The shared work of learning: Lifting educational achievement through collaboration

Research report

About the authors

Tom Bentley is a writer and policy adviser. He is a former Deputy Chief of Staff to Julia Gillard, Prime Minister of Australia. From 1999-2006 Tom was Director of Demos, an independent think tank based in London. He is currently an adviser to the US education program at the Bill and Melinda Gates Foundation, principal policy adviser at RMIT University and visiting Professor at the Copenhagen Business School. He has also worked as Executive Director in the Victorian Department of Premier and Cabinet and as a special adviser to David Blunkett, UK Education Secretary.

Tom's publications include *Learning beyond the classroom: Education for a changing world* (Routledge, 1998), *The Creative age: knowledge and skills for a new economy* (Demos, 1999) and 'Innovation and diffusion as a method of change' in the *Second International Handbook of Educational Change* (Springer, 2010). He also writes for *The Guardian*.

Dr Ciannon Cazaly is a social policy researcher. She has contributed to research projects and policy analysis within the fields of teaching and learning, higher education, sport, and Australian politics. Ciannon has taught at the University of Melbourne and is currently working in international education. Her recently completed PhD explored multiculturalism and player welfare in Australian Rules football.

About the Mitchell Institute

The Mitchell Institute for Health and Education Policy at Victoria University, Melbourne is an independent think tank that works to improve the connection between evidence and public policy reform. The Institute was founded on the principle that health and education are fundamental to individual wellbeing and to a prosperous and successful society. This is reflected in its focus on disadvantaged communities and the transformational change effective education and good health can deliver. The Mitchell Institute was established in 2013 through a foundational investment from the Harold Mitchell Foundation to Victoria University.

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1. Overview

1.1 The problem

Too many young people in Australia are starting behind in their education and staying behind, and too many are disengaging from school.

Overall student achievement in Australia is not improving. The gaps between high and low-achieving students and between well-off and disadvantaged students are too wide.

The emphasis on educational improvement strategies has intensified over the last two decades, creating pressure to improve learning outcomes in ways that are faster, cheaper and more sustainable.

The focus on the individual school as the unit of effectiveness continues to sharpen. There is growing attention to the needs and progress of each student, to the impact on student outcomes of teaching, and to the influence of relationships within and beyond the school.

Yet while the quality of teaching and learning has improved in many schools, it is not improving enough to counteract the effects of systemic inertia, fragmentation, and growing social and economic inequality.

In too many systems, this results in entrenched inequality of educational outcomes and opportunities, which are further exacerbated by economic and spatial trends. As a result, there is a mismatch between the learning needs of students and schools, and the current capabilities of education systems.

> *"In Australia policy stagnation is combining with growing economic inequality to magnify existing variations in educational opportunity and act as a brake on overall achievement."*

There have been some modest gains that demonstrate the potential for improvement. Overall however, Australia has gone backwards[1]. Australia's performance since the introduction of the National Assessment Program – Literacy and Numeracy (NAPLAN) has changed marginally. The 2013 NAPLAN results reveal a moderate improvement in year 3 and year 5 reading (19 and 18 scale points respectively) but almost no change in year 7 or year 9. Numeracy results have remained unchanged at every level between 2008 and 2013.[2] Australia has gone backwards in Programme for International Student Assessment (PISA) tests, reading literacy and mathematical literacy have declined significantly, and scientific literacy remained unchanged between 2003 and 2012.[3]

School systems around the world have made real progress during the same period. Yet in Australia policy stagnation is combining with growing economic inequality to magnify existing variations in educational opportunity and act as a brake on overall achievement.

Social and economic inequality, combined with growing competition between individual schools, overwhelm incremental gains in the quality of teaching and learning.

In the effort to improve, tools and methods that once worked are losing traction. Ideology, institutional fragmentation and simple human fatigue all too often prevent real progress in student learning.

Schooling is not serving the needs of all students. The consequence is a widening gap in life chances between those who achieve high-level educational qualifications and those who do not.

The 2009 ABS Survey of Education and Training (SET) showed that year 12 attainment of young people (20-24 years) rose from 70 per cent to 75 per cent between 2001 and 2009. However, it has not risen among those who are most disadvantaged.[4] For those living in the most disadvantaged areas it fluctuated between 50 per cent and 60 per cent.

Meanwhile, the Victorian real estate industry reports that houses within the catchment of 'good' schools attract a price premium of 10-15 per cent.[5] Academic research in the Australian Capital Territory found that a 5 per cent increase in school test scores is associated with a 3.5 per cent increase in house prices.[6]

Often this 'selection by mortgage' reinforces the effects of academic selection, which takes children into schools on the basis of their academic performance. For example, 71 per cent of students at Melbourne High School (one of the most popular and highest achieving state schools in Victoria) come from the best-off quarter of the Australian population.[7] That is nearly three times the concentration we would expect if academic success was blind to the advantages created by wealth – or in other words, was based solely on merit.

