

Later Life Learning:

Unlocking the Potential
for Productive Ageing

October 2010



National Seniors Australia
Productive Ageing Centre



Australian Government
Department of Health and Ageing

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FOREWORD

Engagement in learning throughout life has been linked to economic, social and health benefits. Unfortunately, individuals who are the most likely to benefit from continued learning are the least likely to participate. As older adults become an increasing proportion of the population, it is important to consider the role that later life learning may play in unlocking the potential for productive ageing.

This report was commissioned with a view to achieving three objectives:

1. To promote greater awareness of the significance of learning in later life and its relationship to productive ageing;
2. To stimulate more serious debate about the role, place and value of later life learning in Australia; and
3. To ensure that the educational needs of older people are included in wider Government policy.

This report shows that later life learning is different in scope, range, purpose, content and mode of engagement compared to the learning normally undertaken earlier in life. The challenge is to provide a broader range of suitable places where older people can come together to pursue interests together.

With increasing numbers of older adults in Australia, better policies in this area would lead to higher levels of wellbeing for many older Australians.

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October 2010

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INTRODUCTION

Lifelong learning is an iterative process of moving in and out of education throughout life. It encompasses a wide variety of activities, including learning undertaken in a formal classroom setting, non-formal classes such as University of the Third Age (U3A) courses as well as informal learning through reading books or participation in community organisations.

Approximately 31% of Australia's population is aged 50 years or older (6.8 million) and this is expected to rise to 40% by 2045 (12.9 million) (ABS, 2008a). Demographic change of this magnitude is unprecedented, and brings into sharp focus the relationship between an ageing population and changes in life cycle dimensions such as work, retirement, savings and leisure (Engelbrecht, 2008). Therefore, as older adults become an increasing proportion of the population, it becomes more important to consider the role that later life learning may play in unlocking the potential for productive ageing.

This report aims to generate a discussion of later life learning in Australia. To do this, it includes:

- a brief description of the many forms of later life learning;
- the economic, social, and health benefits of later life learning;
- a description of age differences in learning;
- the barriers to later life learning;
- an overview of international initiatives;
- a discussion of the current state of later life learning in Australia; and
- suggestions for changes in policy and strategies to improve support for and access to later life learning.

Later life learning in practice

Later life learning can be undertaken for a variety of purposes, including intellectual stimulation, formal accreditation, social interaction, workforce training, and civic participation. Later life learning is often thought to consist primarily of informal courses for personal development (such as those run by U3A). There are, however, a variety of forms of later life learning, including formal, non-formal and informal (Jarvis, 1986). In this section we will provide an overview of these different types of learning, as well as provide information about the uptake of learning by older adults.

Unfortunately, the only major recent survey on adult education in Australia was limited to participants up to the age of 65 (ABS, 2007a). Therefore, in this section, the term 'older adults' refers to individuals between the age of 45-64. Since involvement in learning is shown to decline with age, it may be assumed that the uptake of learning is even lower for individuals aged 65 and over.

Formal Education

Formal learning is education that is structured towards a formal award or accredited outcome. In 2007, only seven per cent of older adults (45-64) in Australia were participating in some type of formal education. The majority (80%) of these did so for work/career purposes. Sixteen per cent were doing so for personal interest or self-development. More than half (56%) of older adults participating in formal education were working towards a Certificate (ABS, 2007a).

Non-formal Education

Non-formal learning also refers to structured learning, but differs from formal learning in that it does not lead to a recognised qualification. It includes non-accredited workplace training, as well as education undertaken for personal development (such as courses at U3A). In 2007, 28% of older adults participated in some type of non-formal education (ABS, 2007a).

The majority of older adults who undertook non-formal education did so as part of a work-related course. The second most common reason for undertaking non-formal education was for personal interest or self-development (27%) (ABS, 2007a).

