

The 'New School' system for the 21st century looks like this:

- Responsibility is shared by Government, educators, parents, students and industry
- New, innovative ways of teaching and learning, as well as tried and tested approaches, are encouraged and implemented nation-wide
- Evidence-informed practice is supported and educators can access the knowledge they need to succeed
- Teachers are celebrated and revered for their success and the profession attracts the best and brightest
- Schools harness technology to help teachers facilitate a richer learning experience for students
- Education is inclusive and all students have the opportunity to learn, succeed and thrive at school
- Schools allow for and promote educational pathways that release the potential of all young people



Foreword



Stephen Cartwright
Chief Executive Officer
NSW Business Chamber

Our education system in NSW has long delivered quality outcomes for students and for society as a whole. We have good schools, thousands of passionate and dedicated teachers, and parents who aspire to help their children succeed in education and in life.

There are serious signs, however, that we must act now to transform and modernise our school education system. Otherwise, we risk leaving our next generation behind and our economy in jeopardy.

While Australia's school system is a good one, our performance continues to decline relative to other countries in key global benchmarks. This is a significant concern in the competitive globalised economy we live in. In line with our dynamic economic environment, our labour market is changing.

We hear directly from our member businesses that a significant proportion of young people leaving school need to be better prepared for work. Recent research supports this: business needs workers with the enterprise skills that enable them to adapt to the challenges and opportunities the changing economy presents.

Business relies on our school system to provide the foundations for this future workforce. We rely on our schools to provide young people with the knowledge and skills that will prepare them for their transition to further study, work and for life as capable, valued members of society.

The current school system needs help to accelerate its transformation into the 'new' system of the future - a school education system that meets the needs of the 21st century student and society.

When we first embarked on this project to identify ways to transform schools we recognised that business could not go it alone. Educators, government decision-makers, parents and young people themselves want to see students not only survive but thrive

both in school and after their transition to further study, work and adult life.

As a result, through the first phase of our longer-term campaign to transform schooling we consulted with an array of the nation's best education thinkers, influencers and change-makers, as well as parent groups, young people and industry. We did this by hosting a School Education Forum in August this year involving a series of workshops of more than sixty participants, facilitated by lan Harper, one of our nation's foremost economists and thought leaders.

This report captures the insights and outcomes from the Forum, as well as the more than thirty hours of targeted follow-up interviews with selected participants. It provides a series of principles that set out a vision for what a best practice, 21st century school education system should look like, as well as providing some early actions that will set us on the pathway toward that vision.

To capture insights from the Forum in a visual way a graphic artist 'recorded'our discussions in illustrated form. Throughout this report you will see examples of the lively, inspiring and solutions-focussed discussions.

As we heard from our stakeholders and as this report makes clear, transforming an entire school education system – one of the largest in the world – is a challenge that cannot be achieved overnight. There is no silver bullet.

At the same time, there needs to be the political and community will to make rapid, incremental changes now, to set us on the pathway for transformation.

We know this from the experience of Finland, widely recognised as a world leader in school education and student achievement. While the Finnish experiment took place over 25 years, their Government took immediate action to kick off the reform process, including amalgamating its education bureaucracies, overhauling its National Curriculum, empowering local schools and principals and dramatically lifting the standing of vocational education and training within school.

Finland embarked on this reform program region by region. While we cannot, and should not, transfer the Finnish system to Australia wholesale, there are important learnings here for our political decision-makers.

Several of our recommendations take on these learnings.

We are calling on the Government – the 'architects' of the school system - to deploy innovative teaching and learning approaches to scale in one or more regions. While there are pockets of excellence in both public and private schools, we are keen to move beyond testing through pilots to adopting evidence-based, new methodologies on a larger scale.

The Department of Education should identify regions in New South Wales to deploy proven approaches in multiple schools to scale. In secondary schools, this should involve working with a coalition of principals to trial a vocationally intensive approach for their school, similar to the successful examples of Southern Cross Catholic Vocational College or the public Bradfield College. In primary schools, the Department should, after consulting with principals, identify in its forthcoming Asset Management Strategy at least two regions where schools will have collaborative learning spaces introduced and project learning methodology used by teachers.

To build the confidence to do this, there needs to be clear evidence about what works. Government Departments must work together with universities, the vocational education and training sector and industry to collect, share and analyse de-identified data on student performance and outcomes. Data tracking what students

study, how they learn and are taught, and their outcomes after school including transition into the workplace, higher education or vocational education and training would be invaluable for policymakers and educators.

The origins of the Higher School Certificate (or HSC) lie in the 1950s and it remains overwhelmingly geared toward the needs of students who plan to progress to higher education. With the increase in the minimum school leaving age, the HSC must be rethought so that all students obtain benefit from those final two years in the classroom.

While it is very positive to see many more students continue learning after school, not every student wants or needs to go to university. Many students would benefit from focusing on a vocational pathway to work, which we know produces excellent job outcomes that often surpass those offered by the higher education sector.

To address this, the NSW Education Standards Authority (NESA) should look towards revamping and upgrading the HSC to recognise not only the academic achievement measured by the Australian Tertiary Admissions Rank (ATAR) but the achievements of students undertaking vocational pathways.

We also need to create the right organisational arrangements to improve the standing of vocational education and training and encourage more students to take part. The NESA should investigate opportunities to increase its expertise in vocational curriculum design and strategy, and to strengthen the industry representation on its Board.

Most teachers are passionate about their jobs and their role in giving children and young people the knowledge and skills they need to be productive members of society. We want to celebrate and develop these teachers and attract some of the best and brightest to become the next generation of educators.

That is why we want teachers to have the time and capacity to be teachers. Their time needs to be freed up from administrative tasks and refocussed on their core skills as education experts. Like their peers in Finland and Singapore, teachers should be highly respected for their important role as educators and their opportunities to learn and further develop their professional careers

should be expanded. We will be working with principals, teachers and teacher groups over the coming months to identify strategies to achieve this.

One early step identified in our conversations with teachers is to create professional learning communities. These communities would involve online hubs that connect teachers with evidence-based practice, whether via academia or industry-led solutions such as that delivered by Social Ventures Australia, as well as a medium for sharing their on-the-ground knowledge about the teaching and learning approaches that work. These communities should also facilitate a voluntary peer-to-peer mentoring system to help new teachers, or teachers in remote areas who lack peer support, to have the support they need to build confidence in themselves as educators.

School curriculum needs to help students prepare for the 21st century workplace. A young person with enterprise skills is able to contribute from day one on the job, even if they lack work experience or technical skills in their industry. There is also an increasing body of evidence showing students develop their foundation literacy, numeracy and 'enterprise' skills - such as communication, collaboration and problem solving - in the earlier high school and even primary years. We need to ensure that our schools are capable of imparting these enterprise skills from kindergarten right through to Year 12 if we are to ensure students leaving school are employable and, more importantly, have a satisfying, productive work life.

As a result, the Chamber is calling for educators to build enterprise skills into the school curriculum. Enterprise skills should be measured and assessed in a similar way to literacy and numeracy skills. Our education authorities nationally and at the jurisdictional level should work together on a strategy to achieve this, with the direct involvement of educators and industry.

I am proud to say young people, the users or 'clients' of our education system, were at the fore of our discussions, as they should be in any conversation that involves schooling. Two students shared their direct experiences of school in a panel session at the Forum, and ten young people were involved in our workshops. We heard directly from them that young people desire greater ownership and control over their experience at school, particularly in the later years.

A key way of achieving this is by providing young people with comprehensive, up-to-date information about the career pathways that best fit their capabilities, interests and personalities. Introducing an industry-led careers advice model in collaboration with schools and external specialist organisations would help ensure students have the right information about the job outcomes their subject choices and performance at school will lead to.

