



Reach of Workplace Literacy and Numeracy Fund 2018 and impact of
the Employer-led strand

Anne Alkema and Dr Nicky Murray
Skills Highway

June 2019

Table of Contents

Reach of Workplace Literacy and Numeracy Fund 2018 and impact of the Employer-led strand	1
<i>Introduction</i>	3
<i>Key point summary</i>	3
<i>The WLN Fund</i>	3
Reach of the WLN Fund	4
<i>Size of programmes</i>	4
<i>Ethnicity</i>	5
<i>Other demographic data</i>	5
<i>Regional comparison</i>	6
<i>Industry comparison</i>	6
Impact of EWLN programmes	7
<i>EWLN programmes</i>	7
<i>WLN fosters lifelong learning</i>	8
Outcomes for learners: The case for reporting wellbeing, social, and economic outcomes	8
<i>Wellbeing outcomes from EWLN</i>	10
<i>Social outcomes from EWLN</i>	12
<i>Economic outcomes from EWLN</i>	14
Workplace outcomes from EWLN	16
Literacy and numeracy skills	18
Conclusion	18

Introduction

This report uses data supplied by the Tertiary Education Commission on the uptake of the Workplace Literacy and Numeracy (WLN) Fund in 2018. This includes:

- quantitative data from 19 Tertiary Education Organisations (TEOs) who ran 1,576 programmes in 2018 with 5,179 employees
- quantitative and qualitative data from 32 employers who ran programmes funded through the employer-led strand (EWLN) for approximately 1,203 learners¹ from mid 2017 and throughout 2018 and who submitted final reports prior to March 2019
- qualitative data from success stories written on EWLN programmes run in 2018.
- application forms for the Skills Highway Champion Awards in 2018.

This report follows four previous studies on the WLN Fund² and where possible, comparisons are made to the findings from the Skills Highway (2018) report.

Key point summary

- The WLN fund continues to reach those identified in the Survey of Adult Skills (PIAAC) as having the lowest skills – by demography and industry.
- Literary and numeracy proficiency gain is difficult to determine as the providers in the TEO-led strand are not required to provide Literacy and Numeracy for Adults Assessment Tool (LNAAT) results and not all of the employers report statistically significant results for employees.
- The literacy and numeracy practices of employees in EWLN programmes e.g., oral communication, report writing, and form filling, improve during programmes in so far as employees use their skills more often.
- In EWLN programmes employers report that:
 - the knowledge and skills of employees improve
 - the confidence of employees increases
 - wellbeing and social outcomes accrue to most employees and economic outcomes to some of them
 - improved workplace efficiencies coincide with an increase in employees' knowledge and skills.

The WLN Fund

According to the Funding Determination the purposes of the WLN Fund are to:

- a. Increase the literacy and numeracy skills of employees; and

¹ The “approximate” figure is because one employer provided no demographic data, but their application was for 20 employees. Thirty-one employers provided demographic data for 1,203 employees.

² Alkema, A. (2015). *Maximising the benefits of the workplace literacy fund*. Wellington: Tertiary Education Commission; Alkema, A. (2016). *Workplace literacy fund: Employer-led outcomes report 2013-2015*. Wellington: Industry Training Federation; Alkema, A. (2017). *Reach and impact of the workplace literacy and numeracy fund 2015/2016*. Wellington: Industry Training Federation. (Unpublished Report); Skills Highway. (2018). *Reach of workplace literacy and numeracy fund 2018 and impact of the employer-led strand*. Wellington: Industry Training Federation.

- b. Contribute to workplace productivity through the provision and evaluation of literacy and numeracy learning in a workplace context.³

As such, programmes run through this fund look to develop the knowledge and skills of lower-skilled workers so they are better able to do their current jobs and better placed to pursue qualifications and/or higher-level roles.

The WLN Fund sits at around \$20-\$22mil a year. It has two strands.

- Strand One, TEO-led: whereby TEOs are allocated 80 percent of the total fund 'on plan'.
- Strand Two, Employer-led: whereby funding is contestable and available through applications from employers. Note this latter allocation can vary on a yearly basis depending on the availability of funding.

Since 2017, all learners are eligible to receive between 25 and 80 hours of tuition.

Reach of the WLN Fund

This section of the report describes where the programmes are delivered, to whom they are delivered, and in which industries they operate.

Size of programmes

Over the period under consideration, there were 1,203 employees in 31 EWLN programmes. These programmes varied in size from 18-70 employees, with a median of 36 and average of 38.

In the 1,579 TEO-led programmes the number of employees delivered to varied from 1-197. Of these, 72 percent (1,143) were delivered to one person in a company. Anecdotal evidence suggests these employees often go to the provider, rather than the provider going to the workplace. These employees either self-refer or go on the recommendation of their employer. The programmes that the majority (93 percent) of these employees attended were delivered by providers in the not-for-profit sector. A further 230 programmes were delivered to between two and five employees. This delivery is similar to that in 2017.

However, at the other end of the spectrum, 38 programmes were delivered to between 20-86 employees. This is an increase in the number of programmes being delivered at scale since in 2017 where there were only 11 programmes being delivering to these higher numbers of employees.