Increasingly, differences in the wealth and background of students at different schools also magnify inequalities in their resourcing. For example, compare the voluntary fundraising experience of two neighbouring primary schools in Melbourne. At Clifton Hill Primary School, the My School website shows that 77 per cent of students come from families in the best-off quarter of the Australian population. This school raised more than $108,000 at its 2014 fete.[8] Just 1.1km south of Gold Street is St Joseph's Catholic Primary School. The My School website shows that 70 per cent of St Joseph's students come from families in the lowest quarter of socio-economic advantage. They held a fete and made $14.36 profit.

The University of Canberra's National Centre for Social and Economic Modelling's (NATSEM) analysis of average family spending on education shows that between 2003-04 and 2009-10 spending on pre-school/primary education increased by 79 per cent, and average family spending on secondary education increased by 101 per cent.[9] Poorer families just cannot keep up. Yet the increases in private spending are not leading to improvements in overall outcomes.

Analysis of Australian 2003 and 2006 PISA results confirms that the mean socio-economic status (SES) of schools is strongly associated with academic outcomes regardless of the individual SES of a student: the higher the mean SES of a school, the higher the level of academic attainment.[10]

Young people aged 20-24 are more likely to have attained year 12 if both their parents or guardians had attained year 12 (90 per cent), compared with one or neither parent or guardian having attained year 12 (78 per cent and 68 per cent respectively).[11]

The pattern of inequality continues into higher education. Only 19 per cent of young people (20-25) in the most disadvantaged areas of Australia had attained or were working towards a bachelor or higher qualification, compared to 54 per cent among the least disadvantaged areas.[12] Of all university students only 11.9 per cent are from a low socio-economic background.[13]

18.4 per cent of students don't make it to year 12.[14] A quarter of 17-24 year old school leavers are not fully engaged in education, training or work, a figure that increases to 42 per cent for people from low SES backgrounds.[15]

1.2 Why change is needed

As our economy and community change, education will be even more important than ever for jobs, prosperity and social inclusion.

Yet inequality and entrenched disadvantage are growing, as the outcomes of schooling simultaneously fail to improve. Our over-reliance on competition between schools and competition to enrol high-status students is worsening the problems of inequality and fragmentation.

As chapter 3 explains, leaving the momentum of educational improvement to the current status quo will result in widening inequality and continued stagnation, at great cost to our society and our economy.

To make progress in the face of these pressures, by lifting achievement for all students, something different is needed.

The case studies examined in this report demonstrate that collaboration can be used in practice to achieve sustained improvement in student outcomes.

In some disadvantaged community settings, where families are grappling with numerous other challenges, collaboration is integral to the way that schools, and their partners, pursue student achievement. They show what could be possible more widely.

Yet the methods and choices involved in collaboration receive far less attention, investment and measurement than other aspects of teaching and schooling.

The priority for the decade ahead is to learn how to use collaboration systematically to accelerate improvement in outcomes across diverse, flexible education systems. A 'top down' perspective is insufficient to do this, but we cannot afford to abandon system-wide ambition.

The search for momentum and progress in schooling systems involves questioning how to mobilise whole systems – thousands of teachers, students, parents and community partners – in settings that are increasingly diverse and flexible.[16] Fundamentally, education systems need to learn from the continuous feedback of practice and local knowledge, and to articulate system-wide priorities that reflect both social goals and rigorous evidence about practice and impact.

1.3 The research

This report presents the findings and recommendations from a project undertaken by the Mitchell Institute and the Centre for Strategic Education. It examines the role of collaboration in overcoming community disadvantage and lifting student achievement and sets out an agenda for systemic change to support the benefits of purposeful collaboration at scale.

The project researched 'high impact local learning systems' (HILLS) in partnership with the Departments of Education in South Australia, Victoria and New South Wales. It identified case studies of schools that are successfully using collaboration within and between their schools to lift student outcomes in the face of socio-economic disadvantage.

The project examined the practices and priorities of these schools, in the context of the systemic goals of their education systems and the economic, demographic and social pressures in their surrounding communities.

At the local level the research questions focused on:

- What leadership behaviours and qualities contribute most to collaborative impact?

- What forms of organisational infrastructure support and enable collaboration, and how are they developed and maintained by different local learning systems?

- What are the most important sources of feedback and learning underpinning local learning systems?

At the system level the research questions focused on:

- What are the boundaries to the spread of collaborative learning and impact?

- What changes would unblock the transfer of learning and capability across wider systems of schooling?

- What role is played by system-wide strategy, governance and decision making?

The task was to understand both how the individual schools pursued greater achievement by their students, and how their work fits into a wider set of relationships that might reflect and reinforce collaboration towards those achievement goals.