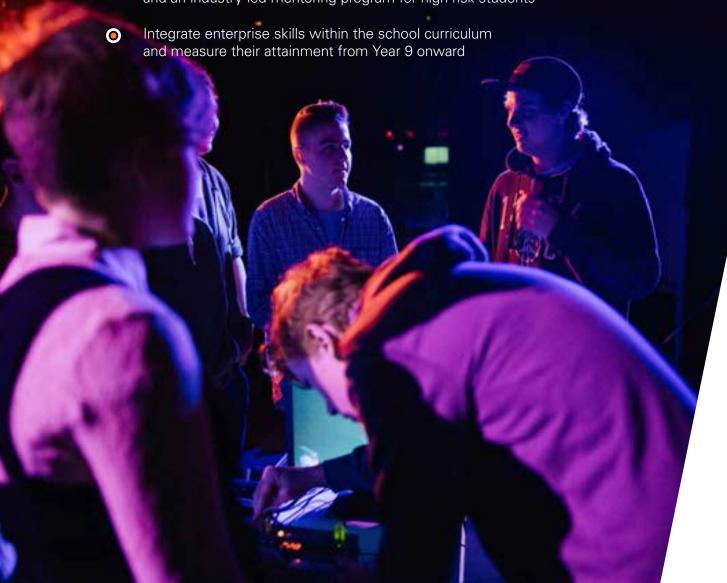
These are the results of our early, intensive effort to engage on opportunities to transform schools for the better. Over the coming months, the Chamber will be opening up a dialogue with educators, parents, young people and with business to test our concepts for change and add to them.

With the Federal Government soon to release the results of the 'Gonski 2.0' review of education, there is a perfect opportunity to start setting our education system in NSW and nationally on the path to change.



Six ideas to start building a 'New School' system now:

- Identify a region in NSW to pilot proven teaching and learning approaches to scale, including project-based learning and vocationally intensive schooling
- Support data driven change by publishing longitudinal data tracking student progress, performance and outcomes
- Revamp the HSC as a final credential that recognises different modes of achievement and sets all students on the right pathway to work
- Recognise teachers and support their development through professional learning hubs, supported by an opt-in mentoring program
- Ensure every child in every school can access the support services they need to learn and thrive, including comprehensive careers advice and an industry-led mentoring program for high risk students



With thanks to our stakeholders

The organisations participating in the Future of Education: Transforming the NSW school system forum and workshops are shown below.

- Apprenticeship Support Australia
- Australian Chamber of Commerce & Industry
- Australian Financial Review
- Australian Institute for Teaching and School Leadership
- Bradfield Senior College
- Careers Advisors Association of NSW & ACT
- Catholic Education Office, Diocese of Parramatta
- Centre for Independent Studies
- Cherrybrook Technology High School
- Danielle Buckley Consulting
- EdCapital
- Google Australia
- · Grattan Institute
- Lendlease
- Nicholson Street Public School

- NSW Department of Industry
- NSW Education Standards Authority
- NSW Parents' Council Inc
- NSW Secondary Principals Council
- P&C Federation
- Social Ventures Australia
- Southern Cross Catholic Vocational College
- Sydney Business Chamber
- TAFE NSW
- The Association of Independent Schools Ltd
- University of Melbourne
- University of New England
- Victorian Chamber of Commerce and Industry
- Western Sydney University
- YMCA NSW



Executive Summary

The importance of our education system in achieving positive economic and social outcomes cannot be overstated. Yet a system designed for the industrial era struggles to meet the needs of students in the 21st century. Transformation is overdue.

In our investigations concerning what needs to change and how it needs to change, we focussed on four questions:

- Why is education important?
- Who serves our education system, who is served by it, and who is responsible for its success?
- What does success look like?
- How can we ensure that the NSW school system is fit for its future purpose?

Why is education important?

Providing people with a well-rounded education achieves a number of important social and economic outcomes:



strengthens citizenship, supports community cohesion, promotes mutual understanding of different cultures and values, and instils an appreciation of the value of economic activity;



develops skills and competencies that enable young people to become productive workers and lifts community living standards;



creates opportunities for personal arowth and fulfilment in life: and



promotes equality, social inclusion

Who serves our education system, who is served by it and who is responsible for its success?

"Architects" and "builders" serve our education system, which in turn serves its "clients". All three actors are jointly responsible for its success.

"Architects" establish education policy, design curriculum and assessment frameworks, shape pedagogy and operational objectives, and influence the culture of education providers. They include Education Ministers, government agencies, education councils and commissions, and industry associations.

"Builders" work at the coal-face, delivering learning experiences and developing the capabilities of learners. They include parents and community members, teachers, principals and support staff, and the institutions within which they live and work.

"Clients" are the end-users of the system.
They include students as well as those who employ them (in both enterprise and community).

What does success look like?

A successful NSW education system will equip its participants to flourish; personally, socially and economically. This will demand new approaches and new skills suited to a rapidly changing world.

It will be contemporary and innovative across all facets of the design and delivery of education. It will support the development of a literate and numerate, skilled, flexible and motivated workforce that contributes to labour force participation and productivity gains, and thereby drives economic development.

It will encourage teaching methods to innovate, create new best practice, and support the delivery of world-leading educational outcomes. Clients will be engaged and enjoy more and better opportunities to lead fulfilling lives, including their lives outside of work.

Parents and carers, community organisations and industry will all be equally invested, helping to ensure that young people develop a balance of specific competency-based skills, as well as broader core skills such as collaboration, empathy, problem-solving, critical thinking, and creativity.

How can we ensure that the NSW education system is fit for its future purpose?

From here, architects, builders and clients are jointly responsible for the success of the NSW education system. Better realising its purpose will require collaboration to catalyse the necessary changes, and drive improved educational outcomes.

As a first step in this direction, the NSW Business Chamber convened a Forum of leading thinkers, influencers, participants and operators drawn from across the NSW education system and beyond. This Forum, along with a series of targeted consultations with 15 key organisations, has identified four themes that should guide the future direction and shape of Australia's school system (refer Table 1 overleaf).

Planning and implementation of these principles needs to start now. This will be a difficult process – involving stakeholders agreeing on prioritised values and objectives, and their practical implementation. While most parties consulted could point to challenges of the status quo and/or aspirations for the future, identifying what to do first presented a far greater challenge. In this context, the NSW Business Chamber has taken this role of calling a broad array of informed and influential stakeholders to action.

Progress from here will require trust and goodwill from all actors in the NSW school education system. These broad guiding principles will need to be implemented incrementally over a long period. The risk of not taking the next steps are that the NSW school system will become out-of-date in content and methods, affecting the progress of current and future students, with acute implications for the economy and society.



Table 1: Guiding principles, themes and actors

Themes / Actors	Architects	Builders	Clients
Shared responsibility at all levels	Education authorities must be sufficiently supportive of community-endorsed incremental reforms, including piloting them, and, if successful and appropriate, implementing them on a larger scale.	Teachers must take active responsibility for their professional development throughout their careers, and that of their peers, to ensure their role as educators and facilitators is optimised.	Young people must take a greater responsibility for the tailoring of their schooling , with the support of their teachers, family, community and peers.
Encourage new effective ways of learning	Collaboration and experimentation in teaching and learning must be formally recognised and celebrated, and therefore enabled by organisational flexibility.	Teachers have a responsibility to all students, not just those in their classroom, to share the impact of existing and new approaches to teaching and learning with their professional networks .	Young people should be guided in exploring, responsibly, the opportunities presented by digital technologies in providing a platform for their 'voice', and for tailoring their life-long learning experiences.
Support evidence- informed practice	Agency-owned, de-identified datasets, should be made more freely available to realise the potential of tracking educational outcomes, and evaluating programmatic interventions across broad school populations.	Continuous improvement of teaching and learning will be supported by the establishment of a real-time data capture capability in classrooms that contributes to the broader knowledge-base of the education community.	Parents and carers should be encouraged to 'opt-in' to student data tracking platforms to support their increased role in their child's schooling.
Foster diversity and inclusive education	The objectives, capacities and accountabilities of our school system must expand to allow for and promote the breadth of educational pathways that will release the potential of all young people.	Dissemination of 'best practice' learnings in teaching should be broad and flexible enough to adapt to the needs and capabilities of all students and communities, locally.	Young people should be encouraged to feel safe and part of an inclusive learning environment, where diversity of background, perspectives and values is encouraged to promote creativity and social cohesion.