Informal Learning

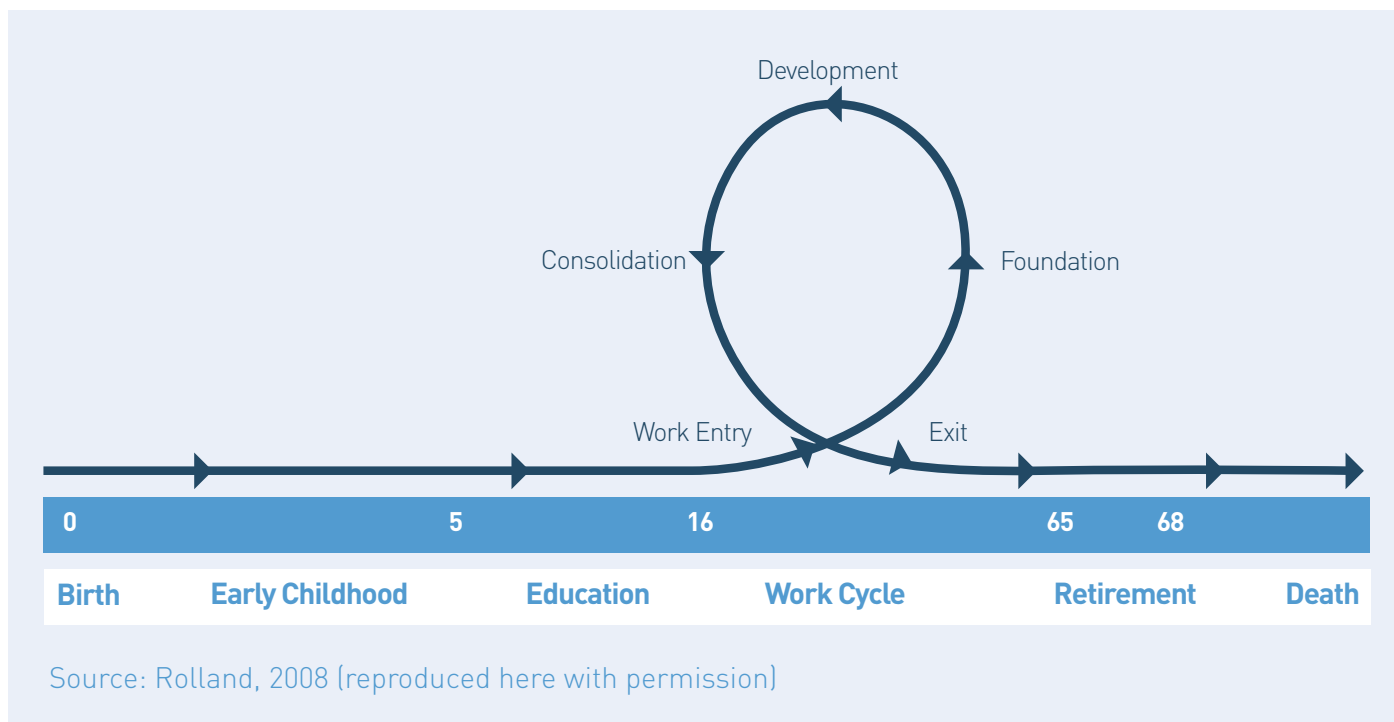
Informal learning refers to unstructured, non-institutionalised learning activities that are related to work, family, community or leisure. It can involve learning from a colleague or friend, reading journals or books, taking tours, taking part in hobby groups, or other similar activities. This is the most common type of learning undertaken by older adults—73% of older adults engage in some type of informal learning (ABS, 2007a). The most common type of informal learning for older adults is reading manuals or other materials, followed by internet/computer usage. Learning can also be the result of other civic engagement. For example, approximately 17% of Australians over the age of 50 do some type of volunteer work (ABS, 2007b) and volunteering can lead to increased knowledge about communities, organisations or activities.

Age differences in learning practices

Learning has traditionally been conceptualised as something which takes place early in life, prior to formal entry into the workplace. Figure 1 illustrates the traditional life course in the mid 20th century, with education occurring in childhood and young adulthood, followed by a single work stage and a full exit from the workforce at the age of 65.

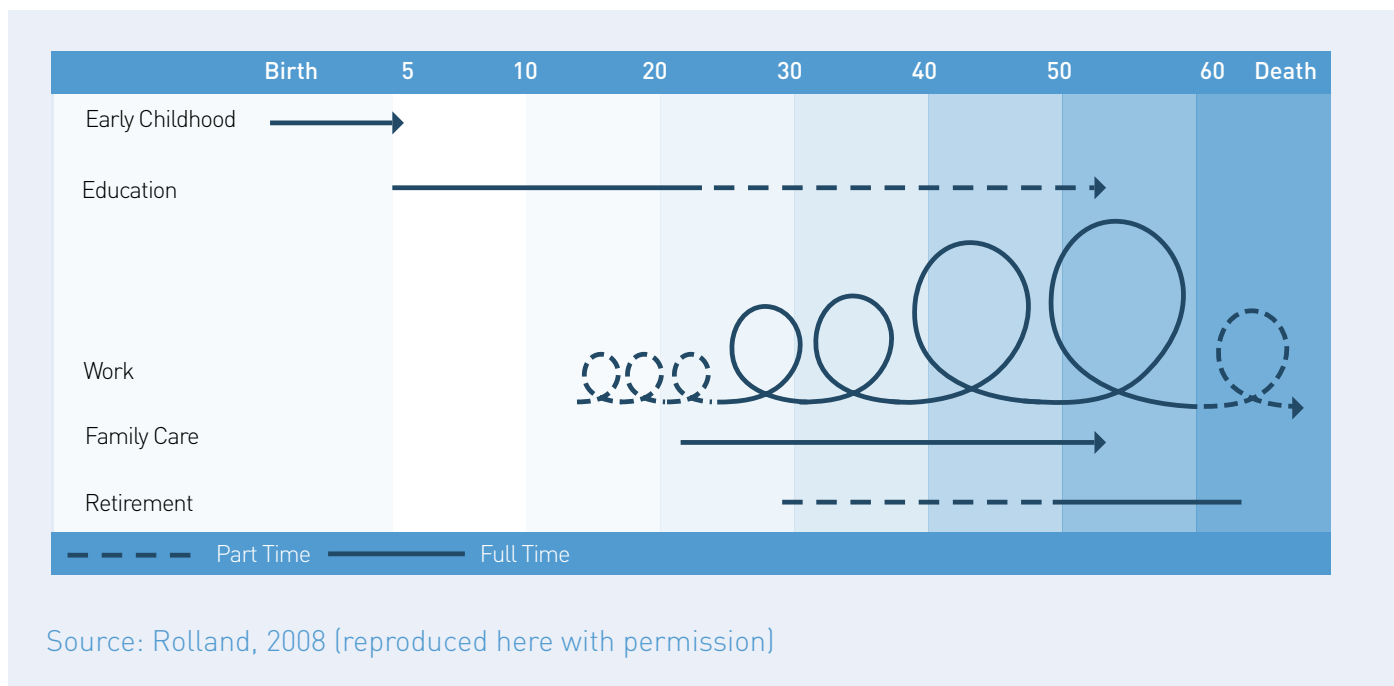
Figure 2 illustrates a different model of the life course which is more prevalent today. Individuals engage in education primarily in youth and young adulthood, but continue education sporadically throughout the lifespan, tapering sharply after the age of 50. In addition, individuals have varied occupational experiences, often changing careers multiple times throughout their life course.