The project used detailed case studies as a method to observe and compare practices in different locations, to compare those practices across different settings, and to identify common features and variations that appear to play an important role in supporting learning outcomes.

The case study locations were chosen in consultation with the education departments and independent experts in each of three systems, New South Wales, South Australia and Victoria. We sought suggestions for schools which were achieving positive results serving students from disadvantaged backgrounds, and which used a range of collaboration extensively in their practice.

Our research team then spent several days at each location, observing the organisational practices of the schools and their partners, interviewing school staff and stakeholders, and holding discussion workshops designed to elicit different people's perspectives on how collaboration worked, and whether and how it created value in their experience.

Case studies of this kind can add depth and detail to broader insights and assumptions and they can help to place the generalisations of research literature and policy principles in a deeper, more local context. Part of our aim in this research was to identify key relationships and connections between different practices and ways of working, which may only be visible at the level of practice and local community.

The findings and insights emerging from these observations were then refined by comparing them across sites, placing them in a wider framework of literature and evidence, and testing them against the perspectives of experts, practitioners and policymakers.

Case study methodology also has some clear limitations – it can uncover practices and insights to be tested further in different circumstances – but their conclusions should not be treated as valid in all circumstances, or suitable for general prescription without further testing and development.

That in part, is why our conclusions and recommendations focus on an agenda for innovation, development and research, designed to build system-wide evidence and capability to support more effective collaboration.

This report outlines what we found, and its implications for policy and practice. It concludes by setting out an agenda for what the next great education systems look like, along with priorities and actions to support effective collaboration – *The shared work of learning* – to improve learning outcomes and ensure progress for every student.

2. The findings

This report outlines the challenges and pressures facing school systems and the context in which school and community level collaboration has emerged. It provides detailed findings from three case study locations, supported by analysis of relevant literature, performance data, international practice and expert feedback. The report concludes with an agenda for harnessing the educational power of collaboration at scale, through actions designed to run across whole systems.

The case studies found that diverse schools serving highly disadvantaged students and families are using collaboration in numerous ways to support student achievement. In all three locations, collaboration results in staff, students and community members gaining access to a network of information, opportunities and expertise that would otherwise be unavailable within the confines of an individual school.

Collaboration – the sharing of effort, knowledge and resources in the pursuit of shared goals – plays a central and partially hidden role in the achievement of student learning outcomes.

Professional collaboration is deeply embedded in the culture and organisation of the case study schools. It is used to support, sustain, evaluate and refine professional learning about teaching and learning strategies. Using collaboration to access expertise, data and relevant practice is an essential part of their daily practice.

Local collaboration with other schools, universities, employers and community organisations also plays an essential role in providing the structure, resources and expertise for student achievement.

These schools use collaboration with students, parents and the community to build trust and social capital, which are highly influential in supporting a culture of high expectations, student learning and shared responsibility.

In effect, each school is actively constructing its own local learning system, actively seeking out connections and resources, and using collaboration to translate them into actions that will create value for students.

Collaboration is conducted through a wide range of flexible, trust-based relationships. It is not confined to a single team or unit, or controlled from above by principals or senior managers. Staff, students and parents are encouraged to share ideas and show initiative. A consistent, long term focus on the needs of their students provides a clear rationale for choosing when to invest time and energy in collaboration, and when to decline offers of partnership.

2.1 Seven key features of collaboration for learning

Several important factors help to explain the positive impact of collaboration in these schools.

2.1.1 Shared purpose: The commitment to learning

Strength of commitment to student learning is a distinguishing feature in the schools we studied. This commitment spurs people at these schools to seek out and develop new collaborations, in order to achieve more and transcend the limitations of school organisation, resourcing and location. Combining this consistent long term purpose with flexibility and clarity about specific opportunities for collaboration enables the schools to sustain their focus on student achievement, and to build mutually reinforcing connections between academic progress and student wellbeing.

2.1.2 Combining longevity and energy in staffing

All the schools in the case studies show a distinctive combination of long-serving senior teachers with younger, newer staff. This mix appears to maximise the value of long professional experience, and to bring fresh waves of ideas and new experience to bear.

2.1.3 Collaborative leadership

The case studies show distinctive, sustained forms of leadership, supporting collaboration to grow in ways that further a coherent direction for the schools and their communities. This leadership is exemplified by the school principals who took part personally in collaboration and, by design, also extended leadership to others.

2.1.4 Community trust, professional trust

A fourth important factor in all the locations is the significant time and energy invested in building trust with their wider community and among their teaching and support staff.

2.1.5 Drawing on external expertise

All schools we studied have a strong, sustained focus on building up the skill and effectiveness of their own staff. However, none of them is interested in reinventing the wheel or avoiding good ideas invented elsewhere. In their quest for student achievement, all the schools consistently pursue and use expertise and specialist knowledge from outside.

