

Lifelong learning

The foundation of future work

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Executive summary

As the Queensland economy and labour market changes, industries are evolving, and workplaces are adapting to emerging needs. We are working later into life and our skills must continually develop and adapt. Recent unforeseen and rapid disruption to the Queensland economy has amplified these changes.

In this environment of complexity and rapid change, all Queenslanders need a mindset that views learning as an everyday part of their working lives. This needs to be supported with a culture that values and encourages continual learning. There is a need for lifelong learning, in all its many and varied forms, to be accessed and by all Queenslanders, regardless of their age or job title.

A focus on lifelong learning across our entire community can be a critical source of competitive advantage for Queensland. It can position Queensland to successfully harness opportunities on a global scale and respond to changing economic circumstances. Economies around the world are embracing lifelong learning and there are lessons that can be applied to the Queensland context.

The benefits are not only economic. Lifelong learning is also a key enabler of social inclusion. It can assist Queenslanders to fully participate in our economy and society and provide a pathway into, or back into, the labour market for those experiencing disadvantage.

Many individuals, employers and industries in Queensland have already embraced lifelong learning but there are many who have not. Engaging in lifelong learning is a responsibility shared by government, enterprises, employers, unions, communities and, critically, individuals. Some individuals will require additional support to fully participate in lifelong learning.

Many industries and enterprises are already doing much of the heavy lifting to create and support the learning needed to remain competitive in the changing economy. While government is only one of the actors responsible for driving lifelong learning, the role for government is critically important.

The Queensland Government can further enhance lifelong learning in Queensland by:

- Collaborating with industry and other key stakeholders to promote the value of lifelong learning to all.
- Ensuring policy settings support the enhancement of language, literacy, numeracy and digital (LLND) skills and access to career advice and continual learning throughout an individual's working life.
- Investigating the feasibility of broadening the level of support for Adult and Community Education offerings in Queensland.
- Equipping young people, new labour market entrants and those impacted by disruption and industry transitions to participate in the adaptation, change and learning required for future work.
- Partnering with industry and other stakeholders to explore the potential for improving recognition and portability of skill, capability and knowledge gained through non-accredited vocational education.

This report builds upon earlier work that identified future work changes driven by technology, demographic and social factors and relevant implications for skills and employment policy. Now is the time for government to work collectively across our economy and society to drive a renewed focus on lifelong learning as a contributor to Queensland's economic recovery and future prosperity.



Background and context

No longer can individuals expect that initial post-school vocational education alone will provide them with the skills and capabilities needed for a lifelong career. Instead they can expect to have multiple careers across different occupations. They are likely to enter and exit both work and vocational education several times during their lifetimes.

Future work, future jobs¹

Jobs Queensland is investigating what the future of work in 2030 could look like for Queenslanders and our economy. This includes consideration of the skills and employment policy implications resulting from technological change, social and demographic trends and institutional frameworks.

In early 2019, Jobs Queensland released an extensive literature review and a discussion paper on the future of work in Queensland. The discussion paper was supported by state-wide consultation comprising workshops, focus groups, expert interviews, webinars and complementary social research.

These activities culminated in the publication of *Future work, future jobs - Preparing Queensland for the evolution of work*. This report outlined five key themes and 18 recommendations that provide a framework for the Queensland Government to support a positive future to 2030. The report also identified areas for further investigation including the ways in which employment and skills policy frameworks in Queensland can support engagement in lifelong learning.

In developing the *Lifelong learning: The foundation of future work* report, additional rounds of expert interviews were undertaken, along with a series of industry-specific focus groups. This consultation built upon the findings of the statewide consultation and social research undertaken in an earlier phase of the project.

The impact of COVID-19 on the Queensland economy has been unprecedented. The rate of change has been accelerated and the challenges facing our economy amplified. It has highlighted the importance of lifelong learning to support the Queensland labour force to engage, re-engage or remain engaged in work.

The objective of the current report is to identify how existing policy settings could enable and encourage lifelong learning to evolve and adapt to the pace and extent of change anticipated in Queensland.

¹ Jobs Queensland. 2019. *Future work, future jobs - Preparing Queensland for the evolution of work*. Ipswich.

What is lifelong learning?

KEY FINDINGS



The Queensland economy and labour market are changing. COVID-19 has accelerated the speed and extent of this change, and the impacts are uneven and diverse.



Skill and capability must be continually developed to respond to this increasingly complex environment.



Lifelong learning is underpinned by the positive mindset of an individual to learning over their lifetime regardless of their age or career stage.



Lifelong learning is the foundation of future work and can underpin the recovery of the Queensland economy and differentiate it into the future.

Lifelong learning is underpinned by the positive mindset of an individual to learning over their lifetime regardless of their age or career stage. This state of mind needs to be supported by a culture that values and encourages continual learning so that lifelong learning, in its many and

We want to assist workers and job seekers to be highly capable, adaptable and productive throughout their working lives.

Skills for Queensland - Great training for quality jobs²

varied forms, can be accessed and practised by all Queenslanders.

The importance of a lifelong learning mindset has been highlighted by the impact of the COVID-19 pandemic on Queensland businesses and labour force. Agility to respond to emerging opportunities has been key to survival for both businesses and workers during this time.

Lifelong learning is the foundation of future work. The skills and capabilities of our workforce can underpin and differentiate Queensland's economy in future years. However, skills and capabilities must be continually developed over a working life. It is estimated that the half-life of a skill has dropped from 30 years to an average of six years.³

Lifelong learning is equally important for those individuals whose career transcends multiple occupations and industries, those who work within a single occupation for decades and those who are impacted by structural change in the economy. Industry experts and researchers agree that guiding individuals towards self-directed learning and creating competent and capable learners is critical to adapting to the rapidly changing economy.⁴

Learning itself needs individuals to have a broad set of skills and capabilities (Table 1).

TABLE 1: SKILLS AND CAPABILITIES FOR A LIFELONG LEARNING MINDSET⁵

SKILLS	CAPABILITIES
Language, literacy and numeracy	Adaptability/flexibility
Digital/information literacy	Creativity/design thinking
Technology/digital skills	Initiative and enterprise
Teamwork/collaboration/communication	Self-motivation
Critical thinking	Self-management

² Department of Employment, Small Business and Training. 2019.

Brisbane: Queensland Government. https://desbt.qld.gov.au/__data/assets/pdf_file/0012/10236/skills-for-queensland-strategy.pdf

³ Yuen, P. 2018. *The 7 forces that will change the way you work*. Geneva: World Economic Forum.

<https://www.weforum.org/agenda/2018/09/here-are-seven-ways-your-job-will-change-in-the-future>

⁴ Anderson, T. 2010. Theories for learning with emerging technologies, in Veletsianos, G. (ed.) *Emerging technologies in distance education*. Edmonton: Athabasca University Press.

⁵ Iliadis, N. 2018. *Learning to learn - the future-proof skill*. United Kingdom: Big Innovation Centre.

<https://www.appg-ai.org/evidence/theme-reports/learning-to-learn-the-future-proof-skill/>

Initial vocational education in particular must ensure a balance between the development of the skills and knowledge required for immediate employment in a specific occupation and equipping new entrants to the labour market with the foundational and more transferrable skills and capabilities that underpin success over the course of a working life.

Vocational education in all its forms will be one of the most critical factors shaping workforce outcomes in the future. Formal and informal education and skills development across an individual's lifetime can take many forms and it is the responsibility of a vast and complex skills ecosystem.⁶

The value proposition for promoting a positive lifelong learning mindset differs for individuals, industries and enterprises, government and the broader community. Though individuals are responsible for engaging in learning, some in particular will face significant barriers. All stakeholders therefore have a vested interest in encouraging and enabling individuals to pursue learning including in the workplace.