Figure 1: Life Course in the Mid 20th Century



The typical life course in the mid 20th century includes only one 'work stage' loop, as individuals generally remained in one job throughout their working life.

Figure 2: Life Course in the 21st Century

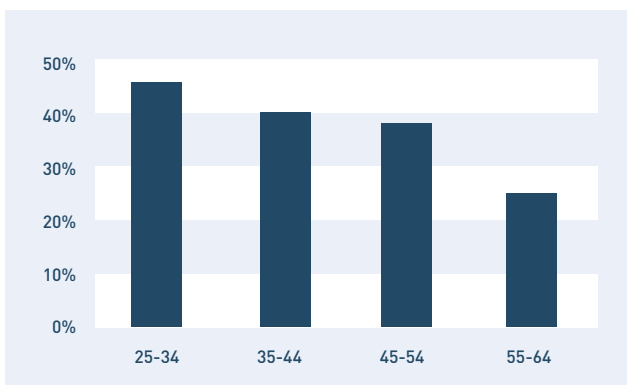


This model illustrates how individuals now traverse the work loop numerous times throughout life, with each loop representing a different job or role.

Learning in younger and older adults

Older adults are less likely to engage in formal or informal learning activities than younger adults (Figure 3). Unfortunately, individuals who are the most likely to benefit from continued learning are also the least likely to participate. Individuals with a high school certificate or lower are half as likely to participate in adult education or training as individuals with higher levels of education (Commonwealth of Australia, 2003).

Figure 3 : Participation in formal or non-formal learning by age



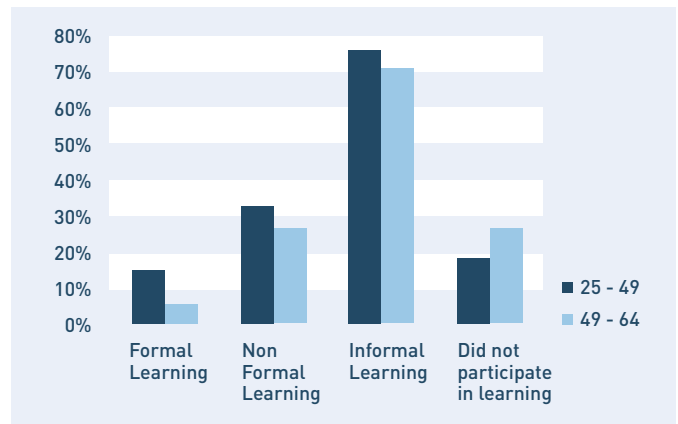
Source: ABS, 2007a

Similarly, older adults in Australia are more likely not to participate in any learning (26%) compared with younger adults (18%) (Figure 4). The largest participation discrepancy is in formal learning. Only 5% of older adults are involved in formal learning compared to 15% of younger adults.

Younger and older adults participate in formal education for similar reasons, mostly work related, that is, to get a job, as a requirement for a job or to get a promotion (ABS 2007a). Differences in participation may represent age differences in terms of preferences, career progression, and years until retirement, but may also indicate a difference in level of opportunity. Research suggests that older adults have fewer opportunities for on-the-job training, and may be less supported by employers to engage in formal learning activities (EFILWC, 2003). Older adults may also avoid formal learning

opportunities due to prior negative experiences or stereotypes of traditional educational situations (Findsen, 2003).

Figure 4 : Participation in learning by age group



Source: ABS, 2007a

What are the benefits of later life learning?

Engagement in learning throughout life has been linked to economic, social and health benefits. In this section we will provide an overview of some of the potential benefits of learning and how these benefits may be particularly relevant for older adults.

Economic

There are a number of potential economic benefits of learning, including:

- Acquisition of skills and qualifications, which may lead to improved employment opportunities and higher average wages (Learning and Skills Council, 2008); and
- Increased financial literacy and knowledge.

These benefits may be particularly relevant to older adults as:

- Older adults have lower rates of post-school qualifications and score worse on measures of numeracy and literacy than all other adult age groups (ABS, 2009; ABS, 2008b);

- Lower levels of qualifications and skills have been identified as a significant barrier to employment for older workers (National Seniors Productive Ageing Centre, 2009); and
- Older adults' score worse on measures of financial literacy compared to all other age groups and this puts them at greater risk for lost wealth as a result of poor financial decisions or planning (ANZ and Social Research Centre, 2008).

