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A New Path Forward:

A look at Senior Secondary Recognition
and Pathways

Forward

Too many young Australians still complete their formal school education without the knowledge, skills, attitudes and dispositions they need to navigate the transition from school to further education, training, or employment.

In recent times, there have been numerous reviews, studies and reports from Australia and internationally looking at policy and practice for school to work transition and, more broadly, the way young people (and others) navigate a lifetime of transitions between learning and work in a very different and rapidly changing world.

Learning Creates Australia commissioned Public Purpose to undertake a comparative and analytical review of twenty-two of these reports exploring their insights and implications. Chosen because they represent a cross section of the leading international and national thinking and include all relevant Government sanctioned reviews. A list of the reports is attached to this paper.

These reports have been commissioned by a range of experts, from the OECD and the World Economic Forum, various Australian Governments, Industry bodies, Universities and thought leaders and cover the period from 2017 – 2021. They have been undertaken with differing briefs, but all of the reports and reviews studied start from the same place, which is an acknowledgement that current arrangements are not as effective as they need to be for a very different and rapidly changing world.

Some of the reports dealt specifically with issues of assessment, credentials and system metrics, others offered a wider analysis of policy challenges for learning and skills more broadly, in which the challenges and opportunities for new approaches and methods for assessment and reporting played a role.

As we can see from this analysis, the challenges for young people as they transition from schooling into further study and work are significant and despite reviews and a will for change it has proven difficult to make a significant impact. Learning Creates was established to bring a new approach to addressing and shifting these issues and as a result, Learning Creates Australia is not a typical organisation. We are a growing alliance of people and organisations who want to move faster into the future.

Our belief is that a broader recognition of learning opens up new and better pathways for young people. To do this we need to move from the current system of recognition that focuses on a narrow view of a learner to one that captures a fuller picture of a young person and their learning.



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Acknowledgement

Learning Creates 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. Our first project, The Learner's Journey, is focused on increasing opportunities for 15 to 19 year-olds to successfully transition through education and into work and life beyond school by developing alternatives to the current recognition and certification systems that limit the life chances of young people. Our aim is to create a more extensive range of pathways for young people that are trusted and valued by recruiters and selectors, and more inclusive of the needs of students disadvantaged by the current dominant system.

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The headlines: Six propositions

These are six propositions that can be drawn from these 22 reports to confirm the nature of the policy environment. They are:

1. A shared understanding of the problem

None of these reports thinks the way Australia, and some other countries too, is tackling the challenge of assessment, credentials and reporting, and their link to curriculum and the wider context of learning and skills, is adequate.

Even for those who appear to be doing well in the current arrangements, those arrangements may not be working as well as they should in an economic and social context that is dramatically unsettled by the continuing volatility of the COVID-19 pandemic, making new demands and setting new expectations.

As one analysis put it, “our system is not failing, but if we continue to postpone what is necessary it will” (BCA Future Proof, p7). And that same analysis concludes that “if Australians are to truly thrive through these forces of change, our system is not ready” (p12).

2. Different views on the best path towards solutions

There’s a consensus across the reports about the nature of the problem and the elements of a solution, however there is still considerable contest about at least some of the elements of the discussion. Whilst this isn't unusual for domains of social policy, it seems especially endemic to education and learning that policy approaches and assumptions about the best way to proceed are never completely settled.

A small example – all of the reports pretty much agree that there is an over-reliance on the ATAR as a simple and singular measure of learning and capability. It’s increasingly meaningless, measures not very much of any interest to most people and is often unfair especially to those who are already starting from a position of educational disadvantage.

But there remains an argument that ATAR’s ‘simple and singular’ method is precisely the best way to give those who are experiencing disadvantage a chance to transcend their circumstances and ‘succeed’ in spite of their circumstances whose negative impact on progress and achievement, in many other methods, might actually be exacerbated.

Evidence, context and purpose, intent and beliefs are all contested and in pretty much permanent flux, at some level anyway. Which means change is a function of ceaseless campaigning, in some form or another, for what you are trying to achieve.

These issues confront deep and sometimes hidden structures of values and beliefs that are not always susceptible to evidence and the insights from research, no matter how independent or rigorous.

The truth is that parents, young people, teachers, researchers, politicians, policy makers and employers often can’t agree. It might sound a bit contradictory, but a policy consensus can’t assume wide and shared agreement or support.

If you are doing well with an approach and methods that are out of step with the rapidly changing and different world you are going into, it’s not clear that the current definition of learning ‘success’ is going to hold you in good stead. It’s obvious in those cases where young people are not being supported by current methods and approaches.

But the deeper concern is that, win, lose or draw in the current system, young people are not being well prepared. It’s not about who does well or not so well in the current system. It’s that the current system itself is increasingly misaligned and therefore unhelpful than is sometimes accepted by its advocates and defenders.

3. Learning in a constantly changing world

One of the reports suggested that especially COVID-19 has introduced a set of disruptions to our social, economic and political life that is civilisational in its scope and impact. Things – everything – has been well and truly turned upside down.

Another made it clear that what was at stake in these debates about learning, skills and assessment were questions about the kind of country Australia wanted to become – a nation that advances and employs knowledge and skills, a cohesive and socially mobile nation, an internationally connected country (Monash Commission 2018, p11).

Even if you don't buy that scope, all of these reports consistently place the big questions about the future of education and learning, and the role of new methods and practices of assessment, credentials and system metrics, in a context taxed by a search for answers to three questions:

- How well can Australia navigate the transition to an **economy** that is clean, resilient and adaptable for inclusive growth and sustainable prosperity?
- How does Australian **society** tackle deep divides that are opening up in wealth, race and gender to offer everyone a sense of opportunity and the chance of living their best lives?
- How does Australian **democracy** burdened with growing levels of distrust and disengagement find the path to steady to a rise of respect and accountability?

When the world changes, the way the world learns changes too. And that means the way the world determines how learning and skills will be defined, developed and assessed also changes. This has always been locked in a ceaseless, not always comfortable, cycle of mutual dependence and influence.

The consequences are mounting and becoming harder to ignore. The status quo isn't good for increasing numbers of young Australians, it isn't good for Australia's economic strength and resilience and it certainly isn't good for society as disconnection and disengagement entrench disadvantage and often even a sense of despair.

There are complex technical issues involved in finding better solutions for an approach to assessment and system metrics that fits the world as it is changing and making new demands. But none of these reports misses the chance to situate that work in a strategic and cultural context of immense size and significance. Getting this right matters and the implications of either success or failure and frustration are as large as you can imagine.

4. Right issue, right time

There is a consistent recognition that a focus on assessment, credentials and system metrics opens up deeper questions about the focus, purpose, structure and operation of the education system at every level.

It acts as a pressure point on which to focus if the intent is not just to improve their relevance and impact but, as a consequence, to shift thinking, policy and behaviour throughout the education and learning system.

There's two other dimensions to this proposition:

One is a sense of having 'hit the wall' on a topic and set of solutions about which there is a growing consensus and a rising sense of urgency. Even the process of analysing 22 reports all published in the last five years and all, pretty much, marshalling their evidence in support of very similar changes, reinforces a sense that there isn't much more to say, but there is a lot more to do.

The second is the larger context of social and economic disruption, most of which was already well underway under various labels, including the "fourth industrial revolution", but all of which have been amplified by the experience and continuing evolution of COVID-19.

The pandemic especially has revealed fault lines of poor performance in many of the systems and practices of assessment, credentialing and reporting that, in turn, mirror bigger questions about the relevance and performance of many aspects of the learning systems in which they operate.

That doesn't mean systems will tumble and change all at once. As much of the analysis has suggested that assumption is neither realistic nor helpful.

But there is a sense that the current conditions might be propitious for significant change as the pandemic and its implications have loosened many of the factors that hold current systems in place.

The impetus to "bounce back" is deep, strong and instinctive, as against the gathering momentum to "bounce forward" to something better. It's going to be an interesting contest.

5. Policy changes at the rate of absorption

Changing practice is also about changing policy. The two pieces don't always change together but they are inextricably linked if the intent is for sustainable shifts in thinking and behaviour and new ways to define purpose and impact.

Policy only changes at the rate at which new ideas and proposals for reform can be absorbed and translated into the practical business of decisions about direction and investment.

There's a marked absence from many of the reports and studies reviewed for this analysis of much detailed discussion about the challenge of absorption and how to practically influence the conditions that impact how proposals for reform are dealt with.

What this review reinforces is that there is no shortage of ideas, advice or advocacy for change. What is in less obvious supply is careful consideration for the pragmatic task of helping those who will be tasked with turning the ideas into a systemic impact to make that happen relatively easily and simply.

6. Why can't we do what we know?

Despite a consensus on the why and what, and even often on the how of complex social change, progress and getting things done seems glacial at best, absent at worst.

There may be more of the new being constructed and tested than is immediately obvious; perhaps in fact we are doing what we know, it's just that much of the work remains disconnected and invisible at the level and scale it might be noticed.

The incentive structures (rewards and sanctions) for those working in the current system are rarely in line with rapid and radical change. It's not realistic to expect those who hold positions at the commanding heights of the current system to be actively pursuing changes that inevitably impact, and possibly deeply disrupt, their own status, power and authority. That's not to say there won't be some; the question then becomes how to find them and support their instincts for change from within.

