Tackling Foundation Skills in the Workforce
The Australian economy continues to change rapidly as we enter the digital age. These changes require an increasingly sophisticated workforce to deal with the complex economy. The Australian Industry Group has been concerned for some time about the level of foundation skills in the workforce. There are poor results from the Programme for the International Assessment of Adult Competencies (PIAAC) and our latest survey of employers indicates that 93 per cent of them identify low levels of literacy and numeracy having an impact on their business.

Our recent research through the Building Employer Commitment to Workplace Literacy and Numeracy Programs project established positive returns on investment for employers who participate in programs. These positive results strengthen the business case for employers to invest. In addition to other reasons for implementing workplace reform in this area, it now also makes good economic sense. We hope that all employers will heed these results and engage in foundation skills training for their workforce.

The Employer Champions Network, supported by us, has also showed some promising potential for employers to advocate for foundation skills training.

Promoting foundation skills to employers has been made difficult by the cessation of the Workplace English Language and Literacy (WELL) program. Some support is possible through the new Industry Skills Fund but in a significantly reduced capacity.

Employers continue to report major issues due to low levels of literacy and numeracy skills. These include poor completion of workplace documents (42%), material errors and wastage (32%) and teamwork and communication problems (28%).

We need to develop a stronger focus in this area. A national foundation skills strategy needs to seriously tackle workplace LLN, the employer champions networks need to be developed, our Return on Investment benefits for employers needs to be widely promoted and we need a new discrete workplace LLN program if we are to turn this situation around.

The demands of the economy keep increasing and are becoming more complex. We need a highly skilled workforce to meet these challenges. We cannot delay on this important national imperative any longer.

Innes Willox
Chief Executive
Australian Industry Group
KEY POINTS

- The Australian economy continues to evolve towards the digital economy requiring increasingly more sophisticated skills within the workforce.
- The expansion of ICT skills and technological advancement is changing the nature of employment.
- Occupations with high-educated workers are expanding much more rapidly than other occupations across the OECD.
- The mastery of literacy and numeracy is increasingly more important to meet the challenges of the evolving economy.
- International skills surveys reveal that Australia has significant numbers of working age adults below the minimum required levels of literacy and numeracy.
- The Workplace English Language and Literacy (WELL) program has been removed and only replaced in part through the Industry Skills Fund.
- Ai Group research has revealed that there are return on investment benefits for employers who participate in LLN programs.
- The Workplace Champions Network pilot highlights the benefits of using employers as LLN advocates.
- Ai Group employer survey reveals a wide range of workplace LLN problems including poor completion of workplace documents (42%), material errors and wastage (32%) and teamwork and communication problems (28%).
- Businesses seek to improve LLN through skill development support from supervisors or mentors (23%) and internal company training (21%).
- A national foundation skills strategy needs a more sustained focus, especially in terms of strengthening foundation skills in the workplace.
- Networks like the Employer Champions Network need to be developed.
- The Returns on Investment benefits for employers needs to be widely promoted.
- A new national workplace LLN program needs to be developed to improve upon the WELL program.
- The LLN teaching workforce needs to be supported and expanded to meet the LLN needs of the workforce.
A National Foundation Skill Strategy

1. The Australian Government initiate consultations with industry about the system implementation of strengthening foundation skills in the workplace.

Employer Champions Network

2. Networks such as the Employer Champions Network be developed to enable employers to advocate for foundation skills programs to other employers.

Return on Investment

3. The Australian Government, in collaboration with industry, develop and implement a national awareness campaign about the benefits to employers of investing in workplace foundation skills programs.

New National Program

4. The Australian Government initiate the process to develop a new national foundation skills program to be delivered in workplaces to directly address the identified and widespread low levels of literacy and numeracy in the workforce.

5. The Australian Government consult directly with industry about the development of the program and its implementation on a pilot basis.

LLN Education and Training Workforce

6. The Australian Government dedicate the resources to the expansion of the Language, Literacy and Numeracy Practitioner Scholarships Programme beyond 50 participants per annum and investigate the potential of linking the completion of scholarships to offers of employment.
The Australian economy continues to evolve and require higher level skills as it moves from the knowledge economy increasingly towards the digital economy. The OECD Skills Outlook 2013\(^1\) has noted the decline in the need for routine cognitive and craft skills and a growth in information-processing skills and other high-level cognitive and interpersonal skills.