If Queensland is to remain competitive in a rapidly changing global economy, it is vital that individuals engage in continuous learning for work. It is equally vital that all industry leaders and enterprise owners make workplace learning commonplace.

LIFELONG LEARNING VALUE PROPOSITION



INDIVIDUALS

- Gain new employment in the same or different industry.
- Maintain employment.
- Improve employability.
- Grow personally.
- Pursue interest or passion.
- Build self-esteem and social status.
- Develop mental wellbeing.
- Improve or maintain social connectedness.



INDUSTRY/ENTERPRISES

- Increase workforce capacity and ability to realise innovation through design.
- Enhance technology adoption.
- Improve productivity.
- Meet professional or industry standards.
- Improve organisational capacity and capability.
- Access new markets.



GOVERNMENT/COMMUNITY

- Enable Queenslanders to participate in work and more broadly society.
- Increase workforce resilience.
- Assure prosperity for:
 - individuals
 - enterprises
 - supply chains
 - the Queensland economy.

Everyone accepts that education and training in the early years of life is a vital part of that system.... But increasingly, so too is a serious commitment to ongoing education and training, including work-based training, in a labour market that is likely to increasingly involve major changes in tasks and occupations, and sometimes even abrupt career shifts.

Shifting the dial - Five year productivity review⁷

⁶ Jobs Queensland. 2019. *Future work, future jobs - Preparing Queensland for the evolution of work*. Ipswich.

⁷ Productivity Commission. 2017. *Shifting the dial - Five year productivity review - Supporting paper No.8: Upskilling and retraining*. Canberra: Australian Government.

Encouraging and enabling lifelong learning

KEY FINDINGS



Learning is the responsibility of individuals, encouraged and enabled by the actions of governments, industry, employers, unions and communities.



As not all Queenslanders have the same level of access to learning opportunities, it is an important equity issue.

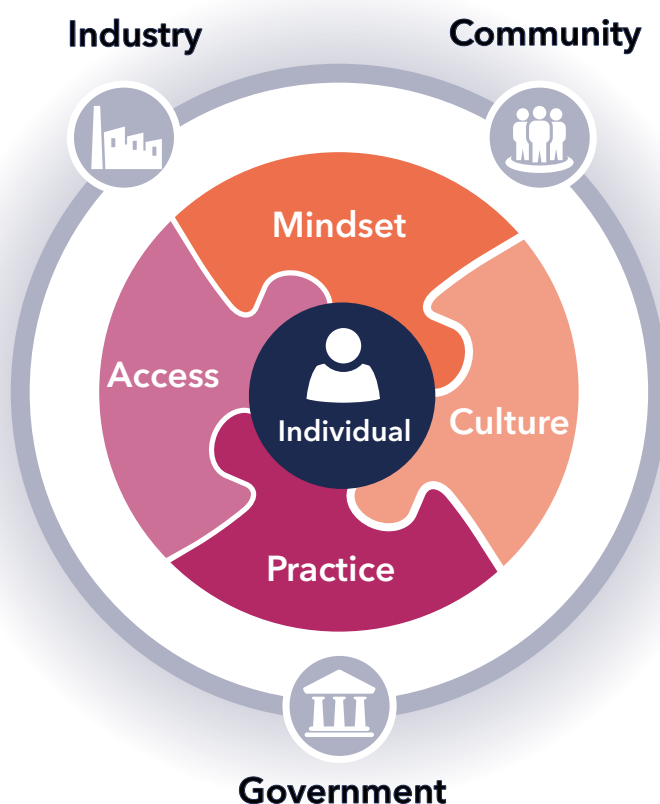


Lifelong learning is underpinned by a mindset and broader culture that is supportive and celebratory of learning.



Proactive policies and practices that enable, encourage and reward engagement with lifelong learning are critical.

This report proposes a model of lifelong learning to describe how lifelong learning can be enabled and encouraged. The individual is at the core of the model, emphasising the importance of a growth mindset, an enabling learning culture, supportive practices and accessibility of opportunities. Enabling and encouraging lifelong learning is a responsibility that is shared amongst a broad group of stakeholders.



Mindset



The key component of enabling lifelong learning is the mindset of the learner. A lifelong learning mindset describes the constant pursuit of knowledge and understanding, characterised by curiosity, experimenting with new topics and subjects, and increasing the breadth and depth of capability across an ever increasing range of technical and soft skills.⁸

Motivated learners

Motivated individuals are more likely to engage in learning and find meaning in their work. A growth mindset, rather than a fixed one, will drive the individual to take ownership of their learning and continually work to grow and develop their skills, leading to better workforce performance and employment outcomes. A growth mindset can also make individuals more resilient to challenges, seeing them as natural occurrences and part of a continuous growth journey.⁹

Individuals engage in learning for different reasons at different times of their working life. Young people generally engage in learning to enter the workforce, while older people participating in lifelong learning may seek to upgrade skills and capabilities and extend subject matter expertise in order to stay in or rejoin the workforce.¹⁰

Recognition of future opportunities and capabilities

Rapid change in Queensland's economy is driving a need for continuous learning. No longer will initial post-school education be sufficient for ongoing engagement in the workforce. For Queensland to have the strong economy it wants for the future, employers, educators and policy makers must enable continuous learning by providing the appropriate environment, funding, support and psychological safety. To take advantage of future opportunities, individuals need to be supported to determine their current and future skills and capability gaps and address these through learning. There may be some in our society who require intensive support to fully appreciate the challenges and opportunities ahead and the reasons why lifelong learning is important.

A focus on soft skills

Discussions on future work mostly focus on the need for technical skills development to respond to changes such as digital disruption. Equally there must be a focus on a broader range of underpinning skills, such as creativity, communication, problem solving, critical thinking, adaptability and leadership. It is these skills and capabilities that hold the most potential as enablers of a lifelong learning mindset. There is a range of evidence that suggests that the development of these skills can lead to increased employability, productivity and the acquisition of new knowledge.¹¹



8 Gallagher, S. 2019. *Peak Human Potential - Preparing Australia's workforce for the digital future*. <https://www.swinburne.edu.au/media/swinburne.edu.au/centre-for-the-new-workforce/cnew-national-survey-report.pdf>.

9 Dweck, C. 2015. "Growth." *British Journal of Educational Psychology*, 85: 242-245.

10 Watson, L. 2003. *Lifelong Learning in Australia*. Canberra: Commonwealth Government Department of Education, Science and Training.

11 Iliadis, N. 2018. *Learning to learn - the future-proof skill*. U.K.: Big Innovation Centre. <https://www.appg-ai.org/evidence/theme-reports/learning-to-learn-the-future-proof-skill/>

Culture



Culture encapsulates the norms, expectations and habits that contribute to a vibrant learning community.¹² Fostering a culture that is both supportive and celebratory is a critical enabler of lifelong learning. It is the responsibility not only of the individual but also government, industry, enterprises and communities.

Proactive planning

Significant changes that impact industries, workplaces and jobs receive widespread media coverage. More often jobs and job roles change almost imperceptibly, leaving individuals vulnerable to the cumulative impact of change over time.¹³ Early recognition of these changes enables individuals to be proactive in managing both the opportunities and risks that they present.

The point of redundancy is not a good starting point for individuals to embark on a reskilling journey. Often there is a lengthy interruption to employment which reduces subsequent job prospects.¹⁴ Males in more traditional industries and in regional locations are most vulnerable.¹⁵ Older individuals also tend to be disproportionately

affected by significant changes in the labour force. The broader social impacts of prolonged periods outside of the labour force can also have a multiplier effect on the ability to engage in skills and capability development.