2.1.6 Permeable boundaries

We found that our case study schools are able to draw in external knowledge effectively because each of them sustains 'permeable' boundaries of organisation. They keep clear organisational routines and timetables, with professional and administrative structures focused on teaching and learning goals. Yet these structures do not prevent sharing time, funds, physical resources and knowledge when there is a clear purpose to do so, creating benefit for students.

2.1.7 Wellbeing and attainment: Co-evolution

A basic theme that surfaced again and again during our research is the dynamic (and essential) relationship between student wellbeing and academic attainment. All the case study schools recognise the positive long term relationship between wellbeing and attainment, and prioritise both accordingly, even when the two goals might compete for resources or attention in the short term. Over time, growth in wellbeing and in academic attainment can form a virtuous circle, increasing the positive long term outcomes.

2.2 An agenda for systemic change: Recommendations for policy and action

The report argues that leaving the momentum of educational improvement to the status quo will result in widening inequality and stagnation, at great cost to our society and our economy. Recent system and policy changes have created a welcome focus on the quality of teaching and the need for professional collaboration. However, these structures and strategies are not gaining traction in every school and for every student.

Pursuing individual school 'autonomy' while ignoring other systemic forces, or trying to force a reductionist focus on single measures of classroom practice and student performance, will also take us backwards.

"Supporting collaboration effectively for the purpose of student learning is the overwhelming strategic priority for education policy and management."

We argue for a system-wide agenda that focuses on the fundamentals of teaching and learning, and works to combine them with wider relationships to support and sustain student learning outcomes in 21st century communities and economies.

To achieve this, we argue policymakers and education system leaders must learn to understand education as a complex adaptive system – a set of relationships through which a wide range of people and activities are coordinated to create more than the sum of their parts. They must then learn how to effectively support collaboration within that system in the pursuit of student learning gains.

The system must be defined more as a set of relationships and activities through which a shared purpose is created and achieved over time. This will yield greater returns than viewing school systems as collections of discrete entities – schools, agencies, institutes and so on – with formal functions defined by policy and legislation, and performance defined solely by formal measurement.

In that context, effectively supporting collaboration for the purpose of student learning is the overwhelming strategic priority for education policy and management. It applies simultaneously at the level of teachers and students in local communities, and of systems and agencies working at the level of cities and regions.

The final section of the report sets out five priorities and fourteen recommendations for action. They are summarised below.

2.2.1   Priority 1: Identify learning need

The first leadership task for policymakers and school leaders is to give voice and visibility to the learning needs of students.

Articulating why education matters, how it is valuable, and where it is most needed in our community, is essential to any effective strategy for change. It is a task of political, policy and community leadership. This then need to be reflected in the curriculum, in classrooms, in assessments and accountability methods.

Action 1: Identify visible learning goals

- Ministers and education officials should invest in broad-based community processes to identify, discuss and develop learning goals for their education systems. Departmental strategies should include developing and refreshing these goals with the wider community.

- Through their annual planning cycles, education departments and regions should identify the learning goals that are high priority, and make them publicly visible to encourage collaboration and exchange of lessons and solutions.

- System leaders should continuously articulate, model and communicate these learning goals; part of their leadership should involve making them clear and visible to the wider community.

- Local learning systems need visible, shared learning goals and priorities, which can be articulated through various formal and informal means. System architecture and data policies should help them in this task (see Priority 4).

Action 2: Dedicate resources to learning need

Transparent, needs-based funding systems are an essential foundation of any strategy for improving student outcomes. They need to be implemented and improved in every jurisdiction.

In Australia this is an incomplete task. Completing it requires:

- the full implementation of needs-based 'student resource standard' models in states, territories and non-government systems, together with;

- a federal government funding framework that delivers an equitable allocation of overall resources and a real increase in education spending, weighted rigorously towards student need.

Much of the legislative, regulatory and data framework needed for such a system is already in place. To complete it requires a refreshed National Education Agreement and a medium term, year by year funding strategy.

2.2.2   Priority 2: Build platforms for professional collaboration

The priority for professional learning is to dramatically increase the opportunities for professional collaboration by building platforms which:

- enable teachers to work together across the organisational and geographical boundaries of school sites; and

- support professionals from different fields to work together to solve common problems across education, health, business, families and community development, including through shared service platforms.[17]

In our case studies we saw this repeatedly – in the faculty-based team structures at Canley Vale High School (CVHS) and Parafield Gardens High School (PGHS), in the formation of professional learning partnerships between the high schools and their local primary schools, and in the formation of cross-agency, cross-disciplinary working groups in Dandenong West and Noble Park.

Action 3: Every school needs a 'home group'

Local groups of neighbourhood schools must be able to work together to:

- prioritise successful transitions between schools;

- form connections between teachers with similar professional responsibilities;

- harmonise student records and assessment data; and

- build systems which support greater personalisation and continuity for students as they move from pre-school to primary school and on to high school.