Related is the reality that, because of the prevailing incentive structures and associated cultural habits, often the less esteemed business of mobilisation and doing doesn't carry the prestige and profile associated with the initial tasks of finding and admiring the problem. Often those left to actually do the work are not given the status and resources that are accorded the front-end of the process where the analysis and recommendations are formed.

Consensus and contest will likely co-exist, especially in education and learning policy. Evidence will be tested and challenged; being right, no matter how overwhelming the apparent consensus of analysis and advocacy, is rarely enough. Change rarely happens without persistent, patient pressure.

Finally, it's also possible that the skills for mobilising new approaches and embedding new thinking and practice are in short supply or lacking altogether. If that's true, then confidence and appetite for the relatively hard work of getting things done will be low and various forms of resistance will emerge – inertia, deferral and delay (more reviews, more analysis) and more or less institutional or personal resistance chief among them.

Detailed overview of the 22 reports

There has been a lot of time, effort and money invested in trying to answer a recurring question:

What is the best way, including how skills and capabilities are defined, recognised, assessed, credentialed and reported, to help young people, systematically and predictably, make a better transition from school to work and further learning?

This comparative and analytical review of twenty-two relevant reports shows that overwhelmingly, they say similar things about:

- **Why** we need a better way for young people to make the learning and work transitions,

- **What** specifically needs to be done to improve on what's being done at the moment and
- **How** that might be achieved.

Their common imperative for learners especially is the ability to more confidently make the choices about where, when, how and what to learn that gives them the best mix of what they need to know and what they need to be able to do to succeed and flourish.

And that means steadily improving both the structures and systems available to make those choices and do that navigating, and the tools of assessment, credentialing and reporting that activate that ambition.

Reports, reviews and studies included in this analysis:

1. Preparing young people for the world of work **Kate Torii, Megan O'Connell March 2017**
2. The future we want: the future of education (Education 2030) **OECD 2018**
3. Future proof: Australia's future post-secondary education and skills system **Business Council of Australia August 2018**
4. Three Recommendations for Renewal of Post Compulsory Education in Australia **Monash Commission 2018**
5. The Fourth Industrial Revolution: the implications of technological disruption for Australian VET **NCVER 2018**
6. The Future of Jobs Report **World Economic Forum 2018**
7. Review of the Australian Qualifications Framework **Peter Noonan Chair September 2019**
8. Beyond ATAR: a proposal for change **Megan O'Connell, Sandra Milligan and Tom Bentley September 2019**
9. The work of the future: shaping technology and institutions **MIT Work of The Future Fall 2019**
10. Bridges to the future: GAP Taskforce on youth transitions report **Global Access Partners September 2019**
11. Reforming Post-Secondary Education in Australia: Perspectives from Australia's Dual Sector Universities **2019**
12. Realising Potential: Solving Australia's Tertiary Education Challenge **The Australian Industry Group February 2019**
13. Strengthening Skills: Expert Review of Australia's Vocational Education and Training System **Steven Joyce April 2019**
14. Future proofing students: what they need to know, and how educators can assess and credential them **Sandra Milligan et al 2020**
15. Nurturing wonder and igniting passion: design for a new school curriculum NSW Curriculum Review **Geoff Masters April 2020**
16. Looking to the future: report for the review of senior secondary pathways into work, further education and training **Peter Shergold Chair June 2020**
17. Future skills for Victoria: driving innovation and collaboration in post-secondary education and training **Jenny Macklin Chair October 2020**
18. Resetting the future of work agenda: disruption and renewal in a post-COVID world **World Economic Forum October 2020**
19. Review into vocational and applied learning pathways in senior secondary schooling **John Firth November 2020**
20. The right drivers for whole system success **Michael Fullan February 2021**
21. Structural failure: why Australia keeps falling short of our educational goals **Chris Bonner et al 2021**
22. Rethinking assessment in education: the case for change **Bill Lucas April 2021**

Consistent themes

1. A changing economy, a changing world

In a rapidly changing economy, with a focus on sustainability, innovation and resilience, the nature of work and the nature of organisations themselves is changing. This brings new demands for learning and skills not just in the school system but through a lifetime of work and learning. The hallmarks of success will increasingly be adaptability, the capacity to gain new skills and capabilities, the ability to put together the right “bundle” of skills and capabilities to respond to changing circumstances and access to tools and methods that give a fair and accurate rendition of individual progress.

The debate about skills and learning for work and life is often reflected in the context of questions about the kind of country that Australia should aspire to be and become.

'The Commission has also identified four core goals, on the realisation of which Australia's continued prosperity relies:

- a. *A workforce that is able to respond to the needs of, and to shape, the future – so individuals and communities can benefit socially, culturally and economically from a nation that is more competitive, more productive, and that demonstrates a high degree of social and cultural sophistication and technological advancement.*
- b. *A nation that advances and employs knowledge and skills – so Australia can adapt, manage and mitigate the unpredictability of the future and improve the lives of its people.*
- c. *A cohesive and socially mobile nation – so all Australians have the opportunity to participate fully and productively in the building of our country, regardless of where they were born or the circumstances into which they were born.*
- d. *An internationally connected country – because Australia cannot do it alone. Stronger international links in research, exchange and other areas will strengthen our country and allow it to play its role as a responsible global citizen through its contribution to making a better world'*

- Monash Commission 11

'The various ways by which the growth in technological advance is reshaping the labour market, workforce and jobs. Despite uncertainty about the scale and nature of the effect, there is a growing consensus that Australia's tertiary education system needs to change to meet the requirements of a future labour force focused on innovation and creativity.

Specialist technology-related skills are, unsurprisingly, important to disruptive technologies. However, generic non-technical skills, such as teamwork, problem-solving, continuous learning and creativity are also integral to the uptake and implementation of disruptive technologies in the workplace'

- NCVET 7

'The emerging contours of the new world of work in the Fourth Industrial Revolution are rapidly becoming a lived reality for millions of workers and companies around the world. The inherent opportunities for economic prosperity, societal progress and individual flourishing in this new world of work are enormous, yet depend crucially on the ability of all concerned stakeholders to instigate reform in education and training systems, labour market policies, business approaches to developing skills, employment arrangements and existing social contracts.'

- WEF 2018

'Technological innovation is seen as an engine for sustainable economic development and a driver of productivity growth. It is also widely accepted that the disruptive impacts of technology are amplified by their interaction with each other in the so-called 'Fourth Industrial Revolution' (Industry 4.0 or i4.0). Collectively, this has important implications for employment and training, particularly the demand for specific skills and capabilities.

The extent to which advanced technologies and business-model innovation are more disruptive than the changes that have taken place during previous periods of technological and economic change is a subject of considerable debate. At the centre of this are widely divergent views about the potential impact of automation and artificial intelligence on occupational and skills demand.' - **NCVER 7**

'Major and rapid increases in human knowledge and skills are required to meet the technological, economic, environmental and cultural transformations currently taking shape across the world. Australia must be positioned to respond and thrive by becoming a more intellectually, technically and culturally sophisticated society. Our public debates will need to become better informed, with more light and less heat, more knowledge and less opinion, more science and less surmise. Post-compulsory education is a major part of the solution'. - **Monash Commission 10**

'Our fast moving world will need flexible and applied ways of learning, so people can lay a strong foundation for their careers and then build further skills and knowledge in order to participate in new and changing industries.' - **Joyce**

2. The impact of technology

The reports put a specific focus on the impact on work and learning of successive waves of digital disruption and invention, especially the current emphasis on artificial intelligence, robotic automation and the intersection of technology, biology and insights about human cognition.

We stand on the cusp of a technological revolution in artificial intelligence and robotics that may prove transformative for economic growth and human potential. Of course, other forces besides technology will shape the nature of work, opportunities for workers, and living conditions for the vast majority of people around the world. Other challenges, such as climate and the environment, to name just one salient example, could fundamentally re-order the terms and parameters under which economies, governments, and societies operate in the decades to come'. - **MIT 46**

'Nevertheless, new and emerging technologies will have a profound effect on the work of the future and will create new opportunities for economic growth. Whether that growth translates to higher living standards, better working conditions, greater economic security, and improved health and longevity in the United States and elsewhere, depends on institutions of governance, public investments, education, law, and public and private leadership.' - **MIT 46**

'New digital technologies are changing the way Australians live and work. Emerging technologies such as the internet of things, artificial intelligence, automation and robotics will affect the nature and type of jobs available and the skills and capabilities required to perform both new and existing jobs.² While it is difficult to precisely anticipate the scale and impact of these changes, we can be reasonably confident that the jobs of tomorrow will require new skills, and some existing skills will become obsolete' - **Joyce 7**

3. A life of learning

The idea of lifelong learning, which has been around for a long time, is re-emerging as a necessary commitment to a lifetime of learning for work and life. And, for the most part, the policy emphasis is on both. It's not only about adapting to the changing demands of an emerging new economy – green, connected and digital, ethical and just, clever and innovative to solve problems and deliver value. It's also about realising personal potential and giving people tools and confidence as citizens too.