“In addition to mastering occupation-specific skills, workers in the 21st century must also have a stock of information-processing skills, including literacy, numeracy and problem solving, and ‘generic’ skills, such as interpersonal communication, self-management, and the ability to learn, to help weather the uncertainties of a rapidly changing labour market.”\(^2\)

Access to use of computers at work and elsewhere is now widespread. In Australia worker access to the internet as part of their job is higher than the OECD average for all enterprise sizes: 97.5 per cent for companies with 10 – 49 employees; 98.8 per cent for those with 50 – 249 employees; and 99.9 per cent for those exceeding 250 employees\(^3\). Cisco’s 10th Visual Networking Index indicates that Australia will continue to experience exponential growth in internet usage. It is predicted that business traffic will double by 2019 with a compound annual growth of 14 per cent\(^4\). This is also increasing for access to public authorities and e-commerce is rapidly growing. The OECD reports that for Australia the volume of e-commerce in 2008 was eight times the level in 2001\(^5\).

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\(^1\) OECD Skills Outlook, 2013: First Results from the Survey of Adult Skills.
\(^2\) OECD Skills Outlook, 2013: First Results from the Survey of Adult Skills, page 46.
\(^3\) OECD Skills Outlook, 2013: First Results from the Survey of Adult Skills, page 46.
\(^4\) http://apjc.the CISconetwork.com
\(^5\) OECD Skills Outlook, 2013: First Results from the Survey of Adult Skills, page 46.
Notwithstanding Australia’s comparatively small population, it has a higher internet penetration than Europe, the Americas and the Asia Pacific.  

The change in employment by industry sector is reflected in the growth in the service sector. The fastest growth in this sector requires the highest level of skills such as finance, insurance, business services and real estate. These services are highly dependent on computer and ICT skills. The same is the case for high-technology manufacturing where growth occurs counter to the trend for an overall decline in manufacturing. A recent report has indicated that 44 per cent (5.1 million) of occupations are at risk of ‘digital disruption’ in the next 20 years and that 79 per cent of CEOs are concerned about the impact of changes in core technology.  

The recent report by the Committee for the Economic Development of Australia (CEDA) has noted that up to 40 per cent of jobs have a moderate to high likelihood of disappearing in the next 10 to 15 years as a result of technological advancement. 

There are significant shortages in digital skills which will become a basic skillset for the future workforce. CEDA has advocated that these be included as a core component of school education and that existing workers be reskilled as soon as possible. Indeed, “the teaching of digital literacy skills must continue into tertiary education and be a core component of ongoing workplace skills development.”  

There is also a shift in occupational structure with more than a quarter of all workers across the OECD being professionals, associate professionals or skill technicians.

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6 ITU World Telecommunication ICT Indicators database.
7 A smart move, April 2015, PricewaterhouseCoopers.
8 Australia’s future workforce, June 2015, Committee for Economic Development of Australia.
9 Australia’s future workforce, June 2015, Committee for Economic Development of Australia, page 162.
These categories of occupation are increasing more rapidly than the overall employment rates in most OECD countries.

On average, across the OECD, the share of occupations with highly educated workers has grown while the share with both medium and low-educated workers has declined. The same trend is discernible when classifying occupations according to routine and non-routine tasks.

In Australia this is reflected in the decline of occupations with manual skills such as labourers, machinery operators and drivers and so some extent, technicians and trade workers. In contrast, there is a relative growth in occupations requiring high levels of education and interactive skills such as professionals and community and personal service workers. Technological change, especially information and communication technologies, has enabled a substantial reordering of occupations within industries and a greater emphasis on interactive and cognitive skills.

Chart 2: Evolution of employment in occupational groups by education level
Percentage change in the share of employment relative to 1998, by occupational groups defined by workers’ average level of education.

Chart 3: Occupation by Employment 1993 and 2014

The spread of the globalisation of skills also has an impact. Production can be outsourced offshore from high wage or high cost locations to low cost locations in less developed countries with consequent implications for those workers with lower levels of literacy and numeracy.