These issues are complex, multifaceted and differ between industry sectors. A culture that encourages and promotes proactive planning and a willingness to engage in learning can be a key contributor to successful outcomes, particularly in industries in transition.¹⁶

Industry ways of working

Adoption of a lifelong learning mindset is more commonplace in industries where industrial agreements, regulatory frameworks and other professional standards require undertaking regular engagement in learning or continuous professional development. Some industry sectors do not have external drivers of learning - rather, they have strong workplace learning cultures. These industry sectors recognise that learning in the workplace can be cost effective and enables individuals to do their work better and more safely.

¹² Fischer, C. and O'Connor, B. 2014. Informal Learning in Workplaces: Understanding Learning Culture as a Challenge for Organisational and Individual Development, in Harteis et al. (eds.) *Discourses on Professional Learning: On the Boundary Between Learning and Working*, Professional and Practice-based Learning. Vol 9. Springer.

¹³ Productivity Commission. 2017. *Shifting the dial - Five year productivity review - Supporting paper No.8: Upskilling and retraining*. Canberra: Australian Government.

¹⁴ Bowman, D., Randrianarisoa, A. and Wichramasinghe, S. 2018. *Working for everyone? Enhancing employment services for mature age jobseekers*. Melbourne: Brotherhood of St Laurence.
http://library.bsl.org.au/jspui/bitstream/1/10838/1/Bowman_et_al_Working_for_everyone_research_summary_2018.pdf

¹⁵ Jobs Queensland. 2018. *Supporting workforces during industry transition: Key elements for success*. Ipswich

¹⁶ Ibid.



Not all industries invest in building new skills and capabilities. Low-skilled individuals are typically provided with fewer opportunities to undertake learning other than basic induction training.¹⁷ It is these individuals who can be most at threat from technological changes and automation. The impact of technology and automation is most likely to replace tasks, not jobs.¹⁸ This presents opportunities for the existing workforce to transition to new job roles, provided they have the requisite skills and capabilities.

Learning across diverse forms of employment

The structure and composition of the labour market is changing. Many firms are becoming more specialised and the scope and complexity of functions being outsourced have increased over time. In decades past, the dominant form of work was a long-term traditional employment relationship in a single industry (often with a single employer). While this still exists, it is becoming less common. Some industry sectors are experiencing shifts in modes of employment with increasing use of non-standard employment arrangements such as engagement in the 'gig' economy.¹⁹

Additional changes include the rise of 'portfolio' (combination of part-time jobs) and 'encore' careers (changing careers later in life).^{20,21}

These varied forms of work all impact participation in lifelong learning. Importantly, learning can also be a critical contributor to an individual succeeding in these alternative forms of work given the broader suite of skills and capabilities (such as sales and financial management) that are often required.²² A culture of ongoing learning across all forms of work and our community more broadly is essential for our future prosperity.

17 Watson, L. 2003. *Lifelong Learning in Australia*. Commonwealth Government Department of Education, Science and Training, Canberra.

18 Jobs Queensland. 2019. *Future of Work - Literature Review*. Ipswich.

19 Ibid.

20 Mqamelo, R. 2019. *The Rise of the Portfolio Career*. San Francisco: YearOn. <https://www.yearon.com/blog/the-rise-of-the-portfolio-career>

21 Freedman, M. 2007. *Encore: Finding Work that Matters in the Second Half of Life*. U.K.: Hatchette.

22 Enhance Research. 2019. *Future of Work Social Research report*. Ipswich: Jobs Queensland.

Practice



Practice encompasses the activities taken by government, industry, enterprises and the community to encourage and enable learning throughout an individual's lifetime. Proactive policies and practices that recognise and reward engagement with lifelong learning are critical to creating a supportive environment.

Recognition and portability of learning

Learning is most effective when it is focused on providing the necessary skills and capabilities people require to succeed within, or successfully transition through, different stages of their working life.²³ Recognition of learning is critical for individuals and learning outcomes can either lead to accredited qualifications or non-accredited learning outcomes. A lifelong learning approach assumes that all learning is valued and recognised, regardless of how or when the learning is acquired.

Previous Jobs Queensland research has highlighted the opportunities and challenges associated with the portability of skills and capabilities

between industry sectors, occupations and workplaces, particularly in industries or regions undergoing transition.²⁴ A recent national review of the Australian Qualifications Framework (AQF) recommends that 'the AQF should be revised to ensure that it can more effectively fulfil its core role in defining qualification types, reflect emerging skills needs, facilitate credit recognition – including of shorter form credentials such as micro-credentials – and support learner pathways within and between the education and training sectors.'²⁵ The Australian Government has accepted the aims of the recommendations of the review in relation to vocational education, contingent on further discussions with state and territory governments.²⁶

Embedding lifelong learning in policy and strategy

The importance of lifelong learning can be highlighted and institutionalised by strongly embedding it as a priority in policy, strategy and relevant funding frameworks. This applies equally to public policy as it does to organisational policy (particularly for employers). By specifying the value and approach to modern learning principles in policy, a mindset is created that learning is a priority.

In a public policy context, lifelong learning has relevance for a broad range of policy areas, including (but not limited to) education, employment, industry and economic development and regional development. Ensuring that policy settings are promoting, encouraging and enabling lifelong learning is essential.

Employers can help enable and encourage lifelong learning through contributing to the cost of learning and allowing individuals time off work to undertake further formal education.²⁷ On-the-job opportunities, such as mentoring, coaching and secondments are also effective forms of learning for individuals in an organisational context.

23 Halttunen, T., Koivisto, M. and Billett, S. (eds.). 2014. *Promoting, Assessing, Recognising and Certifying Lifelong Learning. Professional and Practice-based Learning*. Switzerland: Springer.

24 Jobs Queensland. 2018. *Supporting workforces during industry transition: Key elements for success*. Ipswich

25 Department of Education, Skills and Employment. 2019. *Review of the Australian Qualifications Framework Final Report 2019*. Canberra: Australian Government. https://docs-edu.govcms.gov.au/system/files/doc/other/aqf_review_2019_0.pdf

26 Ibid.

27 Smith, R., Dymock, D. and Billett, S. 2013. Learning and training for sustained employability across working lives. *International Journal of Continuing Education and Lifelong Learning*, vol.5, no.2, pp.85-102.

Enterprises can support individuals to engage in learning through opportunities to work on cross-discipline projects:



- job-shadowing
- mentoring
- secondments
- 'lunch box' sessions
- conferences
- industry events
- access to industry publications.

Flexible work arrangements also encourage individuals to take advantage of learning opportunities.

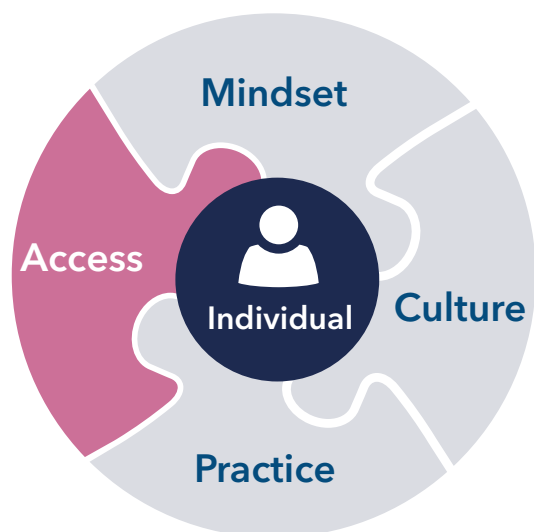
Government leading by example

The public sector is the largest employer in Queensland, which provides a unique opportunity to apply a whole-of-government focus on role-modelling lifelong learning practice.