*To be work-ready, graduates have always needed a combination of technical skills and general employability. While the balance of these skills may shift, we should expect students will continue to need training that builds both. Training should aim to equip students with the skills needed for their first job, and the flexibility and adaptability to navigate future career transitions. As we cannot fully predict the future workforce landscape and the skills required, we also need a system that supports workers to upskill or retrain throughout their lives. In our increasingly computerised world, digital skills will be critical for the vast majority of workers - **Joyce 8***

*...to prevent an undesirable lose-lose scenario— technological change accompanied by talent shortages, mass unemployment and growing inequality—it is critical that businesses take an active role in supporting their existing workforces through reskilling and upskilling, that individuals take a proactive approach to their own lifelong learning and that governments create an enabling environment, rapidly and creatively, to assist in these efforts - **WEF 2018 v***

*'The system needs to become more flexible, permeable and agile to meet the demands of rapid economic and social change. Australia needs to encourage and act on lifelong learning. While the changing nature of work means individuals today must learn and apply new skills throughout their lifetime – often several times over – our current system of post- compulsory education and training still seems funded and equipped to educate people only once.' - **Monash Commission 13***

'For a system of post-compulsory education that truly enables lifelong learning, there needs to be:

- a. *A range of institutions with sufficient spread of capabilities and strengths to support the expected needs of the Australian community – diversity rather than conformity;*
- b. *pathways for learners to move readily between vocational education and training and higher education*
- c. *qualifications that meet the current and future demands of industry, the community and individual learners*
- d. *course offerings that are flexible, affordable and time-saving to meet people's specific and rapidly changing'*

- Monash Commission 13

*'...workers will need to have the appropriate skills enabling them to thrive in the workplace of the future and the ability to continue to retrain throughout their lives. Crafting a sound in-company lifelong learning system, investing in human capital and collaborating with other stakeholders on workforce strategy should thus be key business imperatives, critical to companies' medium to long-term growth, as well as an important contribution to society and social stability. A mindset of agile learning will also be needed on the part of workers as they shift from the routines and limits of today's jobs to new, previously unimagined futures.' - **WEF 2018 ix***

*'For workers, there is an unquestionable need to take personal responsibility for one's own lifelong learning and career development. It is also equally clear that many individuals will need to be supported through periods of job transition and phases of retraining and upskilling by governments and employers' - **WEF 2018 2***

4. From capital to capability

It's been true for a while that most analyses of the range and mix of skills and capabilities people will need to navigate a world of work that is changing and becoming more demanding bring together discussion of both technical and "general" or "soft" skills. All of the reports call that out with renewed emphasis and urgency.

Another take on that distinction is the need to balance an instrumental and transactional focus on investing in skills for work and the economy (basically a "human capital" approach) with a focus on a more holistic realisation of each individual as a person, a citizen and a worker (the "human capability" approach).

'...a better basis for post-compulsory education is developing "the capability of people to be and do what they have reason to value", focusing on their development as a person, as a citizen, and as a worker. This "human capability approach" has implications for how we evaluate the success of a post-compulsory education system' - **Monash Commission 8**

'Demand for the human capabilities that post-compulsory education and training foster – most notably, critical and analytical thinking, higher-order skills and global connectedness – is higher than ever before in the face of disruptive changes now underway. Effective responses are needed to challenges such as climate change, the Fourth Industrial Revolution, the rise of the Asian Century and transformation of the established geopolitical order, population ageing and issues of inequality.' - **Monash Commission 14**

'Specialist technology-related skills are, unsurprisingly, important to disruptive technologies. However, generic non-technical skills, such as teamwork, problem-solving, continuous learning and creativity are also integral to the uptake and implementation of disruptive technologies in the workplace.' - **NCVER 7**

'Skills continuing to grow in prominence by 2022 include Analytical thinking and innovation as well as Active learning and learning strategies. The sharply increased importance of skills such as Technology design and programming highlights the growing demand for various forms of technology competency identified by employers surveyed for this report.'

'Proficiency in new technologies is only one part of the 2022 skills equation, however, as 'human' skills such as creativity, originality and initiative, critical thinking, persuasion, and negotiation will likewise retain or increase their value, as will attention to detail, resilience, flexibility and complex problem-solving. Emotional intelligence, leadership and social influence as well as service orientation also see an outsized increase in demand relative to their current prominence.' - **WEF 2018 12**

5. Tertiary Integration

Part of the challenge for young people especially, but also for everyone regardless of their stage of work and learning, is that the choices about learning – what should I learn to be most useful, where should I go to get the skills I need – are constrained by current policy and institutional divides between higher education and vocational education.

Many of these reports advocate different forms of integration and easier articulation. And they all call out the need to confront deep-seated cultural reflexes that have grown up around and entrenched these increasingly unhelpful distinctions.

'Despite the Bradley Review proposals, connections between the higher education and VET systems have – if anything – weakened as differences between the systems in governance, funding and regulation have become entrenched. Enrolments in higher education have grown rapidly (although funding has now been capped) while VET enrolments in publicly funded courses are lower than they were a decade ago as public investment in VET has declined 2' - **Dual Universities 2**

'An alternative approach, based on the experience of the dual sector universities, is to retain the key characteristics and distinctive contributions of the current systems, to strengthen each system (particularly VET) where required, better connect the systems through a determined focus on student pathways and to carefully redress distortions between the systems created by anomalies and inconsistencies in funding.' - **Dual Universities 2**

'...the lack of strong integration between the VET and higher education sectors. Stronger integration would assist in the development of both the theoretical knowledge and skills (technical and soft) that workers need.' - **NCVER 7**

'Despite this impressive growth in recent decades, the sectors are beset with a range of challenges. Chief among these is the development of a binary system characterised by seriously unbalanced participation between the sectors. The recent dramatic falls in VET participation have also been accompanied by declining funding levels which seriously jeopardise the sector.' - **AI Group 3**

'Tertiary education is characterised by a highly unbalanced binary model with no coherent policy and funding framework. There is a need to establish a long-term policy view for tertiary education rather than short-term attempts to address components of the overall system. While recognising the distinctive features of higher education and VET, there is a need for a more coherent and connected tertiary education system to be established.' - **AI Group 4**

6. Assessments and Credentials

The aspirations and recommendations in these reports for a more adaptable approach to many of the structural and operational capabilities of a suitable learning system put assessment and credentials at the centre. All of them imply, and sometimes call out explicitly, the need for better ways to navigate transitions through different stages of learning and work. And effective transitions need effective tools and platforms on which people can rely to make their choices about where, what, how, when and sometimes why they need to learn. The nature of qualifications, and especially the rising interest in micro-credentials and the ability for people to 'stack' skills training and capability development in different ways is another feature of the policy and institutional context called out by many of the reports.

The issues they raise all point to shifting demands on the underlying system and tools of assessment, credentialing and reporting, including a focus on 'learner profiles'.

'Assessment and skills recognition support learner's access and progress. As learners continually acquire and develop new skills and capabilities it is essential that they receive recognition for prior learning in meeting course prerequisites and through credit where equivalent skills and knowledge can be demonstrated, including from informal and non-formal learning.'

This principle should extend to students leaving senior secondary education to help build direct pathways from secondary school to both VET and higher education. Assessment should be used to assist students to move through qualifications and learner pathways in flexible ways as well as for formal certification of outcomes.' - **Dual Universities 14**

'The common policy principles proposed in this paper are:

- a. *Universal access for young people and lifelong learning for adults*
- b. *New and continuing learners make informed decisions*
- c. *Stronger, distinctive but better-connected systems*
- d. *Assessment and skills recognition support learner's access and progress*
- e. *Funding is demand driven, system neutral and priced to meet diverse needs*
- f. *Learning and work are integrated'*

- **Dual Universities 2**

'Preliminary work associated with the review has identified recent developments such as the trend towards micro-credentials and flexible delivery options and mechanisms to assist learners to construct their own programs, sometimes across sectors, to meet individual learning needs. In international terms, some countries are altering the way they view qualifications frameworks. In Europe, for example, there is a movement towards considering qualifications frameworks as a tool to facilitate an agile workforce suited to rapid technological, industrial and social change.' - **AI Group 31**

'An ecosystem of micro-credentials is emerging as an alternative or supplement to the degree, perhaps in tune with employers who have dispensed with degrees as prerequisites for employment on the grounds that degree transcripts are not particularly useful, and that university records are not good predictors of employment success.' - **AI Group 31 [quoting Milligan S. and Kennedy G.; To what degree? Alternative micro-credentialing in a digital age, in Visions for Australian Tertiary Education, Melbourne CSHE, February 2017]**

'There is significant interest from employers and industry representatives in training staff in micro-credentials as an alternative to full qualifications. We were advised that micro-credentials could be particularly useful for upgrading skills of existing workers for new technologies. We were also told that employers often didn't need to train workers for full qualifications, and preferred to train them for the parts of qualifications relevant at the time. It is not clear why skillsets are not used by industry as 'micro-credentials'.

Training workers for part-qualifications raises some interesting policy questions for government, particularly in relation to funding such activity. The main public policy rationale for government funding vocational training towards qualifications is that there is a public benefit obtained when people are trained for a recognised transferable qualification. This value is not necessarily captured by the person who obtains the qualification or, in the case of work-based learning, by the current employer. There is some question whether that public benefit rationale still applies if training doesn't lead to a recognisable qualification.'

- **Joyce 64**

Implications for Policy Change

These are some common policy focus areas that the reports prescribe:

- The focus is not only learning and skills for economic and employment outcomes, but also for people to become “confident and creative individuals, successful lifelong learners, and active and informed members of the community”
- Developing skills and knowledge is only useful to the extent that people develop the capabilities and attitudes to mobilise what they know in different contexts and circumstances (competence, as opposed to knowledge)
- The goal is to help everyone become “expert, capable, motivated lifelong learners.”
- There is a persistent commitment to enabling student agency as a powerful engine of motivation and learning success
- In different ways, the focus of these reviews is on what the Shergold review calls “opening doors, not narrowing paths”.
- Fullan’s reconnection of learning and wellbeing, which he argues have drifted apart under the combined influence of “academics” and “austerity”, is shared too across the other reviews. There’s a powerful sense of the need to rediscover the power of integration - wellbeing and equality, rigour and depth, not either/or.
- All of the reviews agree that there needs to be alignment and coherence between curriculum, teaching and assessment; it’s not a new insight but the policy implications from across these reports, to which the Learners Journey solutions can respond, follow that direction.