Work re-organisation is increasingly common to support the introduction of new technology, to reduce costs and to improve productivity. Many workers experience restructuring and the changing demand for skills require workers to regularly learn and adapt.

Given the centrality of written information in all areas of life, workers must be able to understand and respond to textual information and communicate in written form. Many occupations now require the use of numerical tools and models. The presence of ICT in the workplace and the related changes in the delivery of many services make the mastery of literacy and numeracy skills even more important for full participation in modern life. A certain level of proficiency in literacy and numeracy is also a pre-condition for success in undertaking more complex problem-solving tasks.

The OECD has also reported that labour productivity and the use of reading skills are positively associated. Differences in the average use of reading skills explain about 30 per cent of the variation in labour productivity across countries.\(^{11}\)

The absence or underdevelopment of these skills represents a serious risk to the individuals affected and the economy.

“As the demand for skills continues to shift towards more sophisticated tasks, as jobs increasingly involve analysing and communicating information, and as technology pervades all aspects of life, those individuals with poor literacy and numeracy skills are more likely to find themselves at risk. Poor proficiency in information-processing skills limits adults’ access to many basic services, to better-paying and more-rewarding jobs, and to the possibility of participating in further education and training, which is crucial for developing and maintaining skills over the working life and beyond.”\(^ {12}\)

The OECD report claims:

“Enterprises and governments should invest in workplace-based literacy and numeracy programmes, and in training more generally, and develop forms of work organisation that allow all workers to engage, to a greater or lesser degree, in text-processing tasks.”\(^ {13}\)

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\(^ {10}\) Australia’s future workforce, June 2015, Committee for Economic Development of Australia, page 113.

\(^ {11}\) OECD Skills Outlook, 2013, First Results from the Survey of Adult Skills, page 148.

\(^ {12}\) OECD Skills Outlook, 2013: First Results from the Survey of Adult Skills, page 27.

\(^ {13}\) OECD Skills Outlook, 2013: First Results from the Survey of Adult Skills, page 138.
It is worth noting that the most recent international survey on literacy and numeracy, the Programme for the International Assessment of Adult Competencies (PIAAC), paints a bleak picture. In regard to literacy proficiency 44 per cent of Australians had skills below level 3, considered to be the minimum requirement to operate effectively in workplaces and society. This is only a slight improvement on the results from the previous international survey.

Chart 4: Literacy proficiency among adults

Countries are ranked in descending order of the combined percentage of adults scoring at Level 3 and Level 4/5.
In regards to numeracy proficiency the situation is even worse. In this area 55 per cent of adult Australians had skills below level 3. This is a deterioration on the previous results.

It is clear that a major literacy and numeracy problem persists in the general population and the workforce.

In the 2014 Commonwealth Budget the Workplace English Language and Literacy (WELL) program was discontinued. Commonwealth funded skills programs were consolidated into the new Industry Skills Fund which is a key element in the Industry, Innovation and Competitiveness Agenda. This fund will provide $476 million over four years for 250,000 training places for companies, especially for small – medium enterprises, whose needs cannot be readily met by the national training system. Targeted industries include health and biomedical products; mining, oil and gas equipment technology and services; and advanced manufacturing, including defence and aerospace which can meet particular requirements pertaining to the growth of their enterprises.15

Within this Fund it is expected that 74,300 support services (including mentoring and foundation skills) will be provided. The advice provided in relation to the Training Grant includes

“training that is accredited through state and territory systems, including Language, Literacy and Numeracy training”.  

Ai Group has been considerably concerned about the state of the literacy and numeracy levels within the workforce. This is a major issue that needs considerable and sustained attention. The end of the WELL program brings this into sharp focus. It is important to remember that low levels of literacy and numeracy act as a major barrier to the further achievement of technical skills, the very skills that are increasingly needed by the economy’s demand for higher level skills.

Ai Group research confirms the current situation regarding the low levels of workplace literacy and numeracy is a major concern to employers. It has a negative impact on productivity, labour mobility and the capacity of the economy to achieve the higher levels of skills needed for the increasingly knowledge-based economy. There remains an urgent need to address the language, literacy and numeracy needs of the Australian workforce.

