LearningCreates
AUSTRALIA

Recognition of learning success for all

Ensuring trust and utility in a new approach to recognition of learning in senior secondary education in Australia

Sandra Milligan
Rebekah Luo
Toshiko Kamei
Suzanne Rice
Thida Kheang

Learning Creates would like to acknowledge the traditional custodians of the land throughout Australia who have been learning and educating on Country for over a thousand generations.

We pay our respects to their Elders past, present and emerging for they hold the memories, traditions, cultures and hopes of Aboriginal and Torres Strait Islander Australia.

We acknowledge that Aboriginal and Torres Strait Islander people continue to live in spiritual and sacred relationships with Australia.

About Learning Creates Australia

Learning Creates Australia is a growing alliance of people and organisations who are committed to lifting Australia through a new era of learning.

More information on the broader mission of Learning Creates Australia as well as detailed information on the National Social Lab can be found on our website.

Learning Creates Australia partners include The Paul Ramsay Foundation, The Foundation for Young Australians (FYA) and The Impact Assembly at PwC Australia.

www.learningcreates.org.au

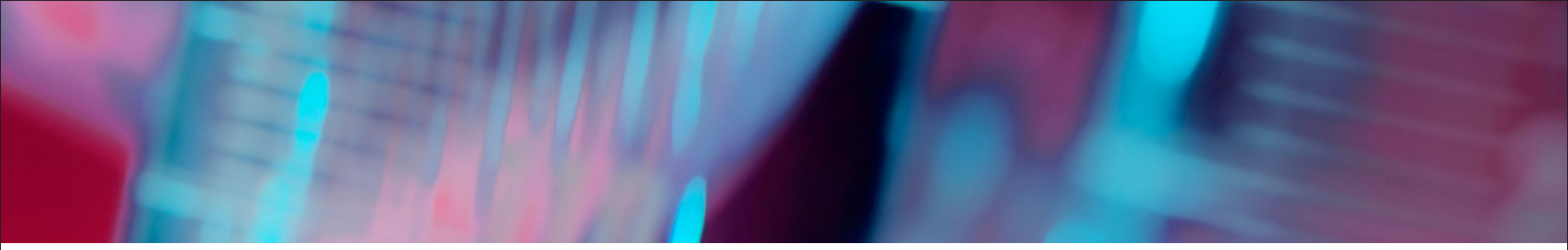
Authors:
Sandra Milligan
Rebekah Luo
Toshiko Kamei
Suzanne Rice
Thida Kheang

Citation: Milligan, S., Luo, R., Kamei, T., Rice, S., and Kheang, T. (2020) Recognition of learning success for all: Ensuring trust and utility in a new approach to recognition of learning in senior secondary education in Australia. Learning Creates Australia, Melbourne, Victoria.

Published by Learning Creates Australia

Design by Streamer Strategy: www.streamer.net.au

Contents



Foreword

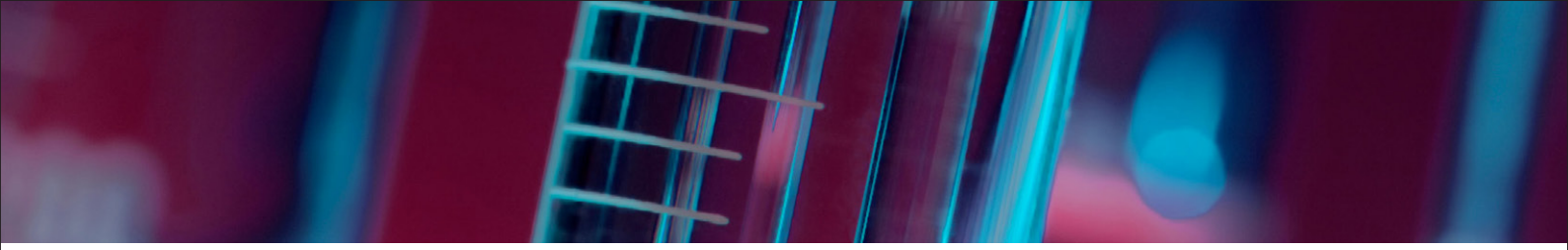
Australian students, community leaders, educators and employers are calling for a new way of recognising valued learning that: is trusted and understood by the community, has social and economic currency and allows all 15-19 year olds to demonstrate their levels of confidence and creativity, knowledge and knowhow.

After several years of feasibility testing and research, Learning Creates Australia launched in 2020 through an alliance of people and organisations committed to ensuring that every young Australian, regardless of where they live or what school they attend, should be recognised through a learning system that helps them flourish.

As this paper is published, *The Learners Journey* project will complete its first of three cycles of collaboration and research through a National Social Lab. This method includes co-designing, exploring and prototyping how we might articulate, design, assess and accredit learning in a way which better reflects the diverse knowledge sets, skills and dispositions of students.

While Australia has many examples of positive incremental change and aspects of our education system have served many young people well, how we define and measure success in learning is limiting young people's ability to prepare for their future – regardless of their background, abilities or efforts.

Australia has the fourth most segregated education system in the world.[1] We need to build a new way of recognising success that leaves no one behind. We are mindful that those who are able to find a way to thrive will continue to do so, if not more so. All students – and especially those who experience disadvantage – stand to gain from a more extensive range of pathways that are more informative for recruiters and selectors.



With new learning pathways that fully reflect young people's skills, knowledge and experiences, we envisage Australia's workforce participation and productivity will benefit as will the health and wellbeing of young people.

With input from many people across education, government, business and philanthropy, including young people, this paper builds on the engagement and evidence behind the work of Learning Creates Australia to date.

Learning Creates Australia, commissioned this paper from our research partners, the University of Melbourne, to contribute to the evidence base for our work. The research team has gathered input from many people across education, government, business and philanthropy, including young people.

There is more work to do and this paper does not present every angle of learning. Rather it attempts to build on the best practice and thinking in the industry, to present a new way to a recognition system that has trust and utility.

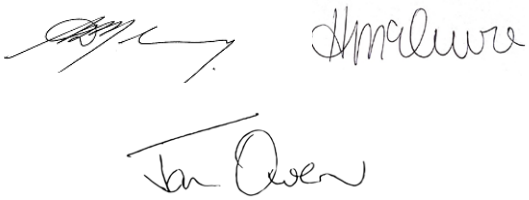
The Learner's Journey has bought together many who have contributed to the thinking behind this paper, and aims to build solutions towards a better currency for recognising learning. And as part of the process, those who share the challenges we recognise are invited to share and extend this work as they design and scale their programs and initiatives.

Learning Creates actively welcomes others to own, drive and adopt a new narrative for recognition in Australia. It's not the work of one entity, organisation or sector but a shared framework with tools that we can all test and take into our schools, programs, policies and plans around the country.

Importantly, *The Learner's Journey* centres young people and First Nations people as central drivers of the work.

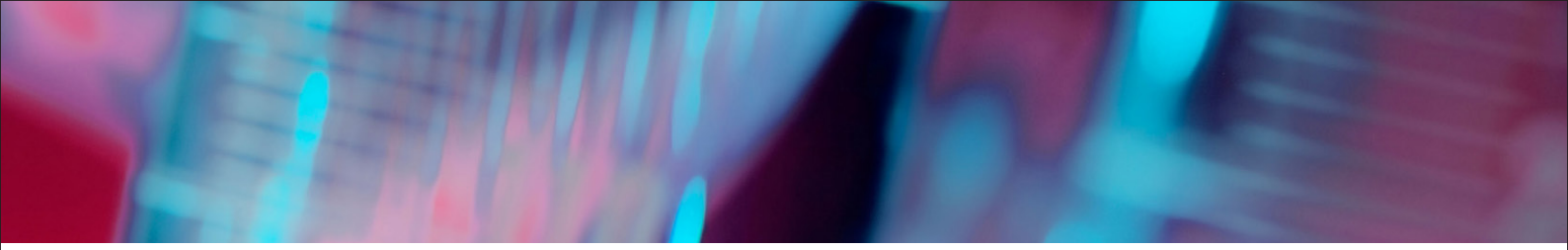
While this project was conceptualised before Australia was impacted by COVID-19, it's relevance has only grown as education and online learning has been significantly disrupted here and around the world. It has highlighted inequities and demonstrated that new solutions are now crucial as we transform, modify, adapt, re-invent and hold onto the great things that will move us towards lifelong learning in Australia.

We look forward to working with you to ensure Learning Creates Australia.



Anthony Mackay AM, Hayley McQuire and Jan Owen AM

Co-Chairs, Learning Creates Australia



Summary

Too many young Australians finish school ill-equipped with the knowledge, skills, attitudes and dispositions that they need to navigate the transition from school to further education, training or employment.

This is a persistent problem that has resisted policy and programmatic effort for decades. Innovation has tended to be peripheral, unable to be scaled or sustained.

This paper provides the background to the problem and the opportunity. It examines the prevailing conceptions of success built into the recognition system in senior secondary schooling in Australia and explores how to build a more equitable system that celebrates and measures a broader and deeper conception of success.

A nationally agreed goal of Australian schooling is that all young people should leave school with the learning they require to be confident and creative individuals, committed to lifelong learning as active and informed members of the community who will thrive in work, family and community life.

However, the weight of evidence is that the Australian schooling system is stuck or even going backwards in providing the learning success for each young person.

Key indicators and metrics are not improving, or are improving only slowly. Many young people are still not completing school. Standards of attainment in some core areas of learning are falling. Even for these who complete school, transition into a satisfying post-school pathways is often difficult and slow and not conducive to confidence.

The effectiveness of the system is uneven and it is less effective for young people from rural, remote and low socio-economic communities, those from Aboriginal and Torres Strait Islander communities, those with specialised needs and those who are refugees or immigrants.

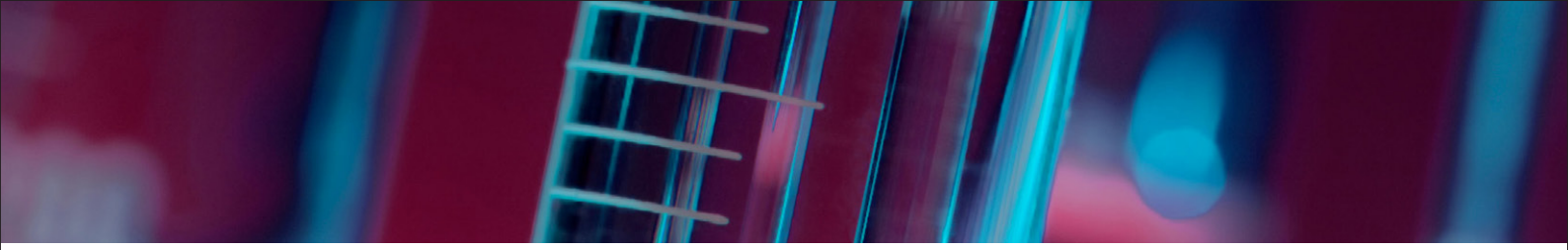
The core problem is the misalignment between what we measure as educational success and the learning goals we aspire to.

Correcting this misalignment provides a powerful opportunity for impact. If assessment and recognition changes, so too does the curriculum and organisation of learning.

The dominant recognition system for senior secondary schooling includes the Australian Tertiary Admissions Rank (ATAR) rankings for tertiary selection and senior secondary certificates. The system is long-established, deeply embedded, generally trusted and operates with high levels of efficiency and integrity, underpinned by the work of assessment and recognition authorities, tertiary selection bodies and schools in each jurisdiction.

The system sets syllabuses, defines study rules and regulations for students, sets assessments and examinations, calculates scores, monitors and moderates standards and issues certificates.

Learning Creates Australia is focused on building a new, trusted and well-endorsed approach to recognising learning that will strengthen and increase agency in young people and help them to effectively navigate and access a range of pathways beyond school.



A better recognition system in Australia would assess and represent for each young person the degree to which a learner has attained the full range of learning they need to thrive and would support a learner to represent their learning regardless of how, where or when they learned it.

The current recognition system defines success in narrow, shallow terms that do not reflect the breadth and depth of learning now required.

Scoring is (usually) competitive and not standards based. It tends to privilege examinable academic knowledge, rather than knowhow, the capacity to learn or the exercise of learner agency. It has the effect of marginalising vocational and community-based learning and learners often have to put aside their own interests, passions, cultural contexts and motivations and the cultural, economic and educational needs of their communities.

To thrive, a learner needs both breadth and depth of learning. Such learning should encompass attainment of the basic literacies and numeracies and mastery of discipline or domain knowledge. But it should also include knowhow in applying knowledge to create value for society and competence in general, transferable capabilities and dispositions.

Young people should have the ability to sustain deep connections to the communities in which they learn, work and add value. They should be able to exercise agency to learn independently, channeling their passions and interests into learning for their own good and that of their communities.

Required components of a new system include:

New learning ambitions:
Broader and deeper learning required by senior secondary students if they are to thrive as creative, confident individuals and active, informed, contributing members of society.

New assessments:
Methods for assessing the degree to which a learner has progressed in their learning in any domain, especially when depth and complexity in learning is required.

New standards:
Expressions of the increasing levels of sophistication learners are expected to attain as they progress in learning from novice to expert, or beginner to master in any learning domain.

New credentials:
Documentation that is trusted, and comparable, representing the breadth and depth of learning a person has attained, with utility for learners, teachers, recruiters and selectors.

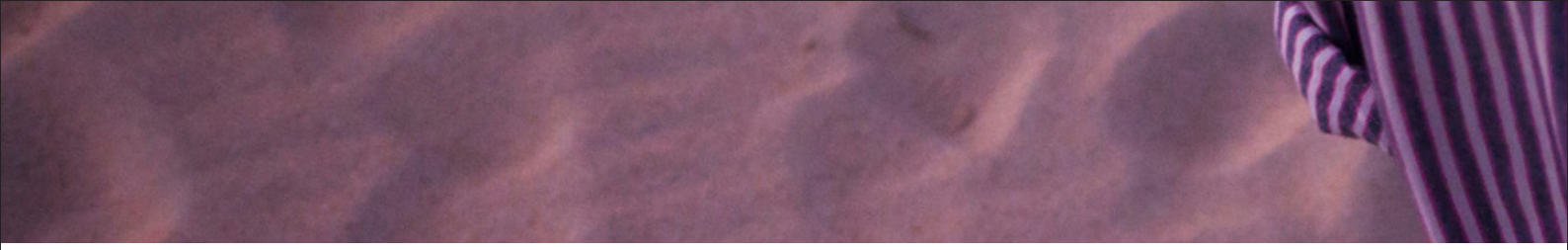
New pacts:
Public agreements amongst stakeholders that settle how the new credentials, standards and benchmarks will be used to guide objective, fair, equitable and efficient recruitment and selection into post school options.

New metrics:
A set of measures that enable teachers, schools, and the community to monitor and evaluate the success of schooling in supporting learners to thrive, at school and beyond.

A key requirement is that the new components should generate the trust of and utility for learners, parents and communities, teachers, schools, recruiters and selectors. Required qualities of credentials include interpretability, fairness, feasibility and integrity. Comparability of representations should be guaranteed across the country.

Change to the current, established recognition system has inevitable risks and concerns that need to be monitored. Care is needed to protect against new forms of gaming, or new kinds of inequity.

The core premise of this new approach to recognition is that, simultaneously, standards will rise across the board, the deep inequities evident in schooling will be reduced and a system embracing agency in young people can create more effective and equitable pathways for them.



1. Introduction

The problem

The problem is well documented, and persistent. It has been somewhat impervious to changes in policy setting by governments and education authorities over the decades. For instance, despite adoption of the goal to have students complete their secondary schooling, there are still many young people who leave early.[2,3]

An estimated 17 per cent of young Australians of school age in 2018 did not complete Year 12. This is more acute for groups of young people living in remote communities (60 per cent apparent retention rate from Year 10 to Year 12), Indigenous young people (65 per cent), those with low levels of social or economic resources (76 per cent) and those living with disabilities (32 per cent).

