# Australian *Flexible* Learning Framework

**supporting e-learning opportunities**

# E-learning for the mature age worker

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The views expressed herein do not necessarily represent the views of the Commonwealth of Australia.

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# Executive summary

This study was undertaken by Global Learning Services for the 2007 Research and Policy Advice Project[1] of the national training system's e-learning strategy, the Australian Flexible Learning Framework (Framework). It aimed to provide a portrait of the current situation in Australia in the role and use of e-learning in training for mature age workers, and to identify good practice.

To achieve this objective, the study involved three parts: a literature review; consultations in all states and territories; and the conduct of four case studies. The study was designed to lead to the development of guidelines for good practice in harnessing e-learning for mature age workers. The guidelines are given in Attachment 1 on this report.

## *The context*

Demographic change with an ageing population and workforce has created strong interest in Australia and overseas in strategies to maintain the skill levels of the workforce in this context. Maintaining the motivation, skill level, and employability of older workers is widely seen as one of the key responses to this challenge. The role of e-learning in this context is a possible response examined in this study.

## *The literature review*

The literature review confirmed the importance and relevance of lifelong learning and provided valuable information on the characteristics and preferences of older learners that should be taken into account in devising strategies especially incorporating e-learning to address this need.

While Australian education strategies for workforce and human capital development have been refined over the past two decades, the needs of older workers have not, up till now, been seen as a priority, and the research base in this area is in an early stage of development.

However, a more extensive research base on the needs and preferences of older learners exists in countries such as the United Kingdom, and we have drawn on this research in developing our profile on the needs and preferences of older learners.

The literature review showed that a range of stereotypes and myths about mature age workers and their participation in the workforce still exist, and serve as barriers to retaining older workers in employment. Research has shown that these stereotypes are out of touch with the reality of the values and preferences of older workers, which is that:

- many older workers want to go on learning and earning, but in ways which suit their lifestyle preferences

- this often involves part-time work and part-time community service and volunteering

- there is a general desire among many older workers to keep learning, including how to use computers and other technologies.

In this context, the benefits of e-learning as a flexible tool of learning for older workers and people in general are becoming increasingly recognised.

The literature review also showed that mature age workers should not be viewed as a single block with defined characteristics, but rather that a number of market segments exist that should be taken in to account.

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[1] The Research and Policy Advice Project provides high quality, timely and evidence-based research and policy advice to inform the development and implementation of e-learning across the vocational education and training system http://www.flexiblelearning.net.au/research

We built on the market research undertaken by the Australian National Training Authority (ANTA) which identified a continuum of adult learner types, of eight market segments, ranging from not engaged in learning (the 'forget its') to fully engaged ('passionate' learners).

We also built a literacy levels continuum (in information and communication technology (ICT) and other literacies) for discussion because of the effect literacy levels will have on the approach required to be taken to delivering e-learning to the mature aged. We note the recent release by the Australian Bureau of Statistics of the results of the 2006 Adult Literacy and Life Skills Survey that uncovered evidence that a large proportion of mature aged Australians struggle with reading, writing and numeracy.

## *The consultations*

Consultations were undertaken with 30 vocational education and training (VET) teachers and managers in providers that covered all states and territories.  It was widely recognised in the consultations that the need existed to adapt e-learning strategies to the characteristics and preferences of mature age workers.

There was a strong consensus during the interviews on a few key points related to e-learning engagement, and delivery strategies and resources for the mature age workers. These points have been included in the good practice guidelines.

They include:

- the need to dispel common myths and stereotypes and to view mature age students as they really are-adventurous learners in many cases

- the view that blended learning strategies[2] are preferable

- the need to be clear about the reasons for and benefits of learning for older learners

- the need for the training to be related to previous life experiences of older learners

- the need for a careful orientation/induction process

- the importance of building confidence, self esteem, and a sense of capacity to succeed (identity capital) in the orientation phase

- the sense that many older learners should be taken slowly along the technology continuum, but that the potential of new web 2.0 technologies, such as blogs and wikis, should also be explored through careful testing and

- the need to gain support from the top levels of the VET organisation to achieve sustainability of e-learning.

## *The case studies*

The four case studies undertaken demonstrate identified good practices in e-learning to support training and learning for the mature aged worker in a variety of contexts, including:

- the use of blended e-learning and face-to-face learning strategies adapted to the needs and preferences of mature age learners

- the role of these strategies in producing confidence and motivation in students to succeed as lifelong learners and to acquire employability skills

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[2] Blended learning is taken to mean a combination of e-learning and face-to-face learning.

- the use of a blended 'distributed' delivery approach to widen access to training for students in small, rural communities that previously had limited access

- the use of e-learning by a statewide service organisation to provide ongoing education and training and build a culture of lifelong learning and continuous improvement

- the work of several community adult education providers that are drawing mature age people back into learning  through e-learning and acting effectively as outreach arms of VET.

## *Good practice guidelines*

We have combined the findings of this study with the findings of several other research and policy studies Framework studies that have had similar goals, of providing operational frameworks and practical strategies in a range of other learning and learner contexts. The guidelines are in Attachment 1 and are intended to support good practice in adapting e-learning strategies to suit mature age workers.

## *Conclusions*

This study shows a VET system in transition towards meeting the needs of workers throughout life, in a context of demographic change with an ageing population and workforce, with e-learning being harnessed in innovative ways to meet the particular needs and preferences of older learners.

Meeting the needs of mature age workers represents a new priority for the VET system so that a developed research base does not yet exist.  However, a good deal is now known about the preferences of older workers from Australian and international research so that the challenge is to adapt VET strategies and arrangements to meet these needs.

E-learning can be a powerful tool in the development of more flexible strategies in adapting to the needs and preferences of older people.  We concluded from our literature search that trends in the application of learning technologies are moving in the direction of strategies that are more personal, social and flexible.  These are attributes that are ideally suited to the preferences of mature age learners who bring a wide range of individual needs, much life experience, and a wish to learn at a time, place and manner that suits their lifestyle and values.

The potential exists to extend the e-learning role and impact for mature age workers, building on the findings of this study in a wide range of contexts.  This is likely to lead to a deeper understanding of how e-learning can be a key tool in adapting VET strategies to the needs and preferences of learners in a range of contexts, in successive phases of life, and especially at key transition points, such as returning to the workforce after an absence or gradually retiring from the workforce and taking up volunteering activities or changing careers to better suit changing life circumstances.

# 1. Introduction

Australia, like other OECD (Organisation for Economic Cooperation and Development)[3] countries, is confronted by demographic change and an ageing workforce, and persistent skill shortages in a number of key areas including the trades and aged care services. Maintaining the motivation and employability of older workers, and of the mature aged seeking to return to the workforce, are recognised as key issues in this demographic context. This study focuses on the role of e-learning in maintaining the employability of mature age workers.

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[3] http://www.oecd.org

## *The study*

The overall aim of this study was to provide a portrait of the current situation in Australia in the role and use of e-learning in training for mature age workers, and to identify good practice which would be incorporated in guidelines.

The study was undertaken in three parts:

1.  A review of Australian and international literature relevant to the study, the findings of which were taken up in the subsequent stages.

2.  The conduct of consultations with a range of providers in all states and territories, to build a picture of current e-learning practices involving the mature aged.

3.  The conduct of case studies to demonstrate good practice.

A separate progress report was written on each part of the study. These reports are drawn upon in this overarching synthesis report. The full case studies have been published in a companion paper to this report.

## *The literature review*

A review of Australian and international literature relevant to the study, was carried out in July 2007 that built on the environmental scan research paper produced by Palmieri to support the 2007 suite of projects on mature age workers within the Framework.

Palmieri (January 2007) found that Australian literature on the subject of e-learning for mature age workers is not well developed, whilst there is a far larger field of literature on the topic of mature age/adult learners in general. Her scan includes items from both sets of literature that were particularly useful for our project. Connecting further the topics of the mature aged worker and e-learning was a key objective of our literature review and overall study.

The addition of an international dimension to the literature review was helpful.  A significant knowledge base on the mature aged and e-learning exists in certain countries, especially in the European Union.  We include a brief overview of activities in European Union countries in Attachment 2 that appear ahead of Australia in policies on lifelong learning, active ageing and maintaining employability of older workers  including through the integration of ICTs into strategies to achieve these objectives.

## *National consultations*

The consultations across Australia added to the literature review in building a picture of current e-learning practices involving the mature aged. They were a key component of the study.

Carried over from the literature review for testing in the broad national consultations phase of the study were some identified possible segments of mature aged learners, involving key characteristics and needs, that could have implications for e-learning.

Several starting point sets of data on key benefits, key barriers and enablers, and critical success factors in the provision of e-learning for mature age workers were also presented to those interviewed for comment and additions, based on their experiences and expert perspectives.

Each of the representatives of the 30 VET providers interviewed (listed in Attachment 3) was also asked about the engagement and delivery strategies they adopted in relation to mature age workers, and the technologies and methods they used. We provide the interview schedule in Attachment 4.

A range of networks were contacted to find providers to consult, ones who had e-learning experience with mature aged people. Our sample of providers demonstrated a growing base of expertise in e-learning. A key aspect was however that older people had not been a specific focus

until recently. The sample contained a mix of provider types as well as jurisdictions, as shown in Tables 1 and 2.

**Table 1: National consultations sample by jurisdiction**

| NSW | VIC | QLD | WA | SA | TAS | ACT | NT |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 7 | 5 | 6 | 4 | 4 | 1 | 1 | 2 |

**Table 2: National consultations sample by provider type**

| Private | Industry/enterprise | Public TAFE/University | Community |
|---------|---------------------|------------------------|-----------|
| 6 | 5 | 13 | 6 |

Overall, the interviews had considerable value in adding to the evidence from the literature review, and we are most grateful to all those who contributed to the purposes of the study in this way.  We were impressed by the dedication and commitment of teachers and VET managers involved in the consultations, and the considerable innovation that is occurring in harnessing technology and e-learning for VET objectives.  In this context, developing and maintaining the skill levels of older workers represents the next great challenge for VET policy and practice.

## *Case studies*

The case studies conducted were on providers selected from the national consultation stage to illustrate identified elements of good practice.  We chose three providers working within a particular industry area with skills shortages, to provide a unifying theme. The industry was Community Services and Health (CS&H).  For the fourth case study we chose adult and community education (ACE) providers as the theme and reported on the activities of three providers from three different states.

**Table 3: List of the case studies**

| Name | Provider type* | Jurisdiction |
|------|----------------|--------------|
| Community Services and Health Program, Gilles Plains Campus, TAFESA | TAFE | SA |
| Certificate III in Aged Care, Barrier Reef Institute of TAFE | TAFE | QLD |
| The Queensland Ambulance Service | Public service | QLD |
| E-learning for the mature aged in community settings | ACE | SA, VIC, TAS |

# 2.  The context

This section outlines the role of VET in the context of an ageing society.

Demographic change and the ageing of the Australian population have attracted considerable attention because of the radical economic, social, financial and human consequences of this phenomenon.  The new demography has its counterpart in other OECD countries so that many countries and international agencies such as WHO (World Health Organisation)[4], OECD, and ILO

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[4] http://www.who.int/en/

(International Labour Organisation)[5] are addressing the implications of an ageing population, in a global context.

A significant implication of an ageing society relates to maintaining the skill levels of future workforces. The importance of the mature aged to Australia's future workforce and prosperity is well illustrated by the following facts from a recent report: *Grey Matters*:

- Australia faces a potential shortfall of 195,000 workers in five years

- between 1982 and 1992, 31% of labour market growth came from workers aged 45 years and over

- between 2002 and 2012, 85% of the projected labour market growth will come from workers over aged 45 years and over

- currently the Australian workforce increases by 170,000 per annum but Access Economics predict that the workforce will increase by only 125,000 for the whole decade 2010-2020

- the numbers of young people joining the workforce are declining in all western countries.

(Diversity Council of Australia, 2007)

VET is the appropriate education sector to address the ongoing skills needs of older workers. However, older workers have not up to now been seen as a priority market for VET institutions. The general absence of lifelong learning policies in the VET sector has maintained this situation.

## *VET in an ageing society*

The worldwide phenomenon of ageing populations motivated a number of research agencies to hold a forum on technical and vocational education and training in an ageing society in 2006, co-hosted by the National Centre for Vocational Education Research (NCVER). One of the papers presented to the forum dealt with the VET and ageing issue at a broad policy level.

Gayondata and Kim (p19 and 20, in NCVER, 2007*)* suggest that there are four main sectors involved in the formulation and development of the policy framework for the retraining for reskilling of older workers. They are: the government sector, the industry sector, technical and vocational education and training (TVET) institutions, and small and medium enterprises (SMEs).