These neighbourhood-based 'home groups' can form an important base layer, supporting everyday collaboration and improving the conditions and relationships that support wider collaboration.

Action 4: Every teacher should have a 'home group' too

Modelled on the use of study groups in Shanghai, Singapore, British Columbia, and the practice observed in many of our case studies, school systems should identify a study group for every teacher when they join a school, especially during pre-service training and induction. School systems should support teachers to work through study groups as one of a school's basic organisational units and a link to wider professional networks.

Action 5: Schools should get support to consider 'twinning' and 'federation' where there is a clear student-led rationale

System authorities should step up experimentation with 'federated' governance structures for schools, supporting groups of schools to come together around shared operations and leadership where there is a clear rationale for doing so.

For example, school federations in regional Australian towns can create a platform for high quality pathways for every local student.

Systems should actively promote and try out the use of 'twinning' arrangements between schools with complementary strengths and weaknesses, where there is a clear need and mutual interest in working together to fuse leadership structures and foster deep collaboration across schools. Cross-sector twinning should be actively supported.

2.2.3 Priority 3: Grow community voice

Collaboration to improve student outcomes is not solely a professional conversation.

Attitudes, relationships and decisions in the wider community also have a powerful influence on what students get from their educational experience and which resources schools can access. Building stronger relationships with the communities that surround schools leads to higher student achievement.

The answers may not arise from changes to formal governance and representation structures. They are more likely to emerge by expanding the range of methods through which local communities are engaged in talking with, and using, schools and the activities and facilities they might offer.

School systems should invest in identifying, trialling and spreading the use of community consultation, dialogue and enquiry models to increase the commitment and participation of their surrounding communities.

Action 6: Dedicate funding for cross-school community workers

Education systems should create dedicated funding streams and employment structures for staff working deliberately across multiple schools and with other community partners, supporting both professional and community collaboration across local communities. Quality youth and multicultural workers who are outwardly focused can create bridges between students, families, schools and services.

Action 7: Include student voice in decision making

There is no part of the community more invested in the success of our education system than the students themselves. Education systems should consider ways in which students can play an active role in the governance structures of schools and how their views can be recognised in establishing learning priorities.

Action 8: Develop at least three 'open access networks' for every local government area

Schools should also have the option, and the opportunity, to join at least one wider network of schools which deliberately spans a much greater scale and range of locations. This might be a system-sponsored network, or linked to a specific institution or interest with which individual schools can affiliate. For example, science and maths schools, the Great Schools Network, or networks run by universities.

2.2.4   Priority 4: Share pools of data

Collaboration relies on shared, trusted information. Systematic support for this kind of collaboration requires a revolution in sharing and using educational data. Our case studies point the way towards some of these approaches.

But data is only as good as the tools and structures that surround it, and here the organisation of schools and education systems places basic, unnecessary, constraints on using data to enhance learning.

As John Hattie argues, 'the system needs to provide resources to help schools to know their impact… What is not suggested are more tests: schools are awash with tests and data that, in whatever language they are packaged, lean only to more summative than formative interpretations. Instead, what is requested are more formative interpretations.'[18]

It is not just teachers within schools who need data to support collaborative action, but a wide range of partners working together around schools as well. Accelerating the development of 'open source' data, and public sharing of relevant data, constitute an important priority.[19]

Action 9: Remodel public sector data and evaluation structures

Education departments and other social policy agencies should commit to open data sharing and community-level data protocols. They should invest jointly with other systems and institutional partners in open data repositories and software applications for educational use.

Action 10: Build common standards for analysis, data security and categorisation

A key priority for policy is to develop architecture that promotes sharing and pooling while protecting privacy and data integrity.

Action 11: Create data platforms to support sharing between agencies and schools in 'many to many' relationships

Creating a culture of 'transparency of results and practice' is fundamental to the next stage of system change and to realising the benefits of collaboration.

2.2.5   Priority 5: Restructure governance around learning

Finally, education systems need to reshape their own accountability structures and relationships to focus more strongly on learning outcomes and to build shared capability for learning at a systemic level.

This means moving further away from the vertical, functional structures that have dominated historically, and moving towards a new combination of:

- lean, transparent accountability and coordination structures; and

- lateral, network-based relationships which facilitate sharing of resources, rapid transfer of knowledge, and voluntary collaboration across education systems.

The most important structural change is to build strategic partnerships at the level of city-regions, to focus and support the efforts of schools and colleges, and to foster collaboration with other sectors that are crucial to student outcomes and pathways.

Action 12: Develop regional collaborative structures – working with health, tertiary education and employers

Each jurisdiction needs to establish regional collaborative structures designed to support cross-institutional collaboration for student learning. These partnerships should bring together health, local government, tertiary education and economic development institutions, along with employer and community organisations, to identify and support shared actions to lift educational outcomes across their regions.