The gap in apparent retention rates between Indigenous and non-Indigenous students, the focus of much reparative effort, fell only marginally, from 27 per cent in 2010 to 21 per cent in 2018.[4]

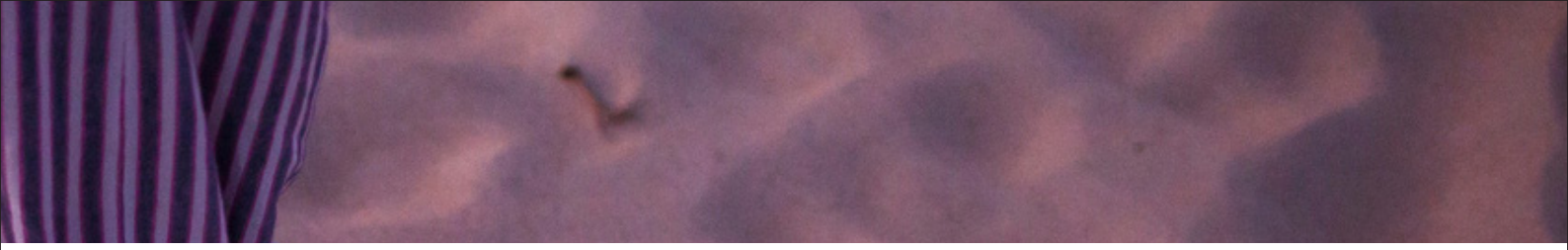
But these statistics don't tell the whole story either. Even for the 67.2 per cent who complete a senior secondary qualification and move without interruption into their universities or vocational training, some experience low engagement, low satisfaction levels and high levels of anxiety.[5] By age 24, one in four Australians has not made the transition into full time work, and even for many who have, it has been a struggle.[6]

The problem has endured despite extensive innovative initiatives and efforts across the country. These initiatives[7,8,9] are implemented to cater for different groups of students, or early school leavers who have disengaged, or who struggle to thrive in school. Special program funding is often used to target groups such as Indigenous students, students with specialised needs, or students from communities with low levels of social, economic or educational capital.

Despite decades of effort, there is little sustained improvement overall, and in some ways the Australian schooling system appears to be going backwards.[10] For instance, the proportion nationally of 15-year-old students achieving at or above the international proficiency level in reading fell from approximately 70 per cent in 2000 to below 55 per cent in 2018.

Apparent retention rates from Year 10 to Year 12 have been around 83 per cent since 2014.[11] The participation of students in vocational training while at school fell from 34 per cent in 2014 to 27 per cent in 2018, down 6.7 per cent – the uptake of education for technical skills and knowhow in post compulsory education, including in schools, has dropped off disastrously in favour of more academic learning.[12]

In 2018, only 74 per cent of 17-24 year-olds were fully occupied in work and/or education and training, a figure that has hovered around that mark since 2006.[13]



‘Education should play a vital role in promoting intellectual, physical, emotional, moral, spiritual and aesthetic development and personal and social wellbeing.

It should promote flexibility, resilience, creativity, and the ability and drive to keep learning.’[14]

The Alice Springs (Mparntwe) Declaration

The opportunity

This report provides support for practical prototyping being undertaken by Learning Creates Australia in response to the challenge of how to develop a new and trusted way to recognise learning that enables every young person to thrive in learning, work and the community.

The report provides an underpinning narrative which examines why change has been so slow and proposes practical responses to this.

One premise on which the narrative is based is that senior secondary schooling needs to ensure that every school leaver has attained the confidence and creativity, knowledge and knowhow so they can make a smooth transition from school to further study and work and into a thriving adulthood as lifelong learners.

This is aspiration is documented in the *The Alice Springs (Mparntwe) Education Declaration*,[14] the foundational statement about education in Australia issued jointly by state, territory and Commonwealth ministers for education in 2019.

Broadly, the Declaration sets common and agreed educational goals for Australia. It asserts that education should support all young people to realise their potential by providing the skills they need to participate in the economy and in society.

It cites the need for a broad and deep range of learning outcomes, referencing intellectual, physical, emotional, moral, spiritual and aesthetic areas of development.

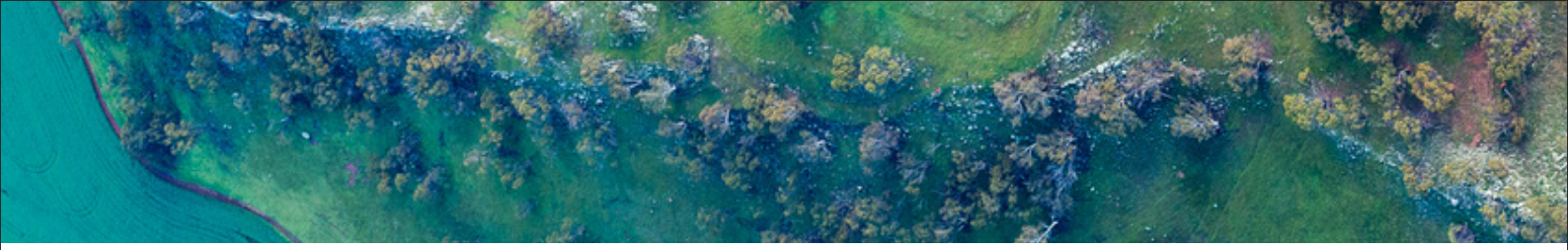
It stresses the importance of predispositions to learning and life, including flexibility, resilience, creativity and the ability and drive to keep learning.

A second premise is that, to address the problem, ‘more of the same’ will not be productive.

A range of recent reviews of senior secondary schooling[15,16] have identified deeper issues with the Australian schooling system than can be addressed by local programs and initiatives or by continuing under the current policy settings. They allocate blame to the dominant approach in senior secondary schooling in Australian educational jurisdictions that establishes, in practice, how success is defined, assessed and certificated.

The recent *Review of Senior Secondary Pathways into Work, Further Education and Training* points out:

‘*We have found many instances of innovation. Yet much that is creative still sits at the periphery of education. Innovation needs to be embedded systemically in the senior secondary years. New approaches need to be trialled and, if successful, scaled up. Demonstration projects need to have greater influence on the traditional core of how we measure educational success.*’[17]



> ‘We have found many instances of innovation. Yet much that is creative still sits at the periphery of education. Innovation needs to be embedded systemically in the senior secondary years. New approaches need to be trialled and, if successful, scaled up. Demonstration projects need to have greater influence on the traditional core of how we measure educational success.’[19]
>
> Review of Senior Secondary Pathways

Considerable attention in current reviews is paid to the effects of these current official systems for defining and measuring success, especially the ATAR rankings, and the examinations associated with them, which are part of the senior secondary certificates. In a similar vein, the Review of the NSW curriculum[18] noted that Year 12 examinations influence not just Year 12 students but the entire secondary curriculum.

What is needed, these reviews suggest, is a different overarching narrative for recognition of success in learning that avoids a one-size-fits-all approach and supports programs that are currently peripheral, so they can be scaled and so that improvement in learning outcomes for all young people can be instituted and sustained.

This report presents such a narrative, defining in broad terms what school leavers need to learn so that they have the confidence and creativity, knowledge and knowhow they need to make a smooth transition from school to further study and work and into a thriving adulthood as lifelong learners.

It examines the current approach to recognition of learning for senior secondary students: that is, how ‘success’ is defined, assessed and certificated, in practice. It analyses this practical expression of success and finds the current system wanting. It identifies components of a recognition system which would be better aligned with the contemporary conception of success.

The implications of this narrative for the range of practical initiatives aimed at improving matters for young people are drawn out.

2. What constitutes success in learning for school leavers

To explore what counts as 'success in learning', a series of sessions with young Australians was held by Learning Creates Australia early in 2020. Diverse groups of young people were asked to reflect on their 10-12 years of schooling.

Did they feel that their schooling had supported them to learn what they need to learn? What, in their view, does success in schooling look like and did they achieve it?

These sessions coincided with lockdowns due to the COVID-19 pandemic and many participants were grappling with its effects on their lives, including unemployment, lack of income, family stress, sometimes illness. Many were conscious of the pressing social concerns of the day arising from the Black Lives Matter movement, the world refugee crises, climate change, economic instability and the high and rising unemployment rates.[20]

Memories were fresh of the devastating Australian bushfires of 2019-2020.[21] These young people were coping with the reality of all of these things, grappling with the impact on themselves and their friends, families and communities.

The question of what learning is really needed to navigate an uncertain world was front of mind for these young people.

Learning what you need to know

While the young people, in general, were optimistic and had a positive outlook, they were not complimentary about what they learned at school and its relevance to the world they live in. They did not favour the notions of success that their schooling embodied.

Many believed that much of the learning that they regard as fundamental to their success was not on the curriculum. They were critical of the dominance of academic content such as mathematics, science and social studies. They wanted more curriculum emphasis on the personal and social skills they needed to achieve success in the community and at work.

They felt they needed better skills in managing setbacks of the kind many were experiencing at the time. They wanted to be more confident in their ability to operate in culturally complex situations.

They wished that they had more confidence in themselves as learners, wondering if they have what is needed to navigate an uncertain world.

What young people had to say

'People with disabilities are forced to navigate an education system not built for them, especially if we are mainstreamed. We have to put so much more time and energy into our learning than people without disabilities - and sometimes, we just can't do that.'

They wanted to know what they could do to respond to social inequality, such as poverty, racism and sexism. They were interested in issues such as 'fake news,' and 'alternative truths', pandemics, environmental disasters of fire, flood and drought and the stresses associated with wars, human dislocation and international disputes.

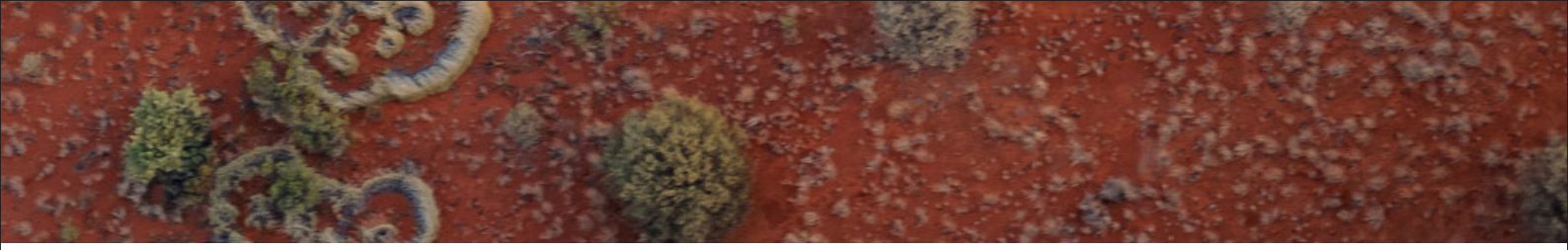
Success in learning, young people suggested, should require the development of such core values as kindness, resilience and persistence, alongside subject knowledge.

It should provide an ethical and moral base, and imbue young people with confidence in their capacity to collaborate, work in teams and to creatively adapt to life's exigencies.

Representing what you know and can do

The current system of assessment and credentialing dominant in Australian secondary schooling faced particular criticism from young people. They see senior secondary certificates and the ATAR[22] as the official summation of what they achieved at school, symbolising their success or failure.

Young people expressed dismay that what was considered as success in years at school is summarised by one number (the ATAR) or, at best, by a handful of numbers (subject scores on a senior secondary certificate). These numbers, they pointed out, represent only relative academic performance in various subjects. They regard such a summary of attainment as a pale reflection of what they know and can do and of their contributions.



'(It produces)…. lack of confidence due to society's perception of what success should look like for you vs your idea of what success is for you. (There is)…pressure to prioritise specialised learning in school subjects rather than feeling safe to take a step towards learning a new skill.'

'I hate school so much, that stops me from showing the best I can do. I guess… finding a way to show superiors what I can do. Teachers just don't see into it because it's their job not to. It's their job to apply criteria and apply to the rules, not their fault really.'

Overwhelmingly, young people felt inappropriately defined by success or failure in the examinations and assessments associated with senior secondary certificates. They rejected the idea that the breadth and depth of what they know and can do is represented in those credentials.

The young people were also quick to point out, too, that to keep the option for university study open, the whole of their secondary schooling somehow became geared to competitive ranking.

They realised that the ATAR is irrevocably competitive, with no net sum gain. It is a rank, rather than a score illuminating the degree to which things have been learned.

If one student goes up in the rankings, another must go down, regardless of the standard attained. Young people are conscious that it doesn't really matter what standard they reach in their learning, as the game is to beat the next person. This awareness robbed them of the pleasures of learning, and caused them to set aside their real interests and aspirations in the interests of maximising their rank.

Young people also describe being anxious and stressed, by the competitive nature of the rankings, feeling that the one-shot, end of school examinations will determine their future.

Connecting to context

A number of young people also reflected that their sense of success was diminished because their schooling felt curiously separate from the rest of their lives, creating a destructive sense of separation between who they really are and what they need to do to be part of the learning community of the school.

They had no opportunity to pursue in depth the areas of knowledge and knowhow that reflect their personal, family or community passions, interests, concerns and challenges. School work, they said, was often just not very relevant to their lives.

Young people from Aboriginal and Torres Strait Islander communities commented that the cultures of First Nations communities value knowledge and ways of knowing and learning that are often excluded from the curriculum.

What young people had to say

'(The) problem is that success suggests the opposite is failure. Thinking that you will achieve success later puts you into the mindset that you aren't successful already right now.'

'I don't do anything for fun. I do it to compete. To get good grades. We become so focussed on good grades, and we forget about learning. I just focus on getting good grades, I don't learn for passion! When I started year 11, my passion for learning just disappeared.'

Learning in these domains is vital to the personal well being of First Nations young people, and their communities, yet is usually not reflected in curriculum or assessment practices of schools; nor is its value recognised in formal certificates and credentials. Success in learning in these areas does not currently count.

To varying degrees, this point was echoed by all young people, including but not exclusively those from refugee and immigrant families, from minority or less-dominant cultural groups, and from rural communities.

Young people felt restricted by the one-size-fits-all approach to the curriculum that seeks to standardise content, de-contextualise learning and does not incorporate interests and ways of knowing that their communities value or that reflect their personal passions and interests.

The formal curriculum, according to these young people, is curiously disconnected from their economic and social ecosystems, leading to lack of engagement, a lack of confidence, a sense of separation, even alienation.

Learning in and out of school

Many young people expressed appreciation of learning they attained outside of school. They highlighted especially the value of part time jobs, particularly when they were associated with training. Young people valued skills programs or short courses offered by employers, scouting organisations and music or drama schools or lessons.

Young people's pursuit of hobbies and interests, sport and club activities, volunteer work and community services were also mentioned as providing the confidence and capabilities they think they need most for success.

Some believe that not only was what they learned through these experiences of great value but that they also won greater acclaim for those attainments than they received for their hard-won senior secondary certificates. Recruiters recognise the skills learned from these experiences as those that they want from recruits.

These experiences open doors for young people, establish contacts and friendships, contribute to the community and build communities of interest and support for them.

'(We have).. a very hierarchical system that rather doesn't fully measure success but perhaps measures privilege.'

'The standard of "success" is restricting.'

'I just finished Year 12 last year and there's lots of pressure to get good grades, you have to put your homework before anything else. You drop everything else because all I did was school.'

Unanimity of views

The views of young people that learning in schools does not prepare them to thrive are echoed in a range of recent government sponsored reviews of the Australian education system,[23] in the commentary of economic and social analysts[24], tertiary education providers,[25] international agencies[26] and researchers,[27] and in the view of employers and employing authorities.[28,29]

A consistent picture emerges of the changing economic and social environment for which school leavers are ill-equipped to navigate.

The pace of technological and labour market change means that many of the specific facts and skills that they learned in school are likely to become obsolete or irrelevant very quickly.

Estimates that up to 40 per cent of existing occupations may be automated over the next two decades and the rise of flexible work and the gig economy underline the importance of young people developing broad-ranging skills and knowledge, together with the capacity to manage themselves and to navigate an increasingly volatile labour market.