**Figure 1: Sectors for policy formulation for skilling older workers**



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[5] http://www.ilo.org
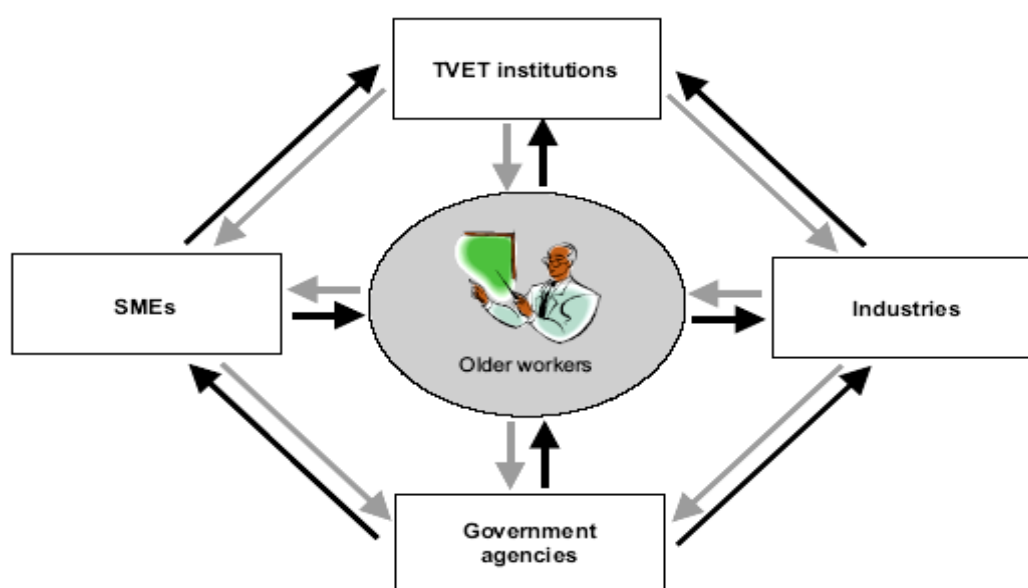
Government provides policies and developmental strategies that must be regularly and continuously reviewed and assessed to be responsive to the evolving needs of an ageing society.

Industry provides the necessary investment in the recruitment of older workers and required support systems. Industry also needs to provide worker-friendly environments and job models for older workers.

VET institutions provide lifelong learning interventions for continuous upgrading of the skills and knowledge of the older members of society. They design and develop the training modules necessary for the implementation of retraining and reskilling courses, based on industry and enterprise job models, and the learning and training needs of mature age workers.

SMEs assist VET to provide older workers with the necessary training to become entrepreneurs by providing relevant hands-on training in various technologies to these budding entrepreneurs. The government can provide supporting policies to assist these older workers to set up their own small and medium enterprises.

(Gayondata and Kim p19 &20, in NCVER, 2007)

This study focuses on the VET sector role and through the use of e-learning in particular for the retraining or upskilling of older workers.

The Australian Government has been mainly focussed on the economic and financial implications of demographic change, in a series of reports from the Productivity Commission, Treasury and Australian Government, and other government agencies.

(Productivity Commission, 2005; Australian Government, 2002 and 2007)

The government has responded with a *National Strategy for an Ageing Australia* (Minister for Ageing, 2001) which argues for a coordinated response within a strategic framework driven by long-term perspectives.

Much of the *National Strategy* is focussed on economic and financial aspects, such as retirement incomes, although healthy ageing, the changing workforce, although attitudes to ageing also receive attention.

The section on 'A Changing Workforce' of the *National Strategy* recognises as objectives:

- removing barriers to the continued participation of mature aged workers in the workforce
- recognising the importance of retaining mature aged workers in the workforce.

*This study is relevant to both these national objectives. Access to education and lifelong learning is recognised as important, but without details on how this is to be achieved in the National Strategy for an Ageing Australia.*

(Minister for Ageing, p. 31)

Some general strategies for raising the participation levels and productivity of older people in the workforce through VET are contained in a separate N*ational Human Capital Reform Agenda* (COAG 2006). E-learning does not feature. The neglect of e-learning also reflects the relative neglect of the mature age market in VET, so that the potential role of e-learning for mature age workers has not received the attention it deserves.

The Framework has nominated the mature aged as a specific focus in 2007 as part of its Inclusive e-Learning Project[6], and of which this study is a part. The opportunity now exists through the Framework to foster effective lifelong learning for the mature aged through developing e-learning practice.  Australia's real strength in adopting e-learning has been the collaborative approach

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[6] The 2007 Inclusive e-Learning Project aimed to help young people, mature age workers and learners with disabilities to learn more flexibly, and to improve their employment-related training opportunities (http://www.flexiblelearning.net.au/inclusive)

shown at all levels of the VET system through the Framework. This strength can now be built on and extended.

To help industry to increase workforce participation by mature age workers, the Australian Government has invested $12 million over four years. Industry groups and businesses that want to tackle workforce shortages can access grants to improve recruitment and retention of mature aged workers as part of the Mature Aged Employment and Workforce Strategy, including for training purposes (http://www.jobwise.gov.au).

We found that some business firms and services are more advanced in their policy and strategy responses to the mature age worker, than are other VET providers, driven by the imperatives of meeting current and impending skill shortages for compliance requirements, in raising the knowledge and skill of older people returning to the workforce. They are generally adopting a life phases approach to workforce development.

We also found ACE providers who are SMEs, providing relevant hands-on training in various technologies to older people seeking to start up their own business or to be volunteers in SMEs, including in ACE providers.

With regard to TAFE providers we found state/territory wide platforms were becoming increasingly significant in providing ready access to online resources, such as the Queensland Learning Resource Management (LRM) Program and the Victorian TAFE Virtual Campus which is a learner and content management system and is available to Victorian ACE providers as well as the TAFEs. Network strategies in key areas of TAFE delivery, with designated lead institutions, were enabling TAFE state systems to build up online resources and expertise in a systematic manner.  Some regional ACE networks also had their own e-learning platforms.

At the institution level, online learning teams, as in the Southbank Institute of TAFE, Barrier Reef Institute of TAFE, and the Canberra Institute of Technology (CIT) were enabling VET institutions to promote e-learning throughout the institution in a strategic way. Overall, the scene showed considerable progress and increased sophistication in the use of e-learning. How meeting the needs of mature age workers fitted into this pattern of TAFE development posed a new challenge.

These findings are elaborated in subsequent sections in the light of our further consultations and the findings of the case studies conducted.

# 3.  The evolving role of e-learning

Kearns in a 2002 international study of policy for technology in education and training in 10 countries, concluded that the role of technology in education and training had progressed through three stages of development (Kearns 2002, pp117-118).

He also concluded that the role of technology stood on the threshold of the final stage of development that would transform the way we educate and learn.

Our consultations and case studies have confirmed this process of evolution in the role of e-learning and have supported the conclusion by Kearns that we are positioned on the threshold of a third stage of development that would transform the way we learn. As the role of e-learning has evolved in recent years, with considerable momentum and support from the Framework, the benefits of e-learning, when well used, have become clearer.  These benefits for mature age workers, industry and communities were further clarified by this study.

In his 2002 study of policy for technology in education and training, Kearns identified the following phases of development of this role:

**Phase One**      **The rolling out phase**

Rolling out of computers into schools and colleges with some professional development of teachers and development of online content.

**Phase Two**      **The mainstreaming and integrating phase**

Building the role of ICT into education in a more strategic way with more concern for objectives, and with linkages forged to overall education strategies.

**Phase Three**      **The transformative phase**

In this phase, technology will transform the way we learn. While no country studied in 2002 had achieved this phase, several (eg Sweden, United Kingdom, United States of America) stood on the threshold of such development.

While Kearns concluded in 2002 that the Australian situation fitted this pattern of development, he also observed this pattern in countries such as Sweden, United Kingdom and the Netherlands (Kearns 2002, p 117). While no country in 2002 had achieved a situation where technology had transformed the way learning occurred, there was active discussion of this progression in the countries of the ICT League which included Sweden, United Kingdom, the Netherlands and Canada.

The founder of Microsoft, Bill Gates, in a 2000 book reached a similar conclusion, of there being three phases on the integration of information technology into education (Gates 2000, p. 498).

*Step 1: Establish infrastructure and train teachers and pupils;*

*Step 2: Use PCs to improve existing models of teaching and learning;*

*Step 3: Use PCs to transform models of teaching and learning.*

The Gates Step 2 corresponded with Phase Two in the Kearns model and there was similar recognition that technology will transform models of teaching and learning.

It was evident from our consultations and case studies, that the role of e-learning in Australia had evolved further since 2002 with developments towards the use of e-learning to transform models of teaching and learning. We observed such developments, eg in the Barrier Reef Institute of TAFE use of e-learning in its *Certificate III in Aged Care*, and more broadly in the work of the institute as the Queensland joint lead agency in Blended Distributive Delivery. While the then Director of the institute observed in one of the consultation interviews that 'we are not there yet', considerable progress has been made in harnessing e-learning in innovative teaching and learning models that are transforming the ways students learn.

The consultations also suggested that such innovations are not yet general across the VET sector and various barriers remain to be addressed. However, we concluded that considerable progress has been made since 2002 so that the VET sector stands poised to progress to the transformative third phase.

The theme that technology will transform the way we learn has been progressed in Australia through examination of the pedagogical implications of the new technologies. The Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA)[7] *Working Party on Pedagogy Strategy* under its *Learning in an Online World* program recognised key dimensions of these transformative effects of learning technologies.

*Pedagogies that integrate information and communication technologies can engage students in ways not previously possible, enhance achievement, create learning possibilities and extend interaction with local and global communities*

(MCEETYA 2002, p 2)

*Pedagogies integrating ICT can do more than enhance learning – they have the potential to transform learning, ICT provides tools and environments that support interactive conceptual learning, focussed on constructing and creating knowledge*

(MCEETYA 2005, p 4)

We observed this potential to promote interactive conceptual learning and the constructing and creation of new knowledge in several of the case studies, especially in the use of video

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[7] http://www.mceetya.edu.au

conferencing with regional networks of teachers, tutors and students in the Barrier Reef case study and more broadly in the commitment of the institute to harness technology in a framework provided by its constructivist theory of learning.

## *More personal, social and flexible*

In our consideration of how the e-learning role had evolved since 2002, we examined international literature on this subject, as well as exploring trends in our consultations and case studies. The impact of web 2.0 technologies has stimulated further interest in this subject and we found a review undertaken by the British Educational Communications and Technology Agency (Becta) on new technologies valuable in providing insights on the general direction of development of the e-learning role (Becta 2007 Vol. 2).

Becta in this 2007 review of new technologies in education had concluded that e-learning had become more personal, social and flexible (Becta, 2007 Vol. 2, p 19). This conclusion was confirmed by our observations in the case studies so that we believe these attributes set important parameters for the evolving role of e-learning in education, training, industry and communities, and for future directions.

| | |
|---|---|
| **More personal** | Technology has enable more individualised approaches to learning to be progressed with increase regard to individual need. Personalised learning is now more feasible. |
| **More social** | Learning together in networks and communities with people connected to each other for learning enhances the quality of learning, the generation of new knowledge, and learning outcomes overall. |
| **More flexible** | New technologies enable learning anywhere/anytime to be a realistic objective. |

These attributes are particularly relevant to the diverse needs of mature age workers (and older learners generally) so that we have concluded that e-learning has very significant potential in meeting the needs of mature age workers, including people returning to the workforce, that should be harnessed in comprehensive strategies to maintain the skill levels, motivation, and employability of mature age workers.

While Becta applied these attributes to web 2.0 and social software technologies, our view is that these attributes apply more generally to the ways in which the e-learning role is evolving, although the web 2.0 technologies are accelerating these trends. We observed in the Barrier Reef Aged Care case study ways in which video-conferencing has been built in to team and learning strategies that progress these objectives.

Becta summed up these trends in the following terms:

> *It is not so much "emerging technologies" as "emerging humanity" in the sense that it is about connecting and socialising our use of computing and making it more personal. The tools are important although changing all the time, but the connecting networks of people, data and services that are emerging around them is what this is really about.*

(Becta 2007, Vol. 2, p 9)

While these trends are impacting on the way we learn, they also bring particular benefits to older learners in the ways learning can be provided that are more personal, social and flexible – all attributes that research is showing are valued by older learners.

## *Supporting lifelong learning*

A further important theme to emerge from our literature review, consultations, and case studies was that there is now greater recognition of the value of e-learning as a tool for lifelong learning. The key attributes discussed above (more personal, social and flexible) are things that enhance

the motivation of people of all ages for learning throughout life, and the capability of people to continue learning throughout life.

This theme emerged early in our consultations when 22 of the 26 experts on e-learning interviewed assessed fostering lifelong learning as an important or very important benefit of e-learning for the mature aged (see Table 8). When this point emerged in discussions with students in the case studies, a fairly general desire to keep learning as a consequence of experience in the e-learning program was expressed.

This motivation to continue learning appeared to be because their e-learning experience had been positive in terms of building self esteem and confidence and the development of the key employability competence of learning to learn.

## *Overview of the current Australian situation*

In our analysis of the evolution of the role of e-learning in VET, we considered the current Australian situation in our literature review, consultations and case studies. In addition, some recent research funded under the Framework came to hand after we had completed the literature research so that we have provided a brief overview of some important aspects in Attachment 5 to this report.

This overview covers:

- e-learning use among VET providers and the mature aged, both taken from the Framework's 2007 E-learning Benchmarking Survey[8]

- e-learning in Australian workplaces, including findings from the 2006 survey by the Industry Engagement Project of the Framework in six industries[9]

- e-learning in community contexts, including findings from a strategic review[10] of the Framework's Community Engagement Project (Bowman, 2007).