In addition to the well-known results of the Adult Literacy and Life Skills Survey (ALLS) and the more recent Programme for the International Assessment of Adult Competencies (PIAAC) study, research undertaken by the Ai Group demonstrates that 93% of surveyed employers reported that low levels of literacy and numeracy were having an impact on their business. Ai Group and employers see a strong connection between improving workplace literacy and numeracy and lifting Australia’s productivity performance.

Ai Group has recently completed a significant national project in this area – Building Employer Commitment to Workplace Language, Literacy and Numeracy Programs. The major focus of this project was to establish the return on investment to employers who participate in the Workplace English Language and Literacy (WELL) program. Very positive results were achieved for employers demonstrating a key reason for participation in these programs. In addition to the benefits for participating employees, there is also a firm business case for employer investment in workforce literacy and numeracy.

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17 Getting it Right: Foundation Skills for the Workforce, Australian Industry Group, October 2013.
Intercast & Forge is one of Australia’s largest foundries of its kind, with significant domestic and export customers, including Asia, United States and Europe. The organisation manufactures for the railway, automotive, mining and earth moving, construction, and general industrial industries. The company creates customer specific solutions for manufacturing and cast iron products. It has a male-dominated workforce of around 200 staff. The type of work requires extensive WHS protocols and exact compliance with procedures. One element of the training was targeted at CALD employees who received customised LLN training in workplace, health and safety.

The number of CALD employees in the program was 25 and the average number of training hours per employee was 16. The focus on the training delivered to CALD workers was Workplace Health and Safety (WHS) operating alongside LLN training – the two are inextricably linked.

“An organisational culture survey showed that workers were struggling with LLN” Brian Tarry, General Manager, Human Resources

This has obvious implications for the company’s ability to comply with strict WHS protocols to minimise accidents, injuries and errors. The ROI calculation is based on hourly savings in time from workers and their supervisors. These hourly savings, summed over the number of trained workers and their supervisors, as well as downstream improvements in WH&S incidents, can assist with improving overall profitability of the enterprise.

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Total Project Costs</td>
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</tr>
<tr>
<td>Commonwealth Funding</td>
<td>$35,412</td>
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<tr>
<td>Employer Contribution</td>
<td>$11,004</td>
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<tr>
<td>Project Savings (staff time)</td>
<td></td>
</tr>
<tr>
<td>Hours saved per week correcting errors</td>
<td></td>
</tr>
<tr>
<td>Cost savings per week</td>
<td></td>
</tr>
<tr>
<td>A) Weekly wages of workers @ $20 per hour</td>
<td>1.5</td>
</tr>
<tr>
<td>B) Weekly wages of supervisors @ $40 per hour</td>
<td></td>
</tr>
<tr>
<td>Total labour cost savings (Sum of A and B)</td>
<td>$19,200</td>
</tr>
</tbody>
</table>
| Program Benefits/Program costs x100 = ROI             | $19,200/$11,804 x 100 | 163%
Through the National Foundation Skills Strategy (NFSS) Project a Foundation Skills Workplace Champions Network Pilot was introduced to support the progress of priority area three of the Strategy: Strengthening foundation skills in the workplace. The concept of Workplace Champions is outlined in the National Foundation Skills Strategy for Adults as follows:

The introduction of workplace champions will be important to creating workplace environments where people feel comfortable to seek assistance in relation to their foundation skills development needs. Workplace champions would act as ambassadors and promoters of foundation skills training and would help to connect employers and employees with information on foundation skills. Australian governments will work with industry to explore opportunities to establish a support network of workplace champions who will act as ambassadors of foundation skills learning within workplaces. 18

This pilot project aimed to identify effective approaches for strengthening foundation skills in the workplace through the actions of Workplace Champions. Specifically, the purpose of the pilot is to identify effective approaches for Workplace Champions to share information on foundation skills with other employers.

The pilot was conducted between October 2014 and May 2015. During this time, seven individuals were recognised as Workplace Champions and supported by the NFSS Project Team to perform an honorary role as public ambassadors for foundation skills in the workplace. Ai Group was engaged to provide support to the champions during this period. The pilot used a number of approaches for raising employer awareness of the benefits of addressing foundation skills in the workplace and for sharing information on the positive outcomes that have been achieved in the Workplace Champions’ own organisations.