Action 13: Increase the use of challenge-based funding

In keeping with this open, problem-solving approach to planning and coordination, education policymakers should rapidly increase the use and funding of public 'challenge' structures to find and share new solutions to tangible problems.

This means creating public 'learning challenges' which spell out specific learning intentions and goals, invites participation in trials to solve them, and then publicly sharing the results and evaluation.

Action 14: Encourage Development and Research partnerships

Education systems should step up their use of Development and Research (D&R) networks to foster innovation, and to test and spread effective practices. This can be achieved by developing a range of partnership structures through which they can develop a knowledge base with expert organisations, researchers and practitioners.

This approach offers faster routes to impact and scale, more rigorous evaluation of outcomes, and clearer accountability for learning outcomes. It involves moving further beyond the traditional structures of separate policy, administration, research and practice functions.

2.3 The next great education systems

By taking these actions, education systems can create a cumulative process of change, building new capabilities to work for the specific needs and contexts they serve.

In doing so, education systems will move towards becoming complex adaptive learning systems in which:

- All students learn.

- The learning outcomes created by the system are diverse, and they are all valued outcomes, ranging from formal measures of cognitive development to collaborative, problem solving skills used in the community.

- The system functions and develops through many to many relationships, not primarily through vertical hierarchies.

- Resources are directed towards learning need: with money, professional capability and community effort focused on those students who can benefit most from them.

- There are system-wide cycles of learning.

System-wide cycles of learning

Great systems are constantly translating knowledge and information into action and capability. Just as the practice of teams of teachers is based on a cycle of designing, enacting and then evaluating the impact of their practice, so education systems will undertake the same functions on a larger scale, in the process providing a dynamic platform for progression by every student.

To do this, high performing education systems will constantly translate knowledge and information into action, capability and outcome.

"Embracing and harnessing collaboration could create the next wave of big gains in education."

To make the most of collaboration and to tackle under-achievement and disadvantage effectively, education systems need to make a further shift in their focus and priorities. They need to learn to build new capabilities in support of those goals.

Resourcing and accountability will be focussed around building and shaping learning systems – systems that actively invest, amplify and recognise the actions that lead to sustained improvement in student learning outcomes.

Systems do this by providing resources, working to form shared intentions, and supporting repeated efforts by practitioners to achieve specific learning outcomes. The capability is then applied purposefully to achieving student progression and development.

Embracing and harnessing collaboration could create the next wave of big gains in education. These gains are essential to prevent the slide of our education system into increasing inequality, and to create better outcomes, literally for every student.

This requires a radical shift in policy emphasis and political language. It does not rest on a single intervention or 'lever.' It requires us to build new capabilities out of what parts of our systems already know and can do. The good news is that this work is already happening. The challenge is to take to make it count for every student.

3. The pressures on school systems

Around the world, lifting educational achievement is a pivotal goal of politics, economics, and family and community life. Education is a priority for developing nations and industrialised societies alike, as the global economy restructures around them and they seek prosperity and sustainability. Education is a huge influence on global population and development trends and is crucial to all efforts to reduce poverty and disadvantage.[20]

Education is a priority everybody can agree on.

Over the last decade we have seen a global explosion of educational reforms, strategies and investments seeking new routes to educational progress. Yet the effort to lift student achievement remains stubbornly difficult. Tools and methods that have worked once do not reliably work when they are repeated, or imposed on different nations or circumstances. Politics, ideology, institutional fragmentation and simple human fatigue all too often prevent sustained progress in student learning.

> *"The conflicting pressures of more intense economic competition and inequality, more standardised measurement, and growing social complexity are producing contradictory results for schools and students."*

Schools, families and education systems work in a fluid and fast-changing environment. Social, cultural, economic and demographic changes all influence the experience and the outcomes of education. Some, like greater flows of information and more informed and vocal parents, can enhance teaching and learning. Others, such as higher unemployment, growing mental health problems and the changing shape of cities, create obvious new pressures. Whether these broader changes help or hinder, they all add up to ceaseless pressure on schools, teachers and students to adapt and achieve more.

In this section, we outline the pressures on schools and school systems in Australia and the central ideas that have influenced education system change over the last decade. The conflicting pressures of more intense economic competition and inequality, more standardised measurement, and growing social complexity are producing contradictory results for schools and students. Education systems are beginning to respond to these pressures, but are held back by over-reliance on competition as a driving force.

3.1 Teaching and schools: The dominant policy frame

Two growing themes have dominated education policy and political debate – quality of teaching and individual school performance.

Teaching

The growing policy focus on the importance of the quality of teaching to educational outcomes is evident in systems around the world.[21] This policy approach reflects the weight of evidence showing the fundamental importance of the relationship between teacher and student to learning outcomes, and the determination of educators, researchers and policymakers to pursue improvements in those learning outcomes. In 2005, the OECD found that across 25 countries 'the broad consensus is that "teacher quality" is the single most important school variable influencing student achievement.'[22]

"The weight of evidence shows that characteristics of the student and their family, their socio-economic and community circumstances, are strongly associated with educational outcomes."