The findings from this research complement the other sources we have used in our study, and support the general trends we have discussed above. They show a context where the benefits of e-learning are increasingly recognised, and where e-learning in the VET sector has progressed to the threshold of a transformative third phase of development, at least in best practice initiatives. The features of good practice are widely known so the challenge is now to embed these characteristics in the VET system.

## *Relevance to mature age workers*

In the context outlined above of a system in transition, we take up in Section 4 which follows, the role and value of e-learning for mature age workers. This section elaborates on the conclusion discussed above that the way e-learning has evolved brings particular benefits to mature age workers, including those who have been absent from education, training and the workforce for some time. In Section 5 we discuss the findings from the national consultations on the use of e-learning for mature aged workers across the nation and in Section 6 the key features of the emerging good practice model for mature age workers (and adult learners generally) are highlighted by providing brief overviews of the four case studies conducted. We set out guidelines for use based on the findings in Attachment 1 after our sections on our conclusions and a way forward.

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[8] http://www.flexiblelearning.net.au/e-learningindicators

[9] *E-learning in industry growing: A review of the use of e-learning in six industries*: http://industry.flexiblelearning.net.au/2006/industry_perf_review_14nov06.pdf

[10] *Strategic review of the Community Engagement Project*: http://www.flexiblelearning.net.au/flx/webdav/site/flxsite/users/mhannan/public/Community%20Strategic%20Report.pdf

# 4. Older workers and e-learning

*Many of Australia's policy analysts in government, industry associations and 'think tanks', along with politicians and media commentators, have argued that, to counteract declining labour force participation rates due to the ageing of the population, older workers will need to continue working longer than at present. However, the views of older workers have been missing from the public discussion of these issues.*

(Lundberg and Marshallay 2007 p9)

## *Introduction*

Maintaining the skills levels, motivation, and employability of older workers raises a broad spectrum of issues that will need to be addressed by all stakeholders in ways that progress solutions that bring benefits to all.  This will require that various myths about older workers that serve as barriers to the training and employment of mature age workers are surfaced and dispelled.

We identify in these section key characteristics of the mature age workers as learners in general, and in relation to being engaged in e-learning, based on the available research and our national consultations.

## *Myths and realities*

### Older peoples' views on working and learning

The Australian situation of no national lifelong learning policy means that pressures have not existed to identify the particular needs and preferences of learners in successive phases of life, especially the key transition points such as moving back to the workforce.

Most of the Australian research on the mature aged as workers and learners is recent.

An overview of common myths compared to realities based on the emerging Australian literature on older people as workers and learners is provided in Table 4.

The table shows that the mature aged can be effective workers from an employer perspective and that far from yearning for retirement, many older people both in work and out of employment want to go on learning and earning, but at their own pace.

Another recent research project on *Understanding the Over 50s* (APIA, 2007*), also includes in its key findings, the conclusion that the 'over 50s' plan to shape their future and intend to remain active in the workforce, education and community engagement as they believe this will benefit their mental and physical health.

Similarly, another recently published research study on some 2000 older workers perspectives on training and retention concludes that the central issue is not so much persuading older people to continue to work and learn as it is to remove perceived discriminatory barriers and disincentives (Lundberg and Marshallsay, 2007).

**Table 4: Some myths and realities about older people working and learning - Australian research**

| Myths | Realities |
|---|---|
| Older workers are more expensive | There is a net human resource management cost benefit of $1,956 per annum for each worker aged 45 years plus compared with the rest of the workforce (Business, Work and Ageing) |
| Workers cognitive abilities deteriorate with age | There is no sign of any significant decline in either peoples memory or their intelligence until they are well into their 80's or 90's (Queensland government research) |
| Older workers are not interested in career or self development | 86% of senior workers were keen to take up training opportunities offered to them (Research by Drake Management ) |
| Older workers are less flexible and adaptable | People over 45 years are generally more flexible about their work hours and working conditions than younger people. Employers retrench older workers in preference to younger workers (Drake Management) |
| Older worker are not likely to stay with the firm | Employees 45+ stay with an organisation 2.4 times longer on average than the under 45s |
| Older workers just want to retire | Far from yearning for retirement, older people both in work and out of employment want to go on learning and earning, but at their own pace. (Diversity Council Australia). |

Source:  *Mature aged workforce special report,* The Weekend Australian 2-3 June 2007, p6

The recent DCA *Grey Matters* study found the biggest 'pull' factors that would entice people back into employment were issues that gave them the freedom to enjoy both a job and life. The most important factor cited was the ability to work from home (84%). Other top rated attractions included flexibility with start and finish times, limited travel demands, the option for part-time work and choice of a phased retirement.

Of those who are still working more than half said they would consider further study to develop in their jobs and a third would be prepared to relocate for their work. The biggest pull factors that will keep them in work were flexibility in employment hours, feeling valued and respected as a mature employee, the option of lifelong learning and time off for family caring commitments. The chief push factors into retirement included wanting to spend more time with family, not having a supportive work environment and the need to care for a relative.  Employers face a major challenge in adapting worker arrangements to take account of these preferences.

## Older people as learners

An overview of common myths and realities about older people as learners is given in Table 5, drawing from the report *Older People Learning: Myths and realities* (Withnall, McGivney and Soulsby, 2004). This report is part of the research undertaken within the Older and Bolder program conducted by the UK National Institute of Adult Continuing Education (NIACE) for over more than a decade from 1995.

The reality is that age is not necessarily a barrier to learning and that older people have a wealth of experiences that they can bring into a new learning experience.

**Table 5: Some myths and realities relating to older people as learners - UK research**

| Myths | Realities |
|---|---|
| Older people are all the same | Every individual ages differently |
| Older people have nothing of value to say | Older people usually have a wealth of experience. |
| It is not worthwhile to encourage older people to engage in learning | Older people can contribute much as volunteers, carers, advisors, active citizens and workers |
| Older people have less brain capability | While the brain undergoes structural and chemical changes with ageing, the brain has considerable plasticity for new learning |
| Older people's brain power has diminished | Research suggests that 'fluid intelligence' may decline with age, but that 'crystallised intelligence' can grow throughout adult life. |
| Older people are too slow to learning anything new | Health status can influence this, but speed depends on a complex range of factors |
| Older people forget things | Short-term memory may be impaired, but long-term memory is less impaired, if at all |
| Older people live in the past and don't like change | Older people differ in this respect, many have a keen interest in current affairs |
| Older people are not interested in today's world | Individual differences are again relevant factors, education and personal interests are important |
| Older people are not interested in learning | While older people participate less in organised learning, this reflects past experience, stereotypes and inadequate opportunities |

Adapted from Withnall, McGivney and Soulsby, 2004, *Older People Learning: Myths and realities.* Not all the myths listed in that report are included in this table.

## *The real story on the mature aged and working and learning*

The key factors that serve as barriers to the mature aged working and learning include myths and stereotypes about older people, such as those listed above.

Older people are frequently excluded from training and employment by a range of myths of ageing and the capability of older people which are being challenged by current research evidence. Labour force participation drops with age often because of barriers to continued engagement in the workforce. The Lundberg and Marshallay 2007 study concluded:

> *The central issue was consequently seen as not so much persuading older people to continue working, but rather to remove the perceived discriminatory barriers and some important disincentives in existing federal or state policy such as workcover and insurance provisions.*

(Lundberg and Marshallsay, 2007 p. 8):

The Lundberg and Marshallay study contains another finding particularly relevant to this study. It is that the majority of the mature aged workers they surveyed considered that computer skills training or updating computer skills was the most useful training in enabling them to continue working past retirement age (p. 10).

We have concluded from this research evidence that the real story on the mature age worker is:

- many are interested in continuing to work or return to work

- many are willing to augment their skills through training

- becoming competent with new technology, particularly computer skills is a common and high priority but

- they want flexibility, the opportunity to work part time and to learn new skill sets

- supportive work and learning environments are important and

- learning opportunities that stretch but not stress them, suited to their level of capability, are preferred.

Regarding the latter point, we note the recently released results of the 2006 Adult Literacy and Life Skills Survey (Australian Bureau of Statistics, 2007) has uncovered evidence that a large proportion of mature aged Australians continue to struggle with reading, writing and numeracy. The survey results in Table 1 provide a breakdown by level for age groups for prose and document literacy and includes a comparison of 1996 and 2006. While some progress has been made at Level 1 (the lowest level) a massive literacy problem remains for mature age workers (over 45 years) in particular and indeed for most of the workforce.

The percentage of all Australian adults on Level 1 and 2 (that are considered levels not adequate for the individual to cope with everyday tasks) are as follows:

Prose 46.4%                    Document 46.8%                    Numeracy 52.5%

## *Key characteristics of the mature aged as learners*

Learner characteristics are becoming more important as learners become more discerning consumers of education and training, and more articulate about their needs and preferences.

Palmieri (2007) notes that the mature aged do not form a uniform group, and sub-divided them into four segments, according to their position in the labour market and the general nature of their skills development interests:

- people in employment who wish to upgrade their skills to cope with changes in their existing jobs

- people in employment who wish to upgrade their skills in order to seek promotion in the same or a similar company

- people in employment who are considering a substantial change in direction and

- people not in employment who are seeking to re-skill in order to enter the workforce.

The terms of reference for this study include that the focus be on the latter two segments (Project Brief p. 4).  Assisting these segments of the workforce is seen as crucial to achieving greater overall workforce participation rates, a key goal of the national reform agenda of COAG (Council of Australian Government)[11] to aid productivity.

People in employment who are considering a substantial change in direction could be doing so because of changes in the economy and declining jobs in the area they work in now, or as insurance for a time when their current career was no longer possible, or due to changes in their own life circumstances. The mature aged students linked to the providers in our national consultations included many seeking a new career by upgrading their qualifications to a higher level, for example aged care workers seeking to become enrolled nurses.

People seeking to re-skill in order to enter the workforce include the following groups:

- people who have been retrenched

- retirees intending to start up a small business or to embark upon a different or less demanding type of work

- people wishing to enter or re-enter the workforce after some time away and

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[11] http://www.coag.gov.au/

- people on welfare being encouraged to do so via government policy changes and incentives.

Those mature age workers who engage with learning after a period of disengagement bring their fears, barriers and resistance to the class.

Palmieri (2007) in her environmental scan identifies some studies which take up access and pedagogical aspects, and which compliment findings emerging from the NIACE Older and Bolder Program over a decade. The findings on the learning environment preferences of the mature aged include:

- creating a safe, non-threatening environment with a different approach to learning in order to motivate and engage the diverse range of mature age workers (Gelade, Catts and Gerber, 2003)

- enabling factors include peer support, self-paced learning, mentoring, and tutoring (Taylor and Rose, 2005)

- effective use of virtual learning environments can enable many older students to gain confidence (Heaperman and Sudweeks, 2001)

- the potential of building online communities among older learners who are not oriented to computers (Schuller, 2003).

## *Older people and e-learning*

There is a large field of Australian literature on the topic of mature age learners and on the topic of e-learning. However, intersecting literature on the topic of the mature aged in e-learning is scarce. One intersecting literature piece is that by Taylor and Rose (2005).

These authors conducted research into strategies for the successful engagement of older learners in ICT learning in 2003/2004. They summed up the 'older learner profile' based on a survey of 50 mature aged learners engaged in ICT training in a variety of contexts as follows:

> *The overall picture is one of generally independent learners who have decided that ICT can help them meet a purpose, achieve a goal or in some other way enrich their lives, and, often, the lives of others in their personal circles or wider communities. They have a clear sense of their own purpose for acquiring new skills. The barriers to learning are largely those faced by all adult learners, compounded by the factor of being part of a generation that has not grown up with computer technology (p3).*

On the whole these learners had little previous experience with ICT, 55% had no ICT skills, 25% had basic skills, 16% had intermediate level ICT skills and 4% were advanced ICT users (p2).

Taylor and Rose nominated the following 10 characteristics of the mature aged as learners. They found that older learners engaged in ICT learning:

- are more likely to undertake short non-award vocational courses - aim is to gain skills rather than qualifications

- increasingly turn to community training providers for vocational and personal training

- prefer learning in an informal learning environment, in small classes or groups

- need slower paced, low intensity training and often prefer self-paced learning

- take increasing responsibility for their training and learning and for sourcing learning which meets their needs, constraints and learning-style preferences

- are often independent learners - self-directed and with a clear idea of their own purpose for undertaking training

- highly value peer support, mentoring and tutoring

- value and respond to supportive and responsive teachers, tutors and volunteers

- want clear and explicit instructions, with print and web-based resources designed to accommodate age-affected sight and hearing and

- generally feel more comfortable learning with a similar aged cohort.

We found similar views on the older person as a learner among those interviewed in the national consultations. These translated into the good practice characteristics that we discuss in Section 5 that follows.

# 5. Good practice in the role of e-learning for mature age learners

This section sets out the findings from the national consultations component of our study regarding current e-learning practices involving mature age workers (those over 45 years of age), among a range of both public and private providers throughout the nation. It outlines the current condition in the use of e-learning for mature age workers across the nation.

## *The providers interviewed*

Use of e-learning among the 30 interviewees dated back more than five and up to 10 to 12 years for some. The majority had four or less years of experience in e-learning (the interviewees are listed in Attachment 3).

An interesting feature that emerged was the way in which the people interviewed had directed their own professional development and fostering of expertise in respect of the role of e-learning in VET delivery.