Social

There are a number of potential social benefits of learning, including:

- Connecting with individuals who have similar interests (MacKean, 2009); and
- Creation of social networks outside of the workplace.

These benefits may be particularly relevant to older adults as:

- Many older adults find that after retirement they lose many of the social networks associated with the workplace (van Tilburg, 1992); and
- 11% of older adults report not having contact with friends or family outside their home in the past week (ABS, 2007c):

The majority of adults reported an improvement in life satisfaction, self-confidence, self-image, or ability to cope due to engagement in learning (Dench & Regan, 2000).

Health

There are a number of potential health benefits to learning, including:

- Improvements in health knowledge as well as changes to behaviours associated with health, such as reduced smoking, and increased exercise (Feinstein, Hammond, Woods, Preston, & Bynner, 2003);
- Improvements in physical health (Aldridge & Lavender, 2000);
- Improvements to wellbeing and mental health (Commonwealth of Australia, 1991; Feinstein, Hammond, Woods, Preston, & Bynner, 2003); and
- Improved cognitive performance (Hultsch, Hammer & Small, 1993) and reduced risk for dementia (Wilson, 2002).

These benefits may be particularly relevant to older adults as:

- More than half of all individuals over the age of 65 have at least one type of disability and approximately 118,200 individuals aged 65 and over have dementia (Australian Institute of Health and Welfare, 2007);
- The majority (70%) of older Australians have inadequate health literacy skills that enable them to understand and articulate health issues to others (ABS, 2008b);
- Inadequate literacy has been found to be significantly associated with increased risk of hospitalisation with the probability of hospitalisation doubling in those with poor health literacy (Baker, Parker, Williams & Clark, 1998); and
- In a study of older learners, 80% reported an improvement in life satisfaction, self-confidence, self-image, or ability to cope due to engagement in learning (Dench & Regan, 2000).

Barriers to later life learning

In 2007, 378,700 older Australians (45-64) reported that they wanted to participate in learning but were not able to. The main reasons cited for not being able to participate was the learning being too expensive, being too busy, or health and ageing issues. (ABS, 2007a). In some cases, a lack of awareness of the wide range of learning opportunities might be reducing participation rates. Adult learning providers may be able to attract older adults by addressing some of these issues – such as providing courses that have lower costs, are flexible, and can be recognised for purposes of employment.

Costs

The costs associated with adult education vary with the type of learning involved, and the individual providers. Learning directed towards a formal accreditation is generally much more expensive than non-formal learning courses. For example, a single course towards a graduate degree at a university could cost upwards of \$1950. A single course at a TAFE towards a certificate can cost up to \$100. In contrast, taking non-formal courses at a community college, an adult and community education (ACE) provider or participating in U3A is much less expensive but may be limited in suitability and location.

Flexibility

Older adults may require more flexible learning opportunities than their younger counterparts due to various constraints associated with age. For example, older adults may have difficulty getting to classes. Over 20% of older adults (65 and over) report having difficulty with transportation and not being able to easily get to where they need to go (ABS, 2007c). Mobility may be another limiting factor; approximately 30% of older adults have a core activity restriction (ABS, 2007b). Caring responsibilities may also limit the time that is available to participate in these activities; approximately 13% of older Australians (50 and over) are providing unpaid assistance to a person with a disability (ABS, 2007b). Balancing

difficulties with transportation, mobility and caring responsibilities can mean that participating in learning activities is challenging.

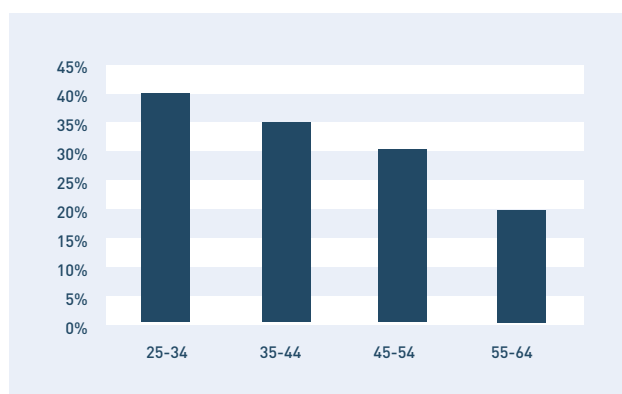
Recognition of Prior Learning

Informal learning can be accredited and recognised through Recognition of Prior Learning (RPL). The lack of recognition of previous experiences and vocational training makes it difficult for older adults to use this training to achieve promotions or improve their employability. Older adults are particularly vulnerable to this issue as the majority of learning opportunities undertaken by older adults do not result in a degree or accreditation (ABS, 2007a). In some cases, older adults report that without receiving recognition of prior learning, they would not have enrolled in further training courses (NCVER, 2009).

Awareness

Older adults may not be aware of the multitude of learning opportunities available. For example, individuals who report 'cost' as the barrier to participation in learning may be unaware of many of the low-cost options such as U3A or ACE. As seen in Figure 5, older adults are much less likely to seek information about learning opportunities compared to younger adults which may result in them having less knowledge of the opportunities that are available.