Next steps

Taking instruction from the drivers of progress in world leading education systems, the NSW Business Chamber proposes that the key agents identified in this report combine under the leadership of Government, to take action to improve the education system in the spirit of the guiding principles presented in this report.

In the immediate term, we propose the following actions to commence the process of incremental reform of the NSW school system (see Table 2).

Table 2: Early actions to reform the school system

Themes / Actors	Architects	Builders	Clients
Shared responsibility at all levels	 Education authorities to build and enhance incentives for coaching and mentoring of teachers. NSW Government to provide consistent health and well-being services to reduce 'load' on teachers. 	Principals and teachers to formulate school level coaching frameworks tailored to suit local workplace culture and environment.	 Young people to design their own educational objectives in partnership with their support network and track performance regularly. Parents and carers to explore Career Education support for their children from primary school.
Encourage new effective ways of learning	 Education authorities to identify appropriate regions, communities or schools to pilot innovative evidence-based approaches to teaching and learning. Education authorities to build mechanisms that facilitate the rapid assessment and implementation of successfully-piloted initiatives. Education authorities to incentivise innovative evidence-based approaches to teaching and learning. 	Teachers to establish and expand Professional Learning Communities (PLCs) in NSW.	Young people must promote and demonstrate ethical, productive and socially cohesive uses of digital technology.
Support evidence- informed practice	 Education authorities to engage other agencies, industry and academia to collect, share and analyse complex population-wide datasets tracking student performance, transitions and outcomes Education authorities to establish a real-time data capture capability in pilot NSW school classrooms. 	 Teachers to apply best practice teaching and learning methodologies tailored for their classroom needs. Actively contribute to the knowledge-base of teaching and learning approach effectiveness in NSW public school classrooms. 	Young people to actively contribute to the knowledge base regarding effectiveness of new and existing approaches to teaching and learning.
Foster diversity and inclusive education	 Education authorities to launch pilot programs for NSW public schools that integrate alternative pathways that do not mandate completion of the HSC. NESA/Education authorities to work together on a new final credential to revamp the HSC and measure both academic and vocational modes of student achievement Education authorities/Dol to define methodologies and metrics for measuring and tracking enterprise skills. 	Schools should publicly report and recognise achievement in post-secondary school employment, enterprise skills development and vocational educational attainment.	Young people must pursue and promote opportunities for expanding the perspectives and understanding of themselves and their peers with the broader community.





Introduction

The **4th industrial revolution** has arrived. This is changing the nature of the world that most of our young people find themselves confronted with once they leave school. New forms of technology such as the 'Internet of Things' and 'Artificial Intelligence' are changing the nature of work, society and the creation of 'value'.

With these changing circumstances there is an increasing need for what is often described as **21st Century skills**, alongside more traditional literacy, numeracy and technical or specialist skills. These more contemporary skills include collaboration, problem solving and critical thinking, empathy, global citizenship, self-management and creativity. Not only do these skills require teaching and practice to development, but they also challenge the way we assess the performance of a learner, particularly as traditional assessments have not been adequate indicators of a student possessing these skills.¹)

These trends mean we need an adaptable education system that can respond to a changing and complex world. The current education system was designed for the industrial society, and while some elements remain fit for purpose, many other elements are not. If we respond in a coordinated and timely fashion, we will thrive. If we stall, our economic and social potential will not be realised.

The NSW Business Chamber has developed a series of 'guiding principles' in the context of both the actors and the overarching themes within which each of the guiding principles sit. These have been developed in consultation with key stakeholders via the Future of Education: Transforming the NSW school system Forum and a series of one to one consultations.

Within this report, each of these principles is presented within one of the four themes introduced above and illustrated with relevant examples to help demonstrate how change in the NSW school system could be realised. The principles, if applied, will deliver a transformed, future-proof school system that readies students for the 21st century workplace and life.



Contributions to this thinking

The primary objective for the NSW Business Chamber in leading this initiative was to engage stakeholders from across the education spectrum in an aspirational conversation about a collective challenge. Acknowledging that solving the most pressing challenges of the complex NSW school system cannot be achieved in a day, the Chamber has established a set of guiding principles to progress the multitude of conversations into real action.

To determine these guiding principles, the NSW Business Chamber brought together some of the leading thinkers and key participants in and around the NSW school system for the Future of Education Forum: Transforming the NSW Education System.

The forum saw over 50 participants join, representing a variety of insights and perspectives, including:

- Mark Scott, NSW Secretary of Education,
- Greg Whitby Executive Director Catholic Education Parramatta Diocese
- Patrick O'Reilly Principal of Southern Cross Catholic Vocational College
- Eddie Woo, Head Teacher Mathematics Cherrybrook Technology High School
- Matt Deeble, Director, Social Ventures Australia
- Suan Yeo, Head of Education, Google Australia and New Zealand
- Katie Acheson, CEO, Youth Action

Following the Forum and the consolidation of the key themes that emerged, 14 in-depth consultations were held with a selection of participants, for their further thematic validations and extensions. It also allowed an understanding of the context for the organisations that the consultees represented.

Indeed, the workshop facilitated the collection of ideas and aspirations for improving the NSW education system for each of the three actors (architects, builders and clients). Each of these participants presented constructive ideas to challenge the existing organisational and societal paradigms that dictate the education system in NSW.

¹ Deakin Co. (2017), Demystifying credentials: growing capabilities for the future, available at: https://www.deakinco.com/media-centre/article/demystifying-credentials-growing-capabilities-for-the-future-a-white-paper



Guiding principles

The principles presented in this report are intended to highlight elements of the NSW school system that could benefit from an extension or re-think. They are designed with both priority of need and practicality of implementation in mind. Some sequencing of these might be among the immediate next steps.

As presented in Table 1, each principle aligns with both a theme and an actor. To drive real and lasting change requires a cohort of committed stakeholders. In this light, a key actor, or actors, are identified as those best placed to facilitate that change. Relevant case studies are also provided to highlight examples of change taking place that the NSW school system can take confidence from.

Ensuring that the governance (and accordingly incentives) structure for the NSW school system is correct will be crucial to promote a clear direction for the system, while ensuring flexibility to achieve the guiding principles. The guiding principles that define this new/enhanced governance approach include:

- 1. A shared responsibility is required at all levels;
- 2. All actors need to encourage new effective ways of learning;
- 3. The necessary frameworks and funding is required to support evidenced-informed practice; and
- 4. All actors need to celebrate and encourage diversity and inclusion.

1. Shared responsibility at all levels

The responsibility for transforming the education system sits with no one organisation or individual. The NSW school system must be designed in a way that ensures students, parents, teachers, principals, industry, further education providers, governments (including Ministers) and other central agencies are clear on their respective and collaborative roles and responsibilities, in achieving the educational outcomes our society requires. Active participation and collaboration between all key actors is critical to our school system reaching its full potential.

Architects

Guiding principle: The NSW education central agencies must be sufficiently supportive of community-endorsed incremental reforms, including their piloting, and if successful and appropriate, their implementation on a larger scale.