There was evidence in the consultations of considerable professional development and fostering of expertise in respect of e-learning use in VET delivery. Those interviewed provided exemplars of systematic professional development, usually with a self-directed focus that often led to post-graduate study, including some PhDs in e-learning or fields relevant to e-learning.

The Framework's LearnScope program was often mentioned as having been a critical professional development opportunity, importantly, because it gave those involved time off from other duties and space to learn and build e-learning skills and resources. Some of both the private and the community based provider representatives had used LearnScope and other resources of the Framework, as had most of the TAFE representatives.

While there was considerable evidence in the consultations of sound professional development, there were also indications of issues that remained to be addressed.

Barriers mentioned in the interviews included:

- **the sheer busyness of VET staff in meeting a growing range of tasks**

  This sometimes led to professional development being crowded out by activities seen as more immediate priorities (ie not core business), suggesting the need for renewed affirmation of the essential nature of professional development in adapting VET to changing times.

- **some provider administrators not being positive about the use of ICT**

  There are dilemmas for administrators about the use of technology, and especially web 2.0 technologies that are banned in many education institutions. Some administrators were reported to be blockers to the use of ICT, perhaps for cost reasons, and

- **small providers being without a capacity to develop a professional support system.**

  Small private providers seldom had the capacity or resources to develop such systems. Those interviewed mostly were self taught, some with the assistance of software

companies and/or informal mentoring assistance from a public provider. In comparison, the TAFE organisations and larger community based and enterprise services organisations had support networks built up and in for ongoing professional development, tutoring and mentoring support.

## *Experience with mature age learners*

While there was substantial expertise in the role and applications of e-learning, it was also evident that the distinctive needs of older workers (as adult learners) were a more recent area of interest among the providers interviewed.

Although those interviewed brought considerable expertise in working with older people, usually in mixed age groups, the needs of older workers had not generally up to now been seen as a priority area for building the evidence base on needs and good practice.

We found in the consultations some interesting statements on the needs and preferences of mature age workers, and the implications of these for learning strategies that we discuss below.

## *Mature age learners*

In our national consultations we sought to clarify key characteristics of mature age workers engaged in e-learning by drawing on the findings of the market research conducted for ANTA, leading to a report in 2000.

This market research examined Australians' attitudes to learning. When a behavioural dimension, based on likelihood of learning in the next 12 months (in the year 2000), was added to the attitudinal dimension, adult Australians fell into eight groups or segments, along a learning continuum as shown in Table 6 below.

**Table 6: Australian adult learner types**

| 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. |
|---|---|---|---|---|---|---|---|
| Forget it | I'm done with it | Only if you make it easier | Been there done that | Almost there | Might give it away | Learn to earn | Learning leaders |
| 8% | 14% | 16% | 11% | 6% | 7% | 17% | 21% |

Source: ANTA *National Marketing Strategy for Skills and Lifelong Learning: Market segmentation report*, 2000.

We found mature age workers engaged in e-learning among the providers in our national consultations included:

- Large numbers from the 'learn to earn' market segment seeking upward career moves or a change of career. Others were return to work aspirants or retirees involved in e-learning for income supplementation purposes.

- A few were in the 'learning leaders' group, undertaking e-learning for personal reasons, including for volunteering. These were generally seen as willing learners rather than forced learners, although often they had low literacy levels and needed training in ICT skills.

- A majority with regard to e-learning could be said to fall into the learner categories of 'only if you make it easy' or 'almost there' but these usually needed to overcome some barriers.

## *Perceived barriers to mature age workers engaging in e-learning*

Those interviewed were invited to rate barriers to e-learning for mature age workers in terms of a four-point scale. The findings are summarised in Table 7 below. Teachers tended to see lack of ICT skills and literacy problems, and mature aged attitudes to education as the main barriers. These were not regarded as insurmountable. Those interviewees with broader management responsibility tended to view cultural barriers such as stereotypes about ageing, and the attitudes of the employers and younger workers, as more significant. To be noted however is that not all interviewees gave answers because they had observed a range of views.

**Table 7: Interviewees' ratings of barriers to e-learning for mature age learners**

| Barriers<br><br>List provided for comment- | *Very Important* | *Important* | *Some relevance* | *Not Important* | Number* |
|---|---|---|---|---|---|
| Stereotypes about ageing and retirement | 6 | 8 | 4 | 5 | **22** |
| Attitudes to older workers | 7 | 6 | 7 | 4 | **24** |
| Attitudes of employers and younger workers | 6 | 6 | 4 | 7 | **22** |
| Negative attitudes to education | 6 | 9 | 7 | 2 | **22** |
| Lack of ICT skills | 9 | 9 | 7 | 3 | **28** |
| Literacy problems | 6 | 6 | 9 | 3 | **24** |
| **Other barriers**<br><br>**Contributed by interviewees-** | | | | | |
| — Access to infrastructure | 2 | 1 | 0 | 0 | **3** |
| — Lack of self confidence | 0 | 1 | 0 | 0 | **\*\*1** |
| — Technical barriers (bandwidth and computers | 5 | 0 | 0 | 0 | **2** |
| — Poorly designed e-learning resources and programs | 1 | 0 | 0 | 0 | **\*\*1** |
| — Hardship/cost of training/funding | 1 | 0 | 0 | 0 | **\*\*\*1** |

*n=30 but not all interviewees gave answers because they had observed a range of views.

** This was mentioned by several interviewees in relation to other questions asked.

*** This was mentioned by several interviewees in relation to other questions asked and in relation specifically to aged care workers regarding costs to students

## *Benefits of e-learning*

There was a stronger consensus on the importance of the various identified benefits of e-learning from the learners' perspective than was the case in respect of the barriers question. All the listed benefits were regarded as 'Very important' or 'Important' by the majority of those interviewed. However, several commented that these benefits were achieved only if e-learning was done well and not all interviewees gave answers because they had observed a range of outcomes.

**Table 8: Interviewees' ratings of the benefits of e-learning for mature age learners**

| Value and Benefits<br>List provided for comment- | Very important | Important | Some Value | Not Important | Number* |
|---|---|---|---|---|---|
| Individualisation | 17 | 5 | 5 | 0 | **26** |
| Building identity capital | 18 | 5 | 2 | 0 | **25** |
| Flexibility | 19 | 5 | 0 | 0 | **25** |
| Fostering lifelong learning | 11 | 11 | 2 | 0 | **24** |
| Quality of learning | 11 | 8 | 3 | 0 | **22** |
| **Other**<br>**contributed by interviewees**- | | | | | |
| — Improving communities/connections | 4 | 1 | 0 | 0 | **5** |
| — Learning to learn | 1 | 0 | 0 | 0 | **1** |
| — Accelerated pathways | 0 | 1 | 0 | 0 | **1** |
| — Enhancing reflection | 0 | 1 | 0 | 0 | **1** |
| — Can track individual progress | 1 | 0 | 0 | 0 | **1** |

*n=30 but not all interviewees gave answers because they had observed a range of outcomes

There was a general agreement that e-learning can support an individualised approach to learning and that for the mature aged this was important given their diverse life and work experiences.

Identity capital was defined in the questionnaire as involving such qualities as confidence and self esteem, and hence a strong influence on the motivation and capacity of students to tackle and master new skills. This was a major theme during interviews.

The importance attributed to flexibility was to be expected, with all those interviewed regarding this as 'Very Important' or 'Important'. A common theme here was that it enabled people to work at their own pace and to absorb learning.

The benefits listed in Table 8 are linked in a number of ways and some of these connections were explored in the interviews. While there was some comment in the interviews on the links between flexibility and individualisation, these connections should be examined further. The Director of a TAFE institute in commenting on individualisation made the observation that this was still a game in progress with the goal not yet achieved. It may be expected that the ageing of the workforce will lead to increased interest in the personalisation of VET and the role of e-learning in progressing personalised strategies. Some commented that all learning should be individual client-focussed.

The strong recognition given to the impact of e-learning in fostering lifelong learning, with 22 of the 24 who gave a response regarding this as 'Important' or 'Very important' is a significant finding. This is significant in the context of an ageing workforce and suggests that further consideration will need to be given to ways that e-learning can encourage and support learning throughout life, with particular attention to key transition points into the various phases of life.

Once mature age learners have confidence in using technology, they generally go on to learn more uses of the technology and adopt more technology for learning purposes. This was a comment made by several providers. However, as one interviewee noted, a bad first e-learning experience is likely to put a mature age learner off this approach forever.

That e-learning improves the quality of the learning experience was a notion contested by a few people interviewed because they had observed that e-learning can be done well or badly. E-learning has the potential of increasing the overall quality of the learning experience if online resources and programs are well designed and other identified critical success factors are present.

Improving connections, thus providing learners with opportunities to interact with others who are living and studying in isolation in rural areas, was frequently seen as a key benefit. Interacting with other learners in related subjects was also seen as a benefit.

## *Good e-learning practices: the key to success*

Researchers have identified a range of key features which students believe constitute a high-quality online learning experience. The teachers and managers interviewed were asked to comment on these success factors. There was general agreement that the critical success factors relate to:

- responsive teachers
- quality materials
- accessibility and convenience

- interaction and communication
- responsiveness to preferred learning styles
- valid assessment

Several interviewees picked up distinctive features of the e-learning role with mature-age workers and suggested a few additional success factors as well as expanding on the success factors listed above.

The teachers and managers interviewed were of the view that anyone can develop the necessary skills to undertake e-learning. There was a strong consensus across the interviews on a few key points related to effective e-learning engagement and delivery strategies and resources for the mature aged. This suggested the following guidelines in provision for older workers:

- view the mature aged as they really are
- use blended learning strategies preferably[12]
- be clear about the reasons for and benefits of the learning; relate it to the previous life experience of older learners
- conduct a careful orientation/induction process
- build confidence, self esteem, and a sense of capacity to succeed (identity capital) in the orientation phase
- provide supporting, engaging, and rewarding learning environments;
- take older learners slowly along the technology use for learning pathway, and give them time to become familiar with new technologies; do not force the pace with web 2.0 technologies such as blogs and wikis but do test their suitability to your particular group of mature aged
- build motivation for lifelong learning
- look at  strategies to link e-learning into workplaces and
- gain support from the top levels of the VET organisation.

## *View mature age learners as they really are*

A paradigm shift is needed whereby today's older people are viewed as they really are rather than through the lens of outmoded stereotypes.

As outlined in the preceding section, the research evidence is that those over 45 years of age are often adventurous and keen to do new things in both work and life. They are willing to augment their skills through training, including their capacity and competence in using new technology.

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[12] Blended learning is taken to mean a combination of e-learning and face-to-face learning.

## *Use a blended learning and delivery approach*

The universal preference was for blended learning, a complimentary mix of traditional face-to-face teaching and learning techniques and new e-learning approaches. Some interviewees described face-to-face teaching and learning as the cornerstone and e-learning as value adding.

Online learning in isolation was seen as generally lacking the benefits of blended learning combinations.

As researcher Gance (2002) has said:

> *It is important to point out that there are lots of ways that computer based educational technology can be useful in education. But, if it is a constructivist learning environment we seek it is still out of reach to provide one using technology alone*

Gance provides the following summary of the main pedagogical components commonly associated with constructivism that has become the preferred approach to adult learning:

- a cognitively engaged learner who actively seeks to explore his or her environment for new information

- a hands-on, dialogic interaction with the learning environment

- a constructivist pedagogy often requires a learning context that creates a problem-solving situation that is authentic in nature and

- a social component often interpreted as actual interaction with other learners and with mentors in the actual context of learning.

One of those interviewed commented that a good face to face teacher will make a good e-learning teacher, so long as they rethink all that they do to ensure the social connection in the face-to-face teaching style is achieved in the online environment.

The universal preference for blended learning reflected a strongly held view that older learners needed personalised support with ready access to help, guidance and counselling. It also reflected a view that learning is a social process. Teacher and peer contact is fundamental to learning. People need to communicate to share their ideas and develop them, to problem solve, and to reflect.

A few interviewees remarked that a social delivery approach is possible fully online-it is about making a transition from the classroom blackboard to the electronic whiteboard and using online chat rooms and discussion boards that allow and enable synchronous and asynchronous interaction. Successes were reported in creating shared online spaces that provided social environments that mature aged students were actively using. One interviewee described their approach in remote conditions as fully on line but also fully facilitated.

When asked how the identified barriers to e-learning for the mature aged could be overcome, those interviewed pointed to design features of their e-learning products and programs.

Features identified that make up a well designed e-learning program included:

- a combination of delivery methods, with use of the blended delivery method preferably

- the use of a mixture of media-voice, pictures and text

- a mixture of techniques-sites to go to, and exercises to undertake.

- a range of pathways to the learning end-result to cater for different learning styles

- the conveying of the same message in multiple ways

- discussion at intervals either face to face or online and

- a mix of approaches varied over time to keep the learning interesting and fun.

It is worth noting here that a group of researchers in Western Australia, mentioned in the Palmieri 2007, have taken on the challenge of harnessing educational technology developments in order to deliver quality learning outcomes that are relevant to the needs of mature-age learner and take into account their specific needs and preference. Their project, *Knowledge Spaces*, uses learning object technology to develop educationally sound online learning environments for mature age learners. They have created an online research forum to promote a community of interest and practitioner network in learning environment models for mature aged workers (contact Paul Houghton at TAFE Central WA or Stephen Quinton of Curtin University of Technology, WA).