The OECD has recognised the nature of this emerging environment, and aspires to measure success for students based on their mastery of '*complex knowledge and skills needed in advanced economies as well their ability to apply that knowledge and those skills to problems with which they are not familiar*'.[30]

The common themes emerging in these official reports and expert opinions and in the views of young people, is that schooling in Australia does not reliably deliver or recognise what young people need if they are to thrive and contribute to a healthy economy and society.

This situation is counter-productive for learners and for the economy, for society, for communities and for families.

These views suggest that Australian schooling currently falls short of the high aspirations expressed in the *The Alice Springs (Mparntwe) Education Declaration* about the nature of learning that Australians need to ensure that they are confident and creative individuals, successful lifelong learners, active and informed members of the community.

3. How success is currently defined and recognised

The current recognition system in Australia was consolidated in the last quarter of the 20th Century and organised around the issuance of senior secondary certificates.

The system is elaborate, shaping how schools are organised, what teachers teach and how they teach it, what students study, how their learning is assessed and recognised, what information is represented on certificates and how this information is used by recruiters and selectors.

The system is comprised of structural rules and regulations as well as conventions and expectations that govern the community view of good education.

Although there are differences between the educational jurisdictions in Australia, the recognition systems operate along similar lines across the country, as summarised in Table 1 on page 15.

In broad terms, each state and territory in Australia offers a senior secondary certificate, which can be awarded to successful students after two years (typically) of senior secondary enrolment in an accredited school. Approximately 80 per cent of the Australian cohort completes one of these certificates.[31]

In addition, a nationally consistent approach is used to calculate an ATAR for any student seeking entry into a tertiary institution which is approximately 54 per cent of the cohort.[32] This rank provides the positioning of students in scholastic terms on a single scale, compared to the whole Australian cohort.

The componentry that underpins the official system for recognising success in senior secondary schooling includes subject syllabus regulations, school accreditation processes, subject selection rules, school-based assessment requirements, invigilated examinations set by authorities, and moderation activities for teachers and schools.

The system is well-regulated, trusted, and used by learners, parents and schools, by governments, university, other tertiary providers and by employment recruiters. The system has served for many decades, defining a path from school into academic pursuits.

There are, of course, non-university oriented subjects offered as part of senior secondary studies in many schools, especially in technology and service areas, with some of these delivered by specialist vocational education providers ('VET in schools').

However, there is a potent mix of logistical and operational factors that inhibit students taking up these options. There is also status anxiety associated with the choice of such studies.

Many students, and their parents, regard these studies as 'second class' options, and success in them does not contribute to a sense for a young person that they have 'aced' their schooling.[33]

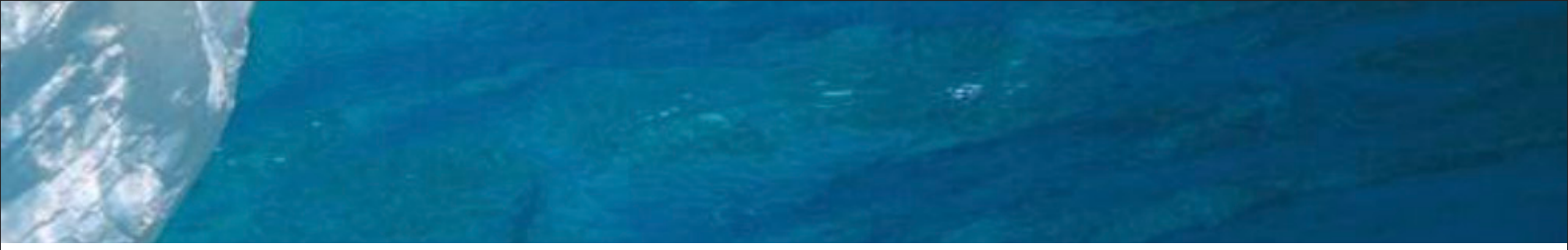


Table 1: A brief description of the system for recognition of senior secondary learning in Australia

Regulatory bodies	
– In each educational jurisdiction, senior secondary certificates are administered, warranted and issued by an assessment and curriculum authority.[34]	– Another set of bodies, known as tertiary admissions centres, owned and operated by tertiary institutions in each jurisdiction, use the results supplied by the authorities to calculate ATAR scores and to administer the agreed process of selection of school leavers into courses in the tertiary sector.
Learning ambitions	
– The breadth and depth of learning covered in students' certificate programs varies widely. Each student makes a limited selection from an array of units of study accredited by the authority in their jurisdiction and offered by their school. – Each study unit is defined by a syllabus which specifies the assessment required and the content to be covered. – Jurisdictions may also allow credits for some vocational education study and/or performances in elite sports, or attainments in selected, approved external courses of learning.	– For those seeking to keep open the option to attend university, study selections are further constrained to include selections from a smaller subset of 'ATAR subjects' that have a more academic, discipline based orientation. – In practice, there is an informal classification of subjects/units as 'easy' or 'hard', usually determined by the degree to which the content adheres to the academic standards of research universities. Non-ATAR subjects are usually interpreted as non-demanding. – There are some rules attending unit selection, used to ensure a degree of breadth. These may include mandatory study of English units, for example.
Assessment methods	
– A student's score in a subject is derived from teacher assessment of student performance, often combined with examinations, or their computerised equivalent, conducted by the curriculum assessment authorities. Sometimes additional performances or portfolios are required. – School-based assessments are subject to formal regulation and review processes, called moderation, in which the curriculum and assessment authorities use various means to ensure that the scores in one school are directly comparable to the scores provided in any other school.	– A range of moderation methods are used, including using work samples, and professional learning. – Between-school comparability in subjects, particularly high status subjects may also be moderated statistically using examination results or scores on standardised tests of academic aptitude.
Certification and agreements on use	
– Standards-setting methods vary across jurisdictions and across types of programs. Mainly, standards are the domain of examiners and moderators from the curriculum and assessment authorities who monitor and report on standards on a unit-by-unit basis.	– Standards for vocational courses in schools are subject to Australian Qualification Framework standards,[35] administered by a separate national authority. – Some external standards are applied for supplementary credits, such as those used in music examinations, or for literacy and numeracy performance in the compulsory stages of schooling to Year 10.
Certification	
– Scores in studies are provided on senior secondary certificates. – Ranking in various studies are combined for each student to generate an overall academic ranking (known as the ATAR) of each student within the cohort.	– This ranking is used widely, although not exclusively, by Australian universities to offer places to school leavers in their courses. Young people who use alternative routes (such as the International Baccalaureate) depend on agreements with curriculum and assessment authorities on 'equivalence' to the senior secondary certificates.

There are, in addition, opportunities in many schools for learners to take alternative routes that bypass this system. For instance, there are many alternative programs for students in hundreds of schools[37] that do not lead to the award of a senior secondary certificate. These learners may or may not learn something of value, but they have no official recognition of what they have learned after their twelve or thirteen years of schooling.

The upside of the current system is that the scores and certificates that 'successful' school leavers earn are useful: they count because they provide the trusted currency for negotiating value, such as entry into courses or recruitment into jobs.

The system is well-understood by its users and is seen as reliable and fair.

The downside is that it is not particularly suited to recognition of the breadth and depth of learning now required and does not apply to all students. Those who do not have that form of currency may or may not earn recognition for what they know and can do. What they have learned does not currently 'count'.

The rules and regulations that establish what must be learned do not add up to a definition of what any individual learner is expected to know, or be able to do. The standards are not explicit, or easy to interpret, and it is not clear from looking at a certificate what a learner might know or be able to do.

The system is competitive in orientation rather than developmental. It privileges mastery of examinable academic knowledge rather than knowhow and the capacity to learn. It distorts schooling by marginalising vocational and community-based learning, disregarding the interests, passions, cultural contexts and agency of learners, and failing to serve the cultural, economic and educational needs of diverse communities.

Teachers say that it constrains teaching and learning to requirements of the ATAR, and that examinations give marginal regard to vocationally-oriented studies that do not lead to competitive university entrance, with artificial separation of knowledge from application, privileging preservation of academic knowledge and undervaluing applied skills.

The inherent version of success defined through examinations is narrow, focusing on what Lauren Resnick[36] refers to as 'unsupported mentation' in which learning that counts most is a form of mental exercise independent of any interest, passion or relevance to particular context or environment.

The approach promotes memorisation, rote learning and regurgitation, working against deep learning in a domain or discipline and against development of deep skill in professional or vocational arenas.

The current system for measuring and recognising success at school for a young person, therefore, is characterised by tiered options, privileging a narrow conception of success defined by mastery of examinable academic knowledge.

As young people pointed out, the system is competitive. It marginalises community-based learning and operates largely independently of the interests, passions, cultural contexts and agency of learners.

The effect of this system of defining success in narrow terms is that many, probably most, leave school with a no formal recognition of the degree to which they have acquired a broad range of knowledge, knowhow, attitudes and values. One young person put the problem succinctly: '*I know (that) I know things that employers would value, but I don't know if what I know is a lot or a little.*'

A core challenge therefore is to develop a new and trusted currency for recognising the full range of learning required for young people to thrive in learning, work and the community.

4. A preferred system to align recognition to desired learning

Features of a new recognition system that seeks to redress some of these problems are starting to emerge, documented in a range of reviews, programs and activities.

Innovative practices and programs that have been developed in Australia and internationally point to new ways in which we might redefine what school leavers need to know and be able to do and align recognition systems to that.

Recently, support for reform has been provided by a range of official reviews[38,39,40] in Australia and internationally. *The Review of Senior Secondary Pathways into Work, Further Education and Training* referred to the need for 'a bold shift in direction' for Australian senior secondary schooling, recommending amongst other things changes to assessment and certification practices in schools.[41]

It suggested that learning needs to build from each learner's own concerns and interests and those of their communities.

Learning programs need to reduce the divide between 'knowing', and 'knowing how' and be connected into community, and might include internships or other work and out-of-school activities.

Learners will need to be given leeway to learn from peers, from employers and from external mentors, as well as from teachers in schools.

The South Australian Board of Secondary Education has similarly signaled reforms to its secondary certificate: *'At the heart of our Strategic Plan is a promise to every student that they will finish their school experience with evidence of their own unique ability to thrive. We express "thrive" as the learning entitlement of every student.'*[42]

This entitlement includes development of lifelong learning capacities and a zest for life, deep understanding and skilful action, the ability to transfer learning, agency, human connectedness and belonging.

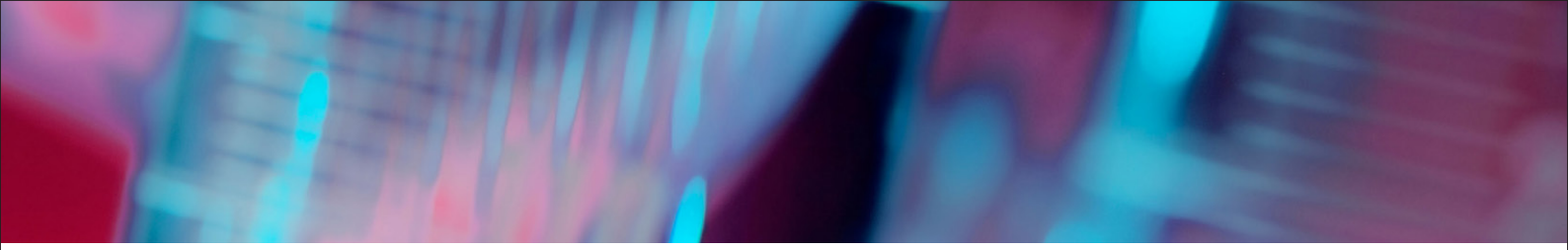
Jurisdictions in other countries are also grappling with how they define success and how they align their recognition systems to it.

In Canada, the People for Education[43] led a multi-year project to broaden the Canadian definition of school success, incorporating new basics that include: learning to learn, thinking creatively and critically, collaborating, communicating effectively and developing a sense of self and society.

In British Columbia[44] graduation requirements have been re-aligned around such ideas. In order to succeed, students must take assessments in literacy and numeracy that align with international trends for large-scale assessments with a focus on competencies.[45] They must also show that they can apply their knowledge in analysing, reasoning, and communicating effectively as they examine, interpret and solve problems.

In New Zealand, the National Curriculum (The New Zealand Curriculum and Te Marautanga o Aotearoa)[46] aims to ensure students have the knowledge, skills and values to be successful citizens in the 21st Century. The documents set out five key competencies: relating to others; participating and contributing; managing self; using language symbols and texts; and thinking.

Of particular interest are organisations and schools, some described in Appendix 1, that have already positioned themselves as first movers in the directions suggested.[47] They include organisations like Big Picture Schools Australia, the Mastery Transcript Consortium, schools like Beenleigh School and the LaTrobe Valley Authority.



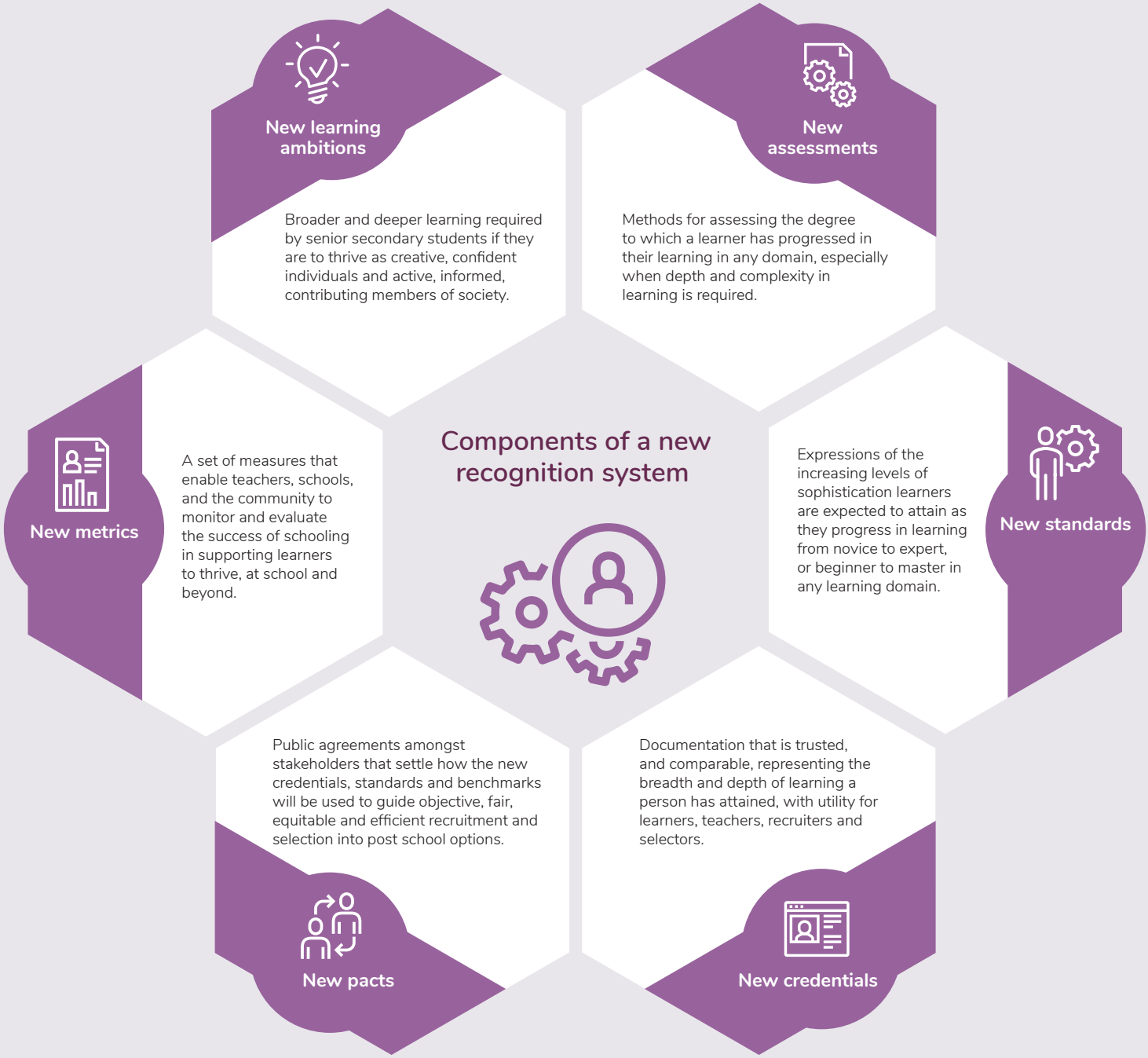
Each of these innovations has redefined the learning that is necessary for young people to thrive and changed how they assess and credential that learning so that stakeholders can better recognise success.