Community groups and industry associations should be actively engaged with government agencies from policy ideation through to implementation and into cyclical evaluation and policy refinement. These actors must commit to working collaboratively with governments and schools at multiple junctures during a student's schooling journey, to support the realisation of new and existing policy objectives.

For the past 35 years, Finland's education system has seen multiple incremental reforms developed in close consultation with business, teachers and unions. All parts of the community were actively involved in delivering various programmes of reform. Key concepts were tested via this dialogue and adjusted in response to feedback through decision-making committees involving bureaucrats, teachers' unions, industry and academics.²

² Organisation of Economic Cooperation and Development (2010), Strong performers and successful reformers in education, available at: https://www.oecd.org/pisa/pisaproducts/46581035.pdf

Builders

Guiding principle: Teachers must take active responsibility for their professional development throughout their careers, and that of their peers, to ensure their role as educators and facilitators is optimised.



As in all professions, an individual will realise the greatest potential and personal satisfaction from their career if they have as much control over its direction as possible. And of course, teachers who continue to develop their skills and expertise will also improve the learning outcomes of their students.

Professional guidance is particularly crucial at the start of a teacher's career and should be a priority objective for school leadership teams. Principals' time must be freed up from administration and shifted toward facilitating best practice teaching and learning. A structured and accountable coaching program with measurable Key Performance Indicators (KPIs) for all involved would provide both professional and personal support to teachers as they begin to shape themselves as primary and secondary educators. Areas of teaching and learning outcomes should extend beyond academic achievement to key economic development factors such as inclusion, engagement across networks and community and the well-being of teachers and young people.

It is crucial, in any work environment, that professionals have the knowledge that they are supported in their professional curiosity and ambition. They also must feel confident that any challenges they are facing can be overcome with a sense of shared responsibility.

A 2017 Deloitte study commissioned by the NSW Department of Education, confirmed this finding. The Principal Workload and Time-Use report found that NSW public school principals are spending, on average, only one per cent of their time coaching and mentoring their staff.³

This principle aligns with the NSW Department of Education's Great Teaching, Inspired Learning program and the Beginning Teachers Support Funding policy.

The Beginning Teacher Support Funding policy provides funding to schools to provide teachers with release time and mentoring each week in the first two years of their first permanent appointment in a NSW government school. The Centre for Education Statistics and Evaluation (CESE) found that first year permanent beginning teachers received less than half of their release time entitlement under this policy in 2014 and 2015. The report also found, however, that this was an improvement on the release time achieved by permanent beginning teachers in 2013. This trend was consistent with respect to mentoring also. It is critical that this element of teacher professional development continues to receive the attention and dedication it warrants for the success of teachers, principals and learners.

Clients

Guiding principle: Young people must take a greater responsibility for the tailoring of their schooling, with the support of their teachers, family, community and peers.



The value from introducing young people to the practice of setting goals from an early age should not be underestimated. Even at primary school, there are opportunities for young people to be involved in decisions surrounding their education, in conjunction with appropriate support from their primary care givers and teachers. The level of responsibility placed on a young person for goal setting and attainment should be commensurate with their capacity to do so, which can be evaluated at regular points in time.

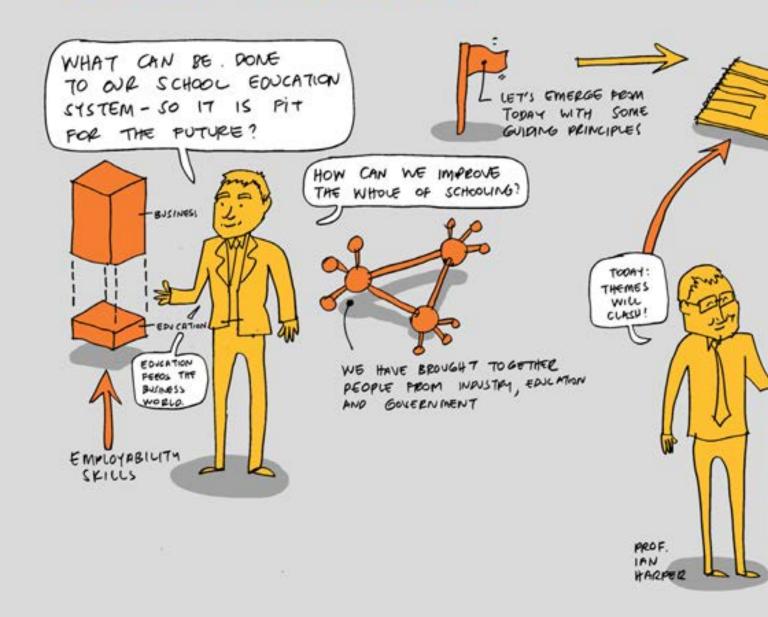
The Victorian Department of Education and Training Individual Learning Goals and Targets program facilitates goal setting even in foundational years (Preparatory to Year 2). This is done to promote more active participation and active learning in young people at an early age.

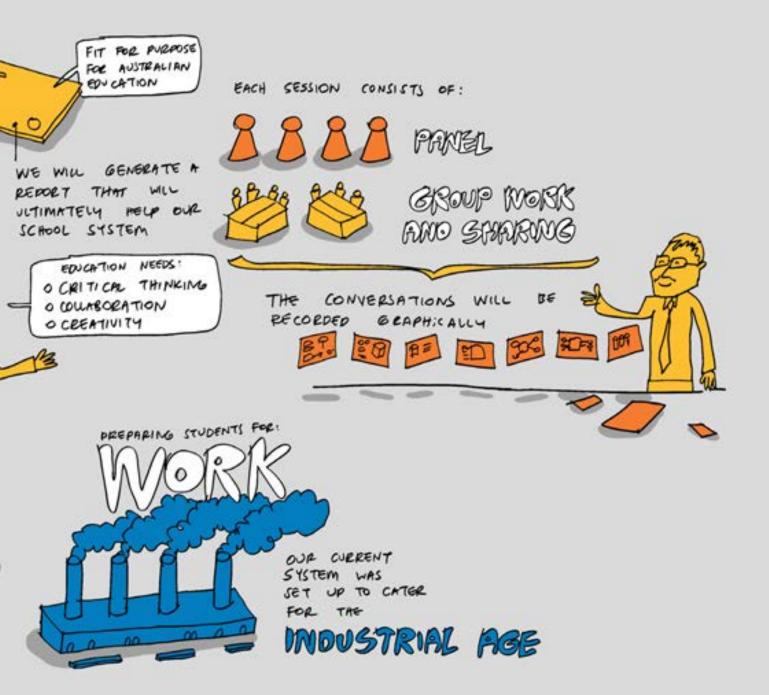
³ Deloitte Access Economics (2017), Principal workload and time use study, available at: https://education.nsw.gov.au/media/schools-operation/Principal-workload-and-time-use-report.pdf

⁴ Centre for Education Statistics and Evaluation (2017) Great teaching, inspired learning: beginning teacher support evaluation report, available at: https://www.cese.nsw.gov.au//images/stories/PDF/GTIL_beginner_teacher_report_2017.pdf