## *Be clear about the reasons for and benefits of the learning*

A significant theme to emerge in a number of interviews was that although many mature age people returning to the workforce had limited vocational qualifications, they had rich life experiences and skills.

Those interviewed in our national consultations, often commented that more mature age people are presenting to VET organisations wanting a career change, a first ever qualification based on their previous experience as well as gaps-skills development.  This was often to start and manage their own businesses and/or to return to work, or for volunteering purposes. They usually have busy personal lives as well as study aspirations.  They do not want to do unnecessary training.

As McIntyre (forthcoming) suggests, social marketing theory which embodies a form of exchange theory, is useful towards understanding an individuals' disposition to learning. That is, when adults decide to learn, they are weighing costs and benefits.

> *This explanation is useful in understanding why large numbers of adults do not participate in learning. It is one thing for an adult in skilled and secure employment to contemplate continuing learning, and another for those in underpaid and insecure work, or those not in work to consider this undertaking. The risk conditions for participation differ greatly—it is these risk conditions that will influence whether engagement in learning is seen as an opportunity, or not. … Thus mature age learners may decide not to participate in education and training because they perceive the personal and financial costs of investing in training to outweigh the likely employment payoff in a labour market that discriminates against older workers.  (p6).*

Schueler (1999) has reviewed other research and found that older people are usually more interested in particular skills than acquiring formal qualifications. The Lundberg and Marshallay (2007) study also found that older workers prefer specific skills training-and many favour 'train the trainer' courses to equip them to train or mentor younger workers.

In contrast Thomson, Dawe, Anlezark and Bowman (2005) found evidence that:

* education and training undertaken by older people can result in individual gains (employment or higher wages); the greater gains are for those who were previously unemployed, and for women more so than for men (the latter result possibly being because men have higher labour force participation rates to begin with) and

* labour-market related gains are greater for the mature-aged who complete higher-level qualifications. Gaining lower-level qualifications or incomplete qualifications may have a negative effect on labour-market related gains for some older people who undertake skill development activities.

The overall point is that the purpose of the learning needs to be clearly established.

One company involved in the interviews is giving consideration to how life skills can be built on in expediting the development of vocational skills. This is an important question for all VET providers working with mature age learners. The so-called employability skills incorporated in training packages are also life skills (and indeed innovation skills) so that the ageing of the workforce and the question of skilling mature age people returning to the workforce argues for a holistic approach that goes beyond a segmented approach to work and life.  While this issue is sharpest with mature age people re-entering work, it also exists with older workers in employment with rich life experiences.

### *Conduct a careful orientation/induction program*

There was a broad consensus in the interviews that a careful orientation/ induction process was required, especially for those with limited ICT skills, and /or literacy problems and negative or apprehensive attitudes towards education. Remember the mature aged need to adapt to being a learner again, that requires critical inquiry thinking. The intensity of the one to one component of induction generally varied with the assessed needs of the student and the context of teaching and learning.

TAFE and private providers induction programs often involved skills audit assessments done informally to determine both literacy skills levels in the broad, (that is, ICT and reading and writing skills) and individual's learning style preferences. Induction courses were then tailored accordingly, perhaps with those needing ICT and literacy skills support being streamed into a class of their own for the first week while the others made a start on the course content e-learning materials. Ongoing coaching support was also provided during the VET course proper.

### *Build confidence, self esteem, and a sense of capacity to succeed (identity capital)*

The need to build confidence and comfort and to enhance self esteem, in the orientation phase of programs was widely recognised in the interviews. Mature aged people can use technology but often they do not believe that they can when they first embark on the e-learning journey was a comment made frequently. For example, one interviewee was encouraged by a mature aged group to run a special class for them because they did not feel comfortable or capable in being in a mixed age class. However the mature aged group did the same course as the younger group, although without knowing this.

### *Provide supporting, engaging, and rewarding learning environments*

A number of interviewees returned time and again to the importance of building confidence, self esteem and the motivation to succeed. Building a supportive environment was generally seen as a key success factor. Effective support in terms of ready contact with mentors, coaches, tutors or lecturers for problem solving and one- on-one assistance as required together with encouraging peer learning were the particulars mentioned. While using a blended approach was widely advocated, the amount of support was generally seen as reducing as mature age learners develop their new skills in the use of technology.

### *Take older learners carefully along the technology—learning pathway*

We found the interviews reflected a general tendency to experiment with different components in blended strategies. For example, audio was said to be popular among the mature age learner, and good visuals and videos to reflect normal offices/workplaces as well as CD--ROMs and DVDs and a range of self assessment exercises. These included multiple choice questions, word puzzles, matching up using click and drag exercises. There was a general view that technologies should be used in ways that promoted student activity.

The components in the blend varied considerably depending on context (such as urban/rural/ remote), the nature of the students and course, and available technologies. We were told in a number of cases that band-width problems in rural and remote areas, and the absence of computers in many homes, limited the range of strategies that could be applied. However, all interviewees were attempting to use as many technologies as possible to cater for different learning styles and to make e-learning entertaining.

A typical example of the blend adopted in a particular course, largely intended for mature age students, is provided in the case study of the *Certificate III in Aged Care* offered by the Barrier Reef Institute of TAFE to a network of six towns and communities.

The web 2.0 technologies, such as blogs and wikis, were not in widespread use by those in the national consultations sample, even though they were widely acknowledged as social networking tools that provide the opportunity for students to create their own learning content. Many of those interviewed reported that mature aged students are wary of open source spaces. However some had had success with web 2.0 technologies from the beginning with their mature aged groups. Overall, there was a fairly general view that web 2.0 technologies need to be carefully tested with mature age students to determine their place in the ensuing e-learning journey.

To assist in thinking about emerging technologies and their educational relevance, a consultancy undertaken by educational[13] (2006) for the Australian Capital Territory as part of the Framework's activities has identified questions that should be asked. These include issues around teaching and learning outcomes; teacher acceptance; student acceptance and parental support; leadership in use and take-up; the availability of relevant, available and cost effective content; sustainability; resourcing; risk and extensibility; interoperability and integration; and applicability. Each of these has an associated set of implications for any particular emerging technologies.

The educational report describes many new technologies, their educational benefits, and identifies the main issues associated with their adoption. A decision matrix given in this report may be useful to consult.

## *Build motivation for lifelong learning*

The relevance of lifelong learning issues was recognised by those interviewed and it was suggested that a key benefit of e-learning for mature age workers lay in fostering lifelong learning.

The strong recognition given to the impact of e-learning in fostering lifelong learning, is evidenced by 22 of the 24 who gave a response regarding this as 'Important' or 'Very important'. Several providers reported that once mature age learners have confidence in using technology they go on to learn more uses of the technology and more technology for learning purposes. However, as one interviewee noted, a bad first e-learning experience is likely to put the mature aged off this approach forever.

This is significant in the context of an ageing workforce and suggests that further consideration will need to be given to ways that e-learning can encourage and support learning throughout life in various phases of life. Recognition of prior learning (RPL) is a key requirement in building motivation and one that technology can aid as mentioned below.

## *Look at strategies to link e-learning into workplaces*

An important need identified by some respondents was for strategies to link e-learning into workplaces. Employer support varied for existing workers undertaking e-learning within the workplace. Others focused on making greater use of e-tools to demonstrate work placement activities for assessment purposes (including through RPL), or as learning tools for others. E-portfolios appear worthy of further research.

## *Gain support from the top levels of the VET organisation*

This good practice guideline was mentioned by one interviewee and was considered very important. Transforming teaching and learning through the use of technology for the benefit of all

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[13] http://www.educationau.edu.au

stakeholders requires innovative e-learning practice to be embedded into learning strategies and this requires full support across the VET organisation.

Jasinski (2006) describes 'embedding' as

*…the final stage of an innovation process that starts with an initial decision to engage (adoption), moves to spreading the word (diffusion) consolidates in utilization (implementation) and culminates in embedding (integrate as core practice). To embed means to 'set in place' and to become an integral part of something. Embedding also has a nested connotation – one component is embedded within another.*

Jasinski suggests that to enable embedding of innovative e-learning practice requires a shift in emphasis from exploring technology tools to a need for better understanding of e-learning pedagogy, client perspectives and the demonstration of good examples of working models in local contexts.

To successfully embed an innovative practice may not only require the identification of a set of good practices to model or the production of implementation models and checklists of enablers. It also requires a mindset change. The real innovation may be to embed a way of thinking about innovation, learning and change into strategies and arrangements that drive cultural change in an organisation.

There is no doubt that embedding innovative e-learning is a challenge. It requires vision, will, determination and drive. Embedding is a lengthy process.  A three-year time-scale is suggested based on corporate models and input from VET contributors.

How to embed e-learning into VET delivery for the mature aged is addressed in the case studies that follow that give some contextualised examples of the good practices outlined above.

# 6.  Good practice:  the case studies

The good practice principles in the role of e-learning for mature age workers were illustrated by the four case studies that we undertook in this study. The full case studies are set out in a companion volume to this report.  Brief overviews are given below of the key features of each study.

The case studies conducted involved the following:

1. **Community Services and Health Program:  Gilles Plains Campus, TAFESA**

   This study shows how blended e-learning is embedded in a VET program in ways that demonstrate key success factors.

2. **Certificate III in Aged Care:  Barrier Reef Institute of TAFE**

   This is a study of a significant innovation in the use of blended distributed delivery to provide this Certificate III program to a network of six rural communities.

3. **Queensland Ambulance Service**

   The Queensland Ambulance Service shows how e-learning has been adopted by a state-wide service organisation as a key aspect of using education and learning in strategic ways to build a culture of continuous improvement.

4. **Adult Community Education providers**

   This study illustrates how four ACE providers are using e-learning to support outreach programs for mature age workers returning to learning and vocational pathways.

## *Case study 1:    Community Services and Health Program*

**Gilles Plains Campus, TAFESA**

The Community Services and Health (CS&H) Program at Gilles Plains Campus of TAFESA Adelaide North provides an example of flexible teaching and learning through the use of a blended delivery approach, a complimentary mix of traditional face-to-face classroom teaching and new, e-learning approaches.

E-learning is being used in CS&H programs at Gilles Plains largely for reasons of effectiveness, in order to achieve quality outcomes, a trained CS&H worker with the employability skill of being able to use technology.

The critical success factors for mature age student achievement through e-learning in this program include: a respectful approach, the use of an induction program, followed by constant practice of ICT skills in the process of building course knowledge in the classroom under lecturer supervision; and the ready availability of support at all other times.

The case study is a good example of how to embed innovative e-learning practice within a VET program.  It involved:

- an effective change agent

- an early adopter approach

- building to full implementation through others seeing the outcomes and benefits of the early adopters efforts and being encouraged to join in and

- promoting the innovations to management to gain their support and the integration of the e-learning concept into all aspects of the organisation.

Embedding e-learning in VET is a key strategic initiative of the Framework from 2008 that will build on the research report of Jasinski (2006), *Innovate and Integrate: Embedding innovative practices* and the follow up practical strategy development project managed by McCulloch (refer http://www.flexiblelearning.au).

## *Case Study 2:    Certificate III in Aged Care*

**Barrier Reef Institute of TAFE**

The *Certificate III in Aged Care* delivered by the Barrier Reef Institute of TAFE to a network of six communities in the region provides a best practice example of a program that harnesses e-learning to cater for the particular needs of mature age workers, especially older women returning to the workforce after an absence of some time.

This program has been developed in accordance with the blended distributed delivery strategy adopted by the institute in response to the needs of students in smaller rural communities where barriers to access, including the supply of specialist teachers, could not be overcome by traditional classroom methods. In this way, access is promoted for small groups of students in regional and rural communities such as Cannonvale, Charters Towers, Burdekin, Cardwell and Palm Island. Key features of the program include:

- the team approach adopted, including the role of local tutors

- the key role of video-conferencing

- the strong emphasis on a careful, initial orientation phase with individual support provided through the learning support team of the institute

- the way the institute has organised to facilitate blended distributed delivery with the Learning Futures Department having a key role.

These characteristics provide a framework for the effective use of e-learning for mature age workers with all components important in this integrated approach with technology as a tool.

The team approach involves the roles of teachers and tutors located in the communities in the network, the Learning Support Team while the Learning Futures Department provides an advisory role. Video conference plays a key role in the program linking the coordinator, teachers, tutors and students across the six communities in the program. The Learning Support Team provides support where needed in areas such as literacy and communication.

These characteristics support a learner-centred approach which is very well suited to the needs of older learners with a provision that is personal, social and flexible to a considerable extent. This model would seem very relevant to the needs and preferences of mature age workers in small rural communities which are often disadvantaged in access as thin markets.

## Case Study 3: Queensland Ambulance Service

The Queensland Ambulance Service (QAS) has harnessed e-learning as a tool in providing education and training to staff and volunteers in 277 Ambulance response locations across Queensland, including over 150 isolated, rural and remote locations (including those serving Aboriginal and Torres Strait Islander communities).

Many of the staff and volunteers supported are mature aged, so that the approach adopted by the QAS has had to take account of the needs and preferences of mature age staff in a wide range of locations. The QAS is faced with the challenge of developments in medical science and clinical practice with the consequence that updating the knowledge and skill of staff and volunteers requires ongoing improvement in the work of the QAS. For this reason, the QAS is committed to developing as a learning organisation.