‘Skills are the connective tissue between knowledge and dispositions’ - Bill Lucas 23

‘Of course curriculum is only one of the three core elements of education systems, the other two being pedagogy or instruction (how the curriculum is taught) and assessment (how performance and progress is evidenced). Of significance for this report is the chronic disjoint between curriculum, pedagogy and assessment with, as yet no focus or guidance on the teaching or assessment of these competencies/dispositions’ - Bill Lucas 7
- In a changing and uncertain world, attributes of adaptability, creativity and curiosity become paramount and should be policy makers. And that’s only likely to happen if the curriculum and the associated assessment processes meet individual students.

“where they are, not only in terms of academic attainment but also in terms of personal interests and aspirations...flexibility and time to respond to students’ diverse interests.” - NSW Curriculum Review 22

“...start with the propositions ‘what do I like, and what am I good at.’ - BCA Future Proof 27
- There is a growing sense of the multiple, overlapping and often misaligned systems of learning and skills and what Fullan calls “systemness”, a recognition that we are the system and changing systems has to happen at multiple levels.

WHY

There is wide agreement in the reports about why it is both important and urgent that Australia makes changes to the systems and methods that help young people navigate transitions from school to a successful and productive life of work and learning.

As the BCA put it, there is a “near unanimity that there is a need for a comprehensive reform agenda across post-secondary education and skills,” and putting “a culture of lifelong learning at the centre is the most important thing we can do.” **BCA Future Proof 5**

Chief among them are these:

Firstly, The current “architecture” and practice of navigating these transitions don’t match the demands of a very different economy and rapidly changing social and cultural expectations too.

Secondly, There are major equity issues at play which are well-rehearsed, widely researched but persistently unaddressed. For example, too many young people, especially First Nations young people and those living in rural and remote Australia, some migrants and new arrivals and many of those living with a disability, find the transition systems they confront frustrating, unhelpful and often simply irrelevant. Too many of them are being left behind to fend for themselves, which many of them aren’t.

‘Structural inequity across both government and non-government schooling sectors appears to be increasing. The addition of significant financial resources to education from both state and Commonwealth governments has not reduced inequality.

*It is also notable that there is rarely an evaluation of student confidence, creativity, or community engagement and activity that is the Goal 2 of the Alice Springs (Mparntwe) Education Declaration. The prospect of attaining such goals for all young Australians, and also making them lifelong learners, is heavily contingent on achieving Goal 1; it is also unreachable if excellence is not matched with equity’ - **Bonnor 2***

Thirdly, The consequences are mounting and becoming harder to ignore. The status quo isn’t good for increasing numbers of young Australians, it isn’t good for Australia’s economic strength and resilience and it certainly isn’t good for society as disconnection and disengagement entrench disadvantage and often a sense of despair.

At its largest, the frame for this work which explains its real significance is compelling, particularly in the context of COVID-19 which has:

*‘... upended virtually every aspect of humanity as we know it, shaking current civilisation to its foundation. Amidst the death and destruction is a disruption so fundamental that it loosens and discombobulates the system in a way that creates openings for transforming the status quo.’ - **Fullan 2***

The same analysis suggests that “in societal terms – climatological collapse, extreme inequality, rapidly declining social trust, deterioration of mental and physical health – there is no case to be made that we can rescue ourselves without new dramatic action.” And learning and skills are at the heart of the response:

*‘The key agent for the future prosperity of humankind and the planet is the activation of a new learning system built on the evolutionary advantage that we possess but are in danger of squandering.’ - **Fullan 7***

There is considerable agreement about the degree to which current assessment and “grading” arrangements, and some of the features of the larger learning and skills “enterprise” of which they are such a key part, are out of date and out of step.

These are a few examples:

'Australia is in a transition. We have moved beyond the era of universal primary education to near universal secondary education. An era of universal tertiary education is emerging, whereby young people will need to engage in post-school education and learn and relearn throughout their lives. Our education system must be re-configured to support this.'

'We need to help young people develop human skills - capabilities including creativity and interpersonal skills - so that they are prepared for a lifetime of learning, adaptation and the future economy. We need to optimise the talent of all our young people. Each young person needs to be supported to develop their unique skills and talents, and to pursue pathways in which they can personally excel.' - **Beyond ATAR 4**

'Across the world assessment is not working. We are not evidencing the kinds of dispositions and capabilities that society increasingly wants. Educational jurisdictions are placing too much reliance on high-stakes, standardised testing. They are testing the wrong things in the wrong ways. High-stakes assessment is having a damaging impact on the health and wellbeing of students and it is not giving universities, colleges or employers the kind of information they want. Assessment is out of sync with curriculum and pedagogy. Where we have become increasingly evidence-based in teaching and learning, we are failing to keep up with the science of assessment, preferring to rely on outdated, outmoded and unsubtle methods.' - **Bill Lucas 2**

This is another version:

"The long term vision is for a curriculum that supports teachers to nurture wonder, ignite passion and provide every young person with knowledge, skills and attributes that will help them prepare for a lifetime of learning, meaningful adult employment and effective future citizenship." - **NSW Curriculum Review 3**

The same review points out that a crowded curriculum, the undervaluing of skills in the curriculum and the difficulty of addressing individual learning needs "contribute to many students becoming disengaged from school."

"They often have few opportunities to see and appreciate how what they are learning can be transferred and applied or to build practical skills in applying knowledge. And many are being given repeated messages that they are underperforming...resulting in disengagement and some students falling even further behind." - **NSW Curriculum Review xii**

This is another version – "...vision for a future post secondary education and skills system that has at its centre a learner and employer focus and a culture of lifelong learning...an entitlement for all Australians to skill and knowledge development throughout their working lives."

- **BCA Future Proof 4**

'Similarly ... "the skills and knowledge of all Australians will be the key to our people, businesses and economy thriving. To thrive in this complex world, we will need an education system that provides opportunities to all Australians, so they are able to fulfil their potential." - **BCA Future Proof 11**

This is another assessment:

'The present transition pathways presented to young adults at school are too often framed in a manner that they perceive to narrow choice. The dominance of a ranking score, the Australian Tertiary Admission Rank (ATAR), privileges academic capability over the value of vocational education and training. Many students believe that those headed for university are accorded higher status at school than those who prefer to pursue a trade apprenticeship or traineeship.'

More profoundly, the heavy focus on scholastic performance is seen by students to pay too little regard to the other skills and attributes that they require for successful adulthood. The general characteristics of students need to be given greater weight in the final years at school. The ATAR should be regarded as just one important measure of success. We need to educate for and assess the diverse learnings that make the whole person. We need to open doors, not narrow pathways'. - **Shergold 6**

'The consequences are clear: the mechanisms of accountability for students who leave government schools prior to completing Year 12 are ad hoc and have results in transitions that lead to students disengaging with education and employment which is the least desirable outcome.' - **Firth 16**

Jenny Macklin's review of skills policy in Victoria takes a vocational education and skills focus:

'Trust, coherence and resilience to contemporary and emerging conditions... how complex and fragmented governance, accountability and funding systems make it hard for providers to innovate, and identified a need to strengthen public confidence in the system. It pointed to the significant progress the current Government has made in stabilising the system, refocusing on quality and restoring trust.' - **Macklin 27**

'The model for education currently in place is badly out of date. Correspondingly, a new and better education system would be one of the very few avenues for surviving in the short run, let alone thriving in the longer future. Thomas Kuhn (1962), in his book The Structure of Scientific Revolutions, made the case that scientific models, or paradigms as he called them, sometimes run their course. He said that two conditions are necessary for change to happen: one is that the current system becomes 'catastrophically ineffective' (which, I would argue, is now the case); the other requirement is the presence of an alternative paradigm to take its place.' - **Fullan 4**

The Mitchell Institute calls out young people not faring well in a changing and difficult labour market, leading to both more part-time and "precarious" work:

'We are not providing learning environments that are meaningful or engaging for a large cohort of students. Australia's PISA results show below-average levels of cognitive, emotional and behavioural engagement, and each year over a quarter of young people – at least 80,000 students – do not complete year 12 or equivalent by age 19.' - **Mitchell 8**

'Many young people use further study to improve their credentials as a pathway to finding long-term employment, permanent roles or secure incomes. But in the current economy, these pathways are not as reliable as they once were. For instance, in 2016, the full-time employment rate for bachelor graduates was 71 per cent, compared to 85 per cent in 2007.' - **Mitchell 12**

This is the underlying reason, according to the Institute:

'There are fundamental, structural changes underway in the shape of the economy and the organisation of society. Children starting preschool in 2017 may go on to be employed in jobs we haven't yet imagined. Our education systems are not yet adequately preparing young people for the future, and already the data is showing this strain Mitchell 4 ... All young people – irrespective of whether they pursue a trade, service or professional career – need a foundation in broader capabilities such as problem solving, communication and collaboration, as well as deep knowledge, technical skills, and literacy and numeracy.' - **Mitchell 15**

A different take on the same dilemma suggests the assessment process is not providing an accurate picture.