The public sector can model, evaluate and promote approaches to building supportive workplace learning culture and practice and providing access to learning opportunities. A lifelong learning culture is fostered by sharing of best practice learning technologies, collaborating on common capability frameworks, sharing innovative learning strategies and contributing to an evolving view of learning.



Access



While lifelong learning is important for all Queenslanders, not all Queenslanders have the same level of access to lifelong learning. A critical component of a lifelong learning model is to ensure that all Queenslanders are able to access learning throughout their lives and harness the benefits that it can bring.

Affordability

Individuals, employers, unions, industry and government all have a role to play in sharing the costs and benefits of lifelong learning. The costs associated with learning and 'who pays' can be barriers to engagement.

There is a significant amount of learning undertaken by individuals and/or within enterprises with little or no financial contribution made by government. In many cases individuals will be self-motivated and self-funded with the expectation that the market will reward them for the cost of investing in their learning.²⁸ The extent to which those in the workforce can access affordable learning varies across industries and occupations for many reasons, including the industrial frameworks that underpin employment in an industry or occupation.

For government there is an important role in providing support for individuals, and incentives for organisations to support access for those with barriers to their participation in learning. Government encouragement can take various forms including subsidies for vocational education providers, tax deductions for individuals or organisations, and learning 'credits' for individuals to exchange for discrete learning opportunities.

How governments go about encouraging individuals to engage in learning is critical. Programs and incentives need to support an individual's genuine interests. They are most effective when all stakeholders have a tangible stake, such as co-funded models between government and enterprise or community. Importantly, policy frameworks must recognise that in many cases a single qualification alone will no longer provide an individual with the skills and capabilities required throughout their working lives.²⁹ These frameworks must support and encourage engagement and re-engagement with learning, upskilling and reskilling.

Equity of opportunity

Often those who have the most to benefit from lifelong learning can experience some of the greatest barriers to accessing it. Low-skilled and socially disadvantaged individuals are the least engaged cohort in lifelong learning.³⁰ This presents important equity issues. Not engaging in lifelong learning exacerbates their disadvantage.

Some young people continue to face structural challenges that inhibit their entry into and participation in the labour market. The bulk of entry-level jobs for these individuals are in industries that typically have a lower-than-average-age workforce.³¹ Employment growth in these industries is projected to be below the state average, which will impact on employment opportunities for this cohort.³² For young people, extended periods of not being engaged in education, employment or training is a predictor for remaining disengaged in these areas in the future.³³

28 Bonk, C. J., and Lee, M. M. 2017. Motivations, Achievements, and Challenges of Self-Directed Informal Learners in Open Educational Environments and MOOCs. *Journal of Learning for Development*, 4(1). <https://jl4d.org/index.php/ejl4d/article/view/195>

29 Jobs Queensland. 2019. *Future work, future jobs - Preparing Queensland for the evolution of work*. Ipswich.

30 Watson, L. 2003. *Lifelong Learning in Australia*. Canberra: Commonwealth Government Department of Education, Science and Training.

31 Jobs Queensland. 2018. *Anticipating Future Skills*. Ipswich.

32 Jobs Queensland. 2018. *Anticipating Future Skills*. Ipswich.

33 Osborne, K. and Circelli, M. 2018. *From school to VET: choices, experiences and outcomes*. Adelaide: NCVER. https://www.ncver.edu.au/__data/assets/pdf_file/0030/2096580/From-school-to-VET.pdf

By 2022, nearly two-thirds of the labour force is projected to be employed in industries where the average age is above the current state average of 40.5 years.³⁴ Proactive skills and capability development for unskilled and low-skilled mature-age individuals in occupations and industries impacted by technological disruption is especially important. These individuals are more likely to experience longer than average durations of unemployment on leaving the workforce.³⁵ Similarly, people returning to the workforce after periods of absence may require upskilling or reskilling to ensure they have the requisite contemporary skills.

Ensuring appropriate and equitable access to lifelong learning through community-based learning can be a critical enabler of participation, particularly for those who may not have undertaken learning for some time or for older people.³⁶ Education at community centres and in other community-based contexts provides a supportive environment and the means or methods for participants to re-engage with the education and training system.³⁷

In Queensland's diverse rural and remote regions, distances between towns and population densities present additional challenges. Thin markets restrict delivery options - especially face-to-face delivery - and servicing these markets can be challenging. This impacts individuals who are not confident in engaging in learning. Well-planned, regionally focussed and locally managed initiatives are critical to assist individuals affected by industries in transition and structural changes in the labour market and to ensure that there is equity of access to learning in regions.³⁸

English language, literacy, numeracy and digital skills

Appropriate English language, literacy, numeracy and digital (LLND) skill levels are crucial to both economic prosperity and for individuals. Low levels of LLND skills impact an individual's ability to perform in the workplace and to engage in learning. Successive international and national surveys have identified gaps in the foundation skills of Australia's labour force and this has been highlighted by industry as a major concern. This issue is present both at the broad foundational level required for the workforce generally, as well as in the more advanced capabilities (particularly digital capabilities) that are increasingly demanded in many workplaces. Low levels of literacy and numeracy impact work tasks, lead to increased errors and wastage, and affect workplace harmony. Improved language, literacy and numeracy skills can lead to:⁴¹



**An increased likelihood of employment
(and higher for women)**



**An increased probability of a person
holding a degree, diploma/certificate
or Year 12 education**



An increase in wages

34 Jobs Queensland. 2018. *Anticipating Future Skills*. Ipswich.

35 Bowman, D., Randrianarisoa, A. and Wichramasinghe, S. 2018. *Working for everyone? Enhancing employment services for mature age jobseekers*. Melbourne: Brotherhood of St Laurence. http://library.bsl.org.au/jspui/bitstream/1/10838/1/Bowman_et_al_Working_for_everyone_research_summary_2018.pdf

36 Parker, D. 2014. *The state of ACE in Australia*. Melbourne: Adult Learning Australia. <https://ala.asn.au/wp-content/uploads/2011/02/The-state-of-ACE-Research-Paper-Approved-by-contributors.pdf>.

37 Ollis, T., Starr, K., Ryan, C. and Harrison, U. 2018. Learning across the lifespan: Lifelong learning in Neighbourhood Houses in Australia. *Australian Journal of Adult Learning*, 58, no. 3 (November): 449-479.

38 Jobs Queensland. 2018. *Supporting workforces during industry transitions: Key elements for success*. Ipswich.

39 Australian Industry Group. 2016. *Tackling Foundation Skills in the Workforce*. Melbourne.

40 Ibid.

41 Shomos, A. and Forbes, M. 2014. *Literacy and Numeracy Skills and Labour Market Outcomes in Australia*. Canberra: Productivity Commission. <https://www.pc.gov.au/research/supporting/literacy-numeracy-skills/literacy-numeracy-skills.pdf>

Insights from Queensland industry case studies

KEY FINDINGS



The prevalence, accessibility and affordability of learning varies across and within industry sectors.



The value of lifelong learning needs to be promoted to all.



Where an individual lives can impact access to learning.



Recognition, portability and enhanced delivery of informal learning, soft skills and non-accredited training is important.

To better understand the current state of lifelong learning in Queensland, Jobs Queensland profiled three industries on the characteristics and factors of lifelong learning (Table 2). The three industries profiled are:

- **Automotive** repair and maintenance – selected for its strong regional distribution, technical and trades focus, and subjectivity to major technological disruption.
- **Financial Services** – selected for its strong professional organisation, knowledge-centric context, and enterprise encouragement for learning.
- **Health Care and Social Assistance** – selected for its strong regional distribution, and emphasis on compliance and certification-oriented skills and capability development.