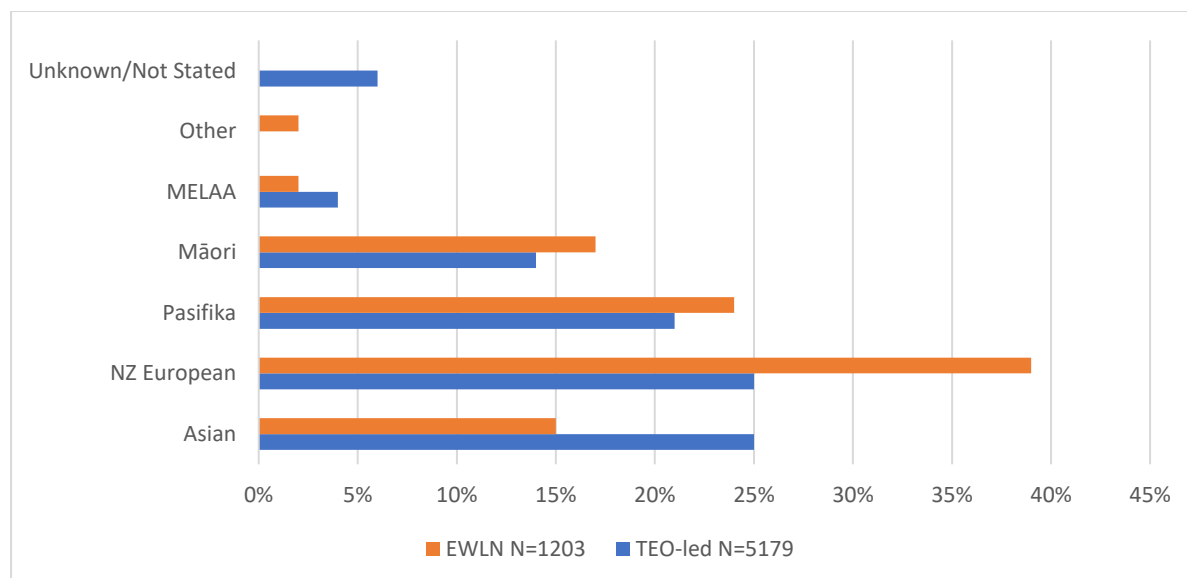
³ From *Determination of design of Funding Mechanism: Literacy and Numeracy Provision*. Accessed at <http://www.tec.govt.nz/assets/Funding-mechanisms/2017-Literacy-and-Numeracy-funding-mechanism.pdf>

Ethnicity

For EWLN 31 employers provided ethnicity data for 1,203 employees. As the figure shows, NZ European made up the largest group (39 percent / 466); followed by Pasifika at 24 percent (290) and Māori at 17 percent (206). The percentage for Pasifika and Māori is the same as in 2017 programmes.

In TEO-led programmes, when combined, Māori and Pasifika make up 35 percent of the learners, as they did in 2017. As the figure below shows, the key area of difference between the two strands is with Asian employees, where there is a larger percentage in TEO-led than EWLN programmes. This is the same as in 2017. It is not clear why this is the case, however a possible contributing factor is that two specialist language providers delivered to just over a third of these employees. Neither of these providers deliver programmes in the EWLN strand of the fund.