These requirements, and the philosophy of the QAS as a learning organisation, set a framework for the role of e-learning as a tool of the strategic approach to education and training adopted.

QAS staff are encouraged to invest in their ongoing development as lifelong learning with the role of technology supporting this aspiration. The education and training strategies adopted combine the role of the School of Ambulance and Paramedic Studies located in Brisbane with the Education Online resource developed for the QAS to support education and training across the state, and the roles of Regional Staff Development Units located in the seven regions of the QAS.

The QAS Education Portal has a key role in providing access to a broad range of education material, supporting self-directed by staff, and enabling flexible access to learning resources whether at work or home.

Meeting the needs of staff in isolated, rural and remote locations has been a particular area of concern. A research study in 2004, commissioned by QAS and funded under the Framework, identified the characteristics of a blended learning model that would meet the needs of rural and remote staff in the over-45 age group.

This study concluded that learner engagement was the critical issue to be addressed, the study showed that older staff in such locations were eager to learn, but in their own preferred ways.

Their preferences involved:

- provision at the low end of the technology continuum, such as face-to-face and personal contact
- using technologies such as CD-ROMs, email notes, PowerPoints, and video-conferencing in ways that met the timeframes and pace of learning of these staff
- assessment strategies that recognise prior learning more fully.

QAS is having regard to these needs and preference in its use of e-learning in a learner-centred provision model. Support is provided through a Rural and Remote Practitioner Program.

The QAS case study illustrates how e-learning has been mobilised in a careful systemic way to meet the needs of staff and volunteers, including many mature-age workers in a range of locations across the state. In servicing as a tool of the learning organisation philosophy adopted by the QAS, e-learning is also an instrument for organisational development and the continuous improvement objectives of the QAS. This case study holds insights and lessons for other state-wide organisations with staff scattered in a range of locations.

## Case Study 4: Adult community education providers - drawing the mature aged into e-learning in community settings

In this case study we outline aspects of the activities of four ACE providers that demonstrated good practices in drawing mature age people back into learning through e-learning.

The ACE providers interviewed spoke of their just in time, just enough, just what they want approach to initial engagement. They invariably saw their role as to create spaces where mature age learners will feel at home and to respond immediately to the need that they articulate when they come into their centres (for example, "I want to learn the email to keep in touch with family") and then to encourage them to return to do more e-learning.

To draw in mature age learners the ACE provider goes out into the community. Those interviewed spoke of letterbox drops, newsletters, word of mouth, one on one encouragement discussions and engagement through social activities, for example a weekly open day lunch during which learning needs are informally discussed.

Successful engagement also involved taking time to induct the learner about e-learning and providing considerable support. They use a blended delivery approach. For example, supervisors and mentors are made available for face to face tuition at set times, many of whom are volunteers. Learners come together regularly to discuss issues of common interest and engage in peer learning.

The commitment of ACE providers to encouraging lifelong learning among the mature aged was also illustrated by this case study. The ACE providers in this study knew how their learning programs map into accredited VET courses and were seeking to create pathways into these courses for those mature age learners who wish to achieve credentials associated with their learning. They had, or were developing, partnerships with VET organisations (and TAFEs in particular) to extend formal learning opportunities through e-learning to their rural based adult clientele.

Nationally, VET should consider investing more in community education and training providers with their proven potential to increase the number of adults participating in e-learning for personal, volunteering and paid work purposes.

## The case studies overall

The case studies overall illustrate good practice in the role of e-learning for mature age workers in several key contexts. These involved a VET institutional setting, a network of locations across small rural communities, a strategic use by a state-wide service organisation, and the context provided by ACE providers as an entry point for mature age people in to learning and the acquisition of vocational qualifications.

Each of these case studies contribute to the portrait emerging from the study of the features of good practice in the use of e-learning for mature age workers, supplementing the insights gained from the consultations and literature search. The full case studies are contained in a separate report. Much will be gained by the further testing of guidelines developed from these studies in a range of other (than CS&H) industry contexts and local community contexts.

# 7. Conclusions

We have concluded that e-learning is particularly relevant to the learning and skill needs of mature age workers, when used in appropriate strategies, and when carefully managed to take account of the diverse needs and preferences of mature age workers.

In our consultations and case studies we found a general preference for blended e-learning and face-to-face learning strategies with the nature of the blend adjusted to the context and objectives. Such strategies bring flexibility in adapting to the needs of mature age workers.

Older workers may bring rich life experiences to supplement their vocational knowledge and skills, so that there is much value in holistic approaches that draw on life experiences as a vehicle for vocational learning.

Mature age workers should not be seen as a single group with defined characteristics, rather there is diversity in the market segments identified by ANTA, and by subsequent research. These segments present a continuum from not engaged (and unlikely to be engaged) to fully engaged.

Overall, e-learning strategies have evolved to become more sophisticated, and in general have become more personal, social and flexible. These attributes are particularly relevant to the needs and preferences of mature age workers.

The evolving role of e-learning in blended learning strategies is enabling provision to become more personal and adapted to the individual needs of learners. Personalised learning suits the diversity of needs, preferences, and life experience existing among mature age workers.

Social aspects of blended e-learning strategies, facilitated by technology, are also particularly relevant to the preferences of older learners where learning together is a popular approach, as the success of U3A (University of the Third Age)[14] in Australia and overseas demonstrates group and team learning strategies, such as action learning, fit well with the preferences of mature age workers.

E-learning strategies are enabling VET provision to become more flexible in time, place and mode of delivery. This flexibility is desired by mature age learners.

In the case studies, we observed how e-learning strategies are facilitated by a general framework of supporting concepts and ideas as, for example, in the commitment of the QAS to develop as a learning organisation dedicated to continuous improvement.

There was a general recognition in the consultations and case studies that e-learning and effective blended learning strategies can be an instrument for building motivation for lifelong learning in students with successful programs opening further pathways for students, and the motivation and confidence to pursue these. This effect applies as much to mature age workers as to students of any age.

Overall, we have concluded that the good practice we observed in the case studies and consultations holds insights and lessons that can be applied in other contexts. Much would be gained through further testing the insights gained from this study in other priority industry and community contexts.

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[14] U3A is an international movement for older people who want to continue to enjoy learning in later life. http://www3.griffith.edu.au/03/u3a/

# 8. The way forward

In the context of demographic change with an ageing workforce, there is a growing interest in the question of how e-learning can be harnessed in innovative ways in maintaining the skill levels and employability of older workers so as to contribute to meeting skill shortages by enabling these workers to remain in the workforce if they wish to do this. Supporting mature workers returning to the workforce after an absence is a key aspect of this issue.

This study has shown that e-learning can be harnessed in innovative ways that suits the learning needs and preferences of mature age workers, including those returning to the workforce. The good practice guidelines set out in Attachment 1 reflect the principles we have identified from this study.

However, adapting VET provision to the needs and preferences of mature age workers is a new priority for VET and much remains to be done in building the research base for sound policy, and mainstreaming good practice in the day-to-day operations of VET. There is a need for active follow up on this study both in extending the evidence base into new contexts, and promoting awareness and understanding of good practice in harnessing e-learning in maintaining the skill and employability of mature age workers.

We have therefore concluded that the following priority action is required.

1. The *Good Practice Guidelines* should be actively promoted in the VET sector, possibly including a program of forums for VET personnel and other stakeholders, and developed further in other key contexts.

2. The need for further research on the role of e-learning for mature age workers, including those returning to work after an absence, should be recognised as a VET research priority.

3. The Australian Flexible Learning Framework should take up the necessary advocacy role in promoting awareness in VET policy of the great potential of e-learning strategies in maintaining and enhancing the skill, knowledge and employability of mature age workers in the emerging demographic context of the new demography.

4. The potential value of e-learning in building a learning culture and habits in an ageing workforce should be seen as a national priority in addressing Australia's workforce leaning and skill needs.

We recommend that follow up action should be taken in these areas in progressing the necessary way forward in response to the challenge identified in this report.

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# Attachment 1: Good practice guidelines for e-learning use for the mature age

The guidelines set out below are based on the findings and lessons of this study, including our review of relevant research literature. They are brought forward as a draft set of guidelines that will benefit from being tested further in other industry sectors and community contexts. It is hoped that they will serve to stimulate ongoing dialogue on how e-learning can best be adapted to the needs of mature age workers, including people returning to the workforce after an absence.  In the present context of an ageing population and workforce, this is an important national issue.

The guidelines recognise the very general support for blended learning strategies that we encountered in the consultations and case studies. This raises the key issue of the nature of the blend in various industry, educational and community contexts. The guidelines also recognise the diversity of life and work experience among mature age workers and the consequent benefits from holistic approaches that draw these experiences.

## *Contents of guidelines*

1. Mature age workers
2. Their preferences
3. Build on their life and work experience
4. Implications for learning strategies
5. Make provision personal
6. Make provision social and fun
7. Build flexibility into learning strategies
8. The critical orientation phase
9. The role of technology
10. Build competence in learning to learn
11. Open learning pathways
12. Discuss, test and develop these guidelines further


**1. Mature age workers**

*Mature age workers bring distinctive life and work experience, needs and preferences which should be clarified and built on in e-learning strategies.*

a. Clarify their motivation for learning and acquiring skill.

b. Recognise the diverse range of needs and preferences, and life experience, among mature age learners so that the needs and preferences of particular market segments should be carefully assessed having regard to the market segments identified in this report and other research.

c. Identify particular learning and support needs relevant to the program to be undertaken, and provide guidance and support.

d. Personalise your approach to the extent feasible.

e. Dispel myths about older workers and recognise the reality of their capacity, context and preferences. Be proactive in dispelling discriminatory influences.

## 2. Their preferences

*Myths and stereotypes about mature age workers need to be dispelled and e-learning strategies based on the real needs and preferences of these workers.*

a. Many mature age workers wish to continue working, but in ways that are compatible with their lifestyle aspirations.

b. Part-time work combined with lifestyle choices, such as volunteering and community work, is popular.

c. Learning strategies should take account of these preferences.

d. Mature age workers typically weigh costs and benefits when deciding to continue working. Support this process in providing guidance.

e. They commonly wish to acquire particular skills rather than complete qualifications.

## 3. Build on their life and work experience

*Many mature age workers bring rich life experience, including in community activity. This can be a rich resource for learning strategies and can accelerate vocational learning.*

a. Holistic strategies that link life and work experience can add value, especially in people-related occupation such as community services.

b. Tapping life experience can be an effective motivation.

c. Learning strategies such as action learning can be very effective in drawing on the tacit knowledge in older learners and building new knowledge in collaborative ways.

## 4. Implications for learning strategies

*The characteristics and preferences outlined above should be built on in devising learning and training strategies incorporating e-learning for mature age workers.*

a. Determine their needs and preferences carefully.

b. Build a strong orientation phase to identify needs and develop confidence and motivation to succeed.

c. Aim, to the extent feasible, for education and training provision that is personal, social, and flexible.

d. Use technology, such as video-conferencing linking learners, in creative ways to advance these objectives.

e. Provide friendly and accessible support services.

f. Use blended learning strategies with the nature of the blend adapted to the objectives of the program and the characteristics of the learners.

## 5. Make provision personal

*Mature age learners, especially returning to work after an absence, respond to education and training that is personalised to the extent feasible.*

a. Individualised guidance and tutorial services are a key aspect of this approach, especially in the early stages of the program.

b. Technology when used in creative ways can be a key instrument for individualised and personalised provision. Explore this potential.

c. Mentoring can be valuable in personalised provision.

### 6.      Make provision social and fun

*Older learners respond positively to educational experiences that connect people in social situations, as the success of U3A and other adult education strategies testify.  Older learners like learning from each other and building on insights from shared learning and experience.*

    a.   Consider ways to extend social aspects of learning.

    b.   Technologies, such as video-conferencing, can be powerful tools for connecting people in learning situations and creating communities of practice as learning communities.

    c.   Web 2.0 technologies are opening new ways in which the social aspects of learning can be enhanced.

    d.   Action learning can be useful in connecting people for lively, shared learning.

### 7.      Build flexibility into to learning strategies

*Mature age workers prefer learning opportunities that are adapted to their needs and preferences in flexible ways, this includes flexibility in terms of time, place, and manner of learning. E-learning can be adapted to this requirement.*

    a.   Use e-learning strategies to build in flexibility in needs and preferences on mature age workers.

    b.   Make provision learner-centred to the extent feasible, this can be to a considerable extent.

    c.   Emerging technologies are providing new ways to achieve flexibility.

### 8.      The critical orientation phase

*The consultations and case studies of this study showed a general consensus on the critical importance of the orientation phase of the program for mature age workers.*

    a.   This should be planned on a team basis with all stakeholders (teachers, tutors, advisors, etc) contributing.

    b.   The orientation phase should set the tone for a friendly, supportive learning environment in which students are comfortable and at ease for learning.

    c.   A key task of the orientation phase is to build confidence, self esteem, trust and motivation to succeed, especially in learners who have been absent from education and work for some time.

    d.   Particular needs such as literacy and communication may need to be addressed in this phase.