Our August School Education Forum – What we discussed

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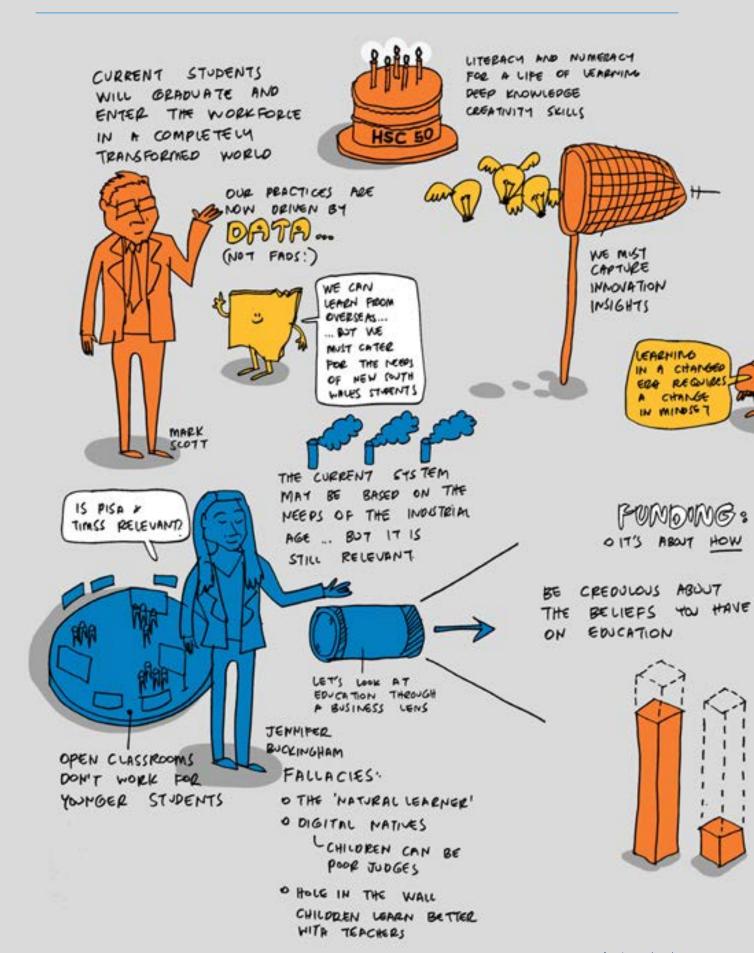


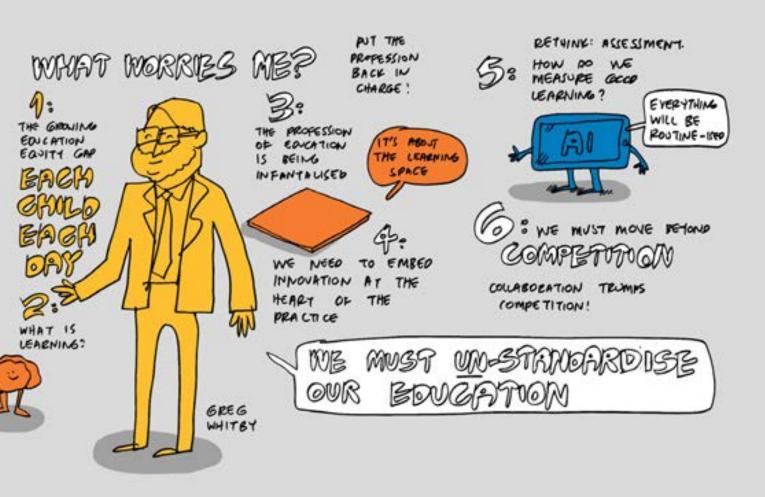


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Our August School Education Forum – What we discussed



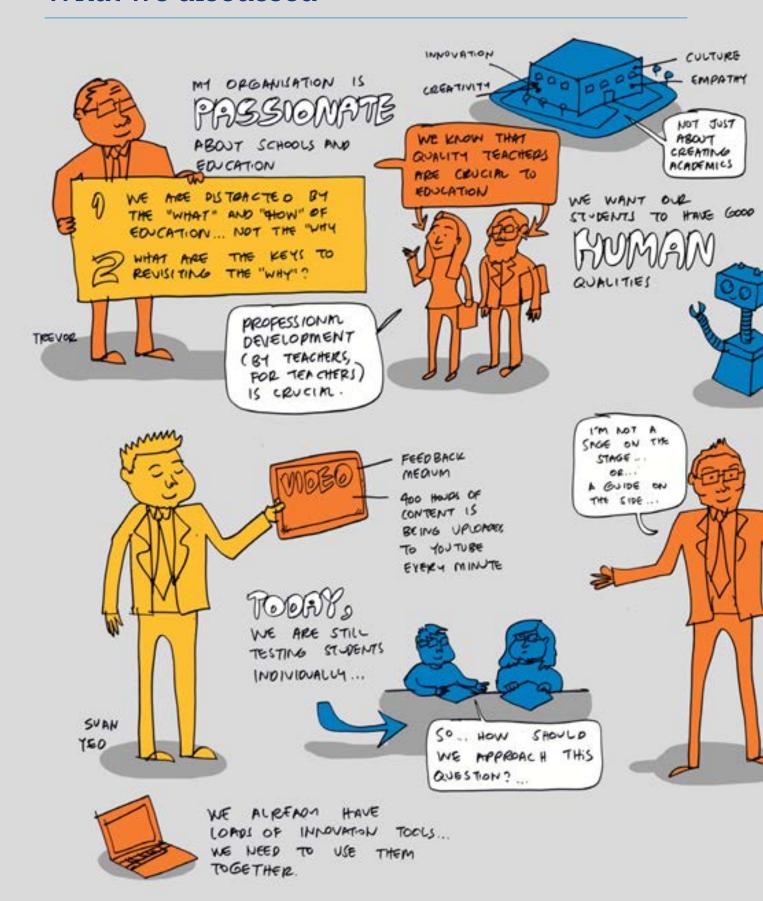


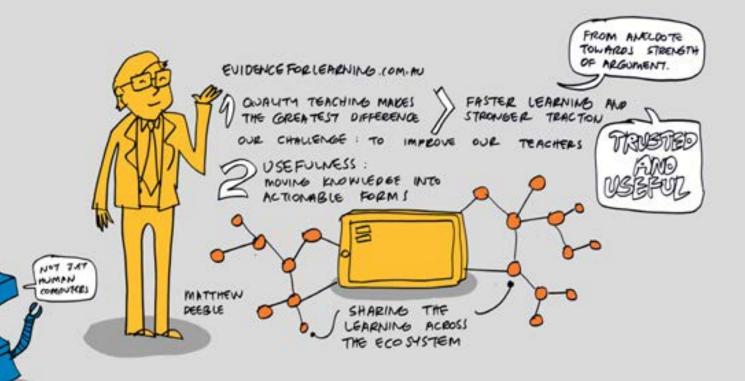
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Our August School Education Forum – What we discussed





WHAT WORKS?

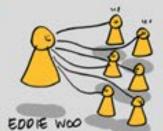
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STUDENT CMART?

YEAR 7 STUDENTS DON'T KNOW A WORLD WITHOUT THE INTERNET ... IN THEIR

POCKETS

DIVERSITY IS CRUCIAL



RELATIONSHIPS

ARE ESSENTIAL

EXPERT MONLEDGE

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TECHNOLOGY ALLOWS EDUCATION TO BE INDIVIDUALISED ...