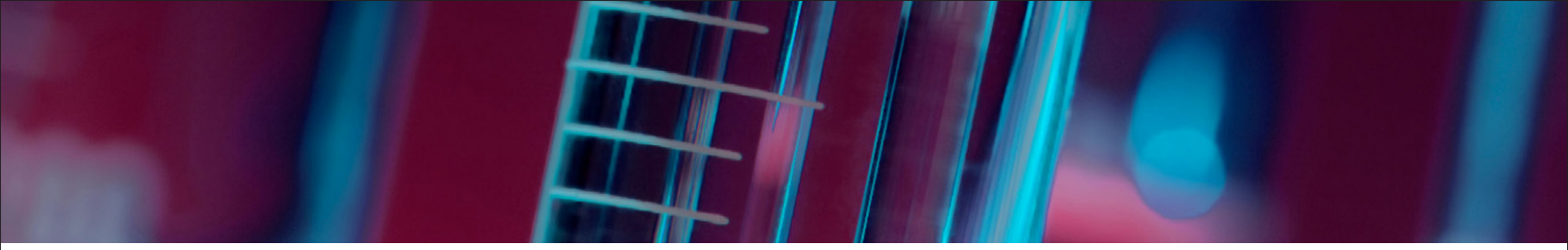
They have sought to bypass the limitations of the current recognition system and have adopted new approaches to representing each learner's knowledge and abilities.

In analysing these innovative approaches, six key components for a new approach to recognition of learning can be discerned.

These are described below:

Figure 1: Components of a new recognition system





New learning ambitions:

Broader and deeper learning required by senior secondary students if they are to thrive as creative, confident individuals and active, informed, contributing members of society.

This learning should encompass the traditional areas of learning such as the basics, the disciplines and vocational expertise, but also the foundational, transferable skills in learning, the capacity to create and sustain communities of interest and capacity for learning agency.

New assessments:

Methods for assessing the degree to which a learner has progressed in their learning in any domain, especially when depth and complexity in learning is required.

Methods include use of developmental assessment, based on performance of complex, authentic, challenging tasks, in a range of contexts, so that assessors can generate valid and reliable, comparable judgments of the degree of attainment in a domain.

New standards:

Expressions of the increasing levels of sophistication learners are expected to attain as they progress in learning from novice to expert, or beginner to master in any learning domain.

Expressions are usually in the form of leveled progressions of behaviour observable as learning progresses. The levels should be interpretable independently of specific learning contexts and lend themselves to defining objective benchmarks of standards required for different purposes, such as prerequisites for entry to particular courses.

New credentials

Documentation that is trusted, and comparable, representing the breadth and depth of learning a person has attained, with utility for learners, teachers, recruiters and selectors.

Documentation is likely to include Learner Profiles and micro-credentials, using a common currency to evidence the standard of attainments in the full range of learning domains, and employing new forms of warranting to ensure trust and utility.

New pacts:

Public agreements amongst stakeholders that settle how the new credentials, standards and benchmarks will be used to guide objective, fair, equitable and efficient recruitment and selection into post school options.

A priority for reaching agreements about how new credentials can be used is to reach broad, community-wide agreement about how tertiary providers can use new credentials to select from large pools of candidates for entry to courses, especially highly competitive courses such as apprenticeships and high status university courses.

New metrics:

A set of measures that enable teachers, schools, and the community to monitor and evaluate the success of schooling in supporting learners to thrive, at school and beyond.

Measures should focus on the degree to which schools generare student success, broadly conceived, for all learners, encompassing attainment of standards across the learning domains, levels of confidence and creativity, degree of success in transitioning into work or further study and value provided by students to the local community or economy.

Component 1: New learning ambitions

At the heart of any recognition system are agreements about the breadth and depth of learning required. A simple synthesis of learning ambitions that capture the breadth and depth of thinking about what students should now learn, to thrive, is summarised in Figure 3.

The first element – basic literacies – is attainment of the educational staples of the basic literacies and numeracies, such as reading and writing, being numerate and being able to use the basic digital tools that are so important to modern society. These skills underpin all learning, so demonstration of capability in these domains is a necessary prerequisite for success in learning, and success beyond school.

The second element – knowledge and knowhow – is the ability to develop deep understanding in a domain of knowledge and to be able to apply that knowledge skillfully.

A learner should be able to demonstrate that they have developed proficiency with the terminology, concepts, theories, structures and processes that make up disciplines and other domains of knowledge.

Learners need to learn in domains such as mathematics, science, history, and cultural knowledge, but they also need to be able to show that they understand why the learning is relevant to them and apply the resulting knowledge to provide value to a community. This involves building, designing, providing services, performing or growing or creating things of value to a community of interest.

The recent NSW curriculum review made a feature of this idea, recommending that every syllabus in the NSW senior secondary system be recast to contain both knowledge and its application.

The third element – learning staples – relates to attaining the staple skills of learning. Learners cannot develop deep understanding or become skillful without having the general capabilities and dispositions that will enable them to remain agile and keep learning independently throughout life. There are many different terms and definitions used to describe these capabilities and dispositions.[48]

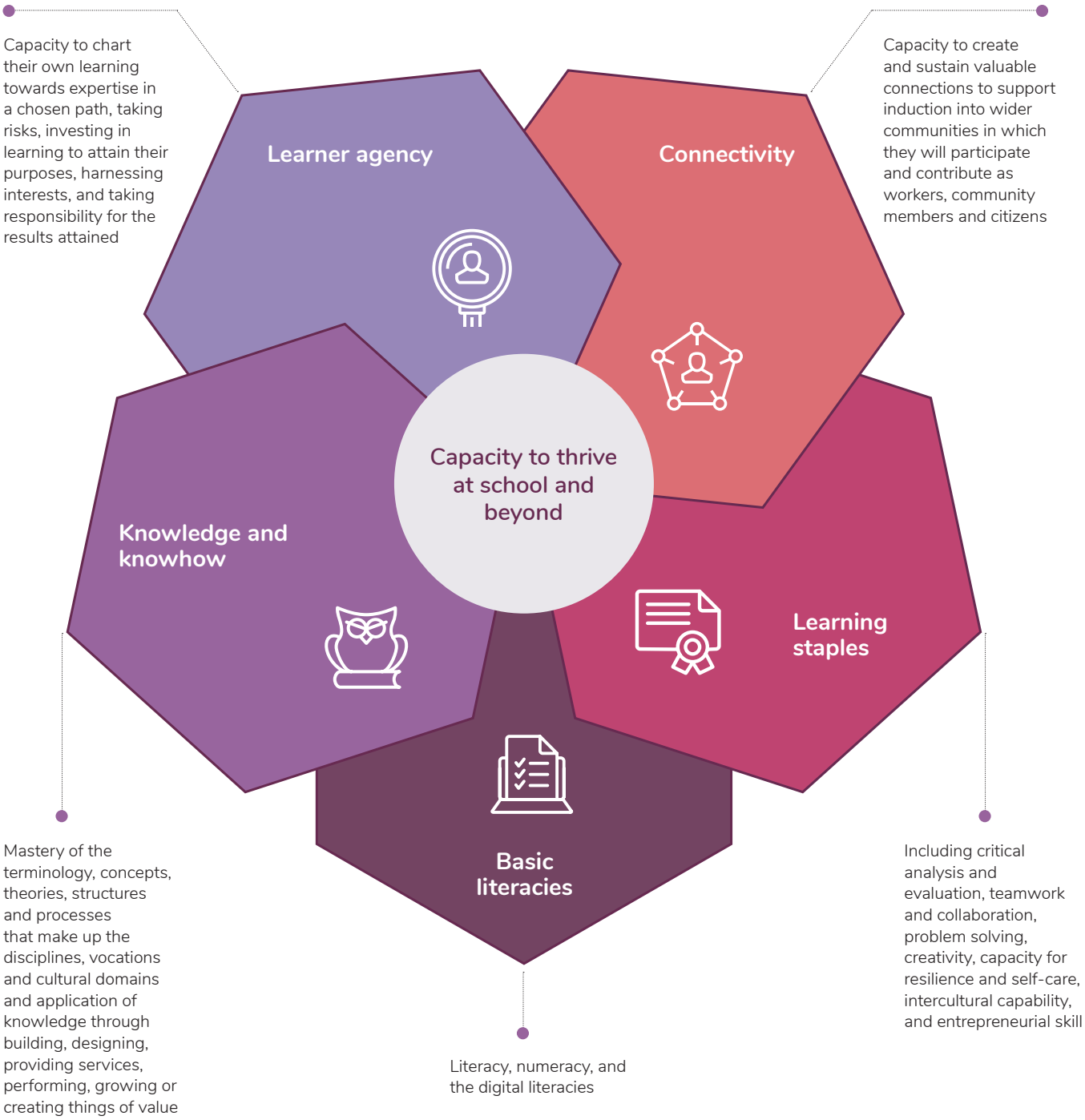
The list provided by *The Review of Senior Secondary Pathways into Work, Further Education and Training* includes life skills, interpersonal skills, critical analysis and evaluation, teamwork and collaboration, problem solving, resilience and self-care, planning, organisation and accountability, workplace initiative, entrepreneurial skill and innovation and active citizenship. Each capability is comprised of a complex set of intellectual, attitudinal and dispositional skills required of the lifelong learner.

These general capabilities cannot be taught independently of a particular content domain. Once taught and learned in any domain, these capabilities can be carried with the learner as the 'tools of the learning trade' throughout their lives.

Knowing how to learn and how to develop deep expertise in any domain or discipline requires high levels of skill in these general capabilities.[49]

The fourth element – connectivity – relates to the capacity to connect to communities of interest. As learners approach their school graduation they should have begun the process of induction into membership of wider communities in which they will participate in as workers, lifelong learners, community members and citizens.

Figure 2: New learning ambitions



‘If education is to develop young people as capable agents, it can no longer rely on learning by routine.

It needs to take young people wider, deeper, and further, to give them experiences of what it is like to take action, to make things, to serve the community, to work with others, and to take on challenges that might once have daunted them.’[61]

Charles Leadbeater, 2017

Having experience with work is an important part of connectivity. It might also include participation in communities of people with shared interests in learning, or associations built around professional practice, or industry or workplace participation, or around community or cultural organisations.

Learning how to create and sustain valued and valuable connections within these communities is an important skill for all young people.

Most important for thriving in an uncertain world is the fifth element – learner agency.

A learner with agency is able to use learning to create a better future for themselves and others.[50] They are personally vested in creating a better future through learning and are prepared to devise goals and invest in their own learning to achieve them.

They establish their own plans for learning what they need to learn, built around an awareness of the environment in which their purposes will be enacted. They seek connection with other people in their learning ecosystem (teachers, peers, employers, tertiary providers, experts, community members, family members) who can help them reach their goals. They take responsibility for the choices they make, the actions they take and the results they attain.

They take risks with their learning, can navigate unexpected consequences, and when they sometimes fail, they pick themselves up again.

To develop agency in learning, students need to have the opportunity to follow their own interests, passions and needs, relevant to their own context.

While at school, no matter the level of schooling, learners thrive when they feel that they belong at school, that the school respects them and their families, that they bring value to the school community, and that their life and experience, concerns and interests are reflected in school life.[51]

This does not mean that students are left purely to their own devices and judgment, or that anything goes. On the contrary, having agency requires self-evaluation, being able to gauge others’ expectations, and to understand and respect community conventions and standards that apply.

As Leadbeater says:

‘If education is to develop young people as capable agents, it can no longer rely on learning by routine. It needs to take young people wider, deeper, and further, to give them experiences of what it is like to take action, to make things, to serve the community, to work with others, and to take on challenges that might once have daunted them.’[52]

Component 2: New assessments

A trusted recognition system depends on the quality of the assessments that are used to judge the degree to which a learner has the skills and abilities required.

Commonly used methods of assessment such as pen and paper tests are not suitable for assessing attainments in anything other than the knowledge components of learning.

Such assessment techniques are typically unable to provide the evidence required to judge the degree to which a learner has agency, or has developed the complex general competencies they require to apply knowledge in context.

They often fail to distinguish learners who have developed deep understanding and comprehension from those who are merely well-coached. Current approaches are best at judging capacities such as Resnick's 'pure mentation', and 'individual cognition'.[53]

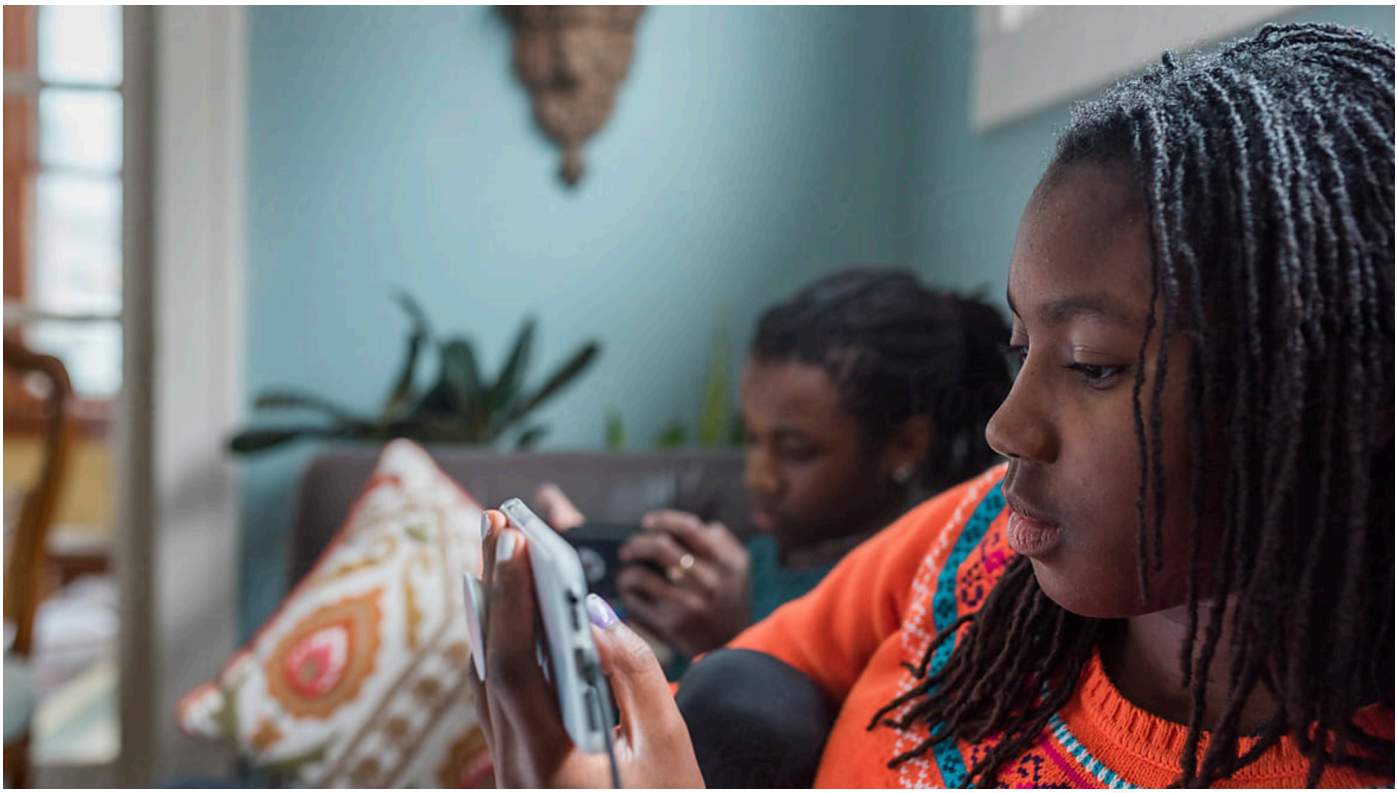
They miss important elements required to thrive, such as how to develop shared understandings, to collaborate and to use technology and tools in combination with learning to achieve a practical outcome of value to a community.