'...educational assessment systems across the world have become very good at weighing and measuring students, without reflecting on whether the assessments they are making are relevant, meaningful or useful, and without considering the consequences of the assessment process.' - **Bill Lucas 3**

The OECD's analysis and prescription picks up and expands on the same themes of alignment, relevance and agility:

'The children entering education in 2018 will be young adults in 2030. Schools can prepare them for jobs that have not yet been created, for technologies that have not yet been invented, to solve problems that have not yet been anticipated. It will be a shared responsibility to seize opportunities and find solutions.'

To navigate through such uncertainty, students will need to develop curiosity, imagination, resilience and self-regulation; they will need to respect and appreciate the ideas, perspectives and values of others; and they will need to cope with failure and rejection, and to move forward in the face of adversity.

Their motivation will be more than getting a good job and a high income; they will also need to care about the well-being of their friends and families, their communities and the planet. Education can equip learners with agency and a sense of purpose, and the competencies they need, to shape their own lives and contribute to the lives of others.' - **OECD 2**

This is a version of the same framework from Victoria, which could almost stand as a confidence rendition of the Learner's Journey ambition:

"...a renewed commitment to a senior secondary education that will truly prepare all Victorian students to become active and informed citizens, successful learners and confident and creative individuals capable of making successful transitions to further study, training and ultimately secure employment. Senior secondary education needs to offer a range of high-quality pathways so that as many students as possible have appropriate options and can successfully transition to further education after school. Students have different interests, strengths, qualities and aspirations; the range of pathways in senior secondary should reflect this diversity." - **Firth 8**

The same report argues that "significant reform is required" to make secondary schooling, as the last universally available opportunity every student has "to become adequately equipped, prepared [to] place themselves on the best possible track towards achieving their goals – personal and professional – throughout their adult lives." - **Firth 9**

This is the view from the more formal framework of Australia's evolving qualifications framework:

'To retain their relevance and effectiveness, qualifications will need to respond to current and emerging workforce and social needs, be delivered in ways that meet learners' needs and circumstances, and be trusted by learners, employers and the community generally.'

The traditional role of formal qualifications is challenged by the ready availability of information through the Internet, declining trust in institutions and traditional sources of authority. Many people gain skills and experience in a variety of settings outside the formal education and training system.' - **AQF 7**

'Employers have strong and growing expectations that graduates will be work ready and productive. In turn, employees expect to have their skills and capabilities recognised and rewarded with ongoing opportunities for career and personal development. Individuals will need to be able to manage multiple career transitions, and to build their own career paths and business opportunities, through continuous learning and development.' **AQF 7**

The same review notes that:

'The AQF Qualifications Pathways Policy is generally understood by users of the AQF but provides only limited guidance on credit recognition between some qualifications. It was not designed to provide for recognition and alignment of shorter form credentials, including microcredentials, a rapidly emerging and evolving area in education and training. As currently defined in the AQF, volume of learning reflects dated and increasingly outmoded assumptions about how AQF qualifications are delivered.' - **AQF 9**

'A recent review of school reporting to parents in Australia provided no evidence that schools are assessing and reporting on complex capabilities learning, intentionally and separately, despite the fact that these capabilities have been specified in the Australian Curriculum since 2012.'

Criticisms of senior secondary school certificates and the ATAR in Australia point to their focus on cognitive outcomes, missing explicit representation of the complex learning' - **Future proofing Milligan 15**

And this is the aspirational response to that dilemma:

'In each case, the respective organisation is acting on the belief that complex capabilities are important; that every learner

should develop these capabilities if they are to thrive in life; that it is possible, even essential, to teach these capabilities; that it is feasible to reliably assess and credential capabilities to the satisfaction of exacting external stakeholders, if these stakeholders are engaged at the right time; that most stakeholders accept and value that complex capabilities are transferable; that classroom and school-based assessments of capabilities can be valid, reliable and scalable, but only if non-didactic approaches to teaching and assessment are used with the appropriate resources and professional learning support.'

The same study notes that:

'For many, the learning journey is unclear and complex, with gates and barriers that require navigation...Most young people will have at least five transitions: the most disengaged young people are likely to transition in and out of school, training and work up to fifteen times by the age of 25.'

There is significant wastage in young people embarking on the wrong pathway. The ATAR compels young people to compete for a ranked position. The 30 percent of young people who rely on ATAR to enter tertiary education from school might focus their final two years of schooling on this score to the exclusion of developing broader capabilities for the future...Assessments by high stakes exams can drive pedagogy focused around memorising and recalling content.'

This problem is understood by curriculum authorities and policy makers as jurisdictions seek to broaden pathways through senior secondary education and create a better combination of outcomes, opportunities and capability for the future, for more young people.' - **Beyond ATAR 7**

'A single number is a thin representation of the outcome of 13 years of schooling... a ranking does not provide unique insights into a student's strengths and passions.' - **Beyond ATAR 8**

ATAR's dominant role is also picked up explicitly as part of the "why" question by other reviews (and is discussed in more detail in the later parts of this analysis).

"A wider debate is needed to reach a common understanding of what young people should learn during this phase, while ensuring space remains for young people to pursue and develop their particular passions and interests in depth. The F-10 curriculum provides this for learners before senior secondary but there is currently no shared national view of what a post compulsory curriculum should provide." - **Beyond ATAR 14**

In its recent report to the NSW Legislative Council, the Portfolio Committee No 3, chaired by One Nation Leader Mark Latham offered some trenchant criticisms of both the Geoff Masters review of the NSW curriculum and of the State Government's response. In passing, the report also had a dig at those who argue an over-reliance on ATAR and the need to rebalance the assessment process towards a fuller picture of learning, skills and capabilities:

'The committee notes that the only way students from a disadvantaged background can compete and fully succeed in society is through a school marking and grading system in which they excel. Without year 12 exams and published results, they have no other effective way of letting society know of their abilities.'

The committee thus recommends that in any review of the ATAR, the NSW Government supports a fair, rigorous and competitive system of year 12 final results, especially in achieving the equity goal of students from a disadvantaged background using their year 12 school marks and exam results to compete successfully in society. The education system needs to acknowledge that without an exam and marking system, disadvantaged students have no effective way of advancing themselves in competition against young people who have other advantages in life' - [Report \(nsw.gov.au\)](#)

It's a useful reminder that contest and argument is never far from the surface in education and learning policy discussions, no matter how extensive and persuasive the consensus in favour of change might feel.

Perhaps this represents the broad consensus that the current learning and skills systems and setting, including assessment and credentialing, are not fit for a rapidly changing and more demanding purpose:

'These changes in young people's pathways into work have clear implications for education and economic policy. Education systems have not been designed to foster the types of capabilities needed to navigate complex environments and multiple careers. The basic model of education has been largely static in the face of changes in the broader economy. Many young people are being left behind, and this challenge will only intensify into the future.'

Young people will need different skill sets to thrive in technology-rich, globalised, competitive job markets. We need

to adapt our approaches to education so that young people are equipped with the capabilities that will enable them to thrive in these complex education and employment settings. And we need citizens with the right skills and capabilities if Australia is to successfully transition from a resource-based economy.' - **Mitchell 2017 3**

And equity considerations of a system that too often creates unbalanced and uneven opportunities and outcomes provide another big part of the "why" discussion:

'Schooling must support every one of Australia's 3.8 million school students to realise their full learning potential and achieve educational excellence. These were the first words in the Gonski 2.0 report.⁴⁴ Our schools, it went on, should be tailored to individual learning needs ... appropriate to each student's starting point and capabilities. But "Australia still has an industrial model of school education ... it is not designed to differentiate learning ... nor does it incentivise schools to innovate and continuously improve.' - **Bonnor 12**

'Our schools and school systems don't consistently and equitably serve all children, parents and communities. Learning achievement, which should be an outcome of what schools do, is increasingly an outcome of personal and family circumstance. Too many young people underachieve and leave school ill-equipped for both a sustainable livelihood and an enduring contribution to society. Importantly, the inequities in our system are holding back the quality of our education in all schools and jurisdictions. Until we fix these structural challenges in our schooling system our stated national goals will remain unrealised, regardless of how many times we reframe them.'

*The playing field is uneven; systemic and persistent inequity in the system at a cultural, geographical and financial level (and they are linked); linking questions of assessment and credentials to the architecture of the larger learning and skills system which it mobilises and serves'. - **Bonnor 25***

Finally, Michael Fullan's assessment of "why, and why now" takes a slightly counter-intuitive angle, but arrives at an ambitious assessment of what's at stake:

'One might conclude that over the past 40 years the problem is not absence of change but rather the presence of too many ad hoc, uncoordinated, ephemeral...piecemeal policies, programs and leaders that come and go... My position in this paper is that we have such a chance now – a once-in-a-generation opportunity that we dare not miss or bungle.' - **Fullan 3**

WHAT

'Both wellbeing and learning have suffered because of their separation. Combining them generates an interactive force that represents a powerful new unified learning proposition that becomes the centrepiece for contending with and transcending the growing complexities now facing humankind'. - Fullan 1

What these reports and reviews consider is needed is remarkably similar. It is summed up in this aspiration – *'successful learner, confident and creative individual, active and informed citizen'* - Future proofing Milligan 13

A little more expansively, these are two slightly different versions of the same thing:

'Education needs to aim to do more than prepare young people for the world of work; it needs to equip students with the skills they need to become active, responsible and engaged citizens.'
- OECD 4

'For students to thrive they need to become expert learners. They need to acquire a body of knowledge, skills, attitudes and values that enable them to adapt and contribute in an ever-changing environment.' - Future proofing Milligan 3

And they need to be able to have the right mix of skills and capabilities to reflect that mix of outcomes properly assessed and reflected:

'The development and demonstration of skills depend on opportunities for students to put their subject knowledge and understandings to work, for example, through practical applications, problem solving activities or investigative projects. In these ways, students build and extend their subject knowledge and also develop an important range of skills in using that knowledge.'
- NSW Curriculum Review xiv

'We also need to adopt a new approach to help young people prepare for their future. We need young people to gain an understanding of the world of work and what work readiness means. And we need young people to see clear pathways to future careers. This starts in schools but extends into the VET and HE sectors and the labour market.' - BCA Future Proof 11

This part of the analysis looks at the various prescriptions from these policy reviews as they converge on some common answers to the pragmatic questions “but what is to be done”.