18 National Foundation Skills Strategy for Adults, page 18
To embed LLN skill development in workforce training, Redarc participated in a three year training partnership with TAFE South Australia supported by funding through the Australian Government. The program enabled TAFE trainers to work flexibly with the company to customise training and delivery approaches specifically for the needs and context of Redarc employees – ensuring that training addressed workplace priorities and directly benefited the company. All staff at Redarc are entitled to two hours of training per week and the achievements are recognised and celebrated by the company. Training is conducted during business hours, either on the job or in the company training room, and staff are paid for their time participating in training.

Over the three years, the LLN program provided different types of support and skill development opportunities for staff throughout Redarc, including:

- Communicating for success
- Quality at Redarc
- Literacy and numeracy for apprentices
- Introduction to statistical process control
- Computing skills and Excel applied skills
- Occupational health and safety
- Supervision for team leaders

Redarc is the 2014 Telstra Australian Business of the Year. The company’s success is reflected in its increasing sales overseas and its recent doubling of factory size. To maintain market edge, Redarc invests heavily in research and development, new production systems and ongoing staff development.

Anthony Kittel, Redarc CEO and Managing Director noted many direct benefits from the LLN program.

“Confidence is a key benefit. There is more active participation in team meetings, increased understanding of business processes, greater contribution to quality improvement, improved communication within the teams and with the team leaders, increased skills in completing workplace documentation, increased confidence in the use of ICT technology, both at work and at home, and an ability to build on current knowledge of skills and transfer the learning from the various training programs.”

Anthony Kittel, CEO and Managing Director
Keys to success

Anthony Kittel identifies features of Redarc’s LLN program that contributed to the program’s success:

- an organisational culture that values and empowers staff
- use of specialist trainers from TAFE SA who customise training to particularly suit Redarc
- a wide range of LLN training along a continuum to address all workplace needs.

A national foundation skills strategy needs continued support especially for the workforce literacy and numeracy component. The workplace champions’ pilot program has demonstrated potential to increase industry engagement. The Ai Group is prepared to continue to play a supporting role in employer networks of this type.

In terms of programmatic responses, the only two avenues are via State and Territory publicly funded Foundation Skills programs or the Commonwealth funded Industry Skills Fund. At this point it is not known to what extent literacy and numeracy measures are addressed through the Fund. In any case, the total size of the Fund is only 250,000 places over four years. The data available through the international surveys such as PIAAC indicates that there are over four million workers currently experiencing low levels of literacy and numeracy.

Given this, it is timely to consider a new co-contribution program to replace the former WELL program. A new program would be based on the experiences of WELL but significantly involve a number of improvements. It would be based on tighter outcomes for both individual participants and employers. The use of the Australian Core Skills Framework could be mandatory to measure individual improvement and return on investment measures could be utilised to demonstrate benefits to the employer including direct linkages to productivity. The program could also be nationally accredited through the use of the Foundation Skills Training Package adapted to suit particular workplace needs. This combination of measures could be implemented through a pilot program in concert with industry.
The Survey of Workforce Development Needs addressed the issue of workforce literacy and numeracy. Employers were asked about the impact of low literacy and numeracy skills on their business and reported the following:

A range of impacts on the business were recorded and the most prominent were:
- poor completion of workplace documents and reports (almost 42%)
- material wastage and errors (almost 32%)
- teamwork and communication problems (over 28%); and
- time wasting (over 27%).

These were also the same areas reported in the 2012 survey although all responses were higher.

**Chart 6: Impact of low literacy and numeracy on business**

<table>
<thead>
<tr>
<th></th>
<th>Impact</th>
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</thead>
<tbody>
<tr>
<td>Teamwork problems / communication problems</td>
<td>26.24</td>
</tr>
<tr>
<td>Recruitment difficulties</td>
<td>12.62</td>
</tr>
<tr>
<td>Financial miscalculations</td>
<td>8.97</td>
</tr>
<tr>
<td>Staff lack confidence / unwilling to take on new work</td>
<td>19.93</td>
</tr>
<tr>
<td>Material wastage / material errors / non-compliance</td>
<td>31.89</td>
</tr>
<tr>
<td>Potential for workplace injuries or unsafe work practices</td>
<td>15.61</td>
</tr>
<tr>
<td>Time wasting</td>
<td>27.24</td>
</tr>
<tr>
<td>Poor completion of workplace documents / reports</td>
<td>41.86</td>
</tr>
</tbody>
</table>
In relation to company size all small, medium and large companies reported poor completion of workplace documents and reports as the major issue ranging from 31.9 per cent (small enterprises) to 48.6 per cent (medium enterprises). Material wastage and errors was also high for all size enterprises: large 26.3 per cent, small 31 per cent and medium 33.1 per cent. The impact of time wasting was also high for all categories: large 21.1 per cent, small 21.1 per cent and medium 31.7 per cent.

