportion who use them a lot was up from 20% in 2010 to 34% in 2013. In fact the use of six of the ten listed technologies by VET teachers and trainers in their training was up significantly from the 2010 survey (marked * in the chart below), with mobile technologies now used by 55% of teachers compared with 19% in 2008.
Overall, 95% of VET teachers/trainers said that they used one or more of these technologies in their training (up from 90% in 2010), with 75% using three or more and one third using six or more different technologies.

Training activities

The follow up question to the use of different technologies in training was to ask RTOs and VET teachers/trainers in which training activities they used e-learning. The results reflected the responses to the earlier question, with little or no change in the proportion of RTOs using e-learning for most activities other than in assessment, where the total proportion of RTOs using e-learning in assessment was the same as in in 2010, but there was a shift from ‘a little’ use (-7%) to ‘a lot’ of use (+5%).
However, just as the VET teacher/trainer survey responses demonstrated increased use of technologies in training, they are now using e-learning technologies in a much wider range of training activities. Ninety one percent of VET teachers/trainers are encouraging use of e-learning when learners are conducting research, 90% have learners access e-learning resources and content, and 88% use technology in learning activities. Across all eight training activities listed in the 2013 survey there had been a significant increase in teachers’

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<tr>
<th>Technology used by RTOs in training activities</th>
<th>% of RTOs</th>
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<tr>
<td>Accessing learning resources and content</td>
<td>41%</td>
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<tr>
<td>Doing research</td>
<td>39%</td>
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<tr>
<td>Using technologies in learning</td>
<td>33%</td>
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<tr>
<td>Undertaking learning activities</td>
<td>33%</td>
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<tr>
<td>Collaborating with teachers/ trainers</td>
<td>22%</td>
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<tr>
<td>Communicating with teachers/ trainers</td>
<td>18%</td>
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<tr>
<td>Undertaking learning activities</td>
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use of e-learning in seven of these activities from 2010 to 2013. The only activity where this was not the case was submission of work – a question not asked in 2010, although comparison with the 2008 and 2009 results indicate that there has been a significant increase in use of e-learning for submission since then.

And just as VET teachers/trainers reported increased of e-learning in training activities, the frequency of use also increased. For example, the shift in use of e-learning for assessment saw a 15% increase in the proportion of teachers who used this ‘a lot’ and a 5% increase in the proportion who used it some of the time (with an 18% drop in those who did not use e-learning in assessment from 43% in 2010 to 25% in 2013).

In summary:
- more VET teachers/trainers are now using technology in their training
- the VET teachers/trainers that use particular technologies are increasing their use of those technologies (shifting up from a little use to some or a lot)
- VET teachers/trainers are using a greater number of different technologies in their training (moving from one or two different technologies to three, four or five)
- VET teachers/trainers are using e-learning across a wider range of training activities
- VET teachers/trainers are increasing their use of e-learning in those training activities.

**Impact of e-learning**

The use of e-learning has the capacity to influence teacher confidence and teaching practice, and through greater flexibility and variety in learning provide improved learning opportunities and outcomes for VET students.

**Teaching practice**

VET teacher/trainer feedback on the impact of e-learning on teaching practice was notable for the complete absence of variation between the 2013 and 2010 results (which had been slightly improved on previous results). Not only were there no statistically significant differences from 2010 to 2013, for some questions the distribution of responses was almost identical.
47% of VET teachers/trainers agreed that ‘the use of e-learning has enabled me to facilitate a more personalised approach to learning for my students’ (vs 45% in 2010).

48% of VET teachers/trainers agreed that ‘the use of e-learning has allowed me to better cater for my students’ different learning styles’ (vs 50% in 2010).

49% of VET teachers/trainers agreed that they ‘encouraged greater interaction between students through the use of technology’ (vs 50% in 2010).

53% of VET teachers/trainers agreed that ‘the use of e-learning has improved my teaching practices’ (vs 54% in 2011).

However, the one area where there was a significant change from 2010 to 2013 was in VET teachers’ and trainers’ confidence in using e-learning as part of their teaching/training. In 2013, 65% of teachers/trainers agreed that they were confident in using e-learning compared with 54% in 2010. There was a 7% increase in the proportion of respondents who ‘strongly agreed’ and a 4% increase in those who ‘agreed’ with this statement. It is reasonable to assume that this increased confidence in use of e-learning among VET teachers/trainers is at least partly responsible for the observed increase in teachers’ use of e-learning technologies across a range of teaching/training activities.

Student impact

VET teachers/trainers’ assessment of the impact of e-learning on students is unchanged from 2010.

72% of VET teachers/trainers said that ‘the use of e-learning has increased my students’ access to learning resources’ (vs 70% in 2010).

59% of VET teachers/trainers said that ‘the use of e-learning has made learning more interesting for my students’ (vs 62% in 2010).

53% of VET teachers/trainers said that ‘the use of e-learning has made learning more engaging for my students’ (vs 57% in 2010).

43% of VET teachers/trainers said that ‘the use of e-learning has improved learning outcomes for my students’ (vs 46% in 2010).

While VET teachers and trainers’ attitudes to e-learning are broadly consistent with those from previous years, the one area where teachers and trainers have over time become less confident about the impact of e-learning on training practices and outcomes has been on the extent to which e-learning improves students’ learning outcomes. In 2013, 43% of VET teachers and trainers said that ‘the use of e-learning has improved learning outcomes for my students’, well down on the 59% reported in 2006. This is not to say that students’ learning outcomes are worse with e-learning, 43% still sat that learning outcomes are improved. But over time, while there are benefits in terms of access to resources and more engaging learning, relatively fewer teachers/trainers are seeing incremental learning benefits from e-learning over alternative methods.

Anecdotally, RTOs report that there are a range of student benefits associated with e-learning. These include:

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ready access to learning resources and teachers/trainers without having to attend the RTO’s premises

greater flexibility in access to training and learning programs ... any time, from anywhere

greater flexibility to manage learning around work, family and personal commitments

capacity for students to learn at their own pace

capacity to network with other learners via online forums

embedding employability skills (use of ICT) in learning

“Students seem to be more engaged and are able to work at their own pace, allowing for differentiation in the class.”

“It’s allowed students from regional and remote areas to train through us, as they wouldn’t have necessarily been able to travel to a metro hub to complete their training.”

“Online learning means that trainers, students and employers have up to date information about their progress and are easily able to be followed up and work towards completion of units. Training plans are easily adjusted to reflect current workplace activity and so learning is relevant to work activity, which increases student participation and retention of knowledge.”

“Most students gain employment after completing our accredited programs. E-learning improves their employability skills.”

While access benefits were the most mentioned, several RTOs also noted that the use of e-learning has led to both an increase in completion rates and a reduction in the time some students take to complete their learning programs.
3. Driving and supporting adoption of e-learning

Adoption of e-learning in VET continues to be driven and supported by a range of factors within and external to the VET sector.

Student demand for e-learning

Past e-learning benchmarking surveys indicate that there is student demand for e-learning. The 2011 VET student survey found, for example, that one quarter of VET students wanted a lot of e-learning in their course, with only 10% saying that did not want any e-learning. In addition, 44% of students said that access to e-learning was a factor in their choice of course, with around 20% saying that it was a major factor in their choice of course and training provider.

Data from the most recent survey of VET students suggests that VET teachers/trainers’ perceptions of student demand are about right, with students’ stated preferences for the amount of e-learning they would like in their course broadly similar to the results from the 2013 and previous VET teacher/trainer surveys. That is, on average, 20% of VET teachers think students want a lot of e-learning in their course, 60% think students want just some e-learning, 15% say students want only a little e-learning while 5% say students do not want any e-learning.

VET teacher/trainer perceptions are fairly similar across different states and territories, with teachers in the ACT thinking students want slightly more e-learning and those in the NT assuming slightly less. The biggest difference in responses is between VET teachers in schools, where 85% think students want a lot or some e-learning, and those in community-based RTOs, where only 70% rate student demand at that level.

Interestingly, the ever-increasing adoption of technology in everyday life, 24-7 access to portable devices such as smart phones and tablets, and the widespread use of social networking (especially among younger people), has not influenced VET teachers’ perceptions of student demand for e-learning. From the VET teachers’ perspective increased personal use among students of many different types of technology does not translate into increased demand for e-learning – it is what it is.

RTO strategy

To varying degrees RTOs see adoption of e-learning as a valuable part of their training offer. Fifty-seven percent of RTOs participating in the 2013 e-learning benchmarking survey indicated that their organisation had a business strategy that incorporated e-learning in some way. Nine percent had a stand-alone e-learning strategy, primarily enterprise and large private providers, as well as a small number of TAFEs.