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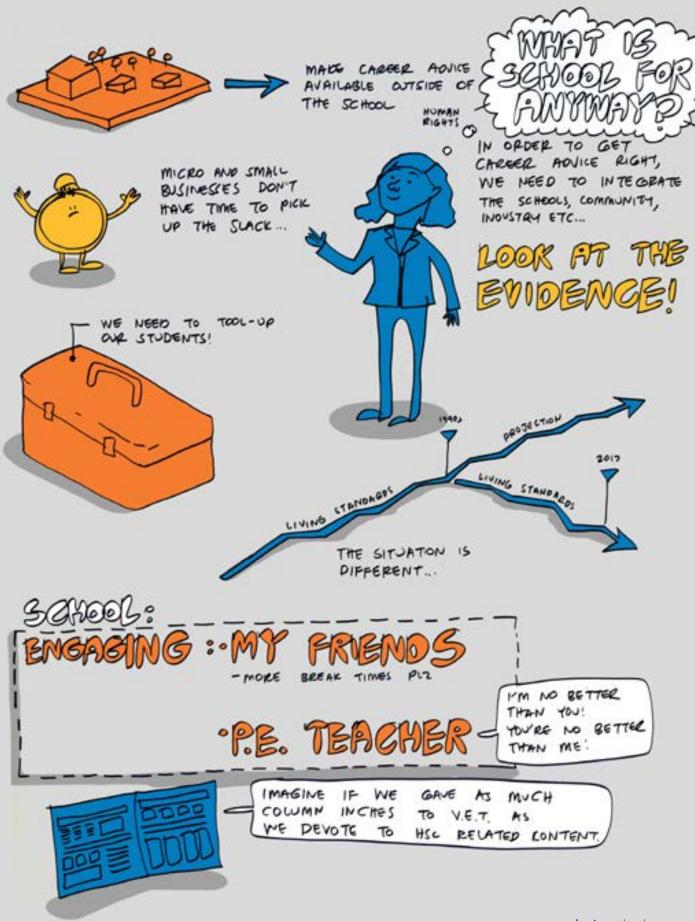
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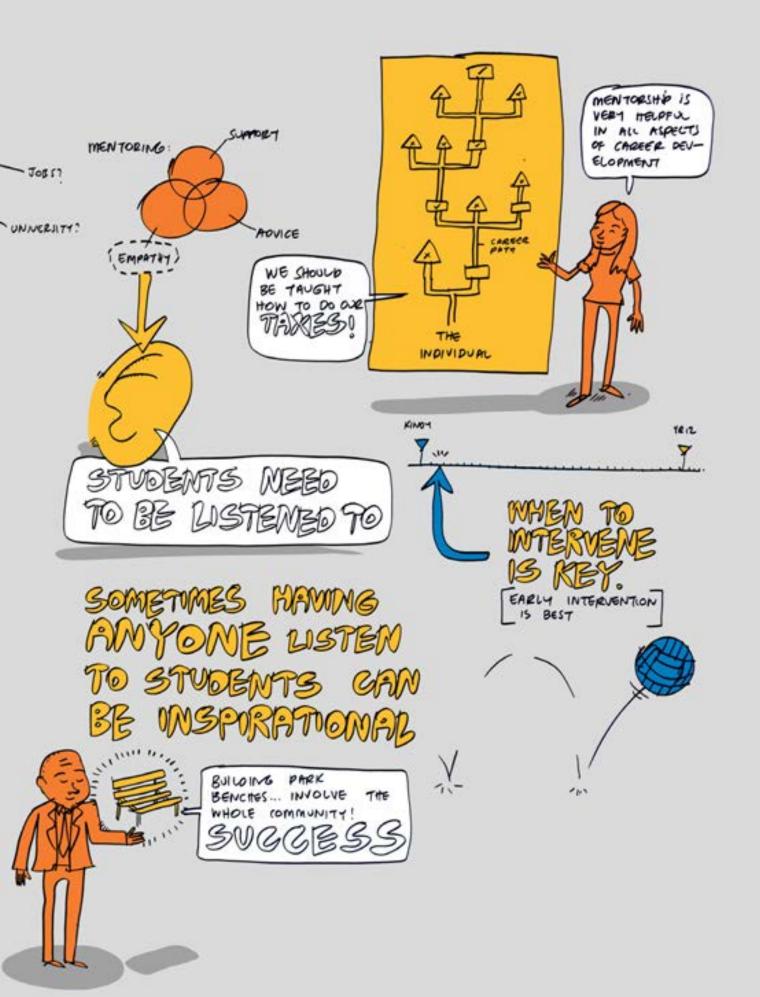






Our August School Education Forum – What we discussed





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2. Encourage new, effective ways of working together

With a rapidly changing world, adaptability and experimentation with new ways of approaching problems, and the corresponding tools available to support, will be invaluable. Shifting away from a competitive culture and towards a collaborative one, at all levels of the school system, is paramount to fostering a cohesive and innovative society.

Architects

Guiding principle: Collaboration and experimentation in teaching and learning must be formally recognised and celebrated, and supported by the right organisational structures.



Architects must strive to provide teachers with an organisational environment which empowers them both professionally and technically to develop and capitalise on innovation for the good of students, teachers and society.

The capacity and incentives for teachers to introduce new approaches to learning and teaching in the classroom must be tailored to encourage creativity and its broader applications. These learnings can be communicated more broadly via nascent technologies that are being adopted by schools beyond the public school system in NSW.

The annual Reimagine Education
Awards involves awarding a financial prize
to university teachers across the world who
present initiatives which are innovative,
scalable and challenge existing pedagogical
approaches. This is an example of the sorts of
incentives that can be provided to encourage
innovative disruption to the NSW school
system.⁵ The existing public sector awards
for teaching excellence could serve as a
platform for this incentivising of innovation
across the entire education system.

Collaboration in the classroom: creative learning at Bradfield College

Bradfield Senior College is a senior secondary school that provides a specialised HSC in an adult learning environment. Students come from a diverse range of socio-economic, cultural and academic backgrounds, although most focus on the creative arts within their HSC. The primary focus of Bradfield teachers is to assist each student to attain their personal learning and career path goals.

Teachers facilitate a learning experience that is strongly connected with the attainment of enterprise skills. Students at Bradfield are encouraged to work in a 'project team' style of collaboration, working together on projects together and in partnership with industry. Bradfield College students, for example, were involved in the Vivid Ideas Creative Careers Project, producing, exhibiting and developing their artwork in consultation with a range of creative professionals, artists, designers as well as not for profit organisations. Students created and exhibited films, artwork, design pieces and installations in displays that showcased the students' individual creativity and promoted the potential career and life opportunities presented by the creative fields.

⁵ Reimagine Education (2017), our mission, available at: http://www.reimagine-education.com/reimagine-education-mission/

Builders

Guiding principle: Teachers and principals have a responsibility to all students, not just those in their classroom or school, to share the impact of existing and new approaches to teaching and learning with their professional networks.



Teachers and principals need to ensure they complement the 'top-down' development of their professions, with the 'bottom-up' evidence of effective practice across a variety of schooling contexts. A culture of continuous improvement should be pervasive, such teachers and principals are consistently seeking out and implementing 'best practice' tailored to the needs of their classrooms and schools.

In the NSW school system, teachers and educational leaders must be supported by the infrastructure required to capture and communicate learnings across the profession and ensure successful pilot programs can be tracked and implemented across the school network. Furthermore, encouraging teachers and principals to engage with the broader community to bring a variety of life experiences and specialist expertise to the profession and young people is another invaluable source of diversity. This may even involve allowing teachers and principals to bring in specialist subject matter experts into the classroom – physically or digitally – to enhance learning for particular subjects.

Active participation in Professional Learning Communities (PLC), as in Victoria, is one means of embedding repeat cycles of inquiry and sharing into improving student outcomes in the teaching profession.⁶ Furthermore, the Catholic Education Diocese of Parramatta looks for principals with diverse career experience beyond education to ensure a holistic and interconnected individual who can provide a variety of linkages to communities and businesses and offer new perspectives on content or methodology of teaching and learning.

Professional Learning Communities in Victoria

The Victorian Government is seeking to build the capacity of schools and teachers through its Education State reform agenda. A key initiative within the agenda is to create Professional Learning Communities that build teacher effectiveness through a culture of collaboration and professional development at the school level. Participating schools have access to a dedicated teacher professional learning program, supported by a regional manager who provides coaching and training to teachers and principals.