Employers were also surveyed about their responses to address these issues. The most common responses were skill development support from supervisors or mentors (22.9 per cent) and internal company training (20.9 per cent). Participation in the Workplace English Language and Literacy (WELL) program was quite low at 7 per cent which continued the pattern from the 2012 survey where it was 7.1 per cent.
There were some significant differences in responses according to company size. In relation to participation in the WELL program large enterprises participated at a significantly higher rate (21.1 per cent) than medium (7 per cent) and especially small (1.7 per cent) sized companies. This suggests that the WELL program was more suited to large companies or was well known by them.

Skill development support from supervisors or mentors was the largest response from large enterprises (31.6 per cent) and medium enterprises (28.2 per cent) but not small enterprises. Internal company training was the largest response from small enterprises (14.7 per cent). Indeed, small enterprises had the lowest responses for all categories suggesting a greater level of difficulty dealing with this issue.
Tackling Foundation Skills in the Workforce

WHAT NEEDS TO BE DONE

NATIONAL FOUNDATION SKILLS STRATEGY
This strategy was released in September 2012 with a target after a decade of at least two thirds of working age Australians securing the literacy and numeracy skills to take full advantage of the opportunities afforded by the new economy. This equates to level 3 or above of the PIAAC standard. To date there has only been a minimal focus on element three of the strategy – strengthening foundation skills in the workplace. Indeed, the only supported initiative has been a pilot of the Employer Champions network.

Networks like the Employer Champions Network need to be developed. The lessons learnt from the pilot program indicate that employer-to-employer promotion of the program is potentially a powerful means of spreading workplace awareness in this area.

Beyond this there is a need to significantly expand the focus and associated initiatives of workforce foundation skills. There is little chance of reaching the strategy target or improving our international performance without such a focus.

RETURN ON INVESTMENT
The recent project completed by the Ai Group with assistance from the Australian Council for Educational Research clearly demonstrates that employer investment in foundation skills training produces returns for employers. In addition to other reasons for investing in this type of training, there is now a business case to support the investment. The Ai Group believes that this is a powerful message to convey to employers to encourage them to make this investment in their workforce. This research has contributed to making the link between productivity and investment in foundation skills training. The Ai Group would welcome the opportunity to work with the Australian Government to promote this message widely to employers.

NEW NATIONAL PROGRAM
The removal of the WELL program has left a significant gap in the national provision of foundation skills programs in the workplace which will not be met through the operation of the Industry Skills Fund. As indicated, a new program would be based on the experiences of WELL but significantly involve a number of improvements. It would be based on tighter outcomes for both individual participants and employers. The use of the Australian Core Skills Framework could be mandatory to measure individual improvement and return on investment measures could be utilised to demonstrate benefits to the employer including direct linkages to productivity. The program could also be nationally accredited through the use of the Foundation Skills Training Package adapted to suit particular workplace needs. This combination of measures could be implemented through a pilot program in concert with industry.

The Ai Group is prepared to participate in the development and trial of such a program.

BUILDING EDUCATION AND TRAINING WORKFORCE CAPABILITY
A key ingredient for the development of the National Foundation Skills Strategy is to address the need for qualified LLN practitioners. The introduction of the Language, Literacy and Numeracy Practitioner Scholarships Programme has provided assistance in this area. This initiative provides scholarships of up to $5,000 for approved study towards an adult LLN qualification for up to 50 participants per annum. There have been five rounds of applications and almost 300 scholarships awarded since 2010. While this initiative does assist in the development of the LLN workforce the volume needs to be increased and there are no offers of employment upon completion of the program.