Figure One: Ethnicity Comparison



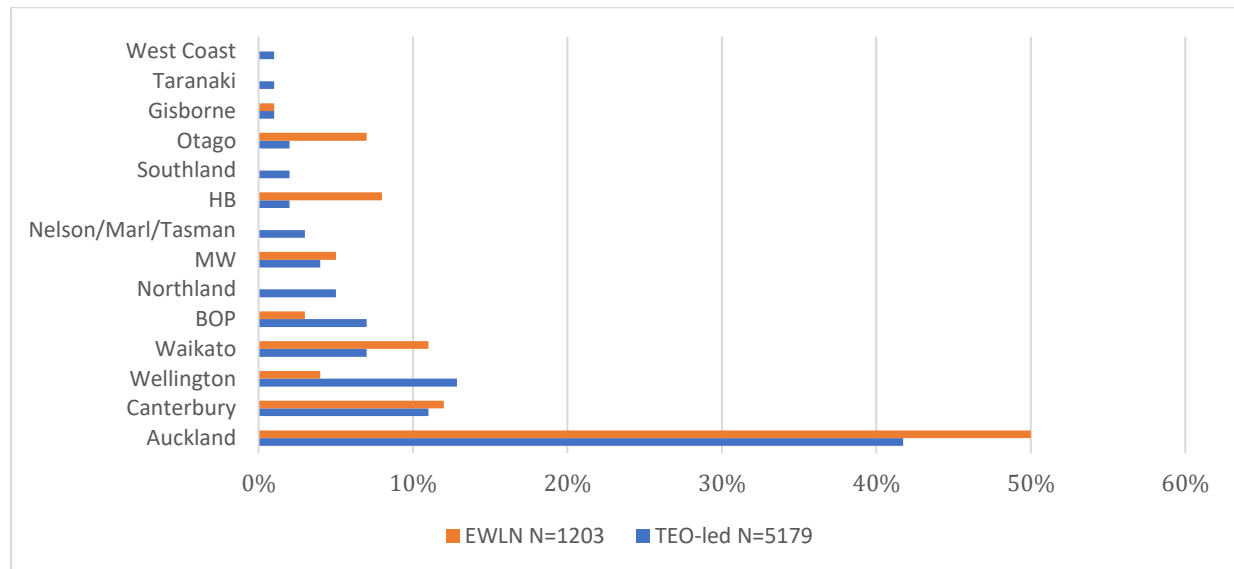
Other demographic data

Eighteen of the 31 EWLN programmes provided migrant and refugee data with 224 migrants and 15 former refugees being recorded. In the TEO-led strand, migrants made up 41 percent of those in programmes. In addition, there were 89 employees from former refugee backgrounds. In EWLN, 29 employers provided gender data for 1,175 employees. Sixty percent of the employees were male with this proportion being similar to 2017. Males accounted for 50 percent in TEO-led programmes, which is similar to 2017. And also, as is the case for 2017, in TEO-led programmes employees were evenly spread across the age-groups from 21-55 years. Outside that age range five percent are younger than 21 and 15 percent are aged between 56-78 years.

Regional comparison

In 2018 the TEO-led delivery is similar to 2017. The only change is within the Auckland region where there has been a decrease in delivery in Auckland City from 58 percent to 40 percent.

Figure Two: Regional Comparison



Industry comparison

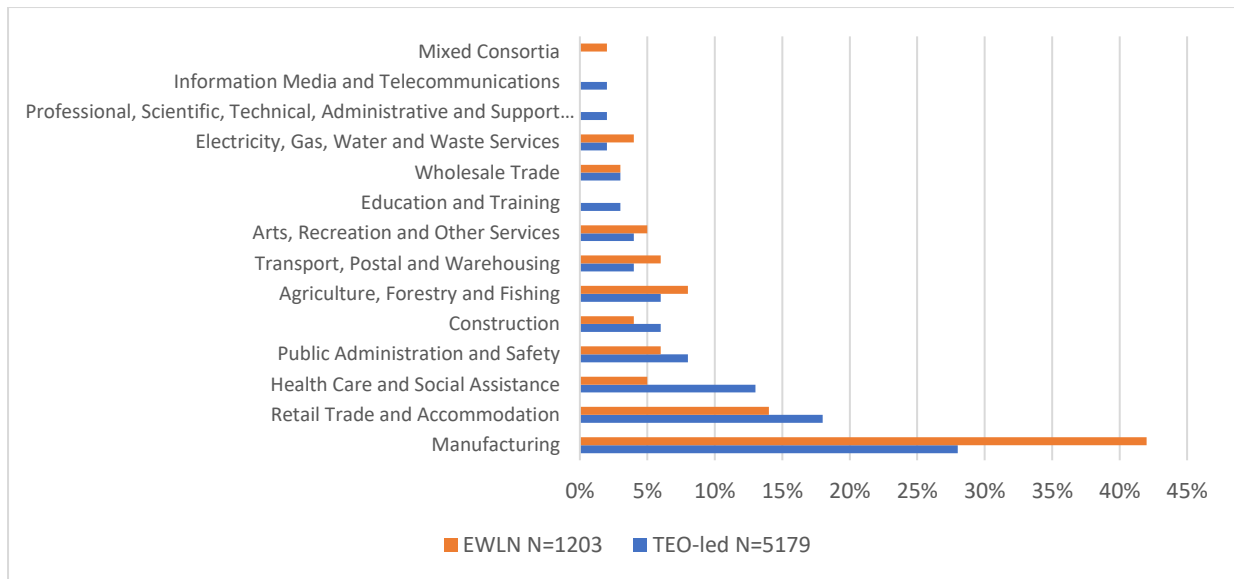
There are some changes to the 2018 industry pattern in comparison to the 2017. There has been an increase in delivery to manufacturing in the EWLN strand, up from 18 percent to 42 percent and also growth in the Retail Trade and Accommodation up from six percent to 14 percent.

There has been a drop in delivery to the Healthcare and Social Assistance Sector, particularly in the EWLN strand where it has dropped from 22 percent to five percent and to a lesser extent in the TEO-led strand from 17 percent to 13 percent. There is also a drop in delivery to the construction sector in EWLN programmes, from 13 percent to four percent.

However, these changes need to be seen in the light of market demand. In the EWLN strand employers apply for funding and as such changing patterns of delivery can be expected. The important point is that the two industries with the highest delivery as shown in Figure Three below are those identified in PIAAC as having low skills (Ministry of Education & Ministry of Business, Innovation & Employment (2016a)).⁴

Figure Three: Industry Comparison

⁴ Ministry of Education & Ministry of Business, Innovation & Employment. (2016a). *Skills at work: Survey of adult skills (PIAAC)*. Wellington: Author.



Overall what the data show is that in 2018 WLN programmes are reaching the ‘right’ employees. This means the groups identified in PIAAC as having low literacy and numeracy skills (Ministry of Education & Ministry of Business, Innovation & Employment, 2016b).⁵ It also means it is reaching employees in industries also identified in PIAAC as having low literacy and numeracy skills (Ministry of Education & Ministry of Business, Innovation & Employment, 2016a).

Impact of EWLN programmes

This section of the report describes the outcomes from the EWLN programmes. Twenty-nine employers provided narrative data to the TEC on what has happened in their workplaces and for their employees who attended programmes. Additional information is taken from five success stories undertaken in 2018. TEO-led providers are not required to submit narrative data so it is not possible to describe the outcomes from their programmes.