Figure 5 : Participation in formal or non-formal learning by age



Source: ABS, 2007a

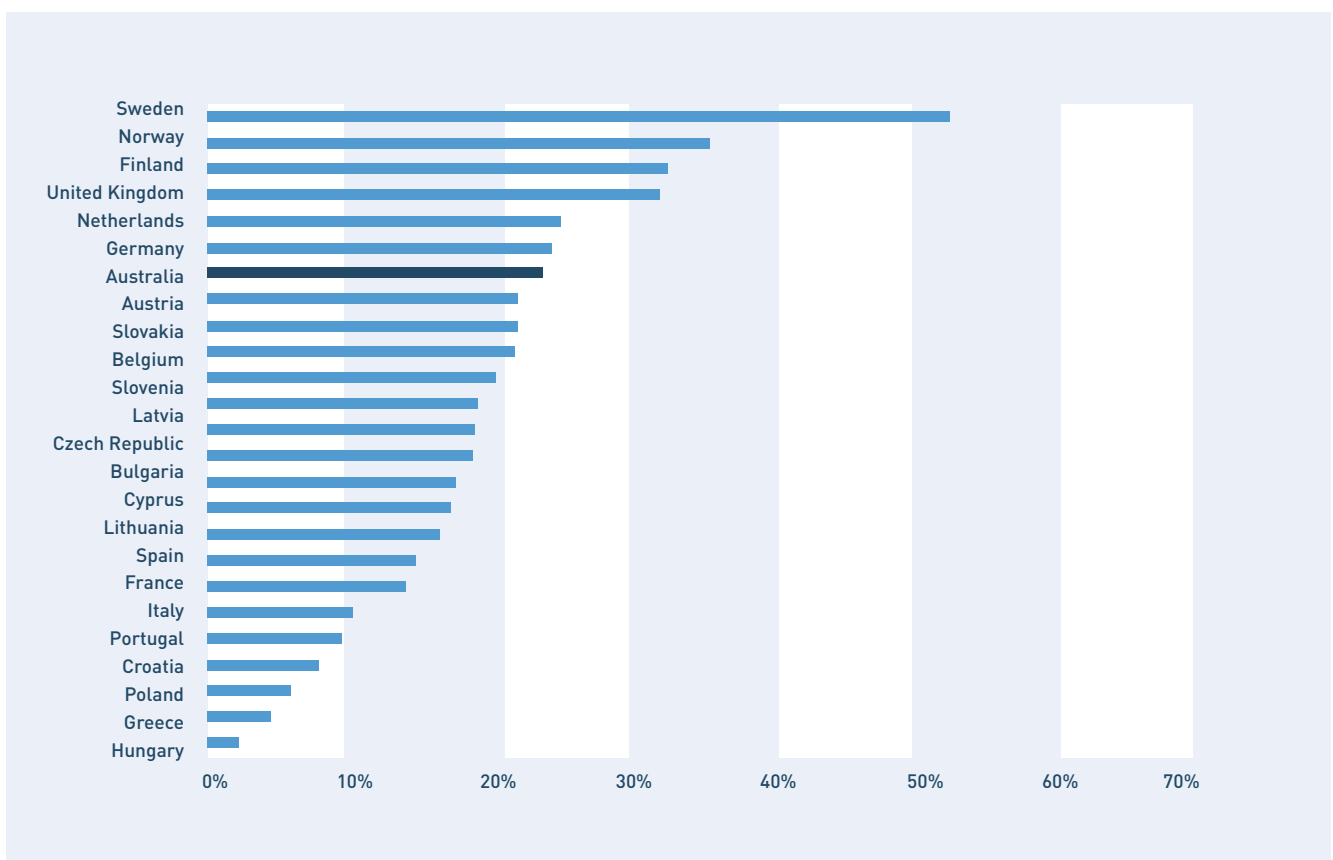
International comparisons

To provide a further discussion of later life learning policy in Australia, this section discusses a range of international lifelong learning initiatives for older adults. To begin with, it is important to examine how Australia compares to other countries in terms of participation in education in later life (Figure 6). Although the Organisation for Economic Cooperation and Development (OECD) only collects data on education that leads to an accreditation or degree (formal learning), it is possible to make comparisons with European countries on both formal and informal learning as Australia and Europe conducted similar surveys in 2007 on participation in learning (Figure 6). (European Commission, 2008; ABS, 2007a)

These comparisons indicate that, although Australia falls within the top ten European countries in terms of participation in later life learning, it still lags far behind some comparable countries. For example, in Sweden over 60% of individuals aged 55-64 are engaged in formal or informal learning, compared to only 25% of older Australians. Interestingly, Sweden also had the third highest labour force participation rate for individuals aged 55-64 in the OECD countries (NSPAC, 2009).

Since 1994, when both UNESCO and the OECD called for access to lifelong learning to be a priority, it has been on the agenda for many countries. In this section we will examine the policies and programs operating in countries with a high uptake of later life learning that are relevant for the Australian context.

Figure 6 : Participation Rates in Formal and Informal Learning by Individuals aged 55-64



Source: European Commission, 2008 & ABS, 2007a

SWEDEN

The focus of the Swedish education policy is to “make Sweden a leading knowledge-based nation characterised by high quality lifelong learning for economic growth and justice” (Sweden Ministry for Education, 2008). The government aims to create flexible opportunities for learning through offering various formal and informal pathways to adult learning. This includes:

- Formal education which corresponds to compulsory school programs and is free of charge.
- Language and cultural education for recent immigrants.
- Independent supplementary education which focuses on specialised topics.
- Advanced Vocational Education and Training which is a combined approach of education in school and training in enterprises.
- Study circles which are self-directed learning communities (these have the highest uptake of all adult education initiatives with 1.5 million participants in 2007).
- Labour market training which is designed to provide unemployed people with basic or supplementary vocational training.
- In-service training which is undertaken as part of a vocational role.