Forty-two percent of RTOs incorporated e-learning into their business strategy and 6% allowed business units to develop their own e-learning strategies, both of which were more prevalent among larger providers.
including TAFEs. Small and medium sized RTOs were much more likely to say that they had no e-learning strategy (29%), or that they did not need an e-learning strategy (14% - often because they did not use e-learning). While the 2013 split between RTOs that have an e-learning strategy and those that do not is similar to that in 2011 (and well above the results from previous years), 2013 did see an increase in the proportion of RTOs that saw no need for an e-learning strategy (14% vs 8% in 2011).

Although 57% of RTOs said e-learning was part of their business strategy, in a separate survey question 64% said that e-learning was a priority for their training organisation (down from 69% in 2011). Fifteen percent of RTOs said that e-learning was not a priority, in line with the proportion that said they did not have a need for an e-learning strategy.

The VET teacher/trainer perspective, however, was somewhat different. Sixty eight percent of teachers and trainers agreed that e-learning was a priority for their training organisation, which was significantly higher than the 62% reported in 2011. With around 75% of survey respondents working in TAFE providers, it was not surprising that this increase was driven by TAFE respondents. VET teachers and trainers in private RTOs (59%), community-based RTOs (55%) and schools (53%) were less likely to say that their organisation had a priority on e-learning.

Access to e-learning resources

In 2010, for the first time the E-learning Benchmarking Survey asked VET teachers and trainers about the source of any online resources and materials they used in their teaching and training activities. Three main sources stood out, each being a source of online resources and materials for around 55% to 60% of teachers and trainers. The 2013 survey results reinforce those findings and as expected, given the increased use of e-learning by VET teachers/trainers, the proportion of teachers accessing these different sources of resources has also increased, in most cases significantly from the 2010 baseline (marked with an * in the following chart).

The first was self-development or self-customisation of resources. That is, teachers and trainers are doing it for themselves (65%) or adapting resources for their own use (60%). This suggests a degree of self-confidence among teachers and trainers in using technology to produce materials tailored to the needs of their students. The results were higher for TAFE teachers and trainers than those in other RTOs, and highest in the ACT and SA.

The second main source of resources was other areas within the training organisation. This was a source of online resources for 68% of TAFE teachers and trainers, 62% of teachers and trainers in private, enterprise,
industry and government providers, 53% in schools and 45% at community training providers.

The third main source of online resources and materials was other sources external to the organisation (68%). There are an increasing number of e-learning content developers now operating who are able to provide flexible digital resources for providers, especially schools.

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<tr>
<th>% VET teachers/trainers using resources from the following sources</th>
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<tr>
<td>Online resources and materials developed outside your training organisation*</td>
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<tr>
<td>Online resources and materials developed by others within the training organisation</td>
</tr>
<tr>
<td>Self-developed online resources and materials*</td>
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<tr>
<td>Self-customised online resources and materials*</td>
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<tr>
<td>Student developed/published resources</td>
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The 2013 survey shows that RTOs’ estimates of the extent to which their teaching/training staff access and contribute material to national VET learning object repositories are down on previous years. Thirty five percent of RTOs said that their organisation had accessed material in national VET learning object repositories, down from a high of 48% in 2011. The 35% figure is more in line with previous results. Six percent of RTOs said that they had contributed to these repositories, also down from a high of 12% in 2011.

Survey feedback from VET teachers/trainers, however, is consistent with results from earlier surveys. These indicate that 48% of VET teachers/trainers accessed materials in VET learning object repositories in the previous 12 months (vs 50% in 2010), 43% downloaded materials from these repositories (vs 44% in 20102) and 9% contributed materials to these repositories (vs 8% in 2010).

Teachers in NSW and the Northern Territory had relatively high rates of access to and contribution to national VET learning object repositories, with VET teachers/trainers in Victoria (38%) and the ACT (39%) having the lowest levels of access.
Support for e-learning
RTOs provide a range of supports and encouragement to facilitate and support uptake and use of e-learning.

Support for teachers and trainers
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 70% to 80% of VET teachers and trainers said that they had adequate to excellent levels of support. Since 2008 the reported levels of access to these supports has been steadily increasing, with significant improvements observed between 2010 and 2013. Despite this, there are still around 10% of VET teachers and trainers who report that the support they receive for e-learning from their RTO is poor (most notably among teachers and trainers from the Northern Territory and Tasmania).
In 2013, VET teachers in schools had the most satisfactory levels of access to computers and the internet for teaching and learning purposes compared with their peers in TAFE, private and community training providers. VET teachers in community-based RTOs were least satisfied with their level of access to e-learning resources, while TAFE teachers and trainers reported the lowest levels of satisfaction with access to professional development to support their use of e-learning.

Anecdotal feedback from VET teachers and trainers highlighted some of the positive support provided by their RTO and managers, as well as some of the issues they face in using e-learning.

“Computer access for students is quite good within the structured blended environment, however outside this access for independent learning can be difficult during peak times. Teacher access is excellent and professional development is ongoing.”

“As teaching staff we have full access to computers and the internet, plus e-learning resources. In our section we are encouraged to attend professional development.”

“Access to computers is often on a rostered basis, otherwise I would use them in every lesson.”

“Computer and infrastructure resources are mostly dated and slow. Even where we have new equipment they have been configured and locked down by IT staff without consulting the educational staff and do not always suit educational purposes. Wifi access is also a huge issue with the system not adaptable to cater to newer technologies.”

“Our computers don’t work very often.”

Where issues were raised these tended to be related to:
- the RTOs’ financial capacity to provide access to sufficient computers, up to date computers, high speed internet access and e-learning resources (especially in smaller and community-based RTOs)
- staff being responsible for identifying and sourcing their own professional development (especially casual and sessional staff)
- IT staff not supporting technology as an educational resource
- support and encouragement being offered by the RTO but workloads being set at a level that provides no or limited time for professional development, research and e-learning development.

The e-learning benchmarking surveys asked both RTOs and VET teachers/trainers to assess the level of support and encouragement provided for the effective use of e-learning. The results were highly consistent with responses from previous surveys, with the only areas where there were statistically significant differences being in RTOs’ more positive views on VET teachers/trainers’ understanding of e-learning and teachers/trainers’ skills at using technology-based teaching tools (marked * on the following chart).

While 65% of RTOs said that they encouraged the use of e-learning, 76% of VET teachers and trainers said that this was the case. As noted previously in this report, this finding may reflect the different make-up of the RTO and VET teacher/trainer response groups.

For most of the questions related to RTO support for e-learning around 50% of RTOs agreed with the positively framed statements. However, 20% to 30% disagreed with these statements. That is, roughly one quarter of RTOs indicated that:

- they do NOT have up-to-date e-learning equipment, facilities, materials and resources
- their teaching/training staff do NOT understand or have the skills to effectively use technology-based teaching tools
- they do NOT encourage or support VET teachers/trainers to develop their own online teaching content.
In terms of currency of e-learning equipment and facilities, these tended to be private RTOs, with higher ‘disagree’ responses in the Northern Territory and NSW. The RTOs that questioned the e-learning capacity of their staff were more likely to be community-based RTOs or RTOs in the smaller states and territories (that is, ACT, NT and Tasmania). Similarly, the level of encouragement and support for teachers and trainers to develop their own online teaching content was lowest in SA, Tasmania, NT and ACT, a finding reinforced by teacher/trainer feedback.

Support for students

Seventy two percent of RTOs indicated that they provide their students with easy access to the internet, a significant increase on the 65% recorded in the 2011 survey (marked * on the chart below). Sixty one percent said that provided students with easy access to support online learning activities and 51% encouraged students to access e-learning onsite with their own devices.

Business systems

Online technologies are a common part of business practice for many RTOs. The 2013 e-learning benchmarking survey found that 74% of RTOs have a learning management system to support their business processes (100% of TAFEs, 74% of private+ providers, 72% of schools and 57% of community-based providers). Sixty-six percent of RTOs use online student management systems (88% of TAFEs and 83% of schools). Half (50%) provide staff with access to online professional learning.

The overall use of technology to support RTOs’ business processes was similar to the 2011 survey results, with increased use of online compliance training and staff professional development, and relatively fewer RTOs reporting use of learning management systems and web 2.0 technologies for internal communication.
E-business services

From 2006 to 2009 the e-learning benchmarking surveys asked RTOs whether they offered a range of e-business services to VET students (e.g. online enrolment, online payments, online library services). The proportion of RTOs offering one or more of these services increased steadily from 63% in 2006 to 75% in 2009. This question was re-introduced in the 2013 RTO survey and shows that 83% of RTOs now offer at least some e-business services.