EWLN programmes

EWLN programmes are bespoke and tailored to the needs of individual employees and their workplaces. They are designed with input from employers and focus on what employees need to know and be able to do in order to do their jobs better. This includes some technical skills related to, for example, health and safety, Standard Operating Procedures (SOPs), company forms, and digital technology. Companies are also interested in employability skills such as communication (oral and written), problem-solving, and team work.

⁵ Ministry of Education & Ministry of Business, Innovation & Employment. (2016b). *Skills in New Zealand and around the world: Survey of adult skills (PIAAC)*. Wellington: Author.

Analysis of what is delivered in programmes shows literacy and numeracy are embedded into what is being taught. This approach works in adult learning environments where employees become engaged with learning once they recognise its relevance and subsequent application to their work and home lives.

WLN fosters lifelong learning

New Zealand is currently experiencing a sustained period of high employment.⁶ Many of these workers are unqualified - the PIAAC data found that 62 percent of those at Level 1 and below are in the workforce (Ministry of Education and Ministry of Business, Innovation & Employment, 2016a). Many work long hours and shift work for low pay, and have work and family circumstances that do not allow them to attend provider-based education in their own time. In addition, many do not have the digital literacy skills to undertake online learning. Therefore work-place / work-based learning provides an opportunity with workplace literacy and numeracy programmes being one of these.

Outcomes for learners: The case for reporting wellbeing, social, and economic outcomes

Capturing and describing a range of outcomes that accrue to employees is worthwhile given the current thinking in relation to the Four Capitals (The Treasury, 2018).⁷ This provides a framework that incorporates wider aspects of human capital such as wellbeing and aspects related to social capital that develop along with employees' knowledge and skills. The Treasury states that the inclusion of social capital is important as it:

... has a large and well-evidenced impact on economic performance, democratic functioning, public safety, educational outcomes, labour market outcomes, and individual health and wellbeing. The particular risk is that government agencies take it for granted because it is rarely measured. Potentially detrimental effects include increased income inequality, poverty, housing mobility and ownership rates, family and whānau wellbeing, institutional quality, educational outcomes and individual health and wellbeing(The Treasury, 2017).⁸

The Treasury goes on to point out that there are no “international standards” for measuring social capital and has taken a broad definition that it incorporates:

⁶ As at December 2018 the labour force participation rate sits at 67.8 percent with the unemployment rate at 4.3 percent. Sitting within this is an unemployment rate for Māori of 8.2 percent, and for Pasifika 8.5 percent. In addition there is an overall underutilisation rate of 12.1 percent. This latter rate is higher for women than men, sitting at 14.5 percent for women and 10 percent for men. In relation to ethnicity the underutilisation rate for Māori is 20.7 percent and for Pasifika 20.3 percent.

⁷ The Treasury. (2018). Our Living Standards Framework. Accessed 11 June 2019 at <https://treasury.govt.nz/information-and-services/nz-economy/living-standards/our-living-standards-framework>

⁸ The Treasury. (2017). *The living standards framework*. Powerpoint Presentation. Accessed 11 June 2019 at <https://treasury.govt.nz/sites/default/files/2017-12/lstf-pres-13dec17.pdf>

- Networks, attitudes and norms promoting coordination and collaboration between people;
- Individuals' social connections that provide emotional, instrumental and informational support.⁹

A recently released report based on the Canadian PIAAC results in 2012 makes the case for the connection between literacy and numeracy skills and social and civic outcomes. It shows there is a link between literacy and numeracy proficiency and wider outcomes, but that it is not quite as straightforward as 'higher proficiency equals better outcomes'. However, it does show that those who score at Level 4 and above in PIAAC report positive health and social outcomes (Council of Ministers of Education, 2018).¹⁰

Other research in the literacy and numeracy field also supports the idea of the value of looking beyond human capital outcomes and the importance of considering a range of outcomes that support individuals in their roles as parents, citizens and workers (Vorhaus et al., 2011).¹¹ It also highlights that while the human capital approach has been a strong policy driver, social capital also needs to be attended to, given the links between low literacy and numeracy and social exclusion (Balatti, et al., 2009).¹² The resulting social benefits bring greater participation in community life, more active citizenship and access to further education or employment opportunities (Balatti, et al., 2007; Leach et al., 2009).¹³

Based on this and a wider body of research Alkema and McDonald (2018) developed an outcomes framework for foundation learners that took in social, economic and wellbeing outcomes.¹⁴ Their framework has been used for reporting on the outcomes that occur for employees in EWLN programmes along with the changes that in turn occur in workplaces.

Figure Four: Outcomes from Workplace Literacy and Numeracy Programmes

⁹ The Treasury. (2017). *The living standards framework*. Powerpoint Presentation. Accessed at <https://treasury.govt.nz/sites/default/files/2017-12/lstf-pres-13dec17.pdf>