Judging the degree to which a learner has attained the depth and breadth in learning requires use of sophisticated assessment techniques[54] usually described as developmental and performance-based.

Judgments depend on observations of students' performance across a range of different settings, with assessment based on carefully-moderated judgments of teachers and others, often including peers and supervisors in out-of-school activities.

The tools required to support quality assessment of this type are emerging. They ensure that assessments are valid and reliable, and based on standards that apply across contexts, on a common scale.

These tools include use of learning progressions and standards-based assessment frameworks, design of performance-based tasks, moderation of judgement-based assessments and aggregation of multiple evidence sources.[55]



Component 3: New standards

Trust in assessments is enhanced if there is a commonly agreed and understood set of standards to support interpretation. Teaching in Australian schools in Years 1 to 10 is designed around a national curriculum framework that defines some standards of attainment required for learning. These standards set common and agreed expectations about the level, rate and scope of learning (for instance in reading, writing and numeracy) that a student should attain as they progress from year to year.

Tertiary education providers also operate within a national standards framework (The Australian Qualification Framework, or AQF) that defines standards of cognition required in degrees, certificates and diplomas.

For senior secondary students, the standards are typically defined by inference, established by the content that state-based regulating authorities set for each syllabus or examination, or by prerequisites set by particular recruiters. 'Standards' in different syllabuses in a particular subject area can range across various AQF levels.

There is no generalised, common expression of standards that would support understanding of what standards might apply in a range of study scores, or programs.

There is no common or agreed currency for standards that apply to senior secondary schooling.

A range of work is in train aimed at building elements of a generalised standards framework that might be applied to ensure trust and integrity in the assessment of general capabilities. The Department of Education, Skills and Employment (DESE) is developing a national general capabilities framework to enable tertiary education providers (which may include senior secondary providers) to reliably assess and benchmark these skills.

The standards inherent in the Australian Core Skills Framework[56] and the Australian Core Skills for Work Framework[57,58] are used by a number of institutions to benchmark standards in their programs.

Establishing generalised standards that can apply as a form of currency across programs and which can be applied in any context or environment, independent of a set syllabus, will be an important component of any new recognition system.

This would enable all stakeholders to understand expectations about what learners know and can do, to establish benchmarks to guide decisions and trust in credentials, regardless of the context or program in which they are developed.

Component 4: New credentials

A key component shaping thinking about a new recognition system is the idea of a learner profile. Broadly conceived,[59,60] a learner profile is a trusted digital document that showcases a young person's learning attainments, describing what the learner knows and can do and who they are. It is a document owned by a learner, but designed and populated for them.

Just as senior secondary certificates are warranted by assessment and credentialing authorities, a learner profile needs to be an authoritative record of attainment, with contents warranted for accuracy, validity and comparability. Profiles should thus be based on a common language and be keyed to external, generalised standards that provide a currency for comparison. Results should be moderated to ensure comparability.

Learner profiles should be trusted by and have utility for all concerned: learners, parents, teachers, recruiters and selectors.

A key purpose of a learner profile is to provide agency for individuals so they can take control of their own learning.

Learners and their advisors and teachers should be able to use it to shape decisions about learning and to facilitate exploration of post-school options.

For recruiters and selectors, the information should support fair, comparable, unbiased, transparent, efficient and effective decision-making for selection and recruitment.

A learner profile should not be created just prior to graduation, but rather be updated as learning is accumulated during the senior secondary years and beyond. Learners can monitor their own progress and understand their strengths and weaknesses.

Content of a learner profile might include elements such as: attainments in various disciplines or domains, referenced to external standards; key benchmarks that have been met in skills such as literacy, numeracy and digital literacy and in foundational and transferable general capabilities; performances in programs and units of study; records of certificates or other successes the student has attained; work or community experience; a snapshot of passions and interests; and/or a short biography.

The possible anatomy of a learner profile is illustrated in Figures 4 and 5. A profile ideally has layers with an easy-to-peruse front page. A reader should be able to click through to lower levels to explore evidence and nature of learning. A range of practical learner profiles is showcased in Appendix 1.

Micro-credentials can provide a practical mechanism for accumulating a record of learning attainments drawn from various sources. Micro-credentials are appropriate for assessing and recognising the level of attainment of complex general capabilities, such as critical and creative thinking, communication skills, collaboration, enterprise skills and other general, transferable capabilities.[62]

They have also been used for recognition of skills of relevance to particular cultural groups, or communities,[63] as they can be customised for context, while being linked to common standards. Some organisations are using such credentials to recognise First Nations cultural knowledge[64] and there is no reason why such credentials should not be a valued component of a secondary graduate's representation of their learning.

Few of the core propositions underpinning the idea of the learner profile and micro-credentials are new in Australian schools.

Some out-of-school learning popular with school-aged students is already credentialed and can count towards senior secondary qualifications.

This includes certificates for training provided by various employers, in music, languages, team and sporting achievements and medical and community service.

VET courses mapped to certain levels in the AQF can be counted in senior secondary certification in some jurisdictions, with topics ranging from bicycle maintenance or pet grooming to automotive body maintenance, from university studies to equestrian skills, from language studies to the use of Microsoft digital tools. In these cases, the recognition is authorised by the jurisdictional authority, which requires a warrant from a reputable provider.

By these means, it should be possible to provide a clear, commonly-interpretable representation of the breadth and depth of learning attained during secondary schooling, regardless of where and when it was learned.

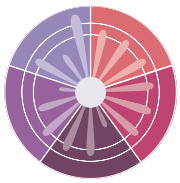
Figure 3: Key features of a learner profile

Photo or video of learner and information about the provider

such as a school or other authority that attests to the trustworthiness and provenance of the information.

A brief description

of who the learner is, their interests and aspirations, background and experience to date (or link to a short self-explanatory video).



A profile of attainments

of the breadth and depth of attainment, using a common language and currency, referencing common and agreed learning goals, and mapped to agreed standards and benchmarks.

Highlights of key programs and activities

Descriptive detail providing evidence of the learner's journey.

Figure 4: Anatomy of a learner profile

A learner profile is a trusted multi-level digital document displaying what a learner knows and can do and who they are as a result of their schooling.

The document is secure, owned by a learner, warranted, compiled and stored by a suitable authority and trusted by recruiters, selectors and other stakeholders.

A multi-layered digital document

Layer one

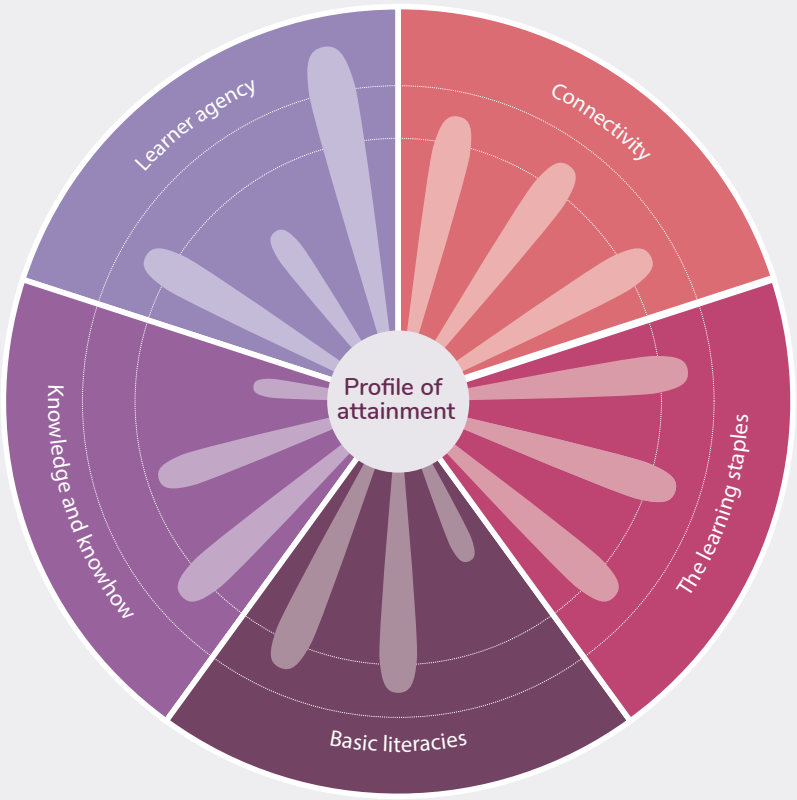
Layer two

Layer three

Direct evidence of learning: photos, portfolios, texts, artefacts, experiences.

Deeper dive into attainments: information about assessments, courses, and micro-credentials.

A summary page: trusted, easy to interpret, comparable, using common language, and referenced to common standards. This may contain common template elements but be capable of customisation to reflect the circumstances of the particular learner.
It should include a profile of learner attainments for example as represented to the right.



Component 5: New pacts

A young person leaving school needs to know that any representation of their learning will be trusted and have utility in the broader community, to assist in their transitions beyond school. Otherwise, the definition of success it embodies will be marginalised.

It is not simple for a credential to earn the trust and develop the utility required to facilitate transitions of school leavers to their post-school destinations. Any credential needs to be efficient and feasible for a school to produce and easy for a recruiter or selector to use to discriminate between candidates. It needs to allow objective and unbiased selection, be transparent and understandable, fair and equitable. It needs to be stable, but flexible enough to respond to extenuating circumstances. The ATAR, the currently-dominant settlement governing transition from school to tertiary education has many of these qualities albeit based on a narrow learning base.

Some of the first movers (see Appendix 1) who have tested the utility of learner profiles have sought agreement with tertiary providers and/or employers about their use in selection and recruitment processes. For instance, in the Latrobe Valley Authority, employers frequently cited as a reason for not employing locals a lack evidence of capacities such as communication and self-management skills,[65] which they see as vital for success within the workplace.

Standard education credentials provided no clues, so the Authority created its own assessments and learner profiles to assist employers in the region with these decisions. Job seekers or employees can have their transferable skills independently assessed and profiled by the Authority. Other organisations in the innovation group have developed or are developing trusted relationships with particular universities to accept their profiles as alternative to the ATAR, for instance as explained in Appendix 1.

Establishing useful, transparent, widely understood agreements or pacts on how new credentials and standards can be used is an important part of any new recognition system.

One priority for crafting a new compact is related to the selection of school leavers into competitive courses such as apprenticeships and prestigious university courses. Recruiters and selectors need a trusted, efficient, fair and equitable way to use new standards and new credentials to select from among highly qualified candidates. A pact will represent an important step in ameliorating the damaging dominance of existing settlements, most notably the ATAR.

Component 6: New metrics

The National Report on Schooling[66] provides information on the following indicators that relate to senior secondary schooling:

- proportion of 15-year-old students achieving at or above the international proficient standard (level 3) in PISA
- apparent retention rates from Year 10 to Year 12
- the gap in apparent retention rates between Indigenous and non-Indigenous students
- the participation of students in VET in schools
- proportion of students aged 17-24 years who are fully occupied in work and/or education and training.

Other metrics, attuned to a broader conception of learner success, are emerging. For instance, student wellbeing measures are increasingly being used to judge the degree to which a school is generating confident creative, connected learners.

A wider range of monitoring metrics in the basic literacies has been proposed.[67] Many schools now review student destinations and student success in transition to post school opportunities.

‘The educational struggles of Indigenous peoples of the world involve more than the struggle for access to and participation in both non-Indigenous education systems and culturally appropriate education.

The educational struggles of Indigenous peoples are fundamentally and unequivocally concerned with the right of Indigenous peoples to be Indigenous’.[58]

The Coolangatta Statement on Indigenous Peoples’ Rights in Education

Such new indicators of school and system success more faithfully align with the scope of new learning ambitions and need further development as a means of aligning the national effort.

Who benefits?

The review, practices and arguments on which this report rely are premised on a belief that all learners, and the Australian economy and society, will benefit if schooling adopts broader and deeper learning ambitions, and makes sure that the methods of assessment and recognition of learning align with this.

An objective is to ensure those who find the current system least effective will benefit the most. Those who benefit the least may be facing financial barriers, geographic isolation, be part of a cultural minority or have learning needs not suited to the mainstream methods of teaching.

One powerful mechanism by which these learners are expected to benefit is to make explicit, visible and transparent the broad and deep learning ambitions and standards for success. The goalposts for success should not be tacit or implicit.

All learners, not just those who have much in the way of cultural capital, need to be able to claim recognition for their capabilities and to understand what is to be demonstrated.

In addition the development of learner agency in every learner will help those in educationally disadvantaged groups. Having agency means being able to build on personal and community experience and interests, in ways that count.

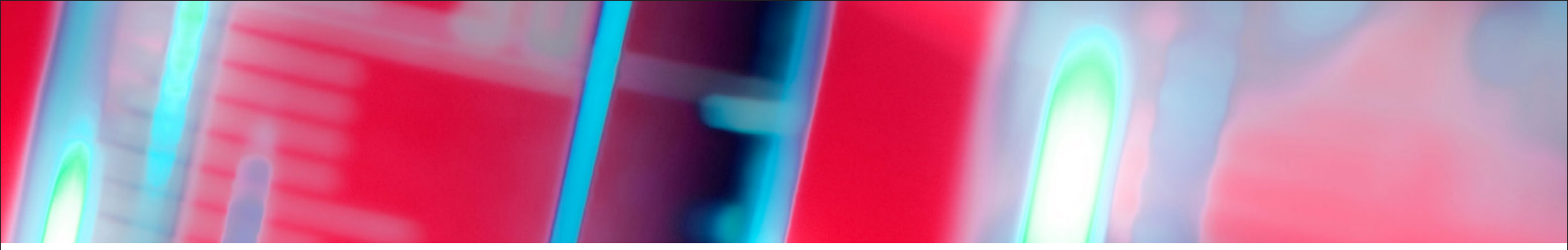
This provides a powerful antidote to the disengagement and lack of confidence that at times characterises learners who experience disadvantage.

This thinking is evident in the case argued by First Nations communities. First Nations cultures comprise ways of knowing and ways of learning and deep cultural knowledge of great local and national value, most of it unrecognised in formal certificates and credentials.

The Coolangatta Statement on Indigenous Peoples’ Rights in Education points out that:

‘The educational struggles of Indigenous peoples of the world involve more than the struggle for access to and participation in both non-Indigenous education systems and culturally appropriate education. The educational struggles of Indigenous peoples are fundamentally and unequivocally concerned with the right of Indigenous peoples to be indigenous’.[68]

First Nations knowledge and knowhow and the interests and cultural aspirations of Indigenous communities, need room for expression in the organisation of learning and in the definition of learning success. Increasing the breadth of the learning ambitions provides that room.



5. Trust and utility

The arguments

This report addresses the problem that too many young Australians finish school ill-equipped with the knowledge, skills, attitudes and dispositions they need to navigate the transition from school.

The previous sections have argued that a new narrative is required for recognition of learning in senior secondary schooling, so that valuable innovation and change can be scaled and sustained and not relegated to the periphery.

As part of this narrative, a broader and deeper conception of what constitutes success in learning in Australian secondary schools is adopted, so that all young people have the confidence and creativity, knowledge and knowhow they need to make a smooth transition from school to further study and work, and into a thriving adulthood as lifelong learners.

In addition, better alignment to this conception of learning is required in the recognition system that sets standards and requirements and assesses and credentials the learning of secondary school leavers. Six components that would generate better alignment were described.

The goal is to ensure that every young person learns, and is able to demonstrate, the degree to which they know and are able to do what is required to thrive at school and beyond. It should not matter where they do the learning or how they do it.