Other important initiatives include:

- Validation/recognition of informal and formal adult learning.
- All employees are entitled by law to unpaid leave of absence for studying.
- A National Agency for Flexible Learning (established in 2002) to support the development of flexible learning opportunities in adult education, study circles, and workplaces as well as establishing distance learning education courses.

NORWAY

Providing educational opportunities for adults is a core aspect of the Norwegian educational policy. Adult education in Norway occurs through the public education system, adult education associations, folk high schools, study circles, distance education providers, and the workplace. In 1999, the ‘Competence Reform’ was introduced in order to meet the needs for new skills and competencies in society. This reform introduced a number of initiatives, including:

- Recognition of prior informal or experiential learning, including using this to qualify for university placement.
- Mandated approval of leave of absence from employment for training, including a subsistence allowance.
- Tax relief for employer-funded training.
- Training and language courses for recent immigrants.
- Establishment of two government agencies to promote and disseminate information about adult learning, and enhance the flexibility of university education.
- Development of an internet portal that provides information on all educational opportunities in Norway.

Engagement in learning through the workplace is also considered a priority in Norway. Sixty per cent of employees report that their work is ‘learning intensive’. In 2005, the majority (86%) of Norwegian businesses offered formal or informal learning opportunities to their employees. Unlike Australia, individuals aged 55 and over in Norway have almost the same access to training opportunities in the workplace as younger workers.

FINLAND

As a small nation with few natural resources, Finland has seen education as a key to their economic sustainability. Adult education policy in Finland is therefore designed to provide a range of different opportunities and flexible choices. Adult education in Finland occurs through the public education system, universities, vocational institutes and centres, adult education centres, folk high schools, 'open universities' which allow students to register for a single course for a nominal fee, study circles and the workplace. Like Sweden, Finnish study circles are one of the most common types of adult learning. Most forms of formal adult education are free for students, such as courses leading to a vocational qualification, labour market training (for individuals who are unemployed or facing potential unemployment), and skills training. For less formal courses, there is a cost sharing arrangement in which students pay a subsidised fee.

In 2003, the Ministry of Education launched a program called 'Noste' which was designed to raise the level of education and training among the adult population in Finland. The aim of the program was to improve career prospects for individuals with few qualifications and to increase labour force participation, especially amongst older workers. Some initiatives of this program included:

- Outreach services.
- Free training to employees and benefits to employers for participation.
- Learning/training opportunities incorporated into current employment.
- Advice and vocational guidance.

UK

In order to reach the goal of becoming a world leader in skills, the UK has developed a number of initiatives designed to increase the skill level of all adults. Although these initiatives do not specifically target older workers, they are certainly inclusive of them.

One of these initiatives is the 'Train to Gain' program which is designed to encourage workplaces to provide flexible training opportunities to low skilled workers. Low skilled workers are specifically targeted as research suggests that high skilled workers are five times more likely to receive workplace training than lower skilled workers (Leitch, 2006).

In this program, the government provides funding to employers for providing training to meet Level 2 (equivalent to year 10) or Level 3 qualifications (equivalent to year 12). There is also funding available for apprenticeships, leadership and management courses, and for staff time spent in training. Over the past three years, this program has led to the training of over one million individuals.

The Australian approach

Adult education in Australia is provided by universities, TAFEs, Adult and Community Education (ACE), Vocational and Educational Training (VET), as well as more informal learning providers such as U3A and study circles. Providers of adult learning are represented by Adult Learning Australia which is a not-for-profit organisation funded by the Australian Government.

There have been a number of calls for research and investment in later life learning in Australia. For example, in 1997, a report of the Senate Employment, Education and Training References Committee recommended that the Commonwealth commission a report on the best practice in the provision of pre-retirement education and adult education programs targeting older Australians living in retirement villages (Commonwealth of Australia, 1997).

The government responded by stating that this recommendation would be partially addressed by the National Strategy for an Ageing Australia under the goal of “ensuring that there are appropriate opportunities that support lifelong learning and enhance the skills and interests of a larger group of older people” (Commonwealth of Australia, 2001).

In 2003, the Department of Education, Science and Training commissioned a paper on lifelong learning in Australia. The paper strongly recommended government funding for training, particularly for individuals with low skill levels: “If Australia wants to achieve increased participation in education and training among people with low skills who are disadvantaged in the labour market, the government will have to provide assistance to overcome the market disincentives and structural barriers they face.” (Commonwealth of Australia, 2003).

Despite the strong calls for investment in lifelong learning in these and numerous other government reports, there have been relatively

few initiatives to encourage or invest in lifelong learning in Australia, and no comprehensive national policy on learning in later life.

In 2005, Adult Learning Australia published a policy briefing paper on the state of later life learning in Australia. The report indicated that “weak policy now constitutes a principle barrier to wider opportunities for older people’s learning [in Australia]” (McIntyre, 2005).