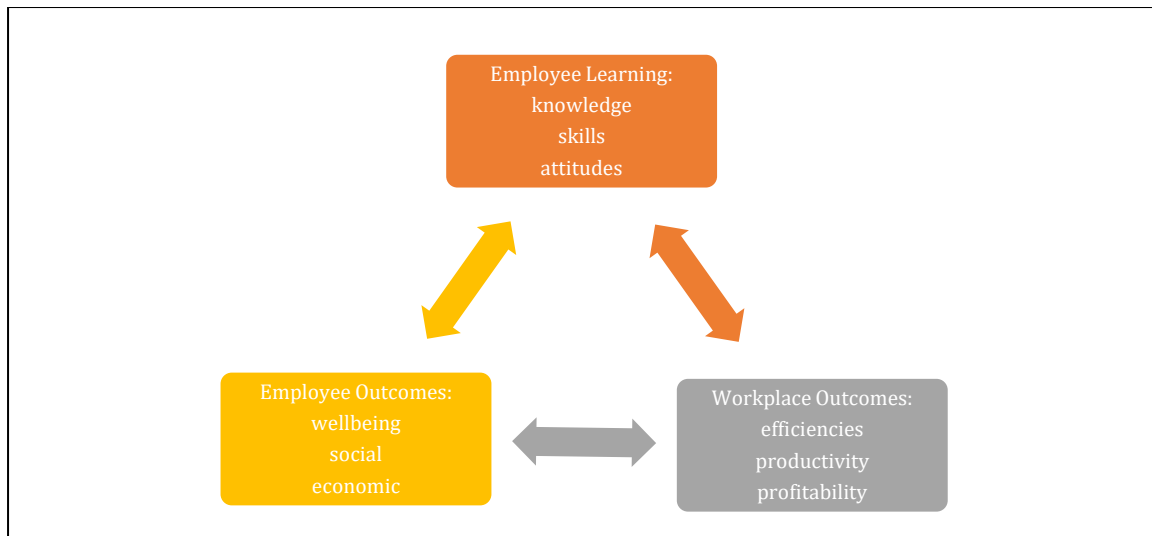
¹⁰ Council of Ministers of Education. (2018). *The health and social dimensions of adult skills in Canada: Findings from the programme for the international assessment of adult competencies (PIAAC)*. Toronto: Author.

¹¹ Vorhaus, J., Litster, J., Frearson, M., & Johnson, S. (2011). *Review of Research and Evaluation on Improving Adult Literacy and Numeracy Skills*: RESEARCH PAPER NUMBER 61. London: Department for Business, Innovation and Skills.

¹² Balatti, J., Black, S., & Falk, I. (2009). A new social capital paradigm for adult literacy: *Partnerships, policy and pedagogy*. Adelaide: NCVER.

¹³ Leach, L., Zepke, N., Haworth, P., Isaacs, P., & Nepia, W. (2009). *Organisational factors that affect delivery of adult literacy, language and numeracy provision: A review of international literature*. Massey University College of Education; Balatti, J., Black, S., & Falk, I. (2007). *Teaching for social capital outcomes: The case of adult literacy and numeracy courses in VET*. Conference Paper.

¹⁴ Alkema, A., & McDonald, H. (2018). *Outcomes for foundation level learners: A report to the Tertiary Education Commission on outcomes, indicators and measures for adult literacy and numeracy learners*. Unpublished Report to the Tertiary Education Commission.



Wellbeing outcomes from EWLN

People’s wellbeing is subjective in that it relates to how people think and feel about themselves. This aligns with Treasury’s thinking on “subjective wellbeing”, (King et al., 2018).¹⁵ It also incorporates elements of mental and physical health. In terms of the latter, Australian research has looked at the economic impact of the loss of confidence, hope and self-esteem on young Australians and estimates it has led to mental health issues costing Australia \$7.2 billion per annum (The Foundation for Young Australians, 2018).¹⁶

In terms of wellbeing outcomes, Alkema and McDonald (2018) include: confidence, self-efficacy, self-esteem, trust, hope for the future, cultural identity, and resilience that occur when learners develop new knowledge and skills. Gyarmati et al. (2014) in their research on workplace literacy programmes in Canada refer to these as psychosocial outcomes and also talk about them as contributing to health and wellbeing.¹⁷ While this is important at the micro level for individuals, it is also important at the macro government level. Here Lane and Murray (2015) maintain that moving all adults to Level 3 on the literacy scale would generate hundreds of millions of dollars in savings on health expenditure.

Foremost amongst wellbeing outcomes, and the most reported on in the EWLN programmes, is ‘confidence’ followed by ‘self-esteem’. Eldred et al., (2004)¹⁸ describe these as:

Confidence is a belief in one’s own abilities to do something in a specific situation. This belief includes feeling accepted and on equal terms with others in that situation ... whilst

¹⁵ King, A., Huseynli, G., & MacGibbon, N. (2018). *Wellbeing Frameworks for the Treasury*. Office of the Chief Economic Adviser Living Standards Series: Discussion Paper 18/01

¹⁶ The Foundation for Young Australians. (2018). *The new work reality: FYA’s new work order report series*. Australia: Author.

¹⁷ Gyarmati, D., Leckie, N., Dowie, M., Palameta, B., Hui, T., Dunn, E., & Hébert, S. (2014). *UPSKILL: A Credible Test of Workplace Literacy and Essential Skills Training*. Ottawa: Social Research and Demonstration Corporation.

¹⁸ Eldred, J., Ward, J., Dutton, Y., & Snowden, K. (2004). *Catching confidence*. United Kingdom: NIACE.

individuals can possess an overall level of confidence, this can vary at different times and in different situations (p5).

Self-esteem is more than feeling good about yourself. It is also being aware of your abilities. It is about who you are, being able to acknowledge positive and negative aspects and still feel good about yourself. It's about having a positive sense of identity (p7).