The most common form of e-business service was ‘online publication of general course information and relevant policies, regulations and strategies’, with 72% of RTOs making this information available to their clients. Online information on student support services is made available to students by 53% of RTOs. Other forms of e-business are less frequently offered by RTOs, as shown in the following chart, although in each of these cases the increase from 2009 to 2013 was statistically significant (marked by * on the following chart).

Most TAFE institutes offer most of these e-business services to their students, although online payment facilities and electronic forms are only available in 53% of TAFEs. Private RTOs tend to offer more e-business services than community-based RTOs or schools, although schools are more likely to provide students with online access to library services, student records and student support services.
Barriers to the adoption of e-learning

The 2011 e-learning benchmarking survey asked RTOs to quantitatively assess the extent to which e-learning infrastructure, costs, capabilities and expectations were barriers to or enablers of their use of e-learning. The results clearly differentiated what RTOs saw as areas where they needed support to better engage with and use e-learning to support their training delivery. These related primarily to cost and capability issues (e.g. the cost of e-learning resources and infrastructure, e-learning knowledge and skills). Access to the internet was the highest ranked enabler of the use of e-learning, with high-speed bandwidth/connection was seen as an enabler more than its absence being a barrier.

The 2013 e-learning benchmarking survey repeated this question to see if there had been any changes in RTOs’ experience of these factors as enablers of and barriers to e-learning.

The following chart ranks the ten factors listed in the survey from the greatest barrier to the least barrier based on the 2013 results for all RTOs. Interestingly, the five areas where there were significant changes from 2011 to 2013 (marked *) appear at either the top or the bottom of the list.

- Cost issues are seen as more of a barrier to e-learning in 2013 than they were in 2011.
  - Against the cost of e-learning resources there has been a 4% shift from enabler to barrier, with 63% of RTOs now seeing e-learning resource costs as a barrier to use. Schools and community-based RTOs were much more likely to be concerned about this cost than private RTOs and TAFEs. Resources costs were seen as a major barrier in the ACT and the Northern Territory.
  - A higher proportion of RTOs now see the cost of e-learning infrastructure (e.g. computers) as a barrier to use, with the shift driven by RTOs moving from a neutral position in 2011 to this being a barrier in 2013. Again, community-based RTOs and schools were much more likely to be concerned about costs than TAFEs. RTOs in the Northern Territory and Victoria saw infrastructure costs as a major barrier.

- 2013 saw a shift in RTOs’ perceptions of teachers/trainers’ skills in using e-learning from being an enabler to a barrier. Previous survey results show that RTOs believe their staff now have better skills in using technology-based learning tools, but it seems that this improvement has not kept pace with RTOs’ expectations of what will be required to meet future demand for e-learning. While 50% of private RTOs saw trainers’ skills as a barrier to use of e-learning, this was the case for 73% of TAFEs and 71% of community-based RTOs.

- There was a 5% shift in RTOs’ views of privacy requirements as being a barrier to use of e-learning (from 15% in 2011 to 20% in 2013). This concern was most strongly felt in schools, where 35% of RTOs identified privacy as a barrier to e-learning.

- The one positive change in RTOs’ perceptions was the improved view of the NBN as an enabler of e-learning. While 50% of RTOs remain neutral on the impact of the NBN (see also Section 5), 2013 saw a 5%
shift from the barrier to the enabler rating. TAFEs and RTOs in South Australia and Tasmania were most optimistic about the positive impact of the NBN.

When VET teachers/trainers were asked what they believed were the main barriers to the use of e-learning for them, for their students and for their training organisation, the responses covered a myriad of issues.

### Barriers for teachers/trainers

VET teachers/trainers identified several key barriers to their uptake and expanded use of e-learning. Notwithstanding previous feedback on improved organisational support through access to computers, professional learning and e-learning resources, these barriers included:

- limited access to computers and the internet and inadequate internet speed
- limited access to quality e-learning resources (raising issues of both access AND quality)
insufficient knowledge of recent developments in e-learning and insufficient skills to take advantage of new technologies
organisational constraints on use of IT systems and resource development
low levels of management awareness of what e-learning actually is and involves, and therefore the different requirements to teach and train effectively
having to respond to the demand of some students who prefer traditional learning methods.

However, the one barrier which pushed all those concerns into the background was time. VET teachers and trainers say that they do not have enough time:

to keep up to date with e-learning developments
to develop e-learning resources
to incorporate e-learning into or more strongly into their teaching
to plan and prepare classes (in any delivery mode)
to undertake relevant professional development.

Across all provider types, across all states and territories, time is the single biggest barrier to VET teachers and trainers using more e-learning.

“Time for me to become familiar with e-learning and figure out best way to integrate technology.”

“Time for development of resources and innovation amidst the administrivia of the teaching role.”

“Time that is not face to face delivery is often not acknowledged in our organisation.”

“Time to access training in emerging technologies and software.”

**Barriers for students**

VET teachers and trainers identified five main barriers to student use of e-learning.

- The major student barrier is access to computers – at the training organisation, in the workplace, at home. Even though RTOs are offering increased access to computers and there has been rapid growth in the last few years in consumer ownership of tablets, teachers still experience student access to technology as a common barrier to e-learning.

- Access to the internet, or the internet at adequate speed, was the second main barrier to student use of e-learning. This was a particular issue for learners in regional and remote parts of Australia.

- Digital literacy was noted as a barrier to e-learning in VET. Some teachers mentioned that their student groups possessed a wide range of confidence and capacity in using technology, and that e-learning was particularly challenging for students who lacked the skills to use technology effectively.

- Student motivation, or lack of it, was also raised as a barrier to the use of e-learning. That is, some students lack the motivation to take responsibility for independent learning. Attendance at a class on campus was a study requirement that was seen as being relatively easy to fulfil. Sitting down to study independently in the face of competing demands was seen by teachers as more difficult for some students.

- Student preference was the fifth main barrier to e-learning noted by VET teachers and trainers. This recognised that some students were more familiar with and comfortable with non-e-learning methods, especially where the e-learning experience might involve independent learning without a face to face component.

**Barriers for training organisations**

Just as time was clearly the most significant barrier to teacher/trainer use of e-learning, money is seen by VET
teachers and trainers as the biggest barrier to increased organisational uptake of e-learning. Money ... cost ... budget ... funding ... resources ... the words may have varied but the message was clear. Investment in e-learning is seen as coming at a financial cost to the organisation and many RTOs are not well placed to carry that cost of business.

In practice, VET teachers and trainers see constraints on budgets impacting e-learning capability in terms of:

- inadequate levels of ICT infrastructure and services (e.g. computers, internet)
- limited access to externally developed quality e-learning resources
- constraints on access to professional development
- inability to invest in staff time to develop e-learning resources.

The other main barrier to training organisations using e-learning was a lack of awareness of the potential for e-learning to improve training delivery and training outcomes. Familiarity with older training practices in some RTOs meant that they were reluctant to be innovative in delivering training to clients.
4. Awareness of the National VET E-learning Strategy

The National VET E-learning Strategy incorporates a range of programs and initiatives designed to strengthen the Australian training sector’s use of new learning technologies. These include:

- National VET E-learning Strategy website
- Australian Flexible Learning Toolboxes
- National Repository (formerly the Toolbox Repository)
- E-learning Coordinators
- E-standards for Training
- Flex e-News.

The e-learning benchmarking surveys asked both RTOs and VET teachers/trainers whether they were aware of any of these programs, and in particular their awareness and use of the VET E-standards for Training.

Programs and initiatives

Seventy one percent of respondents to the 2013 e-learning benchmarking survey said that they were aware of Australian Flexible Learning Toolboxes, a longstanding output from the Strategy and the Australian Flexible Learning Framework. This level of awareness was matched by 68% of VET teachers and trainers.

Awareness of the National Repository (formerly the Toolbox Repository was also evenly matched with 51% of RTO respondents and 48% of VET teacher/trainer respondents indicating that they knew of the Repository.

For most of the other Strategy programs and initiatives listed in the survey around 30% to 40% of RTO respondents said that they were aware of them, while a lower 20% to 30% of VET teachers and trainers indicated awareness of these programs.