### 9.      The role of technology

*Technology is a tool of learning that should be used in interactive ways that should enhance and deepen learning. Most research to date, including this study, has shown a fairly general preference by older learners to start at the low end of the technology continuum, with a measured progression. However, this depends on the characteristics of the group and the potential of web 2.0 technologies for older learners should also be explored and tested.*

    a.   Introduce selected learning technologies to mature age workers carefully in order to build confidence and motivation in their use for learning.

    b.   Individual differences matter and should be taken in to account.

    c.   These requirements should be considered in devising blended e-learning strategies in the determination of the blend.

    d.   Competence in using learning technologies in interactive ways is a key competence to be developed in older learners, as in all students.

## 10.    Learning to learn

*Learning to learn is a critical competence, now widely recognised which has been built into the VET employability skills. There was a general recognition in consultations and case studies that e-learning can be a valuable tool in building the motivation and capacity to continue learning throughout life. All the guidelines set out above are relevant to building this critical capacity in mature age workers.*

    a.   Use technologies and learning strategies in ways that encourage reflection by students on their own learning habits and styles.

    b.   Assist students to identify barriers in their learning habits and processes, and support their efforts to address these.

    c.   Set challenging tasks to stretch the learning horizons of students and support their progress.

    d.   A combination of individual guidance and team approaches (such as action learning) is likely to be effective.

    e.   Celebrate progress.

## 11.    Open learning pathways

*The consultations and case studies show the general recognition of the need to use e-learning to motivate and enable students to continue learning, and also showed success in this happening.*

    a.   Use e-learning in ways that motivate students to expand their learning capacity and continue learning.

    b.   Provide guidance and counselling to support this objective.

    c.   Convey the centrality of learning throughout life to active and productive ageing in work and life.

## 12.    Discuss, test and develop these guidelines further

*Using e-learning for mature age workers is a new priority for the VET sector and the research base is still at an early stage of development. We regard these guidelines as a work in progress that should be tested in a range of contexts and developed further.*

    a.   Promote a discussion of these guidelines in VET institutions and with partners.

    b.   Consider strategies in other industries and communities that can give effect to the guidelines.

    c.   Identify gaps in the guidelines and add to the guidelines.

# Attachment 2: E-learning and the mature aged - International Developments

Demographic change with an ageing population in many countries has stimulated considerable interest around the world in issues associated with an ageing population. The United Nations declared 1999 as the International Year of Older Persons (United Nations, 1999), stimulating action in many countries on issues linked with ageing populations.

Policies for active ageing and employability of older workers in the European Union are of particular interest because of the demographic imperative with more 55-64 year olds than 15-24 year olds in the original 15 EU countries by 2007 (E-Learning Age, 2005). This has led to a strong EU interest in expanding the activity and employment rates of workers aged 55+. E-learning is seen as one of the tools to progress EU policies for older workers.

Broad initiatives on ageing populations include:

- American White House Conference on Ageing (White House Conference, 2005)

- European Union's (EU) policy *Towards a Europe for All Ages* which set a framework for intergenerational development (European Commission, 1999)

- European Union's work on active ageing which accompanied the 1999 policy statement (Larsson, 1999)

- European Union initiated 1 billion euro program on digital technologies for Europeans to age well (European Commission, 2007).

While the White House Conference on Ageing and the EU policy for a …*Europe for All Ages* set broad policy frameworks for active ageing and harnessing the resources of older people for economic, social and cultural objectives, they also set broad principles which are relevant to the role of technology and learning for older workers. These include:

- a lifespan approach to active ageing

- transforming the world of ageing from a 'series of stove pipes' to a 21st Century system of coordinated services with new concepts and strategies (White House Conference, p.19);

- the need for promoting lifelong learning and for measures aimed at maintaining workers' capacities linked to flexible working arrangements (European Commission 1999, p.5).

The principles in the 1999 EU policy statement on a …*Europe for All Ages* has led to a significant research and development program at both the European and member county levels on key aspects of active ageing. The new one billion euro program on digital technologies for Europeans to age well will enable this work to be carried further in harnessing digital technologies to enable Europeans to age well, including maintaining employability for mature age workers.

A range of initiatives for older workers involving ICT have been implemented in EU countries such as Finland, Germany, Greece and the Netherlands. Some examples are set out below:

**Finland's National Program on Ageing Workers** includes training in ICT related skills. This is discussed below (http://pre20031103.stm.fi).

**Germany's Job Seeking Senior Citizens in Internet Cafes** provides courses through internet cafes for older unemployed people (http://www.soldw.de/arbeit!/content.htm)

**Germany's Senior Citizens Learning Online** provides internet training classes for older people (http://www.senioren-lernen-online.de)

**Germany's Innovative with Older Employees Project** analyses needs and requirements for older employees and strategies to encourage lifelong learning focussing on ICT. This led to guidelines for small businesses (http://www.rkw.de/projekte/thema1)

**Germany's Network Supporting Age-adequate Working Environments** is an internet based network to assist companies to cope with an ageing workforce (http://netab.de).

**Greece's eQuality Project** aims to support the needs of older workers in a range of ways including flexible working arrangements and innovative uses of ICT systems (http:///www.equality.ipet.gr).

**Greece's Valuing Knowledge and Competencies Acquired through Experience Project** aims to identify the training needs of older workers, develop an interactive data base of good practice, and foster the recognition of prior learning (http://hit.certh.gr)

**Ireland's Carers Teleworking Feasibility Study** focuses on training and career development for carers including the role of tele-work and e-work as options (http://www.telework.ie)

**Netherlands Teleworking Interpolis Initiative** by Interpolis, an insurance company, gives older workers flexible working opportunities through tele-working (http://www.interpolis.ni)

**Sweden's Lifelong Flexible Learning Supported by ICT** was developed by a municipality to provide training and education for adults, including older people through ICT (http://.www.cfi.se).

The initiatives listed above give a small sample of the many projects across EU countries designed to maintain the employability of older workers. A key feature of these initiatives in countries such as Finland and Greece is that e-learning serves as a tool in broader policies and strategies directed at meeting the needs of older workers which typically aim to coordinate initiatives to build flexible workplaces and training to maintain employability in ways that build synergies. European Union policy for active ageing adds the further dimension of seeking to coordinate social, economic and learning aspects of ageing in holistic, integrated strategies.

Finland provides examples of a coordinated approach to older workers through its 1998-2002 *Program on Ageing Workers* (Ministry of Labour, Finland). This program coordinated the action of the Ministry of Education, Ministry of Labour, and Ministry of Social Affairs and Health and included objectives such as:

- lifelong learning

- information society skills for all

- flexible working arrangements

- partnership building and

- work capacity maintenance.

Finland's lifelong learning policy provides a framework for a national approach to older workers with its focus on inclusion and meeting the needs of those with poor basic education and literacy and poor study skills. The program seeks to make adult learning attractive by structuring studies around participants' background so that learning by older workers is more individually tailored.

This brief overview of international developments point to the growing interest in maintaining the employability of older workers, and the range of innovation being implemented in the countries discussed. European Union countries are of particular interest in the light of the interaction of policies for lifelong learning, active ageing, and maintaining the employability of older workers with the integration of ICT into lifelong learning a key objective.

# Attachment 3: List of providers interviewed in the national consultations

**New South Wales**

| | |
|---|---|
| Jean Clendinning | Senior Manager Learning and Development |
| | Australian People and Culture Shared Services IAG, Sydney |
| Nandita Mathur | Senior Training Consultant |
| | Western Sydney Institute of TAFE |
| Christine Jarrett | Director Distance Learning Australia Pty Ltd |
| Dr Karen Ritchie | HT Access and General Education |
| | Parkes, Forbes, and Condoblin Campuses |
| | TAFE NSW Western Institute |
| Sue Reynolds | Griffith Adult Learning Association |
| | and Reynolds Horticulture Service |
| Kerrie Street | Streetwise Training and part-time teacher at |
| | Western Sydney Institute of TAFE |
| Tarlei Parker | Development Resources Co-ordinator |
| | Brain Corp |

**Queensland**

| | |
|---|---|
| Frances Howes | Director Products and Online Development |
| | Sunshine Coast Institute of TAFE |
| Maree Weatherford | Learning Support Officer for e-learning |
| | Ambulance Paramedics Section |
| | Queensland Combined Emergency Services Academy |
| Lyn Ambrose | Manager Information and Flexible Learning |
| | Southbank Institute of TAFE |
| Barry McKnight and Gary Wood | Director, Barrier Reef Institute of TAFE |
| | and Manager Blended Delivery |
| Carol Chambers | Manager Innovation and Learning |
| | Metropolitan Institute of TAFE |

Chris Sutton                    Surf Life Saving Association of Australia


**Australian Capital Territory**

Elizabeth McPherson            Dean, Faculty of Business and Information Technology,
                               Canberra Institute of Technology


**Northern Territory**

Kym Dixon                      Manager, Project Initiatives
                               Indigenous Policing Development Division
                               NTPFES Training College

Alicia Boyle                   Coordinator, Cooperative Research Centre for Desert
                               People
                               Charles Darwin University[15]


**Western Australia**

Terry Richards                 Director, Australian College of Training

Kay Heron                      Manager, Community Education
                               Challenger TAFE

Bruce MacAdam                  Director
                               McCusker Learning

Carl Forbes                    Operations Manager
                               BR Security Group Limited


**South Australia**

Shirley Smith                  Manager,  Milang Old School Community Centre

Barry Hollis                   Project officer, River Murray Training

Kassie Ulaj                    Training Manager, Training Prospects

Judy Fawcett                   Flexible learning coordinator and lecturer
                               Community Services and Health program
                               TAFESA Gilles Plains Campus

**Tasmania**

Andy Norris                          Manager,
                                     Adult and Community Learning Services


**Victoria**

Judy Lazarus                         Co-ordinator
                                     Beechworth Community Centre

Gail Harrison                        Co-ordinator
                                     Yackandandah Community Education Network

Tony March                           Self employed-tutor
                                     TAFE, ACE and university sector

Vanessa March                        Director, Innovation and Organisational Development
                                     Central Gippsland Institute of TAFE (GippsTAFE)

Margaret Aspin                       Director, Aspinonline

# Attachment 4: National consultation questionnaire - E-learning for mature age

Global Learning Services is undertaking this study for the Australian Flexible Learning Framework. A key component of this research is the building of a picture of current e-learning practices involving the mature aged (those over 45 years of age) among a range of providers throughout the nation. Thank you for agreeing to participate in our broad national consultation. The questions we wish to cover in our telephone interview with you are set out below.

*Peter Kearns and Kaye Bowman*

**Part I: Questions on your experience**

| | |
|---|---|
| 1. How long have you been using e-learning with mature age people | |
| 2. For what particular groups? <br><br> In what industries/occupations? <br><br> For what particular skills training? | • Group (age/gender): <br><br> • Industry/occupation: <br><br> • Particular skills training |
| 3. What segments of the mature age market were involved in terms of those given in Tables 1 and 2 of Appendix 1? | |
| 4. What engagement strategy did you adopt? <br><br> Did it differ by mature age segment? | |
| 5. What e-learning technologies and e-learning resources did you use? <br><br> Did it differ by mature age segment? | It may be possible to develop a learner type by learning technology matrix, for example <br><br> <table><tr><td>**Segment**</td><td>**Suitable technology**</td></tr><tr><td>low literacies</td><td>digital storytelling etc</td></tr></table> |
| 6. What delivery strategy did you adopt? <br><br> Did it differ by mature age segment? | |
| 7. What was the context of delivery? | |
| 8. What professional development did you have/or are you undertaking, for your e-learning work? <br><br> How adequate has it been? | |
| 9. What has your experience suggested are the particular value and benefits of e-learning for the mature age worker? <br><br> Which of the benefits listed across do you regard as the most important (see Attachment 2 for some explanation)? | Individualisation <br><br> Building identity capital <br><br> Flexibility <br><br> Fostering lifelong learning <br><br> Quality of l earning <br><br> Other <br><br> 1. Very Important   2. Important   3. Of some value   4. |

|  | Not important |
|---|---|
| 10. What does your experience suggest are the main barriers to effective e-learning strategies for mature age workers? | Stereotypes about ageing and retirement<br><br>Attitudes of older workers<br><br>Attitudes of employers and younger workers<br><br>Negative attitudes to education<br><br>Lack of ICT skills<br><br>Literacy problems<br><br>Other barriers<br><br>1. Very Important   2. Important   3. Of some value   4. Not important |
| 11. What does your experience suggest are the main enablers for successful engagement and delivery practice with e-learning for mature age workers?<br><br>Do you agree with the list in Attachment 2, are there things you would want to add? |  |

## Part II: Your views

In addition to your experience, we are also very interested on your view of how e-learning can be harnessed most effectively in maintaining the employability and skill of mature age workers, especially those returning to the workforce.

| 12. In what ways could the barriers you identified in Question 10 best be addressed? |  |
|---|---|
| 13. In what ways can e-learning strategies cater for individual need and diverse student bodies? |  |
| 14. Are there learning technologies and strategies particularly suited to engaging mature age learners? |  |
| 15. Do you favour blended learning strategies?<br><br>Why?<br><br>Which blend do you regard as most effective with mature age learners? |  |
| 16. What do you see as the implication of new learning technologies (eg web 2.0 technologies such as blogs and wikis) for e-learning strategies? |  |
| 17. What do you see as the main needs of mature age workers remaining in or returning to the workforce? |  |
| 18. Returning to Question 8: in what ways could the professional development of teachers for using e-learning with mature age workers be strengthened? |  |
| 19. What value do you see in learning community |  |

| | |
|---|---|
| strategies for the role of e-learning for mature age workers?<br><br>How can these be encouraged | |
| 20. What do you regard as the best learning environments for mature age workers? | |
| 21. What do you see as the main success factors for effectiveness in e-learning programs for mature age workers?<br><br>Do you agree with the list given in Attachment 2?<br><br>Are there factors you would like to add? | |

## *Appendix 1*

### Question 3 - Mature aged learner segments with regard to e-learning

Based on simplified market segments by each of four dimensions we suggest four basic types of mature aged learners with regard to e-learning.