Confidence is important in its own right in terms of the contribution it makes to how people feel about themselves. It is also important because of the connection between confidence and learning and between confidence and the actions and behaviours that occur when employees feel confident.

For the employees in the 2018 EWLN programmes confidence is the most reported wellbeing outcome. But the important point to make in relation to this is what the increased confidence leads to. Various across these reports this has included increased confidence to:

- set machines
- lead and work through problems and greater sense of ownership over areas of production
- talk with management and put forth ideas
- work with computers
- complete written tasks such as log books and forms.

I am confident to use excel on the computer which helps me to do stock-take for my department, which is helping me to manage my time. (Employee, Manufacturing)

I learnt a lot about myself and knowing that I can learn. (Employee, Retail)

I like the way my brain is working right now – engaging with ideas. (Employee, Construction)

I can go into work early in the morning and see the news. I also send emails to my boss. I now know how to take photos on my phone and send them to the boss. He thinks it's amazing. (Employee, Public Administration and Safety)

Employers reported similar outcomes in the 2017 programmes and noted that new-found confidence was associated with increased engagement and participation in the workplace which in turn results in, for example, improved health and safety, active problem-solving and improved workplace efficiencies (Skills Highway, 2018).¹⁹

¹⁹ Skills Highway. (2018). *Reach of workplace literacy and numeracy fund 2017 and impact of the employer-led strand*. Wellington: Industry Training Federation.

Other wellbeing outcomes relate to feeling more valued and listened to at work; being more engaged and focussed; having a positive attitude to work; being “happier in my own skin”.

We need to ensure that all staff are actively and collectively working towards creating a workplace that is both physically and emotionally safe. If we fail here we have failed at every level. (Employer, Manufacturing)

These findings are in keeping with Vorhaus et al., (2011) who found similar evidence of changed practices in their review and added the concepts of self-assurance, happiness, more assertive behaviour and independence to their list of wellbeing outcomes. These researchers also note that it is not clear what comes first, an improvement in confidence or in skills. This is not clear from the employer reports either. But what does come through is that confidence develops as skills grow which in turns leads employees to try new things and put themselves forward in ways they had not done previously.

Social outcomes from EWLN

Social outcomes occur in workplaces when employees develop literacy skills that mean they are better able to communicate in oral and written form with colleagues, team leaders, and supervisors. Here this involves being deliberately taught communication strategies and being given the opportunity to practise them. In turn employees are able to use these skills with families / whānau and wider community groups.

For many these social outcomes occur as people develop their confidence and sense of belief in themselves. For those who speak a language other than English it occurs when they develop the vocabulary that enables them to communicate better. The success story from English Language Partners²⁰ highlights what happens for employees on these programmes. Here employees talked about increasing confidence to speak at work, an increased understanding of cultural diversity and how ‘kiwi’ businesses operate.

In terms of social outcomes from EWLN programmes, employers report employees:

- tolerate others better and are willing to be more collaborative
- communicate better with others and are open to changed ways of working
- speak up at team meetings, tool box meetings, health and safety meetings
- give better instructions
- increased communication in English reduces barriers between teams and increases understanding of others.

²⁰ Connecting cultures, growing businesses with English Language Partners NZ <https://www.skillshighway.govt.nz/success-stories/connecting-cultures-growing-businesses-with-english-language-partners-nz>

I understand why it is important to make communication more relevant to my team's work and the challenges they face daily and weekly. (Employee, Manufacturing)

It's not really about speaking up when there are problems, it's more about effectively listening to the concerns of the staff. I learned about active listening and apply this at work by making sure that I understand the message from the staff through asking open questions or repeating their message to them. (Employee, Manufacturing)

Mixed groups from a number of services across the business has resulted in improved relationships across departments and better understanding of roles. There is improved communications at tool box meetings, especially around health and safety. "Certain staff that sat back are now confident coming forward offering solutions around work related issues." One of the Team Foreman's commented, "Team communication is improved immensely. This is visible across our "Whats App" on our mobile phones and in our Tool Box meetings. More work related discussions are happening within the groups. (Employer, Maintenance Services)

Newly acquired social skills also transfer to employees' lives outside of work and lead to more involvement in family/whānau and community lives. Eldred et al., (2004) talk about involvement in community as being on a spectrum which ranges from,

Using amenities located in communities, such as libraries through attendance at groups offering support and services ... and more active involvement in groups involving activism and campaigning for change (p43).

Examples of this from the EWLN programmes include:

- communicating better at home with family / whānau, flatmates
- joining community groups
- joining libraries
- being able to operate independently in the community.

I have started using open questions more often and active listening at work and at home too. (Employee, Manufacturing)

I can call my bank, car insurance. Before my brother used to do this for me. (Employee, Manufacturing)

A boy that said nothing has become a young man who will ask about anything. He is now living independently. His confidence is up and he engages well in community activities, chatting easily and teaching others karate. He joined the local volunteer fire brigade and with support has successfully completed the paper work side of the training. (Employer, Electricity, Gas, Water and Waste Services)

An important community connection established in some of the programmes has been to local libraries. This is important for its intergenerational impact and for the potential it has to get employees to continue to develop their literacy skills outside of work. The following quotes from employees in the manufacturing sector highlight this:

I took the kids to the library on Saturday and they loved it.