This differential is not surprising. The person completing the RTO survey was often the person within the organisation who was most aware of e-learning uptake and use within that organisation, and therefore best placed to answer the survey questions. By virtue of this responsibility and/or experience they are also likely to be a person who receives communication about matters related to e-learning, and potentially any communication from Strategy’ programs to RTOs. For example, in small RTOs the survey respondent was...
typically the manager/owner who would be the conduit for most information entering the organisation. In large RTOs the survey respondent was often an e-learning manager.

Across the 11 programs and initiatives listed the average level of awareness among RTO respondents was 41%. However, within this group the average level of awareness among people who completed TAFE responses to the RTO survey was 90%, with 100% awareness of Flexible Learning Toolboxes and at least 80% awareness of all other Strategy programs and initiatives. This compared with average awareness of 41% among community-based RTO respondents, 37% for private RTOs and 28% for schools.

RTOs in Tasmania (59%) and SA (51%) had the highest average awareness of the Strategy, while RTOs in Queensland had average awareness of 34%, dragged down by the high number of school RTOs in Queensland.

Average VET teacher/trainer awareness across the 11 listed programs and initiatives was 31%, which was fairly consistent across teachers from TAFEs, private RTOs and community providers (but lower in schools – 17%). VET teachers/trainers in the ACT (47%), SA (35%), WA and NSW (each 34%) had above average awareness levels, with VET teachers/trainers in Victoria (26%) and Queensland and the Northern Territory (each 27%) having the lowest levels of awareness.

VET e-standards for training

The surveys also asked specifically about respondent awareness of the nationally endorsed VET E-standards for Training. Thirty six percent of RTOs indicated that they were aware of the E-standards (as in the question above) with 15% of VET teachers/trainers reporting awareness of the E-standards.³

From the RTO survey awareness of the E-standards was highest among TAFEs and RTOs in the Northern Territory and SA, and lowest in the ACT and schools. VET teacher/trainer awareness was highest in the ACT and lowest in TAFEs and schools.

![Awareness of the VET E-standards for Training](image)

Respondents were then asked which of the eight E-standards (if any) they had used.

- Accessibility
- Content formats
- Content packaging
- Intellectual property management

³ The VET teacher/trainer response was slightly lower than the 19% response mentioned previously, although as the specific question on E-standards was asked first it may have triggered increased responses to the subsequent question.
Among about 100 written responses to this question, 84 RTOs made specific reference to use of one or more of the E-standards, with another 24 RTOs saying that they were aware of the standards but had not yet or had not yet needed to implement them. Among the 84 RTOs that recorded the standards they used, 19 (23%) said that they used all eight E-standards. On average the other 65 RTOs used three of the standards. The following table shows the proportion of use of the standards among the 84 responses.

Among around 150 written responses to this question, 97 VET teachers/trainers made specific reference to use of one or more of the E-standards. Among the 97 VET teachers/trainers that recorded the standards they used, 19 (20%) said that they used all eight E-standards. On average the other 78 RTOs used 2.4 of the standards. The following table shows the proportion of use of the standards among the 97 respondents.

<table>
<thead>
<tr>
<th>Use of E-standards</th>
<th>% of use (84 RTOs)</th>
<th>% of use (97 VET teachers/trainers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility</td>
<td>79%</td>
<td>68%</td>
</tr>
<tr>
<td>Content format</td>
<td>68%</td>
<td>63%</td>
</tr>
<tr>
<td>Platforms</td>
<td>54%</td>
<td>42%</td>
</tr>
<tr>
<td>Intellectual property management</td>
<td>52%</td>
<td>46%</td>
</tr>
<tr>
<td>Content packaging</td>
<td>52%</td>
<td>43%</td>
</tr>
<tr>
<td>Metadata and vocabularies</td>
<td>35%</td>
<td>27%</td>
</tr>
<tr>
<td>Web services</td>
<td>35%</td>
<td>26%</td>
</tr>
<tr>
<td>Repositories</td>
<td>32%</td>
<td>30%</td>
</tr>
</tbody>
</table>

In several cases respondents provided extensive details about the implementation of the E-standards within their organisation. Other comments addressed a range of issues related to:

- awareness of the E-standards being created by the question in the survey
- constraints on implementation due to external system providers or internal practices in large training organisations
- the imposition of standards and requirements (of any sort) on RTOs.

For example:

“I am now because your question prompted me to look them up. I will see if our IT HoD is aware of them tomorrow.”

“I actually was not aware of these, but what an interesting read :)

“None of them. Our LMS provider does not understand that for VET purposes the standards are important.”

“We ensure that our business activity works. So please do not come up with a lot of regulatory requirements that will burden RTOs. We are already over regulated and it costs us a fortune.”
5. Technology in everyday use

Australia’s VET system operates in an environment where technology is becoming more and more embedded into everyday life – at home, at work and at leisure. Within this context the Strategy is, for example, explicitly working to support the VET system’s ability to leverage the introduction of the National Broadband Network (NBN), whilst also being cognisant of the impact of widespread technology use on VET clients’ expectations of the VET system and RTOs’ and VET teachers/trainers’ capacity to respond.

National Broadband Network

Both the RTO and VET teacher/trainer surveys asked respondents to estimate the impact of the NBN on the organisation’s use of new learning technologies. The responses were broadly consistent across both groups, although there were some differences between states and territories and different provider types, and between RTOs and VET teachers/trainers in each jurisdiction.
Twenty seven percent of RTOs reported that the NBN will have a high impact on their use of new learning technologies. A further 31% said the NBN would have moderate impact, with 17% reporting no impact. TAFEs anticipated the greatest impact on their operations, with 43% rating this as high and another 51% rating moderate. No TAFEs said the NBN would have no impact on them. RTOs in the Northern Territory and the ACT envisaged the least impact of the NBN.

The fact that 75% of VET teacher/trainer survey respondents were from TAFEs explains the relatively higher average ratings of teachers and trainers, where overall 31% saw the impact of the NBN as high and 37% saw it as moderate. Trainers from private RTOs anticipated the least impact of the NBN on their training organisational use of new learning technologies.

When asked if they had begun preparation to take advantage of increased connectivity and bandwidth proposed through the NBN most RTOs said ‘No’, ‘Not yet’ or ‘Not applicable’. Some providers in regional and remote areas said that the NBN would not reach them. Others noted that the timing of the NBN rollout in their area meant that they were unlikely to be affected for at least five years. Some small to medium sized providers that are already heavily engaged with e-learning reported that they had already invested in significant ICT infrastructure and bandwidth to support their operations and thought this would be sufficient to meet their needs.

Among those RTOs where some action had commenced several government schools commented on trials and upgrades that were being conducted as part of statewide initiatives being managed by local Departments of Education. Others noted that they had already made the decision to introduce e-learning within the organisation or expand its use and that the advent of the NBN would be a useful but coincidental support in this process.

Of the 677 RTO survey respondents around 40 gave specific responses as to how they were working to take advantage of the NBN rollout. For a few of these the reported impact on organisational strategy, training capability and resources will be very significant.

“We are planning to turn on the e-learning functionality on our LMS and build a catalogue of e-learning objects for Cert III qualifications. For Cert IV qualifications we are planning to shift some face to face sessions to virtual classrooms.”
“We have created our own high render quality 3D immersive simulators for the mining sector with the intent for provision of remote operation capability. NBN will give us easy access to the low ping times we need to make this next step a viable option.”

“We are undergoing a major upgrade to the connectivity to all rooms at one regional campus and fitting them with interactive Data Projectors.”

“We will have access to NBN from the xxx office in December – which is the reason we purchased facilities there!! But most of our clients are from xxx and won’t have access for several years yet. We had a planning meeting to develop strategies for using NBN but staff were frustrated when they realized how long it would take until we got access.”

“This is our number one priority at the moment. We are trying to develop our e-learning strategy and are completely revising our branding, marketing, social media policy and all of our delivery and assessment strategies. Our intention is to move into this space in a big way over the next twelve months. We have begun to develop our own integrated CRM, LMS and AVETMIS software. This will also include our online delivery content template and provide full integration across operations to ensure NVR compliance.”

**Teachers/trainers’ personal use of technology**

From 2010 the benchmarking surveys have asked VET teachers/trainers and VET students about their personal use of technology away from teaching and training. The aim of this question was to see if there was any connection between personal familiarity and confidence in using technology and the use of e-learning in VET training and learning. The 2013 survey shows that there has in fact been little change in VET teachers/trainers’ use of some common technologies.