There are clear lessons to inform policy considerations about the strengths and gaps of these industries and different models for embedding lifelong learning in practice. While differences exist across all three industries, common themes emerged:

The value of lifelong learning

- develop and implement a comprehensive communication strategy
- encourage younger individuals to adopt a lifelong learning mindset
- encourage and enable individuals to participate in ongoing learning and professional development
- create skill and capability assessments and learning pathways for career guidance
- investigate options for short term paid placement for students
- develop short courses and mentoring programs

Accessibility and affordability

- fund or co-fund programs for non-accredited learning and micro-credentials
- improve program capacity to address specific barriers to learning
- promote program incentives through industry and government forums
- establish tiered subsidy and co-investment arrangements for learning beyond entry-level
- enhance options to support individuals transitioning between sectors such as from those that are in decline

Employability skills and non-accredited learning

- engage industry experts to provide informal learning
- connect individuals to recognised non-accredited learning
- use community learning options, especially to focus on employability skills and LLND skills
- co-design learning so that it better aligns the workforce to future work

A single source of truth

- sector-wide recognition and portability of learning outcomes and experiences would be enhanced by a single source of truth e.g. a learning management system (LMS)
- improve systematic recognition of non-accredited learning outcomes

Place as a variable

- applied theory and practice for skills development is hard to simulate online
- accessibility to physical training centres in regional areas is a key factor affecting participation
- ensure training is contextualised adequately to meet relevant and specific regional demands
- where learning is online, technology infrastructure within regional areas is an ongoing barrier
- there are fewer skilled individuals in regional and remote locations to deliver training
- employment in regional and remote locations can offer more opportunities to develop diverse skills and capability

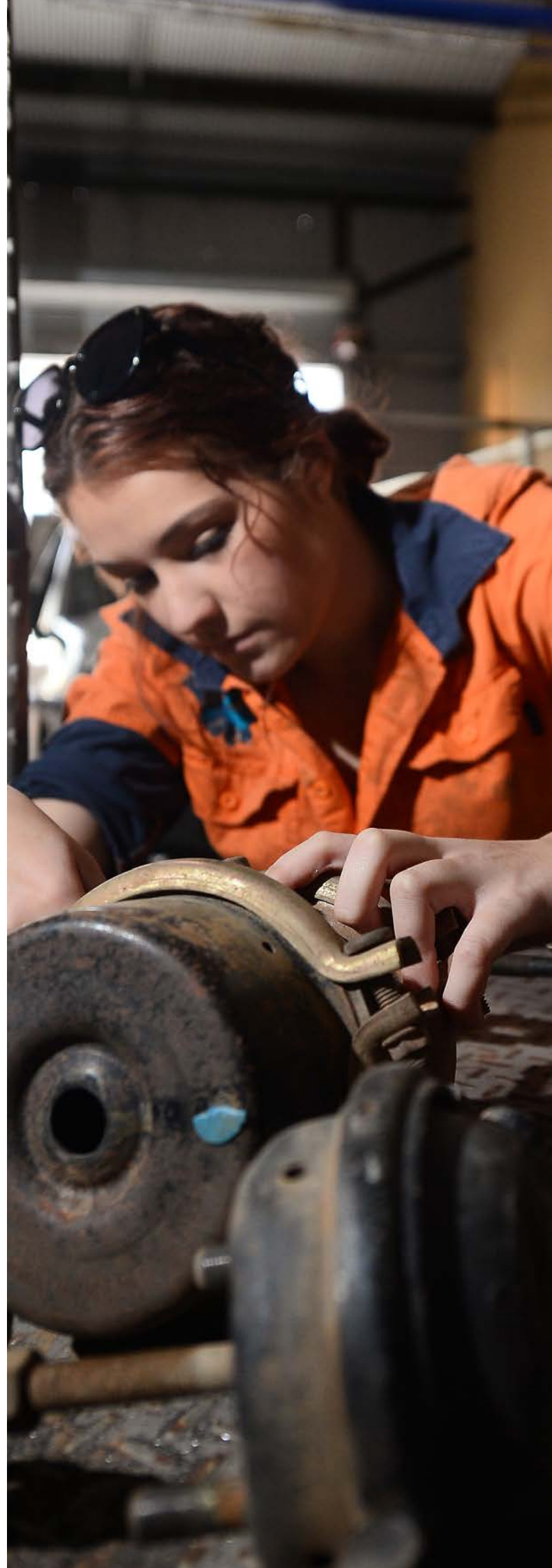


TABLE 2: INDUSTRY CASE STUDY SUMMARY



Automotive



Financial Services



Health Care and Social Assistance

Motivations for engaging in lifelong learning

- | | | |
|---|--|---|
| <ul style="list-style-type: none"> ○ Gaining initial entry into the workforce ○ Financial reward associated with formal qualification and career progression ○ Keeping pace with the rate of technological change ○ Changing or influencing the workplace culture | <ul style="list-style-type: none"> ○ The need to adapt to change from regulatory reform and increasing consumer empowerment ○ Intrinsic motivations such as personal drive, a love of learning and career progression ○ Increased use of automation in the industry which requires up skilling and reskilling | <ul style="list-style-type: none"> ○ Intrinsically motivated improve confidence and to provide better service and care for their clients ○ The need to develop soft skills ○ Professional development ○ New processes, technological equipment and the general increased pace of change |
|---|--|---|

Factors impacting portability of learning outcomes

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> ○ Résumés effectively capture technical and softer skills ○ Soft skills including problem solving and logical thinking, teamwork, leadership and work ethic, are highly transferrable between industry sectors ○ Learning modules and certificates of attainment are critical to portability | <ul style="list-style-type: none"> ○ Sector foundation skills attained across qualifications, including occupational health and safety and sustainability skills are highly portable ○ Soft skills such as customer service, design mindset, critical thinking, problem solving, leadership and communication ○ Recording of CPD learning is challenging in the sector | <ul style="list-style-type: none"> ○ Micro credentials need to be documented in a Learning Management Systems (LMS) ○ Formal VET qualifications and accredited training is highly transferable and demonstrates regulatory compliance which is critical to employers ○ The recognition of professions across sectors (e.g. nurses) |
|--|---|---|

Enablers of lifelong learning in workforce development

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> ○ A supportive culture that values lifelong learning and enables individuals to pursue ongoing learning and development opportunities ○ Encouraging individuals to have a learning mindset and promoting the value proposition ○ Investment in training ○ On-the job learning such as coaching and mentoring | <ul style="list-style-type: none"> ○ Promoting a top-down culture towards lifelong learning ○ Employer encouragement, including a willingness to financially support learning, making time available for staff, offering paid learning leave and flexible hours ○ Linking learning to outcomes (e.g. career progression) ○ Engaging and accessible learning content delivered flexibly and in various formats | <ul style="list-style-type: none"> ○ A culture that encourages regular learning ○ Clear professional development expectations for all individuals ○ A learning mindset and culture towards learning as value adding ○ Micro credentials to make learning easy to use and consume ○ Networks and support groups to share knowledge |
|---|---|--|

Constraints of lifelong learning in workforce development

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|---|--|---|
| <ul style="list-style-type: none"> ○ Business cost pressures and a focus on short-term profitability ○ Inflexible training market ○ Loss of learning culture ○ The requirement to self-fund learning ○ Reduced earning capacity while learning (time constraints) ○ Lack of on-the-job mentoring opportunities ○ Unclear information regarding post-trade training opportunities | <ul style="list-style-type: none"> ○ Lack of incentive to learn ○ Reaching a limit to formal learning pathways ○ Lack of encouragement from employers ○ Cost and affordability ○ Lack of quality and integrity of providers leading to some loss of trust and value ○ Learning outcomes not aligned to required employability skills | <ul style="list-style-type: none"> ○ Transient workforce in low skilled work due to changing sector demands and low paid nature of support or care work ○ Lack of CPD requirements for para-professional roles ○ Cost, income foregone, paid leave and cost of travel ○ Cultural appropriateness of learning for different groups ○ Lack of alignment between learning and role requirements |
|---|--|---|



Global insights

KEY FINDINGS



Governments across the world have different roles and approaches in encouraging and enabling lifelong learning.