The PLC program provides scope for individual schools to create the community, model best practice and trial differing teaching methodologies in a variety of ways. For example, Dandenong North Primary School established a small observation room with a two way mirror in a larger classroom to enable volunteer teachers to watch each other teachers (AITSL 2017).

The Victorian Government is investing \$32.3 million in 2018 to ensure more than 800 government schools will receive implementation support for the program. As part of the investment, the Victorian PLC schools will have access to a continuous stream of data about the impact of Professional Learning Communities on teacher practice and student perception.

⁶ Department of Education and Training (2017), National teaching workforce dataset, available at: https://docs.education.gov.au/system/files/doc/other/ntwd_data_analysis_report.pdf

Clients

Guiding principle: Young people should be encouraged to explore responsibly the opportunities presented by digital technologies in providing a platform for their 'voice' and for tailoring their life-long learning experiences.



Part of young people becoming responsible citizens extends to their digital presence and online consumption. Hand-held access to myriad of new technologies, infinite content and in many cases unsubstantiated ideas and opinions presents our young people with a responsibility to think critically about how and what they are consuming online.

Nevertheless, technological innovation presents exciting opportunities for individualised learning and performance tracking for young people to engage in their educational journey in real-time. Digital technologies also provide otherwise marginalised young people, such as those living with learning difficulties, a powerful means for engaging with their peers and broader networks. The potential technology offers as a tool to support learning and teaching methods must be harnessed and invested in and adopted widely, as is appropriate.

3. Support evidence informed practice and decision making

Building and improving on the existing evidence base of teaching methods and student performance is necessary to ensuring that best practice methods of teaching and learning become common practice in NSW classrooms. This is in line with the Productivity Commission's recommendations for building the national education evidence base, and the widely understood challenges of ensuring this is easily accessible to all classroom teachers.⁷

Architects

Guiding principle: Agency-owned, de-identified datasets, should be made more freely available to realise the potential of tracking educational outcomes and evaluate policy and programmatic interventions across broad school populations.



Measurements of school and student progress over time is invaluable for determining factors that contribute to successful learning outcomes. The Productivity Commission noted that evidence is required to ensure 'top-down' benchmarking for schools, though not at the expense of learning that is not amenable to testing.⁷

To consider educational outcomes in isolation is to ignore the relationship between social, family and community settings, of which schooling is one. Data collection, analysis and collaboration should be a Whole of Government initiative that spans federal and state jurisdictions. It's also critical that the data spans the public, Catholic and independent school settings, noting the population changes within those settings is understood to be a large explanatory factor of their circumstances at any point in time.

The Open Data agenda from the Federal Government, which encourages Australian Government agencies to make their data available provides a useful template to encourage the transfer and use of data by those in and outside of government.

⁷ Productivity Commission (2016), National Education Evidence Base, available at: http://www.pc.gov.au/inquiries/completed/education-evidence#report.

Builders

Guiding principle: Continuous improvement of teaching and learning should drive the establishment of a real-time data capture capability in classrooms that contributes to the broader knowledge-base of the education community.



The collection of real-time student performance data is necessary for analysing outcomes from teaching and learning methods. Furthermore, it forms the basis for understanding 'best practice' or for identifying factors that can contribute to improved learning outcomes in sub-optimal performance classrooms.

Indeed the most contemporary Australian school improvement research is finding the variation in learning outcomes within schools is multiples of the variation in outcomes between schools. The implication is it is less important that we better understand high performing schools, and more important that we better understand high performing classrooms, and the most efficient and effective way to do this is via new data platforms at that level. To make it appealing to teachers, it should be both a 'push' and 'pull' platform in respect of the evidence.

This knowledge-base will empower the teaching profession by providing a platform for them to share and discuss evidence that is most relevant to their school communities. This should perpetuate a culture of continuous improvement and further support the advancement of the standing of the teaching profession in our society.

The Evidence for Learning Toolkit developed by Social Ventures Australia (SVA) provides a global evidence base of 34 different approaches to lift learning outcomes in schools. The data is open access for all, with SVA also providing free presentations demonstrating the value of these data sets to interested groups. The Toolkit evidence is relevant to both primary and secondary schools.

Clients

Guiding principle: Parents and carers should be encouraged to 'opt-in' to student data tracking platforms to increase the richness of educational datasets.



Privacy is, justifiably, a paramount concern for all parties when considering personal information and data capture. The choice of a parent or carer in whether information about their child is captured and used for research and policy purposes should remain with that parent or carer.



Using data to improve education outcomes

Social Ventures Australia, with the Commonwealth Bank of Australia and Education Endowment Foundation as founding member, has developed numerous sets of the data through its Evidence for Learning's Teacher & Learning Toolkit. The toolkit provides free online access to datasets for 34 different learning approaches for a variety of subjects with an evaluation framework to facilitate the use of best practice in a local context.

One example of the toolkit improving outcomes is Regents Park State School in Brisbane. The school used achievement data combined with attendance and SES data to identify a problem in students' maths confidence (Social Ventures Australia 2017).

The school turned to Evidence for Learning's Teaching & Learning Toolkit, which helped them to identify high impact approaches to improve students' maths. The school developed its own implementation plan and ran successful trials. The program was rolled out across the whole school in the following year. Without access to a variety of data sources this change in teaching approaches leading to improvements in learning outcomes would have been difficult to imagine.

⁸ Centre for International Research on Education Systems (2015), Educational opportunity in Australia 2015: Who succeeds and who misses out, available at: http://www.mitchellinstitute.org.au/wp-content/uploads/2015/11/Educational-opportunity-in-Australia-2015-Who-succeeds-and-who-misses-out-19Nov15.pdf

These privacy and governance concerns, while important, should not constrain the opportunity in drawing value from the datasets that are readily observable on a daily basis in our classrooms. Programmatic evaluation of teaching and learning methodologies offer significant potential for the teaching profession, parents, academia and policy makers.

Encouraging parents and carers to 'opt-in', in consultation with their child, could provide a significant opportunity for furthering our collective understanding of the relative impacts of different approaches to teaching and learning.

What is more, it is these platforms that allow for the greater collaboration and consistency in progressing any individual student's learning goals, at school and at home, and the shared and early identification of challenges and support strategies. With an increasingly rhetoric in schools and society more broadly of a focus on engagement, health and wellbeing, such information sharing platforms support high hopes for improvements in circumstances beyond academic achievement.

4. Foster diversity and inclusive education

The NSW education system must acknowledge and actively encourage exploring the diverse experiences available to young people during and beyond their schooling career. The assumption of a single learning pathway, or a 'mainstream' student, should be dispelled in favour of allowing flexibility for unique circumstances, strengths and aspirations.

Architects

Guiding principle: The objectives, capacities and accountabilities of our school system must expand to allow for and promote the breadth of educational pathways that will better support releasing the potential of all young people.



With nearly 50% of high school graduates not going straight to university upon graduation,⁹ the multiple pathways beyond further education should be acknowledged and celebrated by schools and society by focusing on, for example, employment outcomes of young people rather than solely ATAR results.

Relatedly, there is a need for a system-wide alignment of language to equalise value placed on the different pathways available to young people. The term "higher education" or "primary, secondary and tertiary education" are value laden terminology compared to "university education". Similarly, terms such as "soft skills" or "generic skills" are unhelpful given their increasing importance. More neutral language would may consist of "core skills" or "enterprise skills" which aligns closer to their importance for modern work and society.

Schools being provided with the flexibility to simplify vocational pathways for students who are not prioritising completion of the Higher School Certificate would further acknowledge the diverse employment options available to young people in the present day.