On a scale from 4 – Use all the time to 0 – Don’t use the average score for use of mobile phones increased from 3.2 in 2010 to 3.4 in 2013. Sixty six percent of VET teachers/trainers said that they used their mobile phone all the time, with another 16% using it often. The next most commonly used technology among those listed was Facebook with an average of 1.8, up from 1.3 in 2010. While one third of teachers said in 2013 that they did not use Facebook, the increase was due to more teachers using Facebook more often than they had in the past.

![VET teachers/trainers' personal use of technology](image)

MP3 players and iPods are used by about two-thirds of VET teachers/trainers, with other technologies (such as blogs, Twitter and virtual worlds) less likely to be used at all, and less frequently used than phones and Facebook.

Results were generally consistent across respondents from different states and territories and different provider types, although younger VET teachers/trainers were more likely to be frequent technology users. For
example, the average use score for Facebook was 2.7 out of 4 for VET teachers/trainers aged under 35 years compared with 1.2 for teachers/trainers aged 55 years or more (almost half of whom do not use Facebook).
6. Additional analysis

This report presents the national responses to the 2013 E-learning Benchmarking Surveys. Additional analysis has been undertaken to present the results across several sub-categories of respondent. This includes analysis of:

- survey responses (both RTO and VET teacher/trainer) by state and territory
- survey responses (both RTO and VET teacher/trainer) by different provider types (e.g. TAFE, community, school, private and other)
- VET teacher/trainer responses by age and gender
- VET teacher/trainer responses by main field of teaching/training.

There is scope for more detailed analysis of trends in the uptake, use and impact of e-learning, including cross-tabulations of results by different response cohorts and further analysis of qualitative responses on the integration of e-learning into VET teaching/training, barriers to the use of e-learning, and the use of VET E-standards for training.
Appendix 1. E-learning benchmarking surveys

The National VET E-learning Strategy’s e-learning benchmarking program was originally developed for the Australian Flexible Learning Framework in 2004. The benchmarking surveys have evolved over time to increase the sample size, enhance the value of the information captured, and respond to learnings about survey uptake and dissemination.

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: online; electronic form for return email; print form that could be returned via mail or fax.

The original surveys were reviewed by 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 baseline results from the 2005 benchmarking surveys were published on the Framework’s website, supplemented by breakdowns by state and territory, provider type and demographic characteristics of VET students and VET teachers/trainers. The results were promoted to raise awareness of the uptake of e-learning and encourage establishment of state and territory-based data collections to measure the local uptake and impact of e-learning. The E-learning Benchmarking Project developed resources and tools to enable VET providers to undertake their own e-learning benchmarking activities.

Benchmarking from 2006 to 2011

With some minor modifications the surveys of RTOs, VET students and VET teachers and trainers were repeated in 2006. The employer survey was not repeated as it was thought a two-year survey cycle would be more appropriate. The employer survey was repeated in 2007 and 2009.

In 2007 there were additions to the survey questions to capture information on factors which influenced the uptake and impact of e-learning and the potential role of the Australian Flexible Learning Framework in supporting VET providers to implement e-learning. Changes in 2008 incorporated some new indicators from the 2008-2011 Framework Strategy, and amended or removed 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 VET teachers/trainers’ attitudes to use of resources and technology were revised.

In 2009 additional questions in the VET student and VET teacher/trainer surveys gathered information on the use of technology in different aspects of the teaching and learning process. The surveys also captured additional information about emerging technologies. The employer survey captured new information about the use of e-learning in workplace training.

In 2010 the employer survey was brought forward from its two year cycle to capitalise on what appeared (from the 2009 survey) to be a turning point in appreciation among employers of the role of e-learning and its potential to support flexible vocational education and training. The VET student survey was not conducted in 2010, with many of the attitudinal indicators having established set levels, and the trends in uptake of e-learning having been fairly well established.

Additional questions in the 2010 VET teacher/trainer survey explored the origin of e-learning resources, personal use of technologies and the way in which e-learning was used in teaching, training and assessment. The RTO survey captured new information about the use of technology in supporting business processes, and...
the employer survey incorporated questions about employers’ attitudes to the training system. Questions about the provision of e-business services by RTOs and their use by employers were dropped, the results having reached a steady state in previous surveys.

In April 2011 the Framework conducted a benchmarking survey of VET students. Changes to the 2009 survey explored students’ experience of e-learning and technology, as part of their current training and in their personal lives. Questions about the provision of e-business services by RTOs to students were dropped.

A stand-alone RTO survey was conducted later in 2011. The survey expanded on the 2010 RTO survey to include more detailed questions on the use of different technologies. It also asked about RTOs approach to and capability for e-learning (matching equivalent questions in the 2010 survey of VET teachers/trainers and the 2011 survey of VET students) and asked about the extent to which a range of societal, economic, environmental and organisational factors acted as enablers or barriers to the use of e-learning by the RTO.

Survey responses

The number of responses received for each of the e-learning benchmarking surveys from 2005 to 2013 is shown in the following table.

<table>
<thead>
<tr>
<th>Survey</th>
<th>Number of responses used in analysis (number of responses received)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTOs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>677</td>
</tr>
<tr>
<td>VET students</td>
<td>No survey</td>
</tr>
<tr>
<td></td>
<td>3,754</td>
</tr>
<tr>
<td>VET teachers/trainers</td>
<td>1,991</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Employers</td>
<td>No survey</td>
</tr>
</tbody>
</table>

* In order to avoid biasing the sampling toward 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 was undertaken from 2007 to 2011 to maintain as far as possible the relative weights of different states and territories and the integrity of the overall survey response pool.

The number of RTOs participating in the 2013 survey returned to 2009 and 2010 levels when the RTO survey was conducted in association with a VET student and/or VET teacher/trainer survey (as opposed to 2011 when the RTO survey ran as a stand-alone survey). All of the 1,991 VET teacher/trainer responses received in 2013 were able to be used due to an even response profile across RTOs within each state/territory and use of a different analytical methodology for compiling national survey results (see Appendix 3).
Appendix 2. RTO survey

The 2013 e-learning benchmarking survey of RTOs captured information from registered training organisations on the provision and uptake of e-learning.

Sampling frame and methodology

The population for the survey included all current RTOs. A full list of approximately 4,700 RTOs was obtained from the national register of training organisations at training.gov.au.

The invitation to participate in the survey was made through an email to the Chief Executive Officer (or equivalent) of each RTO. Past respondents and Directors of TAFE institutes received personalised invitations.

Five prizes of flash drives, webcams, smart pens, GPS, iTunes vouchers or book vouchers to the value of $250 were offered to encourage RTOs to complete the survey.

The RTO survey could be completed online via Survey Monkey, as an electronic form, or as a print survey to be returned via mail or fax. Around 90% of respondent RTOs completed the survey online. On average the survey took around 13 minutes to complete.

Survey responses

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 training.gov.au (which is not consistently interpreted or recorded by different states and territories).

<table>
<thead>
<tr>
<th>State/Territory</th>
<th>TAFE</th>
<th>Community</th>
<th>School</th>
<th>Private+</th>
<th>Total</th>
<th>% of RTOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW</td>
<td>8</td>
<td>12</td>
<td>4</td>
<td>119</td>
<td>143</td>
<td>21%</td>
</tr>
<tr>
<td>Victoria</td>
<td>16</td>
<td>27</td>
<td>10</td>
<td>104</td>
<td>157</td>
<td>23%</td>
</tr>
<tr>
<td>Queensland</td>
<td>11</td>
<td>5</td>
<td>50</td>
<td>136</td>
<td>202</td>
<td>30%</td>
</tr>
<tr>
<td>WA</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>72</td>
<td>89</td>
<td>13%</td>
</tr>
<tr>
<td>SA</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>31</td>
<td>36</td>
<td>5%</td>
</tr>
<tr>
<td>Tasmania</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>17</td>
<td>20</td>
<td>3%</td>
</tr>
<tr>
<td>NT</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>7</td>
<td>11</td>
<td>2%</td>
</tr>
<tr>
<td>ACT</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>12</td>
<td>19</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>52</td>
<td>56</td>
<td>71</td>
<td>498</td>
<td>677</td>
<td>100%</td>
</tr>
</tbody>
</table>

* ‘Private+’ includes private, enterprise, industry and government providers.

The number of responses to the RTO survey was higher than the 436 responses received for the stand-alone 2011 RTO survey, and more in line with the response profile from the 2010 and 2009 e-learning benchmarking surveys (784 responses in 2010 and 705 in 2009).

Survey questions

The 2013 RTO survey built on the surveys conducted in earlier years. As in 2011 it included more detailed questions on the extent of use of different technologies in a variety of different training activities. It also retained open-ended questions on the extent to which RTOs have been successful (or otherwise) in integrating e-learning into their training delivery, and whether this has contributed to improved training outcomes for students.