**Table 1**

| Labour market position | Orientation to learning | Orientation to computers | Previous education |
|---|---|---|---|
| A. No clear job goals | Forced learners | Need ICT skills | Low other literacies |
| B. No clear job goals | Willing learners | Need ICT skills | Low other literacies |
| C. Have job goals | Willing learners | Literate in ICT | Have other literacies |
| D. Have job | Forced learner | Literate in ICT | Have other literacies |

# *Background to Table 1*

## Labour market position

The mature aged can be sub-divided into four segments, according to their position in the labour market and the general nature of their skills development interests and as follows:

- people in employment who wish to upgrade their skills to cope with changes in their existing jobs
- people in employment who wish to upgrade their skills in order to seek promotion in the same or a similar company
- people in employment who are considering a substantial change in direction and
- people not in employment who are seeking to re-skill in order to enter the workforce.
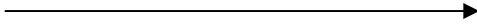
## Orientation to learning

A national survey of 3,866 people aged 16 and over, as part of the National Marketing Strategy for Skills and Lifelong Learning project of 2000, revealed four distinct adult learner types or segments based on their attitudes to learning, through the statistical process of factor analysis and cluster analysis:

- lovers of learning - value all forms of learning (32% of adult Australians)
- learners for earning - feel that only jobs and qualifications matter (31%)

- unrequited lovers of learning - perceive many barriers (22%) and
- learning...not on your life - (15%)

When a behavioural dimension, based on likelihood of learning in the next 12 months (in the year 2000), was added to the attitudinal dimension, adult Australians fell into eight groups or segments, along a learning continuum developed and shown in the following table.

**Table 2**

| 1. Forget it | 2. I'm done with it | 3. Only if you make it easier | 4. Been there done that | 5. Almost there | 6. Might give it away | 7. Learn to earn | 8. Learning leaders |
|---|---|---|---|---|---|---|---|
| 8% | 14% | 16% | 11% | 6% | 7% | 17% | 21% |

**Not engaged in learning**                                           **Fully engaged**

Source: ANTA national marketing strategy for skills and lifelong learning market segmentation report, 2000

**Adult types with regard to ICT other literacies**

Four types of learners can be distinguished:

- people with low computer literacy (and other electronic devices?)
- people with low language literacy skills (including low English language literacy)
- people with computer literacy
- people with all types of literacy.

# Attachment 5: E-learning: A brief overview of the current Australian situation

There is agreement that there is a need to ensure that everyone acquires functional ICT skills as evidenced by the existence of the Framework, the national training system's e-learning strategy. The focus of the first Framework (2000-2004) was on capability building. The focus of the second Framework (2005-2007) has been on client engagement, with the mature aged as a focus in 2007. Other client groups that have been a focus of detailed study include industry, community and Indigenous Australians and young people. The next phase of the Framework, from 2008 - 2011, is to focus on empowerment, of learners and businesses, to facilitate policy agendas eg upskilling, engagement in employment, engagement in community life, higher level qualifications etc.

While there has been a dramatic increase in the uptake of e-learning since the Framework commenced there is still a need to further increase this level of uptake.

## *E-learning among VET providers*

The Framework's 2005-2007 Capability Building Program had an accelerating impact across Australia with high levels of interest from VET practitioners in all aspects of e-learning eg exploration, creation, customisation, and teaching practices and management. It is important to note that it takes time for some people to embrace change, and small steps are necessary.

The 2007 E-learning Benchmarking Project conducted the third annual national survey of the uptake and use of e-learning by VET providers, VET teachers and trainers, VET students, and employers with employees undertaking accredited training. The surveys captured information on the use of e-learning in all TAFE institutes, private and enterprise training providers, ACE providers and VET in Schools providers.

The 2007 survey showed use of technology in VET has quadrupled in three years since the first benchmarking survey in 2005. The 2005 survey revealed 6-8% of VET activity involved technology, which rose to 17% in 2006 and now 29% in 2007. This could be in the form of computer-based learning resources, online course activities, using the internet, mobile or voice technologies, or online enrolment and assessment.

The 2007 E-learning Benchmarking Survey of registered training organisations (RTOs) indicated the uptake of e-learning in TAFE institutes and VET in Schools providers is higher than among other training providers. Our study also found that TAFE and ACE providers have greater e-learning capacity than do private providers.

The survey also revealed 57% of RTOs now use e-learning in some part of their training delivery, up from 49% in 2006. The survey showed 68% of VET teachers and trainers now use online resources, 64% accept electronic submission of students' work and 17% use web 2.0 or social networking technologies.

## *E-learning and the mature aged*

The 2007 E-learning Benchmarking Survey showed that VET clients continue to see e-learning as delivering flexibility in VET training and developing information and communication technology skills.

- 82% of VET students and 80% of employers said that e-learning is a more flexible learning option for students.

- 81% of students and 82% of employers said that e-learning increased students' computer skills.

- 70% of students and 68% of employers said that all people in the workplace need good computer skills.

For mature aged students the use of computers and technology in their VET courses has had the biggest impact on their confidence and abilities in these directions as the following chart shows that has been reproduced from the special *2007 E-learning Benchmarking Report on the Mature Aged* in line with them becoming a specific target client group of the Framework in 2007.

**Confidence and skills in using computers and technology**
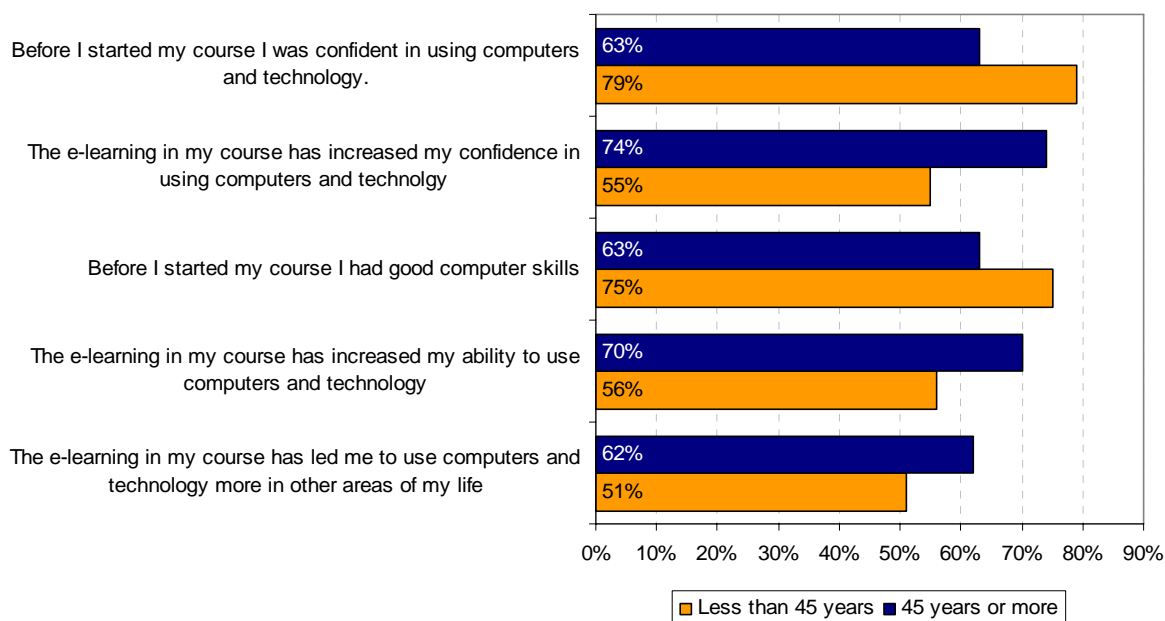


Source: Australian Flexible Learning Framework 2007 E-learning Benchmarking report: *E-learning for mature aged learners*.

Students aged 45 years of over made up 14% of the total number of VET student responses (1,121) to the 2007 E-learning Benchmarking Survey. They included more females and people from rural Australia than in the younger age groups. About one third were employed full time, one third part time and one third were not in the labour force. The mature aged learners were undertaking courses across a broad range of study areas including business and administration, education, health and community services, information and communications, tourism, engineering, horticulture and floristry.

The analyst Phillips (2007) found that e-learning experiences of mature aged learners are different to those of other VET students. These differences arise from these older learners' personal and work circumstances, the competing commitments for their time, and their experience in using ICT in the workplace or at home. These differences are greatest when compared with students aged less than 25 years, but in some cases vary significantly from students aged 25 to 44 years.

E-learning in VET clearly increases the confidence of mature aged learners in using computers and technology, and enhances their ICT skills. This outcome enhances employment outcomes where mature aged learners report not only that all people in the workplace need good ICT skills, but also that as a result of the e-learning in their course they are personally better able to do their job. This increased confidence in using ICT has also encouraged 62% of mature aged learners to use computers more in other parts of their life outside study.

In addition to the skills benefits, mature aged learners place significant value in the flexibility offered by e-learning. They value the opportunity to choose when and where they undertake their study, and the capacity to fit this around their work, family, social and recreational commitments.

As a result, 59% of mature aged learners indicated that e-learning was a factor in their choice of training organisation.

The benefits of this flexibility are reflected, although to a somewhat lesser degree, in the uptake of training providers' e-business services by mature aged learners. These learners are more likely to use e-business services than students aged less than 25 years, and are more likely to recommend these services to their peers.

When asked about preferences for e-learning in any future training, 80% of mature aged learners said they would like 'a lot' or 'some' e-learning in their course. This response was common across all age groups.

## *E-learning in Australian workplaces*

A 2006 survey by the Framework's Industry Engagement Project[16] of six industries use of e-learning found that 72% of respondents (of all sized businesses) used e-learning in structured training whilst 42% of respondents used e-learning in nationally recognised training. This reasonably high level of implementation already in existence, suggests the adoption of e-learning has been mostly self-motivated. Only 16% of respondents had received a Framework demonstration grant to implement their e-learning. The Framework's 2005-2007 Industry Engagement Project has funded businesses who trial and showcase e-learning as a solution to workforce training needs

Our national consultations also suggest that some business firms and service organisations are more advanced in their policy and strategy responses to the mature aged workforce issue than are VET providers. Enterprises are driven by imperatives in meeting current and impending skill shortages, and compliance requirements in raising the knowledge and skill of older people returning to the workforce.

The impact of these imperatives was observed in the interviews in several cases, including with a large national insurance company. It has a well developed *Mature Age Learners Strategy* which has been in operation for two years and which is currently being refined.

This has been accompanied by a research effort to focus learning strategies on identified needs. The insurance company, for example, in its future analysis of workforce characteristics has identified that it will need to respond to, within three to five years, recruits with life skills that can be translated into vocational skills, but without existing vocational qualifications. This will present a challenge to adapt learning strategies to this purpose.

The insurance company is structuring their learning strategies around a view of life changes. The growing significance of mature age workers in the context of the new demography with an ageing population means that development needs and preferences in successive phases of life assume increased significance in the determination of effective learning strategies.

Another example is the QAS where operational imperatives have driven policy to harness e-learning in meeting knowledge and skill requirements, including those of mature age workers. The QAS was chosen for case study and illustrates how it has harnessed e-learning in order to meet the evolving operational requirements of the emergency service located across the state.

## *E-learning in community contexts*

The research base also includes the role of ICT in a range of community contexts with a valuable set of case studies on *Community Connectivity* sponsored by the Department of Communications, Information Technology and the Arts (DCITA, 2005). While these case studies include learners of

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[16] The Industry Engagement Project aimed to increase the industry use of e-learning in workplaces by demonstrating the flexibility of e-learning to respond to and deliver on industry's workforce development needs http://www.flexiblelearning.net.au/industry

all ages, they point to ways in which social networks have been linked with technology to advance learning, community connectivity, and organisational effectiveness. Some of these strategies are relevant to the use of e-learning with mature age workers.

Typical initiatives include:

- Queensland Rural Womens' Network

- Australian Seniors Computer Clubs Association

- Capricornia Online

- Community Building in the Australian Chess Federation

- The Institute for Rural Fitness Network for Education, Ageing and Technology

- University of the Third Age Online

- The Smith Family Virtual Volunteering and Collaboration

- Department of Communications, Information Technology and the Arts (DCITA).

Such initiatives in the use of ICT in a range of social and community contexts provide a wider set of models in the consideration of how e-learning can be used to assist mature aged workers. We elaborate on these in the case study on ACE providers some of whom had been involved in the Framework's 2005-2007 Community Engagement Project and had a focus on the mature aged. A Strategic Review of the Community Engagement Project also offers insights into good practice e-learning for policy target groups (Bowman, 2007).

# For more information

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