The key recommendations arising from that paper included the need for a national policy on later life learning; the adoption of a more ecological approach to education and training instead of focusing on institutions, systems and sectors; a greater integration of adult learning with social structures and behaviours that influence the public’s view of the value of learning; and improving access to disadvantaged learners through learning community initiatives.

The current Australian Government acknowledges that skills development can play a role in promoting social inclusion for older Australians, however considers it is best delivered within a tailored package of support.

The importance of investment in skills development and human capital was most recently recognised in the Intergenerational Report 2010. The report highlighted the need for sound regulatory and policy statures “to improve the matching of existing skilled labour to demand, provide safeguards against skill shortages arising, and assist in ameliorating any that do arise” (Commonwealth of Australia, 2010).

In February 2010, the Australian Government announced a Productive Ageing Package (\$43.3 million over four years commencing on 1st July 2010). This package places an emphasis on supporting mature age people while they are still in employment. The package includes:

- Free professional career advice to support effective decision-making and planning for successful career transitions.
- Grants to employers to increase the capacity of their mature age workers to provide supervisory or mentoring support to apprentices or trainees in the workplace.
- Support to mature age workers whose job is at risk due to health conditions or disability by helping the worker to keep their job or transition to a new job with the same employer.
- Small grants to organisations to participate in the Golden Gurus Program, to provide new training and mentoring opportunities for their mature age skilled volunteers and small business mentors.
- Funding to deliver skills assessments and training to upskill existing workers aged 50 over.

The services provided through the package are relatively new concepts in Australia and they will be trialled over the next four years and evaluated to determine their effectiveness. The Government has announced that the package is a 'first step' and has formed a Consultative Forum on Mature Age Participation to provide advice about further measures to support the employment of mature age people.

Initiatives put in place by successive Australian governments in the last decade or so have been solely focused on formal learning and skills that increase vocational opportunities. It could be argued that later life learning in Australia has been subsumed in recent years by workplace training at the expense of other activities and programs across a variety of institutions, including private sector organisations, adult education agencies and higher education. This does not necessarily assist older adults who may benefit from the informality and flexibility of more informal learning opportunities, or may no longer be interested in participating in the workforce, but would still benefit from learning opportunities (McIntyre, 2005).

Unlocking the potential of later life learning for productive ageing

In order to meet the goal set more than a decade ago of “creating appropriate opportunities that support lifelong learning and enhance the skills and interests of a larger group of older people” (Commonwealth of Australia, 2001), and to reap the social and economic benefits of lifelong engagement in learning, it is important for the Australian Government and providers of adult learning to do more to address some of the issues and barriers which have been outlined in this report.

- Australia needs to develop an integrated and comprehensive forward-looking policy on later life learning. The development of this policy should include consultation with relevant stakeholders, as well as consumers. The policy should include the establishment of benchmarks against which this policy can be evaluated. For example, in order to assess the take-up of learning opportunities by older adults, future ABS surveys need to include individuals over the age of 65.
- Given the large social and economic benefits, greater investment in lifelong learning for older adults in Australia is warranted. This investment should continue to include benefits to employers for providing training for older workers, but expand to give access to low cost courses for individuals who are both in and out of the labour force, as well as support promotional activities to increase awareness about learning opportunities in later life. These initiatives should be focused not only on education which leads to vocational outcomes, but also on less formal learning opportunities.
- The relevance of international initiatives to the Australian context should be carefully considered, such as tax relief for employer provided training opportunities.
- The process of Recognition of Prior Learning should be streamlined in order to make the process accessible to older learners who may be more likely to engage in informal learning opportunities that do not lead to accredited outcomes.
- Adult Learning providers need to take into account the needs and preferences of older adult learners. This includes the need for flexible arrangements, and learning opportunities within close proximity to their homes. Professional development opportunities for educators of older adults should be made available to increase capacity and ensure that appropriate training standards for older learners are maintained.