The rate of change and impact of technology requires governments, industry, communities and training providers to work together.



The recognition of informal learning supports productivity and improved employability.



There are aspects of international initiatives that could be adapted to the Queensland context.

The global case studies identify several key practice elements that enable and encourage a lifelong learning mindset. Table 3 provides an overview of eight initiatives. The key findings about government's role in activating lifelong learning in an economy include:

The recognition of non-accredited and informal learning

The backbone of several lifelong learning policy initiatives is the recognition and validation of non-accredited and informal learning. These initiatives enable mobility within and between workplaces and allow individuals to apply their existing skill and capability to new or changing work, translating into increased productivity and improved employability. Several European Union (EU) member states have developed frameworks that validate informal learning to provide greater opportunities to disadvantaged and low socio-economic groups.

Future-thinking and responsive government

A government that is proactive and future-focused thinking is integral to the establishment of successful lifelong learning initiatives. Government policy should encourage the inclusion of all learning types into the broader education agenda and be inclusive of all members of society. However, to be effective, it should also be tailored to the unique requirements of specific cultures, stakeholder groups and geographies.

Embedding lifelong learning into government policies

In most cases, the role of government is to provide strategic direction by embedding the importance of developing a lifelong learning mindset as a priority into existing government policies particularly education and training, industry, regional development, social inclusion and labour market related policies. Several EU and UNESCO member state governments have established policies that recognise non-accredited and informal learning to encourage individuals to engage in learning. Government is uniquely placed to establish guiding lifelong learning frameworks and tools that encourage and enable enterprises and communities to embed a mindset of lifelong learning.

Alignment of learning to skill and capability requirements

Given the rate of change and impact of technology, governments, industry, communities and training providers need to work together to identify skill and capability gaps and opportunities to encourage individuals to adopt a lifelong learning mindset. Industry can provide the right level of insight into the skill and capability required across the economy to inform the design and refresh of formal and informal learning. This also enables the re-prioritisation of funding and programs towards the areas of highest need. Government can encourage this process to ensure individuals have the optimal learning environment to support a positive learning mindset.



Effective governance model

Collaboration between government, industry, the training sector and community groups is integral to successful lifelong learning policy development and implementation, as can be seen with the Future Economy Council in Singapore which oversees the *SkillsFuture* program.

The new industry engagement arrangements outlined in *Skills for Queensland - Great training for quality jobs*⁴² may provide ways of working with different industry sectors to develop policies that embed learning practice in workplaces and promote the value of a lifelong learning mindset.

Targeted and flexible long-term funding

Providing adequate and well directed funding is a key success factor to embedding lifelong learning initiatives. Singapore's *SkillsFuture* program includes subsidising the cost of selected courses, providing a learning credit towards course costs and offering financial incentives for completing certain courses. South Korea's lifelong learning promotion plan outlines medium and long-term policy objectives and how funding and resources will be allocated to encourage lifelong learning initiatives. In the United Kingdom, the *Union Learning Fund* has been facilitating workplace learning for around two decades, with an evaluation finding that for every £1 invested there is a return to the economy of over £12.⁴³

42 Department of Employment, Small Business and Training. 2019. *Queensland Government: Skills for Queensland - Great training for quality jobs*. Brisbane: Queensland Government. https://desbt.qld.gov.au/_data/assets/pdf_file/0012/10236/skills-for-queensland-strategy.pdf.

43 Centre for Employment Relations, Innovation and Change. 2016. *Evaluation of the Union Learning Fund Rounds 15-16 and Support Role of UnionLearn*. United Kingdom: University of Leeds. <https://www.unionlearn.org.uk/sites/default/files/publication/ULF%20Eval%201516%20FINAL%20REPORT.pdf>

TABLE 3: INTERNATIONAL INITIATIVES SUMMARIES

 Singapore SkillsFuture program	 European Union 'Recognition and validation of non-formal and informal learning' policy	 United Kingdom Unionlearn education service	 UNESCO Institute for Lifelong Learning
Elements of success			
<ul style="list-style-type: none"> Promoting a lifelong learning mindset Learning pathways tailored to an individual's needs. 	<ul style="list-style-type: none"> Recognising and validating non formal and informal learning. 	<ul style="list-style-type: none"> Helping union members access and continue education throughout their working lives. 	<ul style="list-style-type: none"> Assisting UNESCO member states to establish programs that encourage lifelong learning.
Enablers			
<ul style="list-style-type: none"> Informed choices High quality system of education and training Promote employer recognition Foster supportive lifelong learning culture. 	<ul style="list-style-type: none"> Identification of prior learning Documentation Assessment of learning outcomes from non formal and informal learning Certification of non formal and informal learning. 	<ul style="list-style-type: none"> Training focused on union representatives to ensure members' needs are being met Working with government to ensure initiatives support the government strategy Established Unionlearn, which encourages learning initiatives Unionlearn education centres 	<ul style="list-style-type: none"> Lifelong learning policies and strategies Adult learning and education programs Literacy and basic skills.
Barriers			
<ul style="list-style-type: none"> Evolution of economy Complacency of workers in the pursuit of lifelong learning. 	<ul style="list-style-type: none"> Methodological challenge of how to consistently recognise and validate non formal and informal learning Increasing social value of learning Raising awareness of benefits. 	<ul style="list-style-type: none"> Social and cultural Practical and personal Emotional e.g. lack of self-esteem Workplace e.g. gaining time off work. 	<ul style="list-style-type: none"> Demographics Poverty Unemployment Inequality Ageing population Conflict and natural disaster Changes in labour market Youth unemployment.
Recognition of various learning methods			
<ul style="list-style-type: none"> Allows participants to choose a learning pathway based on their individual learning history. 	<ul style="list-style-type: none"> Based on the recognition and validation of non formal and informal learning. 	<ul style="list-style-type: none"> Unionlearn recognise the value of a range of different learning methods including informal learning and self-directed learning. 	<ul style="list-style-type: none"> Emphasise the importance of recognising non formal and informal learning pathways.
Relevance to Queensland			
<ul style="list-style-type: none"> The importance of partnering with industry, education and training providers. Recognising the value of non accredited vocational education and training. The establishment of a framework to recognise and validate non formal learning. Applying lifelong learning to a diverse demographic including rural and regional areas. Partnering with workers' unions to provide education for the Queensland workforce. 			