It is possible to imagine that with a new and broader conception of success and new components in a recognition system, learning in programs that are currently peripheral or conducted in environments that do not at presently officially count, could be recognised and brought within a common standards-based recognition system.

For this to happen, the community would need to trust that credentials accurately and reliably represent the learning of every candidate. In addition, new credentials would need to provide to all stakeholders (teachers, learners, selectors and recruiters) the same or greater levels of utility than is currently enjoyed by only some, especially university recruiters into competitive courses.

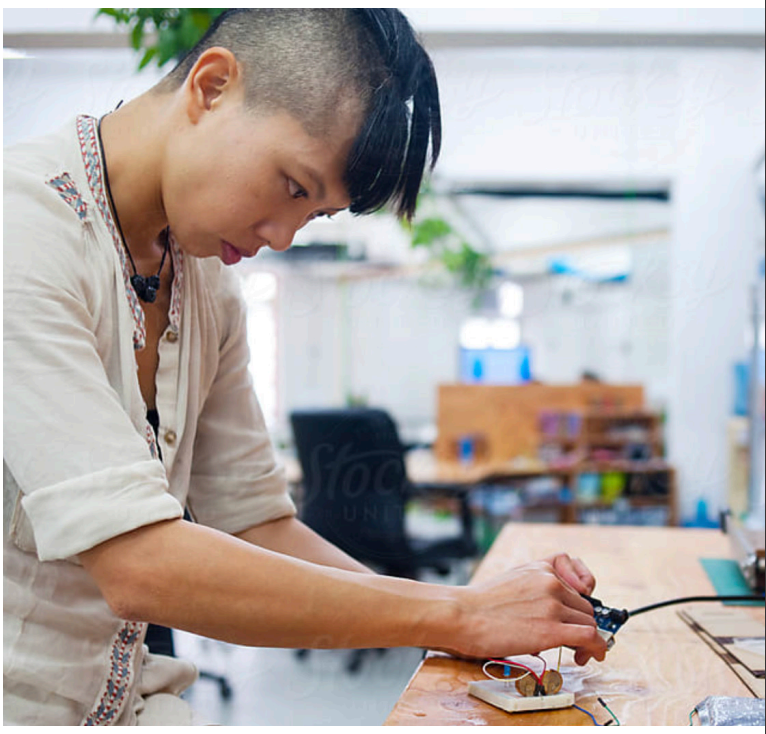
This will be of particular concern for recruiters and selectors from the tertiary education sector, for whom the ATAR has great utility.

Trust by the community, and utility for stakeholders are two fundamental qualities of any recognition system.

Trust and utility generally take time to establish. In the meantime a checklist is provided of questions that need to be answered about any learning program, if it is to produce trusted, useful credentials representing the breadth of learning attained.

These questions can form the basis of an argument that can be used by program providers. Being able to answer them can provide a program sponsor with the evidentiary base to inspire confidence in the degree to which they warrant the trust of the community and demonstrate utility for stakeholders.

The questions can be also used to monitor effectiveness of any new initiatives.



Questions to guide innovation and prototyping of a new recognition system

The range of questions posed to guide prototyping are as follows.

Table 2: Questions for a senior secondary program, about trust and utility

Program alignment to ambition

1. Does the scope of learning address the full range of capabilities required to thrive, as outlined, for instance, in The Alice Springs (Mparntwe) Education Declaration, or as outlined in Figure 3?

2. Has the community of stakeholders agreed to the scope of learning that each learner needs to thrive? Do stakeholders include the relevant broader community (capturing various cultural, social, community, economic, personal and family interests)?

3. Is the program designed to capitalise on learners' own personal interests, and the social and economic interests and concerns of their communities, while retaining generalisability, transferability, and comparability of learning?

4. Are learners encouraged to develop learner agency?

5. Are learners encouraged to develop connections to communities of interest outside the school?

Assessment quality and assurance of standards?

6. Are assessments of attainments of sufficient quality to guarantee reliability, validity, comparability, and fairness of assessments in all learning domains?

7. Are assessments based on observations of performance in a range of contexts which allow a learner to demonstrate their learning?

8. Has each individual had the opportunity to demonstrate the full range of relevant capabilities they have developed, whether developed in school or out?

9. Is the assessment developmental and standards-based?

10. Does each learner have samples evidencing their learning, to back up the assessments?

11. What methods are used to mitigate possible trade-offs in learning intentions, such as, between improving level of competence in the transferrable learning capabilities, versus devoting time to techniques of exam preparation; or teaching to developing agency and depth of mastery, versus attaining high scores on low-level cognitive pursuits through coaching?

Utility of a trusted credential that represents breadth and depth?

12. Is the recognition method used (e.g. profiling) able to validly, accurately and reliably represent the breadth and depth of learning in an easily interpretable, comparable manner?

13. Is the credential able to capture learning attained in non-standard contexts and environments, but still keyed to common standards and relevant benchmarks?

14. Does the representation of learning have utility for learners and teachers to assist with developing learning agency, to plan future learning, and more easily navigate transition to further opportunities?

15. Are universities and employers able to use the credential to reliably and validly differentiate between candidates for highly competitive courses or jobs?

16. Are any pacts or agreements about how the credential will be used for recruitment and selection public, transparent, fair, equitable, and efficient?

Fairness and integrity?

17. What methods are used to mitigate risks that some learners or stakeholders may be disadvantaged when out-of-school learning is counted, or when learning skill is assessed, by factors like poverty, geographic isolation, or cultural diversity?

18. What methods are used to mitigate risks that some learners or stakeholders will try to game any system? e.g. “Work 40 hours for free and I’ll certify that you have the skills”?

19. What methods are used to mitigate risks to integrity of assessment (e.g. passing off the work of others as yours)?

20. Is there clear accountability for providing a warrant for the credential to ensure trust and utility?

Feasibility?

21. Are providers (schools), and recruiters and selectors, able to manage the practical workload associated with learner profiles, micro-credentials and new assessment approaches?

Appropriate metrics?

22. What information is used by the provider (school) to check the degree to which each learner’s experience did indeed, as expected, set them up to thrive at school, and beyond?

Next steps

These and other questions cannot be resolved by theoretical analyses and an important part of prototyping by Learning Creates Australia is to examine the potency of this thinking.

Through all and any of the planned prototyping, program design, standard-setting, assessing and evaluating, credentialing and monitoring, the core aspiration remains: to ensure that every learner can become a confident creative individual, able to thrive in contemporary economic, social and community environments.

Such work will be of particular value to those who are currently marginalised by the dominant recognition system. All learners including those representing diverse backgrounds, perspectives and experiences, should be able to find value.

The hope is that new programs and approaches that adopt the new narrative will reinforce each other’s work and add up to a scaled, effective response that can be trusted by the community and has utility for all stakeholders.

References

1 Organisation for Economic Co-operation and Development. (2012). *Equity and Quality in Education: Supporting Disadvantaged Students and Schools.* Retrieved from http://dx.doi.org/10.1787/9789264130852-en

2 Education Council. (2020). *Looking to the Future: The Report of the Review of Senior Secondary Pathways into Work, Further Education and Training.* Retrieved from https://uploadstorage.blob.core.windows.net/public-assets/education-au/pathways/Final%20report%20-%2018%20June.pdf

3 Lamb, S., & Huo, S. (2017). *Counting the cost of lost opportunity in Australian education, 2.* Retrieved from http://vuir.vu.edu.au/33523/1/Counting-the-costs-of-lost-opportunity-in-Australian-education.pdf

4 Australian Curriculum Assessment and Reporting Authority. (2019). *Year 12 certification rates.* Retrieved from https://www.acara.edu.au/reporting/national-report-on-schooling-in-australia/national-report-on-schooling-in-australia-data-portal/year-12-certification-rates#view1

5 Headspace. (2016). *National tertiary student wellbeing survey 2016.* Retrieved from https://headspace.org.au/assets/Uploads/headspace-NUS-Publication-Digital.pdf

6 Lamb, S., Jackson, J., Walstab, A., & Huo, S. (2015). *Educational opportunity in Australia 2015: Who succeeds and who misses out.* Retrieved from https://www.vu.edu.au/mitchell-institute/educational-opportunity/educational-opportunity-in-australia-2015-who-succeeds-who-misses-out

7 te Riele, K. (2014). *Putting the jigsaw together: Flexible learning programs in Australia.* Retrieved from http://vuir.vu.edu.au/31758/1/TheVicInstitute_PuttingTheJigsawTogether.pdf

8 Savelsberg, H., Pignata,S., and Weckert, P. (2017). *Second chance education: barriers, supports and engagement strategies. Journal of Adult Learning, (57)1, 36-57.* Retrieved from https://files.eric.ed.gov/fulltext/EJ1140791.pdf

9 Lamb, S., Maire, Q., Walstab, A., Newman, G., Doecke, E., & Davies, M. (2018). *Improving participation and success in VET for disadvantaged learners.* Retrieved from https://www.ncver.edu.au/research-and-statistics/publications/all-publications/improving-participation-and-success-in-vet-for-disadvantaged-learners

10 Australian Curriculum Assessment & Reporting Authority. (2020). *National report on schooling in Australia 2018.* Retrieved from https://www.acara.edu.au/reporting/national-report-on-schooling-in-australia/national-report-on-schooling-in-australia-2018

11 Australian Curriculum Assessment and Reporting Authority. (2020). *Apparent Retention*. Retrieved from https://www.acara.edu.au/reporting/national-report-on-schooling-in-australia/national-report-on-schooling-in-australia-data-portal/apparent-retention

12 Hillman, K. (2018). *PISA Australia in focus number 2: Educational expectation.* Retrieved from https://research.acer.edu.au/ozpisa/31/

13 Australian Curriculum Assessment and Reporting Authority. (2019). *Participation and Attainment in Education and Work.* Retrieved from https://www.acara.edu.au/reporting/national-report-on-schooling-in-australia/national-report-on-schooling-in-australia-data-portal/participation-and-attainment-in-education-and-work#View1

14 Education Council. (2019). *Alice Springs (Mparntwe) Education Declaration.* Retrieved from http://www.educationcouncil.edu.au/Alice-Springs--Mparntwe--Education-Declaration.aspx

15 Education Council. (2020). *Looking to the Future: The Report of the Review of Senior Secondary Pathways into Work, Further Education and Training.* Retrieved from https://uploadstorage.blob.core.windows.net/public-assets/education-au/pathways/Final%20report%20-%2018%20June.pdf

16 O'Connell, M., Milligan, S. K., and Bentley, T. (2019). *Beyond ATAR: A proposal for change.* Retrieved from https://www.all-learning.org.au/sites/default/files/resources/beyond_atar_proposal_for_change_all.pdf

17 Education Council. (2020). *Looking to the Future: The Report of the Review of Senior Secondary Pathways into Work, Further Education and Training.* Retrieved from https://uploadstorage.blob.core.windows.net/public-assets/education-au/pathways/Final%20report%20-%2018%20June.pdf

18 Education Council. (2020). *Looking to the Future: The Report of the Review of Senior Secondary Pathways into Work, Further Education and Training.* Retrieved from https://uploadstorage.blob.core.windows.net/public-assets/education-au/pathways/Final%20report%20-%2018%20June.pdf

19 Masters, G. N. (2020). *Nurturing wonder and igniting passion, designs for a new school curriculum: NSW curriculum review.* Retrieved from https://research.acer.edu.au/nswcurriculumreview/6/

20 Department of Health, (2019) *Youth Task Force Interim Report.* Retrieved from https://www.health.gov.au/sites/default/files/documents/2020/10/youth-taskforce-interim-report_0.pdf

21 Richards, L., Brew, L., & Smith, L. (2020). *2019–20 Australian bushfires—frequently asked questions: a quick guide.* Retrieved from https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp1920/Quick_Guides/AustralianBushfires

22 Pilcher, S., and Torii, K. (2018) *Crunching the number: Exploring the use and usefulness of the Australian Tertiary Admission Rank (ATAR).* Retrieved from http://vuir.vu.edu.au/38696/1/Crunching-the-number_Exploring-the-use-and-usefulness-of-the-ATAR.pdf

23 Masters, G. N. (2020). *Nurturing wonder and igniting passion, designs for a new school curriculum: NSW curriculum review.* Retrieved from https://research.acer.edu.au/nswcurriculumreview/6/

24 Macklin, J. (2020). *Skills for Victoria's Growing Economy Issues Paper.* Retrieved from https://www.iteca.edu.au/UploadedFiles/Documents/IssuesPaper-SkillsForVictoria'sGrowingEconomy.pdf

25 Oliver, B., & Jorre de St Jorre, T. (2018) *Graduate attributes for 2020 and beyond: recommendations for Australian higher education providers. Higher Education Research and Development*, 37(4), 821-836. Retrieved from https://doi.org/10.1080/07294360.2018.1446415

26 The Economist Intelligence Unit. (2019). *The worldwide educating for the future index 2019.* Retrieved from https://educatingforthefuture.economist.com/

27 Resnick, L. B. (1987). *The 1987 Presidential Address Learning in School and Out Educational Researcher*, 16(9). 13-54. doi: 10.3102/0013189X016009013

28 Stewart-Weeks, M. (2020). *Rapporteurs Report for the Business Forum.* Learning Creates Australia.

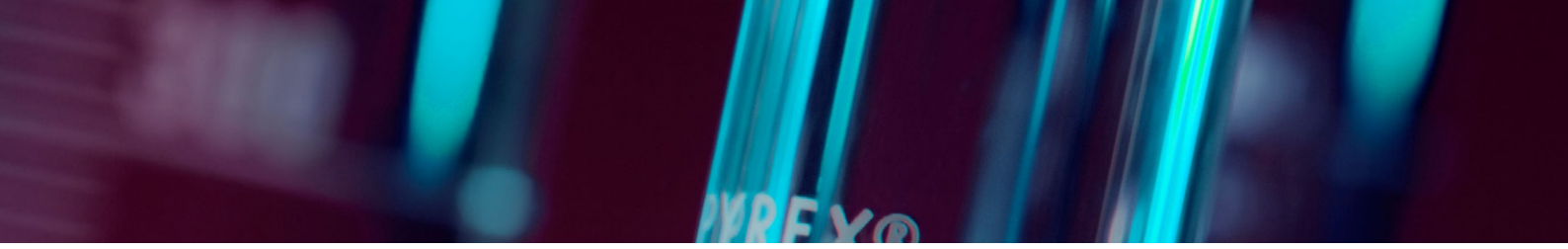
29 Foundation for Young Australians. (2015). *The New Work Order.* Retrieved from https://www.fya.org.au/wp-content/uploads/2015/08/fya-future-of-work-report-final-lr.pdf

30 Organisation for Economic Cooperation and Development. (2011). *Strong performers and successful reformers in education: Lessons from PISA for the United States*. Retrieved from https://www.oecd.org/pisa/46623978.pdf

31 Australian Curriculum Assessment and Reporting Authority. (2019). *Year 12 certification rates*. Retrieved from https://www.acara.edu.au/reporting/national-report-on-schooling-in-australia/national-report-on-schooling-in-australia-data-portal/year-12-certification-rates#view1

32 Pilcher, S., and Torii, K. (2018) *Crunching the number: Exploring the use and usefulness of the Australian Tertiary Admission Rank (ATAR).* Retrieved from http://vuir.vu.edu.au/38696/1/Crunching-the-number_Exploring-the-use-and-usefulness-of-the-ATAR.pdf

33 Joyce, S. (2019). *Strengthening skills: Expert review of Australia's Vocational Education and Training System.* Retrieved from https://www.pmc.gov.au/sites/default/files/publications/strengthening-skills-independent-review-australia-vets_1.pdf



34 Education Standards Authority. (2020). *About the Higher School Certificate (HSC)*. Retrieved from https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/hsc/about-HSC

35 Commonwealth of Australia. (2019). *Australian Qualifications Framework Final Report 2019*. Retrieved from https://docs.education.gov.au/system/files/doc/other/aqf_review_2019_0.pdf