References

- Aldridge, F. & Lavender, P. (2000), *The Impact of Learning on Health*, National Institute of Adult Continuing Education (NIACE), Leicester.
- ANZ and the Social Research Centre, (2008). *ANZ Survey of Adult Financial Literacy in Australia*, ANZ Banking Group, Melbourne.
- Australian Bureau of Statistics (2007a). *Adult Learning, Australia, 2006-2007*, Cat No. 4229.0.
- Australian Bureau of Statistics (2007b). *Census Tables, 2007*, Cat No. 2068.0.
- Australian Bureau of Statistics (2007c). *General Social Survey: Summary Results, Australia, 2006*, Cat No. 4159.0.
- Australian Bureau of Statistics (2008a). *Population Projections, Australia, 2006 to 2101*, Cat No. 3222.0.
- Australian Bureau of Statistics (2008b). *Adult Literacy and Life Skills Survey, Summary Results, Australia, 2006 (Reissue)*, Cat No. 4228.0.
- Australian Bureau of Statistics (2009). *Education and Work, Australia, May 2007*, Cat No. 6227.0.
- Australian Institute of Health and Welfare (AIHW) (2007), *Australia's Welfare 2007*, Cat. No. AUS 93, Canberra.
- Baker, D.W., Parker, R.M., Williams, M.V. & Clark, W.S. (1998), *Health Literacy and the risk of hospital admission*, *Journal of General Internal Medicine*, 13 (12), 791-798.
- Christensen, H. & Mackinnon, A. (1993). *The association between mental, social and physical activity and cognitive performance in young and old subjects*. *Age and Ageing*, 22, 175-182.
- Commonwealth of Australia (1997), *Beyond Cinderella - Towards a Learning Society*, report by the Senate Employment, Education and Training References Committee, Canberra.
- Commonwealth of Australia (1991), *Come in Cinderella: The Emergence of Adult and Community Education*, report by the Senate Standing Committee on Employment, Education and Training, Canberra.
- Commonwealth of Australia (2001). *National Strategy for an Ageing Australia: An Older Australia, Challenges and Opportunities for all* (reprinted with amendments February 2002), Canberra.
- Commonwealth of Australia (2003), *Lifelong Learning in Australia*, Department of Education, Science and Training, Canberra.
- Commonwealth of Australia (2004), *Consumer and Financial Literacy Taskforce*, Treasury, Canberra. (<http://cfltaskforce.treasury.gov.au/content/home.asp>.)
- Commonwealth of Australia (2010), *Australia to 2050: Future challenges*, Treasury, Canberra.
- Dench, S. & Regan, J. (2000), *Learning in Later Life: Motivation and Impact*, Research Report 183, Department for Education and Employment, Nottingham.
- Engelbrecht, C. (2008), *A case for the inclusion of educational gerontology in adult education programs in Australian universities*. Australian Digital Thesis Database: Queensland University of Technology.
- European Commission (2008), *Adult Education Survey*. (<http://epp.eurostat.ec.europa.eu/portal/page/portal/education/data/database>)
- European Foundation for the Improvement of Living and Working Conditions (EFILWC), (2003), *Age and working conditions in the European Union*, Dublin.
- Feinstein, L., Hammond, C., Woods, C., Preston, J., & Bynner, J. (2003), *The contribution of adult learning to health and social capital*, *Wider Benefits of Learning Research Report No. 8*, Institute of Education, London.
- Findsen, B. (2003), *Older adults' communities of learning and practice*, Keynote presentation, 43rd Annual National Conference of Adult Learning Australia, Sydney. (<http://www.ala.asn.au/conf/2003/Findsen.pdf>)
- Griffiths, A. (1997), *Ageing, health and productivity: A challenge for the new millennium*, *Work and Stress*, 11, (3), 197-214.
- Hultsch, D.F. Hammer, M., Small, B.J., (1993), *Age differences in cognitive performance in later life: relationships to self-reported health and activity life style*, *Journal of Gerontology*, 48, (1), 1-11.

Jarvis, P. (1986), *Sociological Perspectives on Lifelong Education and Lifelong Learning*, Department of Adult Education, University of Georgia, Athens, Georgia.

Leitch, S. (2006), *Prosperity for all in the global economy – world class skills*, Leitch Review of Skills Final Report, HM Treasury, London.

Learning and Skills Council (LSC), (2008), *Impact of Learning on Employability – Main Report*, Coventry.

MacKean, R. (2009), *Ageing Well: An Inquiry into older people's experiences of community-based learning*, Unpublished Masters dissertation, University of Tasmania, Hobart.

McIntyre, J. (2005), *Adult learning and Australia's ageing population: A policy briefing paper*. Adult Learning Australia, Canberra.

National Seniors Productive Ageing Centre (NSPAC) (2009), *Experience Works: The Mature Age Employment Challenge*.

Smith, L., & Clayton, B. (2009), *Recognising non-formal and informal learning: Participant insights and perspectives*, National Centre for Vocational Education Research (NCVER), Adelaide.

Rolland, L. (2008). *From Age to Life Stage – advancing our thinking about people & the work life course*, Ernst & Young, Melbourne. (http://svc032.wic135dp.server-web.com/00_pdfs/LouiseRolland.pdf)

Slagsvold, B., & Sorenson, A. (2008), *Age, education, and the gender gap in the sense of control*, *International Journal of Aging & Human Development*, 67, (1), 25-42.

Sweden, Ministry for Education and Research (2008), *National report on the development and state of the art of adult learning and education*. (<http://www.unesco.org/uii/en/UIIPDF/nesico/confintea/Sweden.pdf>)

Van Tillburg, T. (1992), *Support Networks before and after retirement*. *Journal of Social and Personal Relationships*, 9, (3), 433-445.

Wilson, R. S. (2002), *Participation in Cognitively Stimulating Activities and Risk of Incident Alzheimer Disease*, *Journal of the American Medical Association*, 287, (6), 742-748.

ABOUT THE NATIONAL SENIORS PRODUCTIVE AGEING CENTRE

The National Seniors Productive Ageing Centre is an initiative of National Seniors Australia and the Department of Health and Ageing to advance research into issues of productive ageing. The Centre's aim is to advance knowledge and understanding of all aspects of productive ageing to improve the quality of life of people aged 50 and over.

The Centre's key objectives are to:

- Support quality consumer oriented research informed by the experience of people aged 50 and over;
- Inform Government, business and the community on productive ageing across the life course;
- Raise awareness of research findings which are useful for older people; and
- Be a leading centre for research, education and information on productive ageing in Australia.

For more information about the Productive Ageing Centre visit www.productiveageing.com.au or call 02 6230 4588.



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