The survey presented a definition of e-learning to support consistency of interpretation. The 2013 survey
retained questions about the extent to which a range of societal, economic, environmental and organisational factors act as enablers or barriers to the use of e-learning by the RTO, questions which were first asked in the 2011 survey. The 2013 survey also sought information from RTOs on their provision of e-business services to VET students, questions which were last asked in 2009.

New questions were included in the 2013 RTO survey, capturing information about each RTO’s:

- awareness and use of the nationally endorsed VET E-standards for Training
- awareness of National VET E-learning Strategy’ programs and initiatives designed to strengthen the Australian training sector’s use of new learning technologies
- expectations of the potential impact of the National Broadband Network on their use of new learning technologies.

Summary results

The aggregate results from the 677 RTO responses to the 2013 E-learning Benchmarking Survey are shown below, inserted into a copy of the survey form. Where there is a statistically significant difference from 2011 to 2013, the question is marked ▲ (for ‘significant increase’) or ▼ (for ‘significant decrease’).

For comparison purposes, and where applicable, 2011 RTO results are shown in italics.

| Q1 | a) How many VET unit enrolments were there at your organisation in 2012? | 48% | 44% |
|    | b) What proportion of these enrolments do you estimate were enrolments that involved e-learning? | 38% | 33% |
|    | c) On what basis did you report/estimate this enrolment information? | 28% | 24% |
|    | - Our learning management system | 20% | 26% |
|    | - Tracking student enrolments | 14% | 17% |
|    | d) What proportion of the enrolments involving e-learning in 1b) do you estimate were: | 49% | 36% |
|    | - Completely delivered at your premises/on campus? | 21% | 30% |
|    | - Completely delivered offsite, off campus or in the workplace? | 30% | 34% |
|    | - A mix of on campus/onsite and off campus/workplace learning? | 20% | 37% |

| Q2 | To what extent does your organisation use the following technologies in delivering training? | A lot | Some | A little | None |
|    | a) Interactive learning resources on-site (e.g. web, CD or computer-based) | 24% | 28% | 19% | 29% |
|    | b) Interactive learning resources off-site (e.g. web, CD or computer-based) | 18% | 26% | 22% | 34% |
|    | c) Email between learners and/or teachers/trainers | 40% | 30% | 17% | 13% |
|    | d) Web 2.0 technologies (e.g. blogs, wikis) | 4% | 14% | 22% | 60% |
|    | e) Social networking (e.g. Facebook, MySpace, Twitter) | 4% | 12% | 26% | 58% |
|    | f) Mobile technologies (e.g. mobile phones, smart phones) | 10% | 16% | 25% | 49% |
|    | g) Voice technologies (e.g. podcasting, recordings) | 4% | 10% | 22% | 64% |
|    | h) Learning Management Systems (e.g. Moodle) | 18% | 15% | 12% | 55% |
|    | i) Web-based seminars/presentations (e.g. Blackboard Collaborate, Adobe Connect) | 6% | 11% | 21% | 62% |
|    | j) Virtual worlds (e.g. Second Life) | 1% | 1% | 7% | 91% |
Q3 To what extent does your organisation use e-learning technologies in the following training activities?  

<table>
<thead>
<tr>
<th>Activity</th>
<th>A lot</th>
<th>Some</th>
<th>A little</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Accessing learning resources and content</td>
<td>35%</td>
<td>28%</td>
<td>16%</td>
<td>21%</td>
</tr>
<tr>
<td>b) Doing research</td>
<td>34%</td>
<td>31%</td>
<td>17%</td>
<td>18%</td>
</tr>
<tr>
<td>c) Undertaking learning activities</td>
<td>24%</td>
<td>34%</td>
<td>19%</td>
<td>23%</td>
</tr>
<tr>
<td>d) Collaborative learning with other students</td>
<td>9%</td>
<td>23%</td>
<td>25%</td>
<td>43%</td>
</tr>
<tr>
<td>e) Communication with teachers/trainers</td>
<td>28%</td>
<td>27%</td>
<td>23%</td>
<td>22%</td>
</tr>
<tr>
<td>f) Submission of work</td>
<td>25%</td>
<td>27%</td>
<td>20%</td>
<td>28%</td>
</tr>
<tr>
<td>g) Assessment</td>
<td>22%</td>
<td>27%</td>
<td>17%</td>
<td>34%</td>
</tr>
<tr>
<td>h) Recognition of prior learning</td>
<td>7%</td>
<td>21%</td>
<td>27%</td>
<td>45%</td>
</tr>
</tbody>
</table>

Q4 In the last 12 months have teachers/trainers in your organisation ...  

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Accessed materials in national VET learning object repositories?</td>
<td>35%</td>
<td>34%</td>
<td>31%</td>
</tr>
<tr>
<td>b) Contributed materials to national VET learning object repositories?</td>
<td>6%</td>
<td>60%</td>
<td>34%</td>
</tr>
</tbody>
</table>

Q5 Does your organisation have an organisation-wide e-learning strategy?  

- Stand-alone e-learning strategy  
- E-learning is incorporated into our overall business strategy  
- Business units develop own e-learning strategies  
- No e-learning strategy  
- No need for an e-learning strategy  

Response options in Question 6 were: SA – Strongly Agree  A – Agree  N – Neutral  D – Disagree  SD – Strongly Disagree  NA – Not Applicable  (NA responses have been removed from calculation of results)  

Q6 Please rate your organisation’s approach to and capability for e-learning.  

<table>
<thead>
<tr>
<th>Activity</th>
<th>SA</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) The use of e-learning is a priority for our organisation.</td>
<td>32%</td>
<td>32%</td>
<td>21%</td>
<td>11%</td>
<td>4%</td>
</tr>
<tr>
<td>b) Our organisation encourages the use of e-learning.</td>
<td>31%</td>
<td>35%</td>
<td>21%</td>
<td>10%</td>
<td>3%</td>
</tr>
<tr>
<td>c) Teachers/trainers in our organisation have a good understanding of e-learning.</td>
<td>12%</td>
<td>36%</td>
<td>27%</td>
<td>20%</td>
<td>5%</td>
</tr>
<tr>
<td>d) Teachers/trainers in our organisation are skilled at using technology-based teaching tools.</td>
<td>12%</td>
<td>35%</td>
<td>28%</td>
<td>20%</td>
<td>5%</td>
</tr>
<tr>
<td>e) Our organisation encourages teachers/trainers to develop their own online teaching content.</td>
<td>11%</td>
<td>31%</td>
<td>25%</td>
<td>24%</td>
<td>9%</td>
</tr>
<tr>
<td>f) Our organisation provides professional development support to teachers/trainers to enable them to develop their own online teaching content.</td>
<td>14%</td>
<td>32%</td>
<td>25%</td>
<td>21%</td>
<td>8%</td>
</tr>
<tr>
<td>g) Our organisation provides students with easy access to</td>
<td>36%</td>
<td>36%</td>
<td>14%</td>
<td>9%</td>
<td>5%</td>
</tr>
</tbody>
</table>
Q7 a) How has your organisation integrated e-learning into its delivery of training?  
  b) Has your organisation been successful in integrating e-learning into its delivery of training?  
  c) How, if at all, has e-learning contributed to improved training outcomes for your students? (e.g. access, completions, employment)

Q8 What technology does your organisation use to support its business processes?  
   a) Learning management system  
   b) Online student management systems  
   c) Online professional development for staff  
   d) Online compliance training for staff  
   e) Web 2.0 technologies for internal communication  

Q9 Does your organisation offer the following e-business services to VET students?  
   a) Online publication of general course information and relevant policies and regulations  
   b) Online enrolment  
   c) Online payments and electronic forms  
   d) Online access to student records  
   e) Online library services  
   f) Online information of student support services  
   g) Online access to and delivery of student support services  
   h) Online access to results

Q10 a) There are eight nationally endorsed VET E-standards for Training - a set of technical standards recommended for underpinning all e-learning content and systems in the VET sector. Is your organisation aware of these E-standards?  
   b) If 'Yes', which E-standards have you used?