36 Resnick, L. B. (1987). *The 1987 Presidential Address Learning in School and Out Educational Researcher*, 16(9). 13-54. doi: 10.3102/0013189X016009013

37 Savelsberg, H., Pignata,S., and Weckert, P. (2017). *Second chance education: barriers, supports and engagement strategies. Journal of Adult Learning*, (57)1, 36-57. Retrieved from https://files.eric.ed.gov/fulltext/EJ1140791.pdf

38 Education Council. (2020). *Looking to the Future: The Report of the Review of Senior Secondary Pathways into Work, Further Education and Training*. Retrieved from https://uploadstorage.blob.core.windows.net/public-assets/education-au/pathways/Final%20report%20-%2018%20June.pdf

39 Masters, G. N. (2020). *Nurturing wonder and igniting passion, designs for a new school curriculum: NSW curriculum review*. Retrieved from https://research.acer.edu.au/nswcurriculumreview/6/

40 Macklin, J. (2020). *Skills for Victoria's Growing Economy Issues Paper*. Retrieved from https://www.iteca.edu.au/UploadedFiles/Documents/IssuesPaper-SkillsForVictoria'sGrowingEconomy.pdf

41 Education Council. (2020). *Looking to the Future: The Report of the Review of Senior Secondary Pathways into Work, Further Education and Training*. Retrieved from https://uploadstorage.blob.core.windows.net/public-assets/education-au/pathways/Final%20report%20-%2018%20June.pdf

42 SACE. (2020). *Leading Educational Change and Student Transformation: SACE Board Strategic Framework 2020-2023*. Retrieved from https://www.sace.sa.edu.au/thrive/downloads/SACE_Board_Strategic_Plan_2020-2023.pdf

43 People for Education. (2020). *Introducing the new basics*. Retrieved from: https://peopleforeducation.ca/the-new-basics/

44 British Columbia Ministry of Education. (2020a). *Curriculum Overview*. Retrieved from https://curriculum.gov.bc.ca/curriculum/overview

45 British Columbia Ministry of Education. (2020b). *BC Graduation Program Policy Guide*. Retrieved from: https://www2.gov.bc.ca/assets/gov/education/kindergarten-to-grade-12/support/graduation/graduation-policy-guide.pdf

46 New Zealand Ministry of Education/Te Tahuhu o Te Matauranga. (2017). *The New Zealand curriculum*. Retrieved from https://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum#collapsible7

47 Milligan, S., Luo, R., Johnston, J., & Hassim, E. (2020). *Future proofing students: What they need to know and how educators can assess and credential them*. Retrieved from https://education.unimelb.edu.au/mgse-industry-reports/report-2-future-proofing-students

48 Department of Education, Skills and Employment. (2020). *Core Skills for Work Developmental Framework*. Retrieved from https://www.employment.gov.au/core-skills-for-work-developmental-framework

49 Milligan, S., Luo, R., Johnston, J., & Hassim, E. (2020). *Future proofing students: What they need to know and how educators can assess and credential them*. Retrieved from https://education.unimelb.edu.au/mgse-industry-reports/report-2-future-proofing-students

50 Leadbeater, C. (2017). *Student Agency: Learning to Make a Difference*. Retrieved from https://www.cse.edu.au/content/student-agency-learning-make-difference

51 Leadbeater, C. (2017). *Student Agency: Learning to Make a Difference*. Retrieved from https://www.cse.edu.au/content/student-agency-learning-make-difference

52 De Bortoli, L. (2018). *PISA Australia in Focus Number 1: Sense of belonging at school*. Retrieved from https://research.acer.edu.au/ozpisa/30

53 Leadbeater, C. (2017). *Student Agency: Learning to Make a Difference*. Retrieved from https://www.cse.edu.au/content/student-agency-learning-make-difference

54 Resnick, L. B. (1987). *The 1987 Presidential Address Learning in School and Out Educational Researcher*, 16(9). 13-54. doi: 10.3102/0013189X016009013

55 Griffin, P. (2017). *Assessment for Teaching: Second edition*. Cambridge, UK: Cambridge University Press

56 Milligan, S., Luo, R., Johnston, J., & Hassim, E. (2020). *Future proofing students: What they need to know and how educators can assess and credential them*. Retrieved from https://education.unimelb.edu.au/mgse-industry-reports/report-2-future-proofing-students

57 Department of Employment, Skill, Small and Family Business. (2015). *Australian Core Skills Framework*. Retrieved from https://docs.employment.gov.au/system/files/doc/other/acsf_document_01-05-2019.pdf

58 Department of Education, Skills and Employment. (2020). *Core Skills for Work Developmental Framework*. Retrieved from https://www.employment.gov.au/core-skills-for-work-developmental-framework

59 Australian Curriculum Assessment and Research Authority. (2020). *General Capabilities*. Retrieved from https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/

60 Education Council. (2020). *Looking to the Future: The Report of the Review of Senior Secondary Pathways into Work, Further Education and Training*. Retrieved from https://uploadstorage.blob.core.windows.net/public-assets/education-au/pathways/Final%20report%20-%2018%20June.pdf

61 O'Connell, M., Milligan, S. K., and Bentley, T. (2019). *Beyond ATAR: A proposal for change*. Retrieved from https://www.all-learning.org.au/sites/default/files/resources/beyond_atar_proposal_for_change_all.pdf

62 Milligan, S., Luo, R., Johnston, J., & Hassim, E. (2020). *Future proofing students: What they need to know and how educators can assess and credential them*. Retrieved from https://education.unimelb.edu.au/mgse-industry-reports/report-2-future-proofing-students

63 Oliver, B. (2019) *Making Microcredentials work for learners, employers and providers*. Retrieved from https://dteach.deakin.edu.au/2019/08/02/microcredentials/

64 Charles Darwin University. (2020). *Indigenous graduates celebrate recognition of research skills*. Retrieved from https://www.cdu.edu.au/news/indigenous-graduates-celebrate-recognition-research-skills

65 Milligan, S., Luo, R., Johnston, J., & Hassim, E. (2020). *Future proofing students: What they need to know and how educators can assess and credential them*. Retrieved from https://education.unimelb.edu.au/mgse-industry-reports/report-2-future-proofing-students

66 Australian Curriculum Assessment & Reporting Authority. (2020). *National report on schooling in Australia 2018*. Retrieved from https://www.acara.edu.au/reporting/national-report-on-schooling-in-australia/national-report-on-schooling-in-australia-2018

67 McGaw, B., Louden, B., & Wyatt-Smith, C. (2020). *NAPLAN review final report*. Retrieved from https://naplanreview.com.au/__data/assets/pdf_file/0004/1222159/2020_NAPLAN_review_final_report.pdf

68 Hilo, Hawai'i. (1999). *The Coolangatta Statement on Indigenous Peoples' Rights in Education*. Retrieved from http://press-files.anu.edu.au/downloads/press/p15621/pdf/ch191.pdf

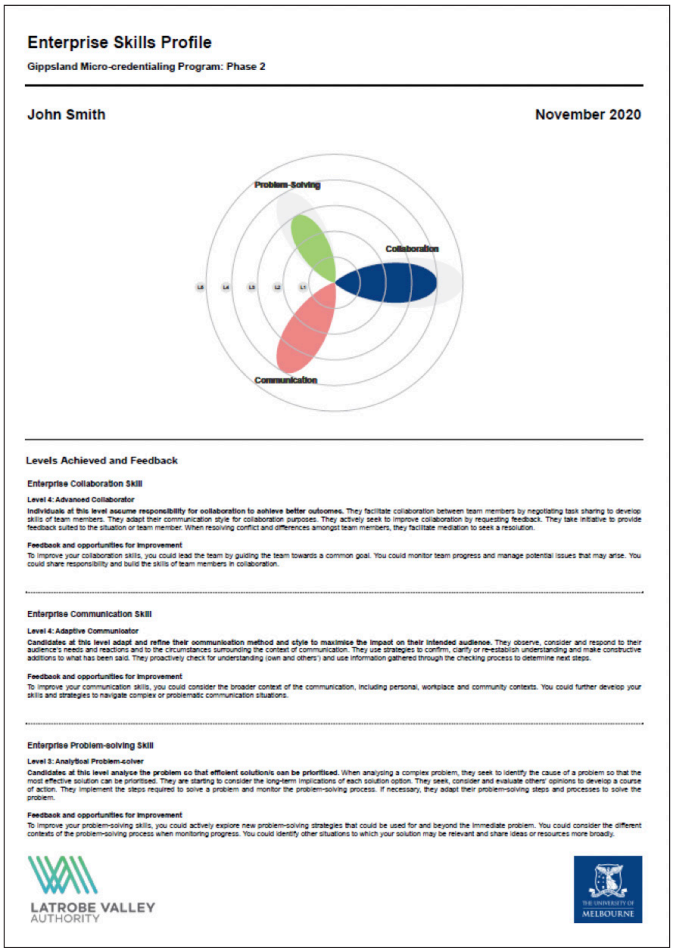
Appendix 1: Four Learner Profile Initiatives in Australia

1. Latrobe Valley Authority Micro-credentialing of Enterprise Skills

The Latrobe Valley Authority is working with industry, education providers and community in the Gippsland region to develop and pilot use of micro-credentials to recognise enterprise skills of job applicants. The skills that have been identified as important to the Gippsland industry growth sectors include the enterprise skills of communication, problem solving, and collaboration.

The region is undergoing transition in its workforce from coal-based and agricultural local industries to greater diversification and adaptive roles. This initiative aims to help by providing a means for workers and school leavers to obtain formal recognition of enterprise skills which are considered essential for successful participation in the workforce but for which they have no formal recognition.

The micro-credentialing initiative is anticipated to appeal to workers or students seeking employment, or those who are in transition between jobs and who need skills not recognised specifically in mainstream credentials. It is expected to help employers with recruitment challenges. The image to the right is a sample Enterprise Skills Profile developed through this program.



Enterprise Skills Profile

Gippsland Micro-credentialing Program: Phase 2

John Smith **November 2020**

Levels Achieved and Feedback

Enterprise Collaboration Skill

Level 4: Advanced Collaborator

Individuals at this level assume responsibility for collaboration to achieve better outcomes. They facilitate collaboration between team members by negotiating task sharing to develop skills of team members. They adapt their communication style for collaboration purposes. They actively seek to improve collaboration by requesting feedback. They take initiative to provide feedback suited to the situation or team member. When resolving conflict and differences amongst team members, they facilitate mediation to seek a resolution.

Feedback and opportunities for improvement

To improve your collaboration skills, you could lead the team by guiding the team towards a common goal. You could monitor team progress and manage potential issues that may arise. You could share responsibility and build the skills of team members in collaboration.

Enterprise Communication Skill

Level 4: Adaptive Communicator

Candidates at this level adapt and refine their communication method and style to maximise the impact on their intended audience. They observe, consider and respond to their audience's needs and reactions and to the circumstances surrounding the context of communication. They use strategies to confirm, clarify or re-establish understanding and make constructive additions to what has been said. They proactively check for understanding (own and others') and use information gathered through the checking process to determine next steps.

Feedback and opportunities for improvement

To improve your communication skills, you could consider the broader context of the communication, including personal, workplace and community contexts. You could further develop your skills and strategies to navigate complex or problematic communication situations.

Enterprise Problem-solving Skill

Level 3: Analytical Problem-solver

Candidates at this level analyse the problem so that efficient solution/s can be prioritised. When analysing a complex problem, they seek to identify the cause of a problem so that the most effective solution can be prioritised. They are starting to consider the long-term implications of each solution option. They seek, consider and evaluate others' opinions to develop a course of action. They implement the steps required to solve a problem and monitor the problem-solving process. If necessary, they adapt their problem-solving steps and processes to solve the problem.

Feedback and opportunities for improvement

To improve your problem-solving skills, you could actively explore new problem-solving strategies that could be used for and beyond the immediate problem. You could consider the different contexts of the problem-solving process when monitoring progress. You could identify other situations to which your solution may be relevant and share ideas or resources more broadly.

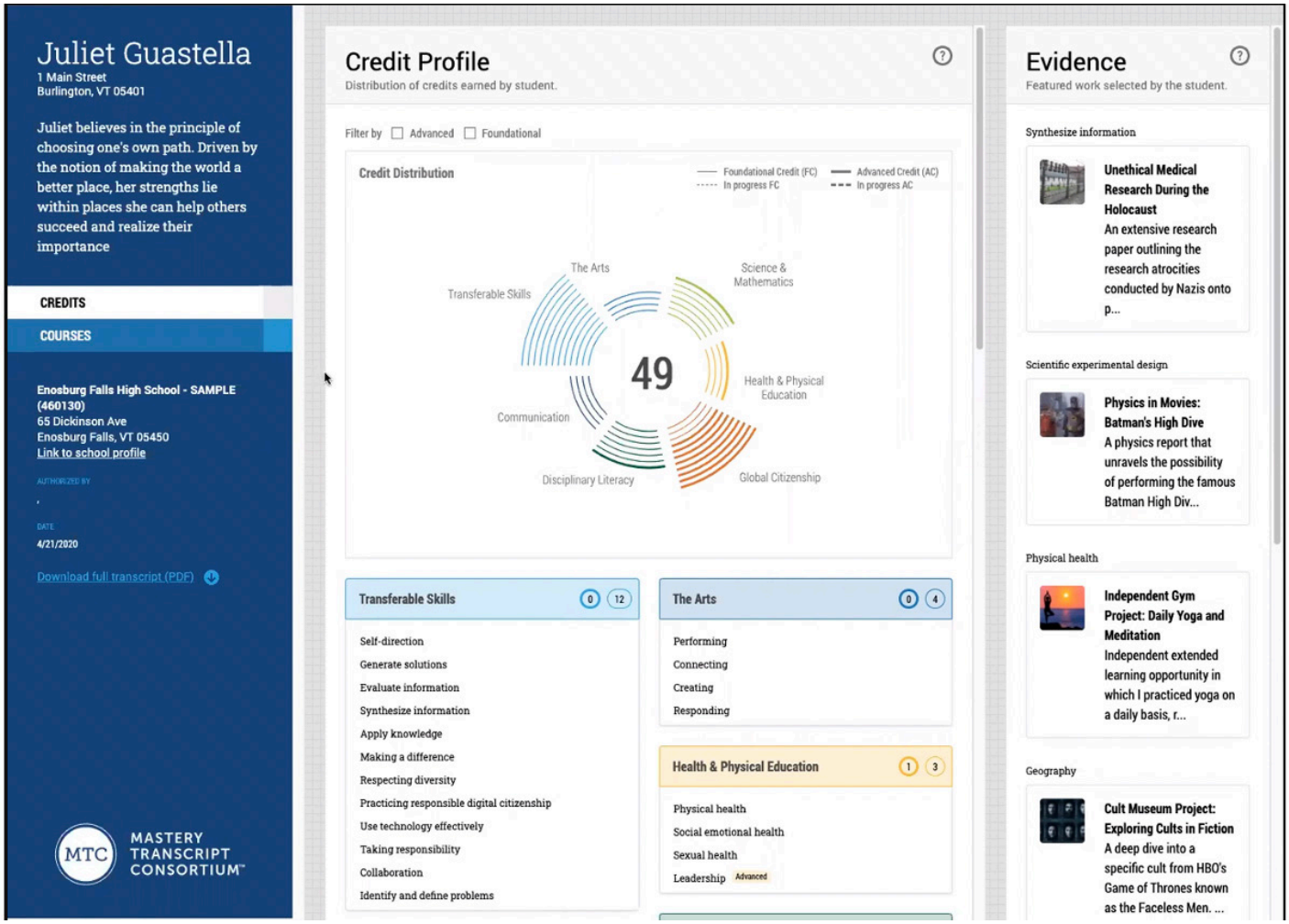
LATROBE VALLEY AUTHORITY

THE UNIVERSITY OF MELBOURNE

2. Mastery Transcript Consortium

The Mastery Transcript is the product of the Mastery Transcript Consortium, a large coalition of schools in the United States. A number of Australian schools have also joined this initiative. Each profile captures attainments in general competencies, as well as achievements in more traditional school programs and out-of-school programs.