Denmark
'Upgrading for all'



Germany
'Learning in the life course'



Malaysia
'Blueprint for the enculturation
of lifelong learning'



Republic of Korea
'Lifelong learning
promotion plan'

Elements of success

- | | | | |
|--|--|--|---|
| <ul style="list-style-type: none"> Increasing the availability of learning opportunities Creating a shared responsibility between Government, industry and employees to lifelong learning. | <ul style="list-style-type: none"> The promotion of a lifelong learning culture and mindset from an early age Strong partnerships with industry and community. Through codetermination unions / workers have involvement in corporate decision-making | <ul style="list-style-type: none"> A blueprint to promote lifelong learning participation Initiatives to encourage the enculturation of lifelong learning into all aspects of education. | <ul style="list-style-type: none"> The creation of medium and long-term policy objectives for lifelong learning Directing funding and resources to priority areas of focus. |
|--|--|--|---|

Enablers

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|--|--|---|---|
| <ul style="list-style-type: none"> Outlining specific targets in place for the multiple education stages. | <ul style="list-style-type: none"> Access to education opportunities Increasing the amount of available education opportunities Integration - enhancing the link between the education sectors. | <ul style="list-style-type: none"> Enhancing lifelong learning capability Public awareness and involvement Recognition and portability of skills acquired. | <ul style="list-style-type: none"> Link between higher and adult education Providing a range of program delivery Enabling and encouraging people who experience disadvantage to continue learning Inclusiveness of people in all stages of life to participate. |
|--|--|---|---|

Barriers

- | | | | |
|--|---|---|---|
| <ul style="list-style-type: none"> Connection between education and non-formal learning The strength of partnerships between national authorities and social partners Efficiency of education programs Participation of education. | <ul style="list-style-type: none"> Germany has a relatively low participation rate for lifelong learning Self motivation for continued learning can be a challenge. | <ul style="list-style-type: none"> Absence of lifelong learning policy Lack of monitoring, public awareness and financial support for continued education Inadequate mechanisms and infrastructure to deliver continued education Duplication of education resources. | <ul style="list-style-type: none"> Korea has relatively low participation rate of lifelong learning Lack of diversity in program offerings. |
|--|---|---|---|

Recognition of various learning methods

- | | | | |
|---|---|---|--|
| <ul style="list-style-type: none"> Programs targeting all members of the workforce with a focus on basic literacy and numeracy skills. | <ul style="list-style-type: none"> Promotes and instils self-reliant learning from an early age. | <ul style="list-style-type: none"> Recognising all types of non-formal and informal learning; although not fully recognised in formal framework. | <ul style="list-style-type: none"> Recognition of non-formal and informal education through the development of national competency standards. |
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Relevance to Queensland

- Implementing lifelong learning initiatives across all stages of education.
- Providing ample opportunities for people in all life stages to undertake education activities.
- Embedding a framework that includes initiatives to cater for regional populations.
- Creating a centralised lifelong learning governance body which sets standards and ensures that initiatives support the overarching education strategy and efficient use of resources.

Role for the Queensland Government

KEY FINDINGS



Changes in the labour market over time have heightened the need for government policy to focus on lifelong learning.



The strongest rationale for additional government support is where market mechanisms fail to enable and encourage learning, particularly for those experiencing disadvantage.



There is an opportunity to place a further specific focus on lifelong learning by developing a strategy for encouraging and enabling lifelong learning in Queensland.



The approach to championing lifelong learning must be multi-faceted and collaborative to drive a major structural change to learning in and outside of the workplace.

The role for government

Changes in the labour market over time have heightened the need for government policy to focus on lifelong learning. The prevalence of individuals working in permanent full-time employment with a single (often large) employer for many years has decreased over time. Under these arrangements, an employer would typically fund the enterprise-specific learning necessary to underpin long term employment. Alongside the changing nature of employment, an argument can be made that the balance of responsibility for funding learning is shifting towards individuals and government.

Despite these changes, a substantial amount of learning activity still occurs in workplaces around Queensland with minimal intervention or support by government. Many industries and enterprises are already doing much of the heavy lifting to create and support the workforce learning practices needed to remain competitive in the changing economy. Social research facilitated by Jobs Queensland found that both employers and workers consider the primary responsibility for supporting skills development for future employment lies with individuals and employers.⁴⁴

The *Future work, future jobs* report⁴⁵ identified the critical role for government in enabling individuals and employers to take ownership of their own learning. Industry representatives consistently expressed willingness to actively work with government but identified a need for support to do this effectively. This partnership needs to extend beyond high-level peak body engagement to effectively cater for the regional needs of any industry and their current or future workforce.

The strongest rationale for additional government support is where market mechanisms fail to enable and encourage learning, including:

- supporting those in the community with the greatest needs;
- providing opportunities for people outside the job market to experience valuable on-the-job learning; and
- providing strategic support for developing skill and capability between sectors, especially those impacted by disruption and transitions.

Government can and should highlight and champion the importance of lifelong learning by continuing to prioritise investment in the education and training sectors. Government can also ensure that a focus on lifelong learning features prominently in both policy frameworks and public-facing engagement and communication activities.

More broadly, there is an important role for government to ensure that education and training policy frameworks equip individuals for successful learning throughout their lifetimes.

⁴⁴ Jobs Queensland. 2019. *Future jobs, future work - Preparing Queensland for the evolution of work*. Ipswich.

⁴⁵ Ibid.



Throughout schooling and initial vocational education, a balance must be struck between the skills development needed for immediate employment and the more general and transferrable skills and capabilities required to underpin ongoing learning over the course of a working life. Given the longstanding challenges experienced by young people in the labour market, there would be benefit in considering whether alternative models of initial training that encourage adaptability through focussing on foundation capabilities and work experience can be conceptualised and trialled.

The current policy landscape

Queensland has a range of policies already in place that enable and encourage building workforce skill and capability. Similarly, there are focus areas on early education outcomes and VET training support directed towards specific skill and capability gaps. While these are important, in a rapidly changing environment the assessment of current skill and capability gaps can act as a static lag indicator of workforce needs.

The Queensland Government's *Skills for Queensland* policy includes focus areas and key initiatives which build on the existing strengths

of the VET training system to ensure planned investment is targeted to skill and capability needed for the future.⁴⁶ This policy flagged several initiatives designed to enhance the current suite of workforce development options including free apprenticeships for young people, refreshed industry engagement approaches and pilots for micro-credentialing and higher-level apprenticeships.

While these initiatives represent a positive step forward, there is an opportunity to place a further specific focus on lifelong learning by developing a strategy for encouraging and enabling lifelong learning in Queensland with specific objectives and initiatives.

No single solution in isolation will be enough. The approach to championing lifelong learning must be multi-faceted to ensure ongoing success. It needs the support and participation of industry, employers and unions to drive a major structural change to learning in and outside of the workplace that values a lifelong learning mindset and embeds learning through culture, practice and access across the Queensland economy.

⁴⁶ Department of Employment, Small Business and Training. 2019. *Queensland Government: Skills for Queensland - Great training for quality jobs*. Brisbane: Queensland Government. https://desbt.qld.gov.au/__data/assets/pdf_file/0012/10236/skills-for-queensland-strategy.pdf.

The way forward

Promoting a lifelong learning mindset and culture

There is a need for consistent, objective and unifying messaging from key stakeholders and institutions about the reality of the challenges and opportunities associated with future work in Queensland. All stakeholders have a shared responsibility for embedding an effective learning culture in workplaces and society more generally.

There is a compelling case to drive a comprehensive state-wide agenda with consistent messaging that positions lifelong learning as integral to Queensland's future. This can be a key driver for encouraging individuals to adopt a lifelong learning mindset and enterprises and other institutions to nurture a learning culture in Queensland. Elements of the refreshed industry engagement approaches outlined in the *Skills for Queensland* strategy could provide potential avenues for progressing this issue.

Funding settings

With the rapid changes in the Queensland economy and policy environment, the settings that underpin VET investment in Queensland need to further enable and encourage lifelong learning. A number of recent initiatives, including the TAFE Priority Training program, Skills Boost, pilots for micro-credentials and higher apprenticeships, along with industry specific strategies such as the NDIS Training and Skills Support Strategy, represent moves in this direction and are supported. However, as the need for upskilling and reskilling intensifies across the economy, there needs to be further emphasis placed on supporting Queenslanders to continually build their skills and capabilities throughout their careers. There would be merit in additional initiatives to support lifelong learning in the workplace, informed by evaluation of those initiatives already underway. As always, communicating changes effectively to stakeholders is paramount to successful implementation.