Q11 Is your organisation aware of the following programs and initiatives designed to strengthen the Australian training sector’s use of new technologies?  
   a) Australian Flexible Learning Toolboxes  
   b) The National Repository (formerly the Toolbox Repository)  
   c) E-learning Coordinators  
   d) Content Service Advisors (formerly known as Toolbox Champions)  
   e) Flex e-News  
   f) E-standards for Training (technical standards for developing learning objects)  
   g) VET Teacher E-learning Toolkit  
   h) E-assessment Guidelines for the VET sector  
   i) National VET E-learning Strategy State/Territory professional development sessions  
   j) National VET E-learning Strategy calendar of events  
   k) National VET E-learning Strategy website

Q12 a) What impact do you think the National Broadband Network will have on your organisation’s use of new learning technologies?  
   b) Has your organisation begun preparation to take advantage of increased connectivity and bandwidth proposed to be provided via the NBN? If so, how?
Response options in Question 13 were: ME – Major Enabler  E – Enabler  N – Neither a barrier nor an enabler  B – Barrier  MB – Major Barrier  NA – Not Applicable  (NA responses have been removed from calculation of results)

<table>
<thead>
<tr>
<th>Q13 Please rate each of the following factors on the extent to which it is an enabler or a barrier to use of e-learning by your organisation.</th>
<th>ME</th>
<th>E</th>
<th>N</th>
<th>B</th>
<th>MB</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Cost of e-learning infrastructure (e.g. computers)</td>
<td>3%</td>
<td>4%</td>
<td>36%</td>
<td>35%</td>
<td>22%</td>
</tr>
<tr>
<td>b) Teachers/trainers’ skills in using e-learning</td>
<td>4%</td>
<td>7%</td>
<td>40%</td>
<td>31%</td>
<td>18%</td>
</tr>
<tr>
<td>c) Access to the internet</td>
<td>5%</td>
<td>13%</td>
<td>32%</td>
<td>37%</td>
<td>13%</td>
</tr>
<tr>
<td>d) Privacy requirements</td>
<td>18%</td>
<td>25%</td>
<td>36%</td>
<td>15%</td>
<td>6%</td>
</tr>
<tr>
<td>e) Cost of e-learning resources</td>
<td>21%</td>
<td>26%</td>
<td>35%</td>
<td>14%</td>
<td>4%</td>
</tr>
<tr>
<td>f) National Broadband Network</td>
<td>3%</td>
<td>8%</td>
<td>69%</td>
<td>15%</td>
<td>5%</td>
</tr>
<tr>
<td>g) Knowledge of e-learning approaches</td>
<td>3%</td>
<td>8%</td>
<td>74%</td>
<td>13%</td>
<td>2%</td>
</tr>
<tr>
<td>h) Learner demand for e-learning</td>
<td>4%</td>
<td>4%</td>
<td>29%</td>
<td>39%</td>
<td>24%</td>
</tr>
<tr>
<td>i) Access to professional learning opportunities</td>
<td>3%</td>
<td>9%</td>
<td>29%</td>
<td>40%</td>
<td>19%</td>
</tr>
<tr>
<td>j) High-speed bandwidth/connection</td>
<td>16%</td>
<td>17%</td>
<td>50%</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>12%</td>
<td>17%</td>
<td>49%</td>
<td>14%</td>
<td>8%</td>
</tr>
</tbody>
</table>
Appendix 3. VET teacher/trainer survey

The 2013 e-learning benchmarking survey of VET teachers and trainers captured information on their e-learning experience, access to e-learning resources and the impact of technology on teaching and training practices. The previous VET teacher/trainer e-learning benchmarking survey was conducted in 2010.

Sampling frame and methodology

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 and school teachers providing VET in Schools programs. 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 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. Ten prizes to the value of $100 were offered to encourage VET teachers and trainers to complete the survey.

All non-TAFE RTOs were asked to forward the survey and/or survey link to six VET teachers or trainers. Some smaller RTOs 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 258 different non-TAFE RTOs (around 6% of the total, equivalent to the response from the 2010 survey).

TAFE institutes in New South Wales and South Australia were asked to forward the URL to a random selection of teachers and trainers with the aim of generating at least 60 responses from each TAFE. Target numbers were lower in the Australian Capital Territory (40) and Victoria, Queensland, Western Australia, Tasmania and the Northern Territory (30 each). The targets were based on population distribution, the expected size of the response pool, 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 they would receive a comparative analysis of their results benchmarked against the national figures. As with previous surveys, this was intended to motivate TAFE participation in the benchmarking surveys. Nineteen TAFEs exceeded this threshold with another 13 having 20 or more teacher/trainer responses.

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

Survey responses

The following table shows the number of responses from VET teachers and trainers by provider type in each state and territory. The classification of provider type in the table below is based on information provided by RTOs in their survey responses.
Survey response by RTO provider type by state/territory

<table>
<thead>
<tr>
<th>State/Territory</th>
<th>TAFE</th>
<th>Community</th>
<th>School</th>
<th>Private+</th>
<th>Total</th>
<th>% of RTOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW</td>
<td>193</td>
<td>4</td>
<td>4</td>
<td>59</td>
<td>260</td>
<td>13%</td>
</tr>
<tr>
<td>Victoria</td>
<td>417</td>
<td>22</td>
<td>11</td>
<td>73</td>
<td>523</td>
<td>27%</td>
</tr>
<tr>
<td>Queensland</td>
<td>256</td>
<td>2</td>
<td>84</td>
<td>75</td>
<td>417</td>
<td>21%</td>
</tr>
<tr>
<td>WA</td>
<td>257</td>
<td>1</td>
<td>6</td>
<td>60</td>
<td>324</td>
<td>16%</td>
</tr>
<tr>
<td>SA</td>
<td>175</td>
<td>-</td>
<td>-</td>
<td>24</td>
<td>199</td>
<td>10%</td>
</tr>
<tr>
<td>Tasmania</td>
<td>115</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>125</td>
<td>6%</td>
</tr>
<tr>
<td>NT</td>
<td>79</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>85</td>
<td>4%</td>
</tr>
<tr>
<td>ACT</td>
<td>47</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>58</td>
<td>3%</td>
</tr>
<tr>
<td>Total</td>
<td>1,539</td>
<td>31</td>
<td>109</td>
<td>312</td>
<td>1,991</td>
<td>100%</td>
</tr>
</tbody>
</table>

* ‘Private+’ includes private, enterprise, industry and government providers.

The total number of survey responses in 2013 was in line with the number of responses used in the most recent VET teacher/trainer e-learning benchmarking survey (2,058 in 2010).

The proportion of VET teacher/trainer responses by state/territory was broadly in line with the Australian population distribution, except for a relatively low level of responses from New South Wales (13% of survey responses vs 32% of population). To accommodate this response profile and avoid response bias calculation of national results for each survey question was based on weighting the results within each state/territory by the corresponding proportion of the Australian population.

State/Territory calculation weights

<table>
<thead>
<tr>
<th>State/Territory</th>
<th>NSW</th>
<th>Vic</th>
<th>Qld</th>
<th>WA</th>
<th>SA</th>
<th>Tas</th>
<th>NT</th>
<th>ACT</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>32.1%</td>
<td>24.8%</td>
<td>20.1%</td>
<td>10.8%</td>
<td>7.3%</td>
<td>2.2%</td>
<td>1.0%</td>
<td>1.7%</td>
<td>100%</td>
</tr>
</tbody>
</table>

* ABS Demographic Statistics, September 2012, ABS 3101.0, April 2013.

Survey questions

With the purpose of the benchmarking survey to gauge the level of uptake and use of e-learning in VET, the survey was targeted at all VET teachers and trainers, including those who did not use e-learning. Therefore, 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 presented a definition of e-learning to support consistency of interpretation. The survey then contained an introductory question on the delivery of e-learning. VET teachers and 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 scaled questions on access to computers, e-learning resources and professional development, and the impact of technology on teaching practices. The survey included an open-ended question on the integration of e-learning, the success of this and the barriers to use of e-learning in teaching and training. As in 2010 the survey asked VET teachers and trainers about their personal use of technology away from their teaching/training.

New questions included in the 2013 survey captured information about VET teachers/trainers:

- awareness and use of the nationally endorsed VET E-standards for Training
- awareness of National VET E-learning Strategy' programs and initiatives designed to strengthen the Australian training sector’s use of new learning technologies
- expectations of the potential impact of the National Broadband Network on their organisation’s use of new learning technologies.
The survey sought a range of demographic information on each VET teacher/trainer: gender, age, state/territory, name of training organisation, main field of teaching, teaching status, and length of VET teaching experience.

Summary results
The aggregate results from the 1,991 VET teacher/trainer survey responses are shown below, inserted into a copy of the survey form. Where there is a statistically significant difference from 2010 to 2013, the question is marked for ‘significant increase’) or (for ‘significant decrease’).