'The Macklin review advocates “reform undertaken with the system not to the system [as] the only way to ensure that change is effective, supported and sustained. The Review has put a priority on changes that the sector and community are calling for and which the system needs now”
- Macklin 10

The Macklin review characterises the “curriculum and assessment” connection being at the heart of a learning and skills system (Macklin 11). It's also true that students and their families need some kind of “formal award”, but it needs to be more flexible to integrate all forms of learning as a strong foundation for effective transitions. (Firth 11)

'For secondary school students in Victoria, the proposal is for an integrated senior secondary certificate system “to personalise a...pathway that is aligned with their interests, strengths and aspirations, and to create an optimal subject grouping that exposes them to learning that is most relevant to their desired post-school pathway.” - Firth 9

And that has to be done on the basis that the “strong divide...between academic and vocational learning” is steadily closed (NSW Curriculum Review xvii). These are some similar reflections:

'These included measures to address the arbitrary divide between academic and vocational learning in the secondary curriculum...Many students are led to believe that VET is not accorded equal status and should only be considered by those with lower academic capability.'
- Shergold and Gonski 6

'The dominance of non-VET subjects in the ATAR in the NSW HSC contributes to a perception that vocational education is a 'second class' option.'

- **Shergold and Gonski 9**

'It [AQF Review] may conclude that the years from 17 to 21 should be seen as a period for combining modes of young adult education, rather than divided into academic and vocational silos.' - **GAP Taskforce 10**

'Establishing greater parity of esteem between academic and vocational pathways while students are still at school is a key element in solving this problem.' - **Gap Taskforce 15**

'Yet the fundamental problem remains. Australia has, over the last generation, created 'two' tertiary sectors that continue to be separated by policy and tradition. The learning of employability skills has been institutionally siloed.' - **Shergold and Gonski 10**

'...to ensure that all senior secondary students are able to gain value from school, no matter what their preferred pathway into work training or further education. That is not presently the case. The privileging of academic over vocational education begins in the school classroom.' - **Shergold and Gonski 24**

These are some more prescriptions of "what:

'In simple terms, the task is to "...[improve] the education journeys of 15-19-year olds Beyond ATAR 3 or to create a system "that streamlines external assessments while retaining the ability to monitor the system with better measures of engagement and performance."' - **Fullan 13**

'The use of a developmental learner profile based on quality assessments would enable students to better manage their own learning, monitor their own progress and recognise the learning skills they already have or need to attain. It would allow other stakeholders to better understand an individual's strengths.' - **Future proofing Milligan 4**

'... teaching, assessing and recognising learning capabilities make the goalposts for learning visible. Providing a common, trusted and fair approach to demonstrating skills or capabilities will not disadvantage students and may well do the opposite... We need to develop a standards framework to assist teachers with making comparable assessments of learners' levels of attainment in capabilities for learning ... We need to design a flexible reporting framework to assist educators to credential attainment and to provide common currency for reporting by Australian educators.' - **Future proofing Milligan 5**

'The assessment framework should be able to track "the basics of literacy and numeracy + the knowledge, skills, attitudes and beliefs associated with social knowhow + skills of the mind such as analytical, critical and creative thinking + new ways of working such as entrepreneurialism or enterprise skills + perseverance and the ability to use feedback."' - **Future proofing Milligan 8**

'...a system that allows an individual to produce a record of their skills and knowledge development, regardless of where the skills and knowledge were developed.' - **BCA Future Proof 6**

This is the OECD's version:

'Future-ready students need to exercise agency, in their own education and throughout life. Agency implies a sense of responsibility to participate in the world and, in so doing, to influence people, events and circumstances for the better. Agency requires the ability to frame a guiding purpose and identify actions to achieve a goal.' - **OECD 4**

'The concept of competency implies more than just the acquisition of knowledge and skills; it involves the mobilisation of knowledge, skills, attitudes and values to meet complex demands.' - **OECD 5**

The OECD prescriptions are comprehensive and daunting:

'We need a system that helps students "...navigate through uncertainty, apply their knowledge in unknown and evolving circumstances, adaptability, creativity, curiosity and open-mindedness, have to learn to think and act in a more integrated way, have to learn to be systems thinkers, individuals can think for themselves and work with others, a sense of responsibility, and moral and intellectual maturity, self-regulation, which involves self-control, self-efficacy, responsibility, problem solving and adaptability.' - **OECD 5/6**

'It acknowledges that the attempt here, as it is in the other agendas for what is to be done, "encapsulates a complex concept: the mobilisation of knowledge, skills, attitudes and values through a process of reflection, anticipation and action, in order to develop the inter-related competencies needed to engage with the world."' - **OECD 6**

The question is, if these prescriptions indicate where the policy ambition is directed, to what extent can the Learner's Journey solutions be aligned with their aspiration?

Another strand of the answers to “what” is a consistent theme about agency and enrolling students themselves as agents of change. This is the OECD’s version:

‘Students who are best prepared for the future are change agents. They can have a positive impact on their surroundings, influence the future, understand others’ intentions, actions and feelings, and anticipate the short and long-term consequences of what they do.’ - OECD 4

‘...students, including very young ones, are the most powerful changemakers of all.’ - Fullan 35

This is the longer version from the AQF review, with a focus on many of the same attributes and ambitions:

A qualifications framework needs to operate in, and help shape a future in which:

- Central economic and social policy goals are to widen participation in education and training, and to improve educational attainment levels, particularly among those with low levels of participation and attainment.
- Young people can successfully transition into post-secondary education and training through a broad range of options and pathways, and complete at least an initial tertiary qualification.
- Lifelong learning must become a practical reality for people; it cannot stand as an abstract goal.
- Post-secondary education and training is conceived and redesigned as a diverse set of offerings, available through better linkages and pathways between the VET and higher education sectors. These linkages and pathways will no longer be linear and hierarchical; they will need to recognise that throughout adulthood, people need to develop new skills in different areas and at different levels. Central to this objective is reinvigorating the VET system and raising its standing.
- As they transition into post-school education and training, young people must have a well-informed appreciation of the purpose of different qualifications and the relationship between qualifications. That appreciation must be accessible to adults seeking to deepen existing skills or gain new skills. Qualification outcomes will be relevant, understood, and trusted.
- Firms and people will have ready, flexible access to a broad suite of options and opportunities for developing new skills. They will look to short, purpose-built, flexibly delivered qualifications – within and outside the formal qualification system – to gain new skills and knowledge.
- Systems and processes for credit recognition and recognition of prior learning will be easier to access, more transparent, and rigorous in applying the credit recognition

process to ensure quality is maintained and qualification outcome requirements are met.

- *The competitiveness of Australian education and training as a major export industry will be influenced by perceptions of the standing, quality, and relevance of its system of qualifications*

- AQF 8

Part of the “what” is a recognition that a focus on assessment and credentialing has a ripple effect through other elements of the learning and skills system.

‘... We acknowledge that these proposed changes, although relatively simple in concept, have far reaching implications for senior secondary education, post-school recruitment and selection processes, and flow-on effects for middle school curriculum, career guidance and resource allocation.’

- Beyond ATAR 2

‘Achieving a lift in ambitions and outcomes requires some important systemic changes across the Australian educational landscape. To make these changes, we need to re-imagine the ways in which secondary and post-compulsory education work.’

- Beyond ATAR 8

‘Common learning and attainment levels across cognitive domains and broader capabilities should be articulated and reported on, noting that not all students will achieve in all, or achieve equally or at the same time.

This approach is consistent with approaches internationally and within the ACARA curriculum for F-10. Jurisdictions across the world are increasingly developing ‘baccalaureate’ approaches with a common curriculum framework to house the options for young people, without inadvertently prompting students to choose their way out of critical areas of knowledge skills and values that they will need for future adulthood.’

- Beyond ATAR 16

Fullan’s framework articulates a more fundamental rethink about a learning and skills design that effective assessment and credentialing practices needs to serve.