The Mastery Transcripts have been designed carefully through a rigorous process involving stakeholder consultations, assessment design, metadata design, professional training, building of an evidencing system and so on. The image below showcases the Mastery Transcript produced for each student. It captures the achievements and skills of learners across different areas.



3. Big Picture Education Australia: new measures of success for all school leavers

Big Picture Education Australia (BPEA) has been an innovator and 'first mover' in education in Australia for over a decade. Responding to global and local challenges that are driving the need for young people to be problem solvers, creative thinkers and entrepreneurs, Big Picture learning is explicitly designed to develop students as researchers and independent learners with real world experience, ensuring they are well prepared for life beyond school. BPEA is a national network of (largely) public schools implementing a highly personalised approach to secondary education that is transforming traditional approaches to curriculum, pedagogy and assessment.

In the Big Picture design for schooling, students learn through exploration of their passions and interests through sustained project and inquiry work as well as internships with expert mentors in the community. This approach - uncoupled from traditional school structures, subjects and timetables - encourages students to develop rich, eclectic knowledge and capacities, while having agency in their learning.

The Big Picture design for learning weaves together theory and practice, novices and experts, in-school and out-learning experiences, and group and individual learning. Students pursue such diverse topics as: artificial intelligence, drone-delivery services, exercise physiology, midwifery, marine biology, carpentry, jewellery design, broadcasting, filmmaking and neuro-surgery … to name but a few of their passions.

Personalising Assessment: The International Big Picture Learning Credential ©

As no two students have the same interests, it follows that a different approach to assessment is required. BPEA students do not sit standardised final year exams, nor require an ATAR to enter into tertiary study. Judgements of learning attainment are based on demonstrations and observations of capacity throughout the year, performance at regular exhibitions and presentation of learning in student-curated portfolios. Assessment is criterion-referenced rather than norm-based or ranked.

In 2020 BPEA introduced the International Big Picture Learning Credential© (IBPLC) to evaluate and certify student achievement at graduation. This credential is for all students who wish to personalise their learning, both in Big Picture schools, and beyond. Developed in partnership with the Assessment Research Centre at the University of Melbourne, BPEA has designed a credentialing system to provide a widely recognized and trusted warrant of the distinctive accomplishments and qualities of each learner.

The International Big Picture Learning Credential© comprises six assessment frames based on the Big Picture Learning Goals:

1. Knowing How to Learn
2. Empirical Reasoning
3. Quantitative Reasoning
4. Social Reasoning
5. Communication
6. Personal Qualities

These assessment frames specify progressive levels of development that identify what a holder of the credential knows and can do at each level. Students are assessed on their capacities to reason, inquire, hypothesise, quantify, analyse, communicate, relate, share, create, make and evaluate. Students themselves can use these frames to map their work over time and take ownership of their growth and development, while teachers and mentors can provide continuous and specific feedback.

At graduation students being awarded the new credential receive a Learner Profile which provides a rich description of their interests, accomplishments and qualities.

The integrity of academic results is preserved and overseen by issuing authority Big Picture Education Australia, while students can choose to complement their profile with a video statement, photo and web-based examples of their work, references or personal achievements.

The Learner Profile offers meaningful, accessible information to end-users in universities, training colleges and employment, while allowing students significant agency in the way they are represented; something not often accorded them in schools.

International Big Picture Learning Credential

A passport to the world

Jareef Ahmed

Jareef Ahmed graduated in 2020 from the Big Picture Academy at Liverpool Boys High School. He is a 17-year-old who was born in Bangladesh, migrating to Australia with his parents in 2005. His dedication to hard work and collaboration has been a defining feature of his work ethos. He values skills such as critical analysis, interpersonal communication, initiative and teamwork. Jareef is deeply passionate about military history, strategic studies as well as international security. He is also interested in physics, military technology and Australian politics. These passions and interests have driven his research within Big Picture, such as his thesis on transparency within Sino-Australian relations during COVID-19. To continue the exploration of these passions, he is interested in studying a Bachelor of International Security Studies at the Australian National University. Jareef aims to pursue a pathway towards a career in intelligence or defence.

Online portfolio **Video statement**

Knowing How to Learn - Level 5

Students at this level are open to ideas that challenge their current thinking and action and they pursue new knowledge to develop improved solutions.

Social Reasoning - Level 5

Students at this level define and analyse social issues using relevant frameworks and perspectives and take responsible social action.

Communication - Level 5

Students at this level use a blend of tools to design and refine their communication in order to deliver a compelling message that expands perspectives.

What do these levels mean?

Personal Qualities - Level 5

Students at this level are insightful and hold themselves accountable for their actions.

Quantitative Reasoning - Level 5

Students at this level understand the systematic nature of mathematics and the power of it in modelling the physical or social environment.

Empirical Reasoning - Level 5

Students at this level systematically refine hypotheses to develop authoritative knowledge from their investigations.

Achievements:

- Completion of HSC Physics (2019)

Real World Experiences:

- Member - Liverpool Boys High School Student Executive
- Cadet - Australian Army Cadets (22/29 Holsworthy)
- UTS Faculty of Engineering and IT Summer School

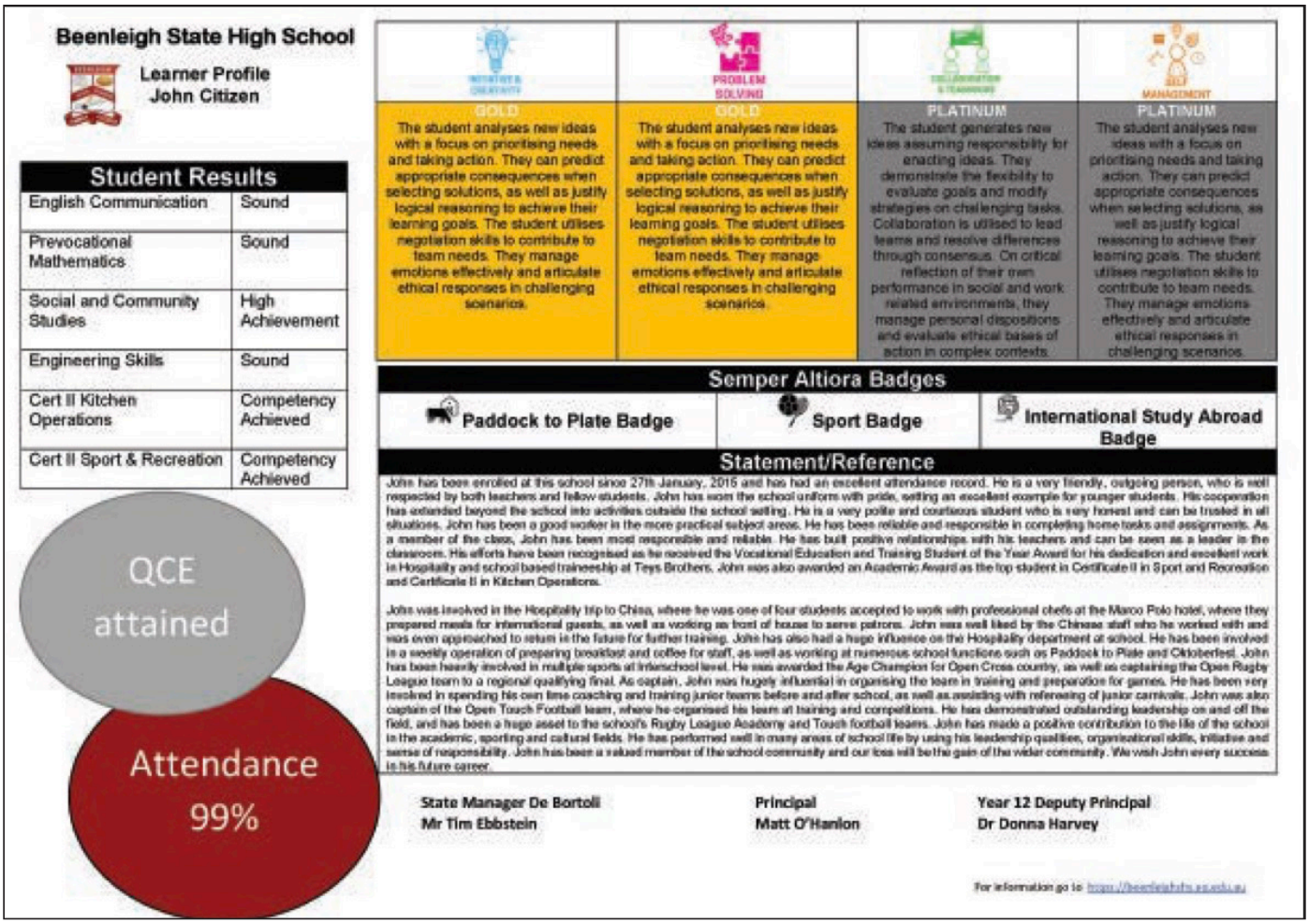
Big Picture EDUCATION AUSTRALIA

THE UNIVERSITY OF MELBOURNE

4. Beenleigh State High School, Queensland, Australia

Beenleigh has been working with the ARC at the University of Melbourne to construct a bespoke approach to assessing and micro-credentialing the development of students' complex competencies, specifically those related to work-readiness. This initiative commenced after the school identified a need to assess and micro-credential employability skills of its secondary school leavers.

Such initiative is expected to be influential in drawing attention to the importance of recognising competencies (such as initiative and creativity, problem-solving, collaboration and teamwork, self-management) essential for success in life and work, beyond academic achievements and certifications. The Learner Profile from Beenleigh State High School captures a range of information about the student, including student's performance in academic subject, attendance rate, qualifications attained, level of competence in employability skills such as problem solving, and badges from other achievements and participations. It also includes statements and references about the student.



Beenleigh State High School

Learner Profile
John Citizen

Student Results	
English Communication	Sound
Prevocational Mathematics	Sound
Social and Community Studies	High Achievement
Engineering Skills	Sound
Cert II Kitchen Operations	Competency Achieved
Cert II Sport & Recreation	Competency Achieved

QCE attained

Attendance 99%

	PROBLEM SOLVING		MANAGEMENT
GOLD	GOLD	PLATINUM	PLATINUM
The student analyses new ideas with a focus on prioritising needs and taking action. They can predict appropriate consequences when selecting solutions, as well as justify logical reasoning to achieve their learning goals. The student utilises negotiation skills to contribute to team needs. They manage emotions effectively and articulate ethical responses in challenging scenarios.	The student analyses new ideas with a focus on prioritising needs and taking action. They can predict appropriate consequences when selecting solutions, as well as justify logical reasoning to achieve their learning goals. The student utilises negotiation skills to contribute to team needs. They manage emotions effectively and articulate ethical responses in challenging scenarios.	The student generates new ideas assuming responsibility for enacting ideas. They demonstrate the flexibility to evaluate goals and modify strategies on challenging tasks. Collaboration is utilised to lead teams and resolve differences through consensus. On critical reflection of their own performance in social and work related environments, they manage personal dispositions and evaluate ethical bases of action in complex contexts.	The student analyses new ideas with a focus on prioritising needs and taking action. They can predict appropriate consequences when selecting solutions, as well as justify logical reasoning to achieve their learning goals. The student utilises negotiation skills to contribute to team needs. They manage emotions effectively and articulate ethical responses in challenging scenarios.

Semper Altiora Badges

Paddock to Plate Badge | Sport Badge | International Study Abroad Badge

Statement/Reference

John has been enrolled at this school since 27th January, 2016 and has had an excellent attendance record. He is a very friendly, outgoing person, who is well respected by both teachers and fellow students. John has worn the school uniform with pride, setting an excellent example for younger students. His cooperation has extended beyond the school into activities outside the school setting. He is a very polite and courteous student who is very honest and can be trusted in all situations. John has been a good worker in the more practical subject areas. He has been reliable and responsible in completing home tasks and assignments. As a member of the class, John has been most responsible and reliable. He has built positive relationships with his teachers and can be seen as a leader in the classroom. His efforts have been recognised as he received the Vocational Education and Training Student of the Year Award for his dedication and excellent work in Hospitality and school based traineeship at Teys Brothers. John was also awarded an Academic Award as the top student in Certificate II in Sport and Recreation and Certificate II in Kitchen Operations.

John was involved in the Hospitality trip to China, where he was one of four students accepted to work with professional chefs at the Marco Polo hotel, where they prepared meals for international guests, as well as working as front of house to serve patrons. John was well liked by the Chinese staff who he worked with and was even approached to return in the future for further training. John has also had a huge influence on the Hospitality department at school. He has been involved in a weekly operation of preparing breakfast and coffee for staff, as well as working at numerous school functions such as Paddock to Plate and Oktoberfest. John has been heavily involved in multiple sports at Interschool level. He was awarded the Age Champion for Open Cross country, as well as captaining the Open Rugby League team to a regional qualifying final. As captain, John was hugely influential in organising the team in training and preparation for games. He has been very involved in spending his own time coaching and training junior teams before and after school, as well as assisting with refereeing of junior carnivals. John was also captain of the Open Touch Football team, where he organised his team at training and competitions. He has demonstrated outstanding leadership on and off the field, and has been a huge asset to the school's Rugby League Academy and Touch football teams. John has made a positive contribution to the life of the school in the academic, sporting and cultural fields. He has performed well in many areas of school life by using his leadership qualities, organisational skills, initiative and sense of responsibility. John has been a valued member of the school community and our loss will be the gain of the wider community. We wish John every success in his future career.

State Manager De Bortoli
Mr Tim Ebbstein

Principal
Matt O'Hanlon

Year 12 Deputy Principal
Dr Donna Harvey

For information go to: https://beenleighshs.eq.edu.au

About the authors

Enterprise Professor Sandra Milligan

Enterprise Professor Sandra Milligan is the Director of the Assessment Research Centre at the University of Melbourne. She specialises in research on assessment, recognition, credentialing and warranting of hard-to-assess capabilities. Originally a teacher of science and mathematics she trained in educational measurement, has a background in technology commercialisation, is a former Director of Curriculum in an Australian state education department, and has held senior research, management and governance positions in a range of educational organisations. She convened the Melbourne University MOOC targeting professional learning for teachers in the area of assessment and teaching of 21C skills, which has to date enrolled over 30,000 teachers worldwide.

Dr Rebekah Luo

Dr Rebekah Luo is a Research Fellow at the Assessment Research Centre who specialises in the assessment of complex competencies and general capabilities. She leads a range of projects developing instruments and methods skills, such as problem-solving, critical thinking, intercultural capability, enterprise skills and others.
For instance, she is currently working with organisations like the Latrobe Valley Authority to establish microcredentialing programs for assessing and recognising enterprise skills that are valued by employers.

Dr Toshiko Kamei

Dr Toshiko Kamei is a Research Fellow at the Assessment Research Centre. Her work has focussed on projects to investigate the assessment and recognition of complex competencies in school-age students and adults. For instance, she has led projects that aim to develop resources to assess foundational skills in students with a disability. Prior to her time at the Centre, she taught in primary, secondary and specialist settings in Canada, England, Japan and Australia. Toshiko's research interests include assessment of complex competencies, measurement theory and raising the capacity of teachers to educate all students.

Associate Professor Suzanne Rice

Associate Professor Suzanne Rice is the Deputy Director of the Assessment Research Centre. She has researched and published widely in the areas of testing policy and the impact of high-stakes testing programs. Her other research focuses on teacher motivation and pathways and career development provision in schools. She has a strong interest in high-quality tertiary teaching. She led the establishment of the award-winning Master of Education in Evidence-Based Practice and she is a member of the Melbourne College of Reviewers, an expert panel that supports University of Melbourne staff to strengthen further the quality and relevance of their teaching.

Dr Thida Kheang

Dr Thida Kheang is a Research Fellow at the Assessment Research Centre. He works on projects relating to educational assessment, curriculum review and school leadership. He has experience working on education projects in different contexts, mainly in Southeast Asia. His areas of expertise/interests relate to qualitative research, education policy, teacher education and educational leadership.

www.learningcreates.org.au