It was so interesting to have access to all these other areas that I didn't know about before in the library.

I never had a library card in my whole life. My wife and I go heaps now.

The findings cited above are also found in the literature. Alkema and McDonald (2018) report that large scale reviews, Tett et al., (2006),²¹ Vorhaus et al., (2011), Windisch (2015),²² Grotlüschen et al., (2016),²³ and Schueler et al., (2017)²⁴ report evidence of similar social impacts.

Combined this research found evidence of: better communication; wider social networks that are linked with improved involvement and relationships with others (including family); higher levels of trust; participation in voluntary work and higher levels of civic engagement and political efficacy; reduction in social isolation; and improved behaviour at work. The researchers also acknowledge that it takes time for these outcomes to emerge (p21).

Economic outcomes from EWLN

Just as wellbeing and social outcomes are linked, so to are social outcomes with economic outcomes. However, the literature says that economic outcomes are more contested than the other outcomes. Here Vohaus et al., (2011) report limited economic returns for adult literacy and numeracy learners, while Reder (2014)²⁵ found that after 100 hours of attendance in a programme there was a statistically significant post-participation impact on employees' incomes.

One employer provided information about increased earnings for their workers. Of the 14 employees, 11 had either become more reliable workers during the course and no longer had days off work, meaning they earned more given the contracted nature of their work, or they had been given promotions and then earned more.

²¹ Tett, L., Maclachlan, K., Hall, S., Edwards, V., & Garside, L. (2006). *Evaluation of the Scottish adult literacy and numeracy (ALN) strategy: Final report*. Glasgow: Scottish Executive.

²² Windisch, H. (2015). *Adults with low literacy and numeracy skills: A literature review on policy intervention: Education working paper No. 123*. Paris: OECD.

²³ Grotlüschen, A., Mallows, D., Reder, S., & Sabatine, J. (2016). *Adults with low proficiency in literacy or numeracy: Education working papers No. 131*. Paris: OECD.

²⁴ Schueler, J., Stanwick, J., & Loveder, P. (2017). *A framework to better measure the return on investment from TVET: Occasional paper*. Adelaide: NCVER.

²⁵ Reder, S. (2014). *The impact of ABS program participation on long-term economic outcomes*. Washington DC. U.S. Department of Education, Office of Career, Technical, and Adult Education.

During the course S was promoted at [Company] who rave about him. He's now very reliable, has a responsible position that is ongoing until the end of the job. The company has instructed us to raise his wage. (Employer, Construction)

D has always been reliable, but she now possesses the literacy skills that have allowed us to put her through the STMS²⁶ course (not easy) which she passed. She has just started as the STMS at [Company] which means her pay rate has increased 25 percent since she started the course. (Employer, Construction)

However, economic outcomes are about more than increased earnings which seldom accrue after a 40 hour programme. Rather, EWLN programmes can be seen as a starting point for increased earnings as they lead to some employees starting to think about applying for higher level roles, or starting on skills development such as higher levels of driver licencing, or starting on qualifications that will lead to higher paid roles. The latter is done through connections that are made with Industry Training Organisations (ITOs) and Institutes of Technology and Polytechnics (ITPs).

We're starting to look at electives for the New Zealand Certificate in Manufacturing. Employees have expressed an interest in learning more about such things as digital literacy and financial literacy and support towards achieving a qualification. (Employer, Manufacturing)

All have expressed an interest in continuing, or if not possible have requested support for other training opportunities. Management is committed to continuing the programme for the next two years. (Employer, Food and Accommodation Services)

Displaying Pathways Awarua certificates in the lunchroom has generated interest and enthusiasm for digital literacy and online learning. A new programme has started for 21 staff. We are also talking with Otago Polytechnic about how to continue the learning for some – through Unit Standards and microcredentials. (Employer, Manufacturing)

Seventy-five percent of the first group went on to Health and Wellbeing Level 2.... [and] the good news is that some are discussing going on to Level 3 when we run it next year. I think it is a fantastic win for folk that were very reluctant to study to start with. (Healthcare and Social Assistance)

One company took advantage of a newly-developed approach to credentialling that leads to formal attestation of skills. Here the provider of the programme connected with Otago Polytechnic and developed an Edubit that provides the opportunity for employees to gain a five-credit qualification in Health and Safety. This EU Edubit, 'Write Up, Speak Up, Be Safe' required the employees to submit evidence to the Polytechnic for assessment. This covered off what was taught in the programme around written communication, i.e. filling in forms;

²⁶ Site Traffic Management Supervisor

speaking, i.e. presenting a workplace improvement project; and being safe, i.e. completing 25 Pathways Awarua modules.

This is a huge outcome as the process this takes brings all the elements of the workplace literacy programme together and increases digital literacy skills in a sustained, meaningful way. [This happens] for the most hard to reach group of learners in Aotearoa - Māori men in the construction industry, working in what is traditionally a casual/transient/temporary work environment. (Employer, Construction)

Programmes that have included financial literacy have also led some employees to change their financial behaviours as they understand more about how their finances work. In turn this has led to improvements in their personal finances, along with the feeling that they are now in control of how they use their money.