There is substantial evidence to support the argument that teacher effects are significant.[23] However, this focus on teacher quality can also have unintended negative consequences. First, it can too easily be used as a political foil to deflect attention from other factors that are also relevant – such as family poverty, student resourcing and the fairness of assessment measures. As the OECD has suggested, these factors may be more 'difficult for policymakers to influence, at least in the short run.'[24] Acknowledging these factors may therefore be politically inconvenient or ideologically uncomfortable. But the weight of evidence shows that characteristics of the student and their family, their socio-economic and community circumstances, are strongly associated with educational outcomes.[25]

Second, the focus on individual teacher quality can also easily be translated into policies and actions that do not act to improve, sustainably, the quality of teaching and can even be counter-productive. Paradoxically, seeking to isolate, compel, prescribe or incentivise teacher quality in the wrong ways may damage or undermine the capacity of teachers and schools to offer high quality teaching.[26] While there are significant risks in focusing on individual teacher quality, they are insufficient justification for maintaining a status quo in which students lose out. The risks contribute to an argument for changing the way the education system works.

Schools

The focus of education policy, debate and politics around the world has increasingly emphasised the individual school as the unit of success or failure. This shift has its origins in the school effectiveness movement and literature. It found its place in the sun during the 1980s and 1990s as the tide turned against top-down, centrally managed, large scale public systems.[27] The focus shifted towards identifying examples of high-performing organisations (and their leaders) and seeking ways to replicate these achievements.[28]

This emphasis has varied across different countries, cultures and systems. But everywhere, the focus on individual schools and their performance has grown, along with endless debate about which are 'the best' schools. Schools are seen as the unit of effectiveness, the places where resources and knowledge are combined to create impact, or outcomes. They are regarded as the institution around which educational improvement can be built.

One expression of this trend is the global shift towards decentralisation of operational control and financial resourcing in school systems. This is especially true in Western countries, but visible all over the world. In Australia, Victoria was an early example of this change, decentralising many aspects of school administration during the 1990s under the Schools of the Future Program.[29] New South Wales, traditionally one of the most centralised and vertically integrated bureaucracies in the world, is one of the most recent to make the shift through the Local Schools Local Decisions policy.[30]

On many levels this emphasis on individual schools is correct. The quality of learning, leadership, organisation and culture does vary from school to school and has a fundamental impact on student advancement. But the ongoing emphasis on school-level performance, school-level organisation, and school-level comparison risks locking in place a set of structures, and a set of competitive dynamics, which impede the effort to secure better education outcomes for all students.

The negative effects of the school-based narrative are twofold. First, it reinforces a specific organisational model of the school, with its subject-based, age-cohort progression, standard school sizes for primary and secondary, teacher-class structure and standard hours of working and learning.

Second, it perpetuates ever-growing social competition for places in 'good schools', generating constant pressure towards social and geographical segregation, and fuelling competition between schools of different sectors with overlapping geographical catchments.

These pressures encourage 'reductionist' competition in which parents race to get their children into schools of perceived high quality and status. Yet the competitive pressures do little to encourage innovation or diversity in what schools actually provide. Evident in many countries is the tendency towards social and economic segregation that arises from combining a competitive focus on individual school performance with free markets in housing, labour and out of school tuition. In places where this segregation occurs, competition for school places accelerates the inflation of house prices, deepens existing concentrations of wealth and privilege, and reinforces patterns of social and geographical exclusion among families who cannot gain easy access to such schools and houses.[31]

3.2 Intensification and inequality: The impact of the global economy

The impact of a changing global economy, and the central role of education within it, leads to corresponding intensification of efforts to improve the outcomes of schooling.

The relationship between education and economic growth has been evident since the beginning of the 20th century but has been a significant focus for economists since the 1970s.[32] Economic literature places education at the heart of economic performance. It prioritises growth in both participation and performance in order to ensure that a country's population and workforce can act as creators of wealth and value in economic production.[33]

The dominant assumption was that the liberalising impulse was chief among organisational principles in education globally. The proposition was that this impulse 'released' competitive forces through deregulation, so harnessing competition between individuals and between organisations (schools) as the chief driver of progress.

More recent events have challenged and questioned that pervasive assumption. One challenger is the continuing acceleration of 'non-Western' nations in the effort to improve educational performance. The success of Hong Kong, Singapore, Beijing and Shanghai in global comparisons has provoked passionate debate about what might be the underlying sources of momentum in these systems, and corresponding stagnation elsewhere. While economic competition is furiously intense in these places, so are two other factors – a culture of learning grounded in families, and a capacity for collective mobilisation by governments and public institutions. This is less evident in Western nations where public alienation from politics and civic participation has grown.[34]

Recent PISA improvers in Europe, such as Poland and Germany, have an intriguing hybrid of free market and command and control experiences.[35] Is it the 'unleashing' of competitive spirits that has driven improvement, or some latent capacity for shared endeavour which their educational strategies are drawing on?