⁹ Centre for International Research on Education Systems (2015), Educational opportunity in Australia 2015: Who succeeds and who misses out, available at: http://www.mitchellinstitute.org.au/wp-content/uploads/2015/11/Educational-opportunity-in-Australia-2015-Who-succeeds-and-who-misses-out-19Nov15.pdf

Southern Cross Catholic Vocational College in Sydney allows its students to complete vocational qualifications and also maintain an option to enter a tertiary qualification at Notre Dame University. This means that students have the flexibility of evaluating the need or desire for pursuing a university qualification while completing their vocational qualification.

Builders

Guiding principle: Dissemination of 'best practice' learnings in teaching should be broad and flexible enough to adapt to the needs and capabilities of all students and communities, locally.



There is widespread recognition that students do not follow a standardised learning pathway or engage with particular teaching methods in the same way. While best practice should be promoted, this should always be flexible to ensure teachers are able to tailor teaching methods to the context of their students and local communities.

Clients

Guiding principle: Young people should be encouraged to feel safe and part of an inclusive learning environment where diversity of background, perspectives and values is encouraged to promote creativity and social cohesion.



The influence of 'peer effects' on learning and social outcomes continues as a significant thread of contemporary school improvement research. It also remains one of the most difficult to balance with community perceptions, where the view can often be that high achievers in the same class as those who have additional needs in some way detracts from the learning experience for both.

Among the world's leading schooling systems are the world's most inclusive schooling settings. The theory goes that students themselves are able to effectively support each other's learning, on a variety of levels, and in a collaborative sense that is both consistent with the future of work and the promotion of social cohesion and civic participation.

By way of example, New Zealand's education system has undergone a series of transformations over the past 20 years, which has included modifications to how schools and their students are funded and managed, and the responsibilities various government departments have for ensuring all children receive the best possible education in a variety of environments. Diversity is inbuilt in the National Curriculum, as is flexibility, student choice and recognition of the differing pathways suiting different students.¹⁰

Principles of the Alberta education system

The Alberta values-based approach emphasises inclusive education, guided by the following six principles:

- 1. Anticipate, value and support diversity and learner differences.
- 2. High expectations for all learners.
- 3. Understand learner's strength and needs.
- 4. Reduce barriers within learning environments.
- 5. Capacity building.
- 6. Shared responsibility.

These principles, particularly the first, demonstrate the importance Alberta places on accommodating a variety of student experiences and circumstances. To implement these values, Alberta Education has developed a number of indicators of inclusive schools which they publish for benchmarking purposes.

¹⁰Te Kete Ipurangi (2017), About inclusive education, available at: http://inclusive.tki.org.nz/about-inclusive-education/





Next steps

The discussions and ideas that inspired this report have evolved from engagement with critical stakeholders in and around the NSW schooling system. The principles presented above represent the priority aspirations, as identified by these stakeholders, for transforming that system.

Now comes the hard part.

It is unrealistic to expect our school system to transform instantaneously or immediately achieve the outcomes the community seeks. Building a dynamic, future-proof school system for the 21st century is a long term project that requires cooperation from our schools bureaucracy, business, educators, parents, young people: from the entire community.

What can be achieved is a start.

Incremental shifts in thinking, in organisational behaviour, in communication, and – consequently – in learning, will facilitate gradual yet critical moves towards best practice. International experience shows this is the best way forward.

Through this first intensive consultation effort the NSW Business Chamber has identified some incremental reforms that will set our State and nation on the right path toward reform.

The Chamber's six ideas to start building a 'New School' system identified earlier in this report will set our state and nation on the right path to reform. These are actions the NSW Business Chamber will prioritise as it actively advocates for education reform in the lead up to the next Federal and State Elections.

The NSW Business Chamber believes that progressing these initial steps and the broader calls it has raised in this report will set our school system on the path toward transformation.

The conversation begins here.



The Finnish reform experience

The Finnish system is regarded as one of the best in the world. Finnish teachers are some of the best qualified in the world, and students outperform their peers internationally in global measures of student performance such as PISA and TIMMs. Students have the opportunity from secondary school onward to focus on an academically or vocationally intensive program of study, and about a third of all students focus on a vocational pathway to work. Finland transformed into its current state over a 30-year period of reform.

This longer term transformation began, however, with rapidly delivered, incremental reforms sponsored by the then Finnish Government, with the close involvement of teachers, teacher groups and industry. Finland's new National Curriculum, amalgamation of their separate education authorities into a single Ministry for Education, and the overhaul of their vocational education system were key first steps in the transformation process. This was a 'bottom-up' reform approach with extensive consultations with architects, builders and clients.



Schooling for the 21st century

A note from the NSW Business Chamber President

A quality, contemporary education system is the cornerstone of a 21st century civil society.

That is why it is so critical our schools provide children and young people with the skills, knowledge and passion for learning that will set them up for a productive, meaningful and engaged life.

As a former teacher, senior education academic and now President of the NSW Business Chamber, I was pleased to be involved in this first phase of the Chamber's longer term initiative to transform school education. The Forum hosted in August involved a cross-section of the most influential people in education, from senior education bureaucrats, passionate and committed teachers, young people and parent leaders.

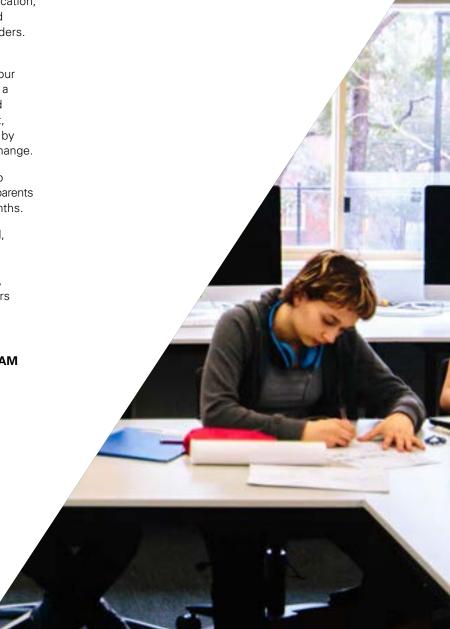
Drawing from their collective insights, this report provides an early plan to spark positive change in our school education system. While transformation of a school education system as complex, multilayered and diverse as Australia's is not possible overnight, I am confident the incremental changes proposed by the Chamber will set us in the right direction for change.

I look forward to the reception of this report and to continuing to engage with educators, young people, parents and political decision makers over the coming months.

Our 'Old School' system is in many respects good, however a transformed 'New School' system will provide a better equipped, more dynamic training ground for our next generation of workers, entrepreneurs and leaders, and the future members of a happy, healthy Australian community.



Professor Trevor Cairney OAM
President
NSW Business Chamber



NSW Business Chamber

Tracing our heritage back to 1826, NSW Business Chamber's mission is to create a better Australia by helping businesses maximise their potential. The Chamber is a passionate advocate for business in the public arena: whether standing up to government and decision makers when business interests are neglected or working together to create positive change.

On a one-to-one basis, the Chamber helps all businesses from small enterprises to large corporations. Our commercial services division, Australian Business, delivers a range of business services to both member and non-member clients throughout Australia, with the operating surplus going back to supporting Chamber initiatives. In all, we believe it is importan for Australia's business community to succeed, because prosperity creates new jobs, social wealth, and better communities in which to live.

- Local, regional, state and national coverage
- Public policy and advocacy
- Reducing complexity to manage risk
- Empowering business through connections, knowledge and expertise

Let the NSW Business Chamber team be an extension of your business so you can concentrate on what you do best – growing your business. For more information: nswbusinesschamber.com.au

NSW Business Chamber Head Office Street Address 140 Arthur Street North Sydney NSW 2060

Postal Address Locked Bag 938, North Sydney NSW 2059

- t 13 26 96
- f 1300 655 277
- e businesshotline@nswbc.com.au

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