By knowing the value of money, they understand the importance, not only in their personal lives, but also for the greater good of the company. Having their financial situations in order, makes them feel more confident. Their salary will be accounted for and this will mean they are happy to work, knowing the money they will receive will pay bills and be used for saving. (Employer, Construction)

Workplace outcomes from EWLN

The outcomes described above occur at the micro / individual level. In addition, the employers report what happens at the meso / firm level as employees develop their knowledge and skills that transfers to new ways of working. This results in improved workplace practices (e.g., health and safety, reporting) and efficiencies which, in turn, contribute to productivity and profitability. An increasing number of employers, compared to previous years, are using data-based metrics to report improvements. Others provide information showing the changes to workplace practices that occur during and after programmes.

Across the 32 companies employers note changes including:

- understanding of health and safety policies and practices that leads to more reporting and subsequent identification and hazards and reductions in incidents/accidents
- use of problem-solving tools (root cause analysis, fishbone, 5 whys) that leads to greater ownership on the shop floor and less reliance on supervisors when things break down
- improving numeracy skills so employees are better able to calculate, weigh and measure which leads to more efficient processes and less wastage

- improving literacy skills in terms of form filling that leads to more forms being completed accurately and less time spent by management with writing or correcting reports
- improving literacy skills that leads to improved communication with customers and in turn reduced customer complaints.

A reduction in double handling by office staff shows a 25 percent drop in on-hand work volumes – so clients get a faster service. Equipment for clients with complex needs is being supplied 8-10 days faster. (Employer, Healthcare and Social Assistance)

I use numerical skills in my day-to-day work as I have to calculate analytical data. In this training I have learnt to do simple maths and learned to shorten the method to save time. (Employee, Manufacturing)

Developed as a project by [an employee] the pilot of the Hazard ID card was so deemed so successful that it is now on track to become an organisation-wide, auditable document. (Employer, Manufacturing)

Pre-training 60 percent of incident and near miss forms were filled out by supervisors. Now 90 percent of employees fill them out by themselves. (Employer, Manufacturing)

We had metrics for productivity, and there is an increase in batches right the first time by six percent; an increase in documents right the first time by 32 percent; a decrease in wastage by 34.1 percent; and an increase in reporting of hazards by 16 percent. (Employer, Arts, Recreation and Other Services)

In addition to productivity and profitability, employers also value the softer workplace outcomes. Here this is about seeing employees being more satisfied and engaged with their work and the development of employees who also participate more widely at work and in their communities. These employers acknowledge the importance of investing in their staff.

There is a better atmosphere and we are seeing greater levels of diffused responsibility and 'just-in-time' decision-making. Staff are learning to work with what's in their control and to use problem-solving techniques early in the process. (Employer, Manufacturing)

Offering this opportunity also shows people they are valued. I believe that we have a responsibility to support the holistic development of our people. And when we do, we also benefit. Not only from more engaged and confident employees, but also from more actively contributing members of our community. (Employer, Public Administration and Safety)

We want to invest in our people and support them to take more ownership of health and safety across the business. (Employer, Construction)

The comments above make it clear that the EWLN programmes do make a difference to employees and their workplaces. However, employers note there is a cost for this. While programmes are funded by the TEC, there is a cost to businesses in terms of lost

productivity while employees attend programmes. It is also challenging logistically to get employees away from production lines /off the shop floor.

Literacy and numeracy skills

As with previous years it is not possible to determine the extent to which there have been gains in literacy and numeracy as measured by the Literacy and Numeracy for Adult Assessment Tool (LNAAT). This is because employers, in the main, have not reported on statistically significant gain. However, their reports show that programmes are being delivered to those who fall into TEC's funding conditions of being at Step 3 or below for reading or Step 4 or below for numeracy on the Adult Learning Progressions.

What can be seen from the employers' reports, as with previous years, is the changes employees make to the way they use their literacy and numeracy skills - in other words, their literacy and numeracy practices. At the time of these programmes there was no tool to measure practices, but the development of new measures and indicators (Whitton, 2018)²⁷ provides the opportunity for this to happen in 2019 programmes.

Of note in the reports on 2018 EWLN programmes is the development of digital literacy skills. Just over a quarter of the employers reported on this. Here programmes included learning about devices, applications, and software. In turn, employers report how this transfers over to the workplace.

Before it was very hard to find the customer of Google Maps. After the course I understand how to find the customer. I am feeling confident using the computer and looking out for my own need in the pathways [Pathways Awarua] programme. (Employee, Electricity, Gas, Water and Waste Services)

I am getting excited with what I have learned on how to use the computer and for that I would like to learn more. (Employee, Manufacturing)

There has been increased understanding of digital data, graphs and charts, excel spreadsheet formulas. [Employees] now produce charts and graphs and are able to identify trends. (Employer, Manufacturing)

Conclusion

As with previous years the data provided by providers and employers shows that the WLN Fund is reaching employees who need support to improve their literacy (including digital and financial literacy) and numeracy skills. The comments from employees and employers

²⁷ Whitton, D. (2018). *Enhancing and measuring adult literacy and numeracy progress: Exploring practices, and outcomes measures, and quality indicators*. Wellington: Ako Aotearoa.

shows the difference these programmes make to individuals and, when programmes go to scale, the differences they makes to workplaces generally.

The data from EWLN programmes also show that wellbeing, social, and economic outcomes accrue to individuals. Some employers also report that as employees acquire new knowledge and skills and begin to use these, that workplaces become more efficient which in turn, contributes to improved productivity and profitability.