‘He talks about a shift in four “drivers” from “academics to wellbeing and learning”, from “machine intelligence to social intelligence”, from “austerity to “equality investments” and from “fragmentation to systemness.” - Fullan 5

“... ‘systemness’ is defined as the sense that people have at all levels of the system that they are indeed the system. This means they have a responsibility to interact with, learn from, contribute to and be a living member of the system-as it evolves.’ - Fullan 33

'The breakthrough idea arising from systemness is that all three levels of the system [local, middle, central] individually and together, are essential for and have independent, and conjoint responsibility for changing the system.' - **Fullan 34**

'In our ever-complex and contentious world we can no longer afford to separate wellbeing and learning. For one thing wellbeing is learning. As complexity in the world has evolved, Wellbeing and Learning represent an integrated concept. You cannot be successful on one without the other. They feed each other in a way that success begets success. As we will see, advances in the neuroscience of learning favour the seamless integration of the two elements.' - **Fullan 14**

'Such wellbeing and learning applies to all students, including a commitment to equality for all. Modern learning is quality learning that sticks with you. We also find that such deep learning is good for all students but is especially good for students who are disconnected. What we need to do additionally is to partner with systems that are committed to explicitly addressing the multiple 'systems of prejudice' currently at work. The ensuing breakthroughs will be good for students, their families, and the world.' - **Fullan 16**

More on elements of "what":

'Alignment. The curriculum should be well-aligned with teaching and assessment practices. While the technologies to assess many of the desired outcomes do not yet exist, different assessment practices might be needed for different purposes. New assessment methods should be developed that value student outcomes and actions that cannot always be measured.' - **OECD 7**

'Learning should promote skills of collaboration and problem solving, making and designing, empathy and emotional acuity, rather than dutiful diligence in following a routine to deliver the expected answer at the appropriate moment.' - **Mitchell 2016 6 quoting Leadbeater**

'Senior secondary schooling will prepare young people for their future roles in the workforce and as active and engaged members of civil society. They will have the capabilities and enthusiasm to keep on learning throughout their lives.' - **Shergold 13**

'Education will remain the foundation of a 'fair go' Australia. Senior secondary students from disadvantaged backgrounds will be supported to ensure that they can follow the same pathways available to others at school, opening greater access to employment and education when they leave.' - **Shergold 14**

The importance of qualifications as an inescapable part of the system is raised in a number of the reports, recognising that parents, students, universities and employers need some way to "credential" what young people know and can do.

'A new national credit management initiative could take international qualifications and micro-credentials into account, for example, but AQF ranking of equivalent qualifications would be important, as NSW employers often demand 'HSC or equivalent' of job applicants.' - **Gap Taskforce 23**

'Some of the reports explore the contest about the role of the ATAR and similar forms of ranking credential. Risks of reducing the complexity of learning and capabilities to a single number after 13 years of school and failing to give due recognition to the rich mix of "what I know and what I can do" are contrasted in some analyses with risks of creating new forms of discrimination by moving away from a measure that has some measure of levelling the playing field and enabling students "to have some understanding of where they sit with respect to their peers."' - **17**

A final observation links the focus on assessment and reporting to the wider task of learning and skills reform:

'... it is evident that changes to assessment and recognition are concomitant with changes in the organisation of learning. This observation is entirely consistent with understanding about how people learn to be competent, as distinct from becoming merely knowledgeable.' - **Future proofing Milligan 32**

HOW

All of the reviews and reports had something to say about how a learning and education system could transition to the kind of assessment and credentialing arrangements being recommended. They also agreed the arrangements have to respond to a complex and crowded field of providers and players.

'Different local areas will have a different mix of providers, intermediaries and stakeholders. The current provision landscape has been shaped by individual provider decisions rather than coherent system design.' - **Firth 12**

'...a new framework for learning...consists of new 'learning areas' which function as focal points for schools' relationships with relevant industries and post-school providers.... Providing every student with opportunities to pursue personal interests and strengths...connections with relevant industries and post-school providers and pathways and career advice...common assessment criteria, moderation of teacher assessments...' - **NSW Curriculum Review xvii**

The most formal response is from the AQF review which sets out a comprehensive prescription for the next evolution of the formal framework for defining and recognising qualifications which started in 1995 and has seen subsequent "strengthened" versions in 2011 and 2013.

The framework is based on a blend of knowledge, skills and "general capabilities" which only works if their interaction is mobilised by a series of "application" skills that take what you know and what you can do and turn them into results or achievements that matter. In this frame, "assessment" is the process at the sharp end of the spear, so to speak, that brings the pieces together to test the extent to which their combination is having the desired result.

'Teachers and students cannot reach a high level of thinking and action if they don't know what progress looks like. In short, the capacity of teachers and their students to validate their standards and assessment practices must be central to any suggestion that formative assessment should drive the system.' - **Fullan 18**

This recommendation from the Shergold review picks up another dimension of the same challenge:

'The certificate of achievement with which students leave school should record and verify the full range of their knowledge and attributes, including academic and non-academic skills, to provide a more wide-ranging view of student achievement, and a more reliable measure of the whole person.' - **Shergold 17**

'... All students should be encouraged to excel and follow their passions and strengths, be made to feel that their educational preference or their choice of career is legitimate, and that whatever career path they choose, they have an important role to play in a well-functioning society.' - **Shergold 18**

'In the later review of NSW TAFE with David Gonski, the prescription is similar, with a need (within the context of a new HE/VET integrated institution, the NSW Institute for Applied Technology) to help students use a mix of "progressive pathways" and "stackable" qualifications and credential to "develop and evidence their strengths in oral, written and digital communication; critical thinking; complex problem solving; collaborative teamwork; creativity, innovation and entrepreneurship; self-direction and self-discipline; and ethical decision-making and leadership.' - **Shergold and Gonski 12**

The AQF Qualifications Pathways Policy is used to provide guidance on pathways and credit. The policy focuses primarily on higher education qualifications and does not have adequate regard for multidirectional or intra-sector pathways. The analysis recognises that:

'Students are accessing both VET and higher education qualifications, sometimes as complementary learning (for example, an engineer might need to understand site operations), or as additional learning (for example, a teacher might need a first aid qualification). A revised version of the Pathways Policy needs to recognise the multidirectional pathways within and between sectors that learners are already following; and encourage learners to gain the knowledge and skills they most need.' - **AQF 66**

In other words, there are policies and frameworks and there are ways in which students and others in the system behave to reflect changing conditions (which bring new risks but also opportunities too) they have to navigate.)

It's a good reminder of the constant policy-practice tension that the Learner's Journey itself has to deal with both in its own work and in the way it advocates for the absorption of the solutions it will develop into the policy frameworks it is trying to influence.

These are some of the other insights from across the reviews and studies about how change will or could happen:

'Universities are experimenting with new forms of selection "more sensitive to young people's attainments and aspirations, opening new pathways and credit transfer arrangements."

The main objective should be to establish a fair means to ensure a good match between a candidate's capacities and aspirations, and the requirements of the opportunity on offer. Where there is competition for a place, it needs to be allocated using means that are equitable and transparent.'

- **Beyond ATAR 11**

'A variety of school-based innovations are emerging, such as Big Picture schools which embrace project based learning with students building a portfolio of achievements to support their university entrance, and the Future Schools Alliance with its focus on individualised student pathways and student-led models of real world learning. Other schools are implementing maker spaces and enterprise learning to combine academic and applied learning experiences.' - **Beyond ATAR 10**

'That tertiary education providers adopt broader, more transparent entry criteria, design entry pathways and update their admissions processes to better align candidates' interests, capabilities and aspirations with the educational opportunities on offer, and better reflect evidence about the progress-and potential of learners...' - **Beyond ATAR 13**

Learner profiles are not a new idea but emerge as a consistent and widely accepted part of the "how" dimension.

'A Learner Profile is designed to provide a trusted, common way of representing the full range of attainments of young people during their transition years (within school and beyond) across a broad range of domains. The design of this profile should enable any jurisdiction to map and align it to its own representation of learner outcomes and capabilities, as reflected in its curriculum, reporting and certification systems.'

- **Beyond ATAR 13**

'Students should leave school with a Learner Profile that incorporates not only their ATAR score (where relevant) together with their individual subject results, but that also captures the broader range of evidenced capabilities necessary for employment and active citizenship that they have acquired in senior secondary schooling.' - **Shergold 20**

'In collaboration with industry, and VET and higher education providers, Education Council should codesign a digital Education Passport for lifelong learning – a living document that allows young people to capture progressively their education and training qualifications and workplace experience...Education Council should ensure that the cultural competencies and experiences of Aboriginal and Torres Strait Islander students can be recognised as a key part of their Learner Profiles.' - **Shergold 22**

A related view is that learner profiling provides a means for individuals to monitor their own progress, to better understand their strengths and weaknesses and to recognise the value of the capabilities they have or should attain in, or from, any context. It would provide a tool for learners to take more control of their own learning, a powerful antidote for the disengagement and lack of confidence that at times characterises learners from disadvantaged backgrounds. (*Future proofing Milligan 31*)

And the function of a profile could be to "allow graduates to build on the knowledge and skills they have developed through their education and work..." (*BCA Future Proof 16*) And it can be part of a "single source platform of market information that provides the right kind of information and guidance to help learners, workers and employers make the best decision for their future. (*BCA Future Proof 17*) The profile approach blends into proposals for better career counselling at all stages of the learning process. For example:

'...a new approach to career counselling that is built around the learner's decision-making process. This would shift career decision-making from 'I want to go to university, what courses can I do?' to 'what do I like, what am I good at?'