The costs of learning are a shared responsibility and the ability for government to provide financial support is finite. It will be increasingly important for government, industry and individuals to work together to share the costs of skilling, while maximising the utility of available government funding.

Supporting Queenslanders to participate in lifelong learning

The Queensland Government encourages people who face disadvantage on their learning journey to employment through a range of programs, such as Skilling Queenslanders for Work. Other jurisdictions offer differing types of support, some of which may be applicable in the Queensland context. In particular, the role of Adult and Community Education is more prevalent in some other states than in Queensland. There is evidence to suggest that this form of education, particularly when delivered by organisations with a deep connection with disadvantaged individuals and jobseekers, can lead to considerable social and economic benefit.^{47,48} It can play a particularly important role in enabling individuals to start or restart their learning journey.

Non-accredited training

Non-accredited training does not enjoy the same national recognition and portability across jurisdictions that accredited training does. Despite this, industry values non-accredited training as an agile and nimble mechanism to develop workplace skills for immediate application.⁴⁹

Non-accredited vocational education and an individual's experience can at times be recognised and be portable across workplaces or jurisdictions, but it is an ad hoc arrangement at best and not a national system. The development of strategies that improve recognition and portability of skills and technical knowledge gained through non-accredited vocational education, especially cross-sector recognition, have important productivity and workforce development benefits. There are existing activities underway, such as the implementation of a revised Australian Qualification Framework by the Australian Government and the implementation of a micro credentialing pilot in Queensland that may provide avenues for addressing some aspects of this issue.

47 Perlgut, D. 2017. *The Role of Community Education in Australian Regional and Rural Economic Development*. Sydney: Community Colleges Australia. <https://cca.edu.au/wp-content/uploads/2017/02/The-Role-of-Community-Education-in-Regional-and-Rural-Economic-Development-7February2017.pdf>

48 The Training and Skills Commission. 2019. *Recognising the Value of Adult and Community Education*. Adelaide: South Australian Government. http://www.tasc.sa.gov.au/DesktopModules/Bring2mind/DMX/Download.aspx?Command=Core_Download&EntryId=762&PortalId=5&TabId=1047

49 White, I., De Silva, N. and Rittie, T. 2018. *Unaccredited training: why employers use it and does it meet their needs?* Adelaide: NCVET.

Mature workforce

Mature-aged individuals are particularly vulnerable to digital disruption and structural changes in the labour market. Industries, regions, workplaces and individuals will be affected in differing ways. A range of interventions are needed to help address the challenges these individuals can face, such as ageism and perceived return-on-investment in upskilling and reskilling. These are likely to be most effective when tailored to the individual industry or regional context. Facilitating appropriate supports to enable access to participation in learning, including through addressing barriers such as low literacy and numeracy (including digital literacy) is key. The *UnionLearn* program in the United Kingdom and other similar initiatives offer examples of government and industry stakeholder collaboration that could be adapted for the Queensland context. This would complement and build upon existing initiatives such as the Regional Skills Adjustment Strategy.

Equipping young people for lifelong learning

Some young people (aged 15 -24) and new entrants to the labour market face structural challenges that inhibit their entry into, and participation in the labour market. Throughout the last decade, the youth unemployment rate has been consistently higher than for the rest of the population. Likewise, the employment to population ratio for this cohort has declined over the last decade while the same measure for the broader population has consistently improved. More than one in ten young Queenslanders are not engaged in work or study.⁵⁰

Despite staying longer in education on average, there is evidence to suggest that young people are not developing the skills and capabilities increasingly required for work and learning throughout a lifetime. Over a third of young people are not proficient in science, mathematics, technology, financial literacy and problem solving.⁵¹ While Queensland performs at or above the OECD average across relevant international benchmarks, in many of these areas Australia's overall position has been falling for some time.

A number of initiatives are currently underway in Queensland, such as the Link and Launch program, Back to Work and Skilling Queenslanders for Work. While these initiatives are supported, detailed analysis is required to quantify the extent to which young people and new labour market entrants in Queensland do not have the basic skills and capabilities that underpin effective participation in work and learning. This will provide a better understanding of the areas where government intervention through labour market programs and other measures can further support young people and labour market entrants into the future.⁵²

50 Australian Bureau of Statistics. 2019. 6227.0 - *Education and Work, Australia, May 2019*. Canberra: Australian Government.

51 Foundation for Young Australians. 2016. *Enterprise skills and career education in schools. Why Australia needs a national strategy*. Melbourne. https://www.fya.org.au/wp-content/uploads/2015/11/Enterprise-skills-and-careers-education-why-Australia-needs-a-national-strategy_April2016.pdf

52 Australian Council for Education Research. 2019. *Programme for International Student Assessment 2018*. Melbourne. <https://research.acer.edu.au/cgi/viewcontent.cgi?article=1036&context=ozpisa>

Safeguard those affected by digital disruption and automation

The industrial relations environment is changing with fewer individuals protected through collectivism at a time when the economy is transitioning. Industries and workplaces are facing increased rates of digital disruption and employment is becoming more precarious.

Other jurisdictions are addressing the impact of automation on the workforce through legislative processes. Legislation has been introduced into the USA legislature that will provide critical resources to individuals when companies decide to adopt new technology that will affect their jobs.⁵³ In an Australian context, while there are workforce consultative mechanisms and provisions in modern awards that provide some entitlements in these circumstances e.g. the Technology, Change and Redundancy provisions, there may be opportunity to further embed the importance of access to skill and capability development in provisions such as these.



53 Brown, S. 2019. *Brown Introduces Legislation to Empower Workers in the Face of Increased Automation*. Washington: Senator Sherrod Brown, Ohio. <https://www.brown.senate.gov/newsroom/press/release/brown-introduces-legislation-to-empower-workers-in-the-face-of-increased-automation>

English language, literacy, numeracy and digital (LLND) skills

Concerns around poor LLND skills and capability are raised repeatedly in Jobs Queensland's research and consultation. Poor LLND skills at both foundation and more advanced levels prevent all Queenslanders, particularly existing (and often more mature) workers from accessing learning. Queensland needs to lift the level of literacy and numeracy skills in its workforce generally, as well as ensuring they have the digital and technology skill and capability they will need to access future work.

Jobs Queensland's *Future work, future jobs* report outlined the need for a comprehensive LLND strategy that complements technical skill, capability development and career progression. This will support the ongoing development of high-level technical skills and capabilities in Queensland for both the current and future workforce. It is critical for our future economic and social prosperity. While some policy settings currently exist that seek to build LLND skills and capability, the need persists. The importance of this recommendation has been further reinforced by the findings of this research.

Career advice

People can expect to have multiple careers across different occupations. They are likely to enter and exit both work and vocational education including training several times during their lifetimes. To support individuals to make informed career decisions there needs to be accessible, accurate advice about career options, labour market trends, and skill and capability pathways at all stages of life, not just for school leavers.

Industry taster programs and work placement opportunities can also be valuable in demonstrating the range of options available to individuals. Employers have an important role in providing opportunities for 'hands on' workplace experience to contribute to the future talent pipeline for their industry. Industry and vocational education stakeholder collaboration is also critical to ensuring this career advice emphasises the importance of a lifelong learning mindset and provides practical advice about how to access relevant skill and capability development options.

There are a number of initiatives underway in this area, both in Queensland (e.g. a Digital Engagement Strategy to provide tailored information on career pathways) and nationally (e.g. the establishment of the National Careers Institute). These initiatives may provide a platform through which the availability of career advice to existing workers can be enhanced.

Jobs Queensland's *Future Work, Future Jobs* report outlined the need for information and advice that assists individuals to make positive career pathway decisions within school and throughout their working lives. The importance of this recommendation has been further reinforced by the findings of this research.



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