<table>
<thead>
<tr>
<th>Q1</th>
<th>In the last 12 months have you delivered units that use e-learning?</th>
<th>A lot</th>
<th>Some</th>
<th>A little</th>
<th>None</th>
<th>72%</th>
<th>67%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2</td>
<td>In the last 12 months, to what extent have you used the following technologies in your teaching/training?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Interactive learning resources on-site (e.g. web, CD or computer-based)</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>34%</td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td>b) Interactive learning resources off-site (e.g. web, CD or computer-based)</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>25%</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td>c) Email between learners and/or teachers/trainers</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>51%</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>d) Web 2.0 technologies (e.g. blogs, wikis)</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>7%</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>e) Social networking (e.g. Facebook, MySpace, Twitter)</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>7%</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>f) Mobile technologies (e.g. mobile phones, smart phones)</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>16%</td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td>g) Voice technologies (e.g. podcasting, recordings)</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>5%</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td>h) Learning Management Systems (e.g. Moodle)</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>28%</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>i) Web-based seminars/presentations (e.g. Blackboard Collaborate, Adobe Connect)</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>8%</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>j) Virtual worlds (e.g. Second Life)</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>k) E-portfolios</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>3%</td>
<td>7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q3</th>
<th>In the last 12 months, to what extent have you used e-learning in the following teaching and training activities?</th>
<th>A lot</th>
<th>Some</th>
<th>A little</th>
<th>None</th>
<th>52%</th>
<th>27%</th>
<th>11%</th>
<th>10%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a) Accessing learning resources and content</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>41%</td>
<td>26%</td>
<td>19%</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td>b) Doing research</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>51%</td>
<td>28%</td>
<td>12%</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>c) Undertaking learning activities</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>36%</td>
<td>33%</td>
<td>19%</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>d) Collaborative learning with other students</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>18%</td>
<td>24%</td>
<td>26%</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>e) Communication with teachers/trainers</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>33%</td>
<td>29%</td>
<td>22%</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>f) Submission of work</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>31%</td>
<td>27%</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>g) Assessment</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>32%</td>
<td>25%</td>
<td>18%</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>h) Recognition of prior learning</td>
<td>A lot</td>
<td>Some</td>
<td>A little</td>
<td>None</td>
<td>9%</td>
<td>17%</td>
<td>19%</td>
<td>55%</td>
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</table>
Q4 In the last 12 months have you used resources from any of the following sources?

- a) Self-developed online resources and materials [Yes: 65%] [Yes: 59%]
- b) Self-customised online resources and materials [Yes: 60%] [Yes: 55%]
- c) Online resources and materials developed by others within your training organisation [Yes: 67%] [Yes: 64%]
- d) Online resources and materials developed outside your training organisation [Yes: 68%] [Yes: 61%]
- e) Student developed/published resources [Yes: 13%] [Yes: 12%]

Q5 In the last 12 months have teachers/trainers in your organisation...

- b) Downloaded materials from national VET learning object repositories? [Yes: 43%] [Yes: 44%]
- c) Contributed materials to national VET learning object repositories? [Yes: 9%] [Yes: 8%]

Q6 Please rate your access to the following in terms of supporting your use of e-learning.

- a) Computers and the internet (for teaching) [Excellent: 34%] [Adequate: 23%] [Poor: 7%] [SD: 31%] [D: 9%]
- b) Computers and the internet (for students) [Excellent: 22%] [Adequate: 21%] [Poor: 14%] [SD: 16%] [D: 15%]
- c) E-learning resources [Excellent: 16%] [Adequate: 35%] [Poor: 17%] [SD: 12%] [D: 15%]
- d) Professional development [Excellent: 17%] [Adequate: 36%] [Poor: 17%] [SD: 15%] [D: 14%]

Q7 a) How have you integrated e-learning into your teaching, training and assessment?
   b) Have you been successful in integrating e-learning into your teaching, training and assessment?
   c) What (if any) do you believe are the main barriers to use of e-learning?
      - For you as a teacher/trainer
      - For your students
      - For your training organisation

Response options in Questions 8 and 9 were: SA – Strongly Agree A – Agree N – Neutral D – Disagree SD – Strongly Disagree NA – Not Applicable (NA responses have been removed from calculation of results)

Q8 Please rate the following aspects of your e-learning experience.

- a) The use of e-learning is a priority for our organisation. [SA: 27%] [A: 41%] [N: 22%] [D: 7%] [SD: 3%]
- c) I am well supported by my training organisation in using e-learning. [SA: 14%] [A: 33%] [N: 29%] [D: 16%] [SD: 8%]
- d) My training organisation encourages teachers/trainers to develop their own online teaching content. [SA: 17%] [A: 42%] [N: 26%] [D: 11%] [SD: 4%]

Q9 Please rate the following aspects of your e-learning experience.

- a) I am confident in using e-learning as part of my teaching/training. [SA: 24%] [A: 41%] [N: 19%] [D: 13%] [SD: 3%]
- b) The use of e-learning has enabled me to facilitate a more personalised approach to learning for my students. [SA: 17%] [A: 30%] [N: 30%] [D: 17%] [SD: 6%]
- c) The use of e-learning has allowed me to better cater for my students’ different learning styles. [SA: 16%] [A: 32%] [N: 32%] [D: 14%] [SD: 6%]
- d) I encourage greater interaction between my students through the use of technology. [SA: 16%] [A: 33%] [N: 31%] [D: 15%] [SD: 5%]
- e) The use of e-learning has improved my teaching/training. [SA: 15%] [A: 38%] [N: 31%] [D: 11%] [SD: 5%]
practices.

f) The use of e-learning has increased my students' access to learning resources.  
15% 39% 32% 10% 4%

22% 48% 20% 7% 3%

g) The use of e-learning has made learning more interesting for my students.  
19% 40% 30% 8% 3%

18% 44% 28% 7% 3%

h) The use of e-learning has made learning more engaging for my students.  
17% 36% 33% 10% 4%

17% 40% 31% 9% 3%

i) The use of e-learning has enabled my students to tailor learning to suit their training needs.  
15% 32% 36% 30% 8%

12% 36% 36% 13% 3%

j) The use of e-learning has improved learning outcomes for my students.  
13% 30% 41% 11% 5%

11% 35% 40% 10% 4%

k) The use of e-learning has increased my job satisfaction.  
17% 30% 33% 13% 7%

17% 31% 34% 12% 6%

Q10 How much e-learning do you think students want in their course?  
A lot Some A little None
19% 60% 17% 4%

18% 61% 17% 4%

Q11 a) There are eight nationally endorsed VET E-standards for Training - a set of technical standards recommended for underpinning all e-learning content and systems in the VET sector. Are you aware of these E-standards?  
15%

b) If ‘Yes’, which E-standards have you used?

Q12 Are you aware of the following programs and initiatives designed to strengthen the Australian training sector's use of new technologies?  
Yes
68%

a) Australian Flexible Learning Toolboxes
48%

b) The National Repository (formerly the Toolbox Repository)
28%

c) E-learning Coordinators
25%

d) Content Service Advisors (formerly known as Toolbox Champions)
19%

e) Flex e-News
27%

f) E-standards for Training (technical standards for developing learning objects)
28%

g) VET Teacher E-learning Toolkit
26%

h) E-assessment Guidelines for the VET sector
19%

i) National VET E-learning Strategy State/Territory professional development sessions
12%

j) National VET E-learning strategy calendar of events
78%

k) National VET E-learning strategy website
76%

Q13 What impact do you think the National Broadband Network will have on your organisation’s use of new learning technologies?  
High Medium Low None
31% 37% 20% 12%

Q14 Please rate how much you use technologies at a personal level (away from your teaching/training).  
4 – Use all the time 0 – Don’t use
4 3 2 1 0

a) MP3 player/iPod  
19% 16% 17% 13% 35%

19% 17% 16% 14% 34%

b) Mobile phone  
66% 16% 9% 6% 3%

56% 20% 12% 8% 4%

c) Twitter  
3% 4% 6% 9% 78%

2% 3% 4% 6% 85%

d) Facebook  
20% 17% 14% 17% 32%

13% 10% 15% 18% 44%

e) Write blogs  
2% 3% 7% 12% 76%

3% 3% 7% 11% 76%

f) Read other blogs  
5% 11% 17% 21% 46%
<table>
<thead>
<tr>
<th>g) Virtual worlds</th>
<th>6%</th>
<th>8%</th>
<th>15%</th>
<th>20%</th>
<th>51%</th>
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<td></td>
<td>1%</td>
<td>2%</td>
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