- **BCA Future Proof 23**

'Establish Careers NSW to make lifelong careers information, advice and professional career guidance accessible to students, trainees and employees seeking to enter the labour market, upgrade skills or change careers.' - **Shergold and Gonski 17**
"...to help people navigate their lifetime employment journey." - **Shergold and Gonski 19**

And the problem is clear:

'While there exists a multifarious array of pathways from school to employment in every industry, students are rarely helped to choose between them or plan how they might develop their career. Advice is too rarely tailored to the individual's interests and capabilities.' - **Shergold and Gonski 18**

The link between careers advice and assessment and credentialing frameworks is reinforced here:

'Careers advice should help high school students understand that linear career paths are becoming the exception rather than the rule and to consider their skills and capacities to transfer between jobs in the future. New ways to credit people for such skills and capacities in school and university subjects will help reshape traditional mindsets..' - **GAP Taskforce 14**

'The concept of careers advice itself will have to change as the notion of a career for life is increasingly outdated, or at least can no longer be guaranteed.' - **Gap Taskforce 25**

On the FutureSkills Insights student platform, establish a system of digital Learner Profiles that record individual skills and credentials and are:

- informed by a framework for recognising skills and credentials across all recognised post-secondary education and training
- connected to other components of the FutureSkills Insights student platform, to help students match their skills to future courses and job requirements

'As lifelong learning pathways become more complex, students need to be able to track the skills that they have acquired in a way that course providers and employers can recognise. This includes the mix of technical skills, general capabilities, and enterprising skills that employers are increasingly recognising as workforce priorities.

The Review recommends that Victoria's Digital Jobs and Skills Strategy include a system of online Learner Profiles to describe the skills and capabilities available within the Victorian workforce. The Learner Profiles would help learners to recognise and record their own strengths and allow employers to recognise them as well.' - **Macklin 143**

In the same vein:

'All senior secondary students should be able to incorporate workplace experience undertaken within or outside of schools activities and be helped by their teachers to create a record of the employability attributes they learned from that experience.' - **Shergold and Gonski 25**

'Students would be able to 'package' to tailor their various micro-credentials, including any VET Certificates, as evidence of a specific set of knowledge, skills and attributes when applying for courses or for jobs.' - **Gap Taskforce 28**

'A Learning Profile within the HSC documentation "would set out the capabilities and attributes that students have developed, not just in study but through extracurricular activities, voluntary work and paid employment."' - **Shergold and Gonski 25**

'The Australian Learning Lecture proposes that a nationally agreed Learner Profile is designed and piloted to provide a trusted, common way of representing the attainments of young people during their transition years and an underpinning framework for the collection and communication of common information about the development of each learner. The profile would be designed to overlay existing jurisdictional curriculum, enabling any jurisdiction in Australia to map its own reporting and certification approach to the Profile, and to consider specific forms of alignment and verification over time.'

- **Beyond ATAR 17**

'Although learner profiles are still in their formative phases internationally, they reflect a desire across the globe to present the full breadth of student development, including capabilities, alongside academic learning.' - **Beyond ATAR 18**

'Students and schools would use a commonly agreed Learner Profile to better understand their own individual strengths and areas for development, referenced against standard levels like the Australian Qualifications Framework or Australian Core Skills Framework. If properly designed on good quality assessments, the learner profile could provide a way to monitor progress over time, and to focus efforts on domains important for a student's future destinations. Student input would be vital to co-design a profile that is easy to complete, can move with students and is a useful tool for student planning.'

- **Beyond ATAR 20**

'The proposal to make a Learner Profile the centrepiece of reporting, selection and recruitment for young people navigating the transition from school to post-school opportunities thus raises the need to ensure that content on a Learner Profile can be trusted, verified, and keyed to agreed standards. It must be comparable, reliable and scalable as well as authentic.' - **Beyond ATAR**

Another theme is the alignment between what is valued and what is measured.

'Currently at the system level, only narrow measures of education achievement and certain outcomes are captured, valued and prioritised. The two stated goals in the Melbourne Declaration on Educational Goals for Young Australians, agreed on by all Australian governments in 2008, are that (Ministerial Council on Education, 2008):

- Australian schooling promotes equity and excellence, and
- All young Australians become successful learners, confident and creative individuals, active and informed citizens.

Yet outcomes against most of these goals are not systematically measured.' - **Mitchell 8**

'The new curriculum's focus on integrating knowledge and skills means that assessments designed solely or primarily to test students' mastery of a body of knowledge or a checklist of skills provide an incomplete picture of student learning. And the new curriculum's focus on ensuring every student makes excellent ongoing progress in their learning requires assessments capable of establishing where students are in their learning, providing feedback to guide next steps and monitoring long-term learning progress.' - **NSW Curriculum Review**

The same review provides a comprehensive catalogue of characteristics that "informative assessment should provide", a prescription that plays directly to the Learners Journey intent and focus:

- Students' mastery
- Ability to transfer and apply knowledge
- Encourage learning for its own sake, take risks and avoid comparative performance and risk of failure
- Students' sense of autonomy and control over their own learning

- Avoid a focus on judging and grading and extrinsically motivated learning
- To illuminate the progress students have made
- Empower students to become more "self-directed" in their learning, exercising a degree of choice to pursue personal interests and strengths.

'Without these broader measures of educational achievement, the useful but narrow NAPLAN and ATAR measures are given disproportionate weight and scalable, valid, reliable and auditable methods of credentialing learner attainment of complex capabilities.' - **Future proofing Milligan 9**

'Its methods of assessment have been trialled extensively, delivering high levels of reliability and validity in the assessment of complex learning outcomes ... The key idea, however, remains: assessment is designed to judge and subsequently report on, with reasonable precision, what learners know and are able to do and what they still have to learn to further develop their capabilities.' - **Future proofing Milligan 19**

'The credential represents, with a specified level of precision, the degree to which the credential holder has mastered a specified capability or set of capabilities or competencies that have value and utility and are easily interpretable for the stakeholder. The issuer should provide evidence and a warrant, to that effect' - **Future proofing Milligan 21**

'Of the essence is to ensure that any assessment documentation is easily interpretable, developmental, has utility for stakeholders, and allows for comparison to standards' - **Future proofing Milligan 23**

'...enhanced assessment and reporting...enhanced quality assurance processes, assessment moderation and the provision of implementation support programs...' - **Firth 19**

What stops change?

Given the level of consistent and long standing agreement about why, what and how change is needed and should be undertaken, the reality is the rate of actual change is slow.

It is worth asking why it is taking so many different attempts to make changes, and what are the significant barriers or resistance to making change?

Some insights come from the deeply systemic nature of a number of the challenges:

Misalignment

The way young people's skills and capabilities are assessed, credentialed and reported doesn't help them, or at least too many of them, make sense of, and make their way through, a very different and uncertain set of economic conditions and social and cultural assumptions about success, engagement and the chance to lead their best lives.

If you are doing well with an approach and methods that are out of step with the rapidly changing and different world you are going into, it's not clear that "success" is going to hold you in good stead. It's obvious in those cases where young people are not being supported by current methods and approaches. But the deeper concern is that, win, lose or draw in the current system, young people are not being well prepared. It's not about who does well or not so well in the current system. It's that the current system itself is wrong, or at least increasingly misaligned and therefore more generally unhelpful than is sometimes accepted by its advocates and defenders.

Lack of trust

Given the mounting evidence of misalignment and lack of relevance, the assessment and credentialing arrangements, and to some extent the larger learning and skills system of which they are a central part, are losing trust and respect from young people, teachers, employers and institutions of further education.

Inefficient and unproductive

These studies point to evidence that the current arrangements are wasteful of time and resources; young people are taking longer to 'settle' and engage in productive post-school work and learning streams, those who need accurate and useful insights about what young people know and what they can do can't get it easily or reliably, and society and the economy more broadly fails to get the energy and mobilisation of talent and capability.

Unfair and inequitable

Finally, these reviews in different ways peel back some of the layers of the current arrangements to reveal outcomes that are inequitable and unfair in different ways for some of the groups of young people who consistently risk marginalisation and disengagement. In that sense, current arrangements are not serving all young Australians well, no matter who or where they are.

Elements of a solution

The reviews and reports reinforce a view that current models and methods of assessing and credentialing students don't reflect the full range of students' knowledge, knowhow and experience (what people know and what they can do).

They all confirmed that whatever new methods and models emerge, they have to demonstrate a set of attributes that are broadly common across the reports and reviews that have been studied here.

These are some of the most prominent and consistently cited:

- They have to be widely trusted and respected by everyone who will use and rely on the insights that are being shared
- They must be designed so that the techniques and tools are accurate, inclusive, rigorous, reliable and relevant or valid in the broadest and deepest sense
- The method has to start from, and reflect, the personal strengths and passions of the young people themselves
- They need to offer a picture of each learner that is as fully rounded, and therefore as accurate, as possible, reflecting them as individual learners, workers and citizens
- The tools have to provide a way of tracking and warranting knowledge, skills and capabilities that is as flexible, adaptable and persistent across a lifetime of work and learning as the individual people whose lives they will representing
- The tools have to be as common as possible in their intent, design and outcome so that, broadly the same tool or techniques can be deployed but be highly variable to suit different needs and conditions)
- The point is that each person gets to put a full, accurate and fair picture of themselves together so that it actually feels and looks like them and, at the same time, gives those relying on the information a good sense of what they know and what they can do
- The approach has to adopt clear and well-evidence standards so that the information is properly warranted and can be leaned on and used with confidence and predictability
- There has to be some degree of agency or autonomy for learners to 'drive' their learning; the design of these new tools has to make room for student agency and a measure of self-direction and control
- The new arrangements need to reduce existing fault lines of disadvantage and equity and make sure no new ones are introduced