The Global Financial Crisis produced the second big challenge to the deregulatory impulse. The crisis sent many countries and states into recession, with the consequence that public spending on schools was severely disrupted as governments sought to repair their budgets and ration scarce resources. In some countries (including China, the USA and Australia) education became a focus for economic stimulus.[36] Policymakers

sought to counter the effects of the economic trough by investing in education infrastructure, funding teaching staff who would otherwise be laid off, and promoting increased student participation rather than allowing the damaging long term effects of more people becoming unemployed.

The medium term impact of the global recession though, has been to limit the financial resources available for education spending, and to focus greater attention and emphasis on achieving cost-effectiveness and value for money. For example, average annual growth in recurrent spending on schooling by Australian states fell from an average 5-6 per cent from 1998-2008, to 1-2 per cent in 2009-12.[37]

Now the initial shock has worn off, the education landscape revealed as we emerge from the global recession is one marked by inequality. The examination of who has continued to prosper, while large parts of the global economy have stood stagnant or contracted, has refocused attention on deeper issues of inequality.[38]

A new global debate has broken out about the role of capital – accumulated and inherited financial wealth – in creating inequality over time, and in shaping people's chances in life.[39] The distribution of educational opportunities and experience plays a profound role in life chances. Both public policy and social choice are instrumental in shaping the role education plays in either exacerbating or alleviating inequality.

As economic policies have moved further towards competitive deregulation, so market returns also drive educational investments. To manage public costs, many governments have moved towards new ways of funding education so that individuals contribute some of the costs, especially of post-compulsory learning, and market dynamics are used to set course fees and costs.

Recent Organisation for Economic Co-operation and Development (OECD) analysis shows how growth in spending on 'high level' skills has increased far faster than for lower-level courses since the 1990s.[40] For individuals – or individual firms or institutions – this is rational on a certain level. It makes sense to invest more money in areas of skill formation that will yield the greatest returns. Advanced degrees in applied mathematics, microbiology and computer science may fit that bill right now.

One emerging consequence of this shift is that overall, investment in education is made in those who are already the best-resourced. This will have the effect of widening inequality unless counterbalancing actions are taken to ensure that all citizens, all students, benefit from investment that increases their skills and their ability to participate successfully in the changing economy.

Overall, to invest only in the individuals who can profit from the most selective, highest return opportunities will actually harm economic growth, opportunity and community wellbeing. A recent International Monetary Fund analysis found that inequality can be detrimental to growth but that equality-enhancing measures, including redistribution and education, can in fact help growth.[41]

The costs of inequitable schooling are high

Both the social and economic consequences of this trend are highly undesirable. Yet in many countries, including Australia, the pressures in the ways we organise schooling are pushing us in this direction. If schooling choices are dominated by competition, selection and the concentration of wealth and poverty by social geography, greater inequality will be the result. People who begin the 'educational race' with least will start further and further behind, and receive less and less support to find their own way.

Current evidence shows that these pressures are real, and growing, in Australia. The 2009 ABS Survey of Education and Training (SET) showed that while year 12 attainment of young people (20-24 years) rose from 70 per cent to 75 per cent between 2001 and 2009, it did not rise among those who are most disadvantaged.[42] For those living in the most disadvantaged areas it fluctuated between 50 per cent and 60 per cent. That trend continues into higher education – only 19 per cent of young people (20-25) in the most disadvantaged areas of Australia had attained or were working towards a bachelor or higher qualification, compared to 54 per cent

among the least disadvantaged areas.[43] Of all university students only 15 per cent are from a low socio-economic background.[44]

> *"Access to high socio-economic status schools is being restricted by the ability to pay, effectively segregating high socio-economic students into separate institutions."*

Parental educational inequality also affects social mobility. The Longitudinal Study of Australian Children (2013) found that children's engagement in school was associated with parents' education levels and paid employment. Children of parents who did not complete year 12 had lower levels of engagement, and children of parent(s) who were not in paid employment had considerably lower engagement in school.[45] Australian Bureau of Statistics (ABS) data from 2009 shows that this effect continues into year 12 attainment, with people aged 20-24 years more likely to have attained year 12 if both their parents/guardians had attained year 12 (90 per cent), compared with one or neither parent/guardian having attained year 12 (78 per cent and 68 per cent respectively).[46]

This inequality is leading to social segregation in Australia. The Victorian real estate industry reports that houses within the catchment of 'good' schools attract a significant price premium estimated at 10-15 per cent.[47] Academic research on housing prices and school quality in the ACT supported that impression, finding that a 5 per cent increase in school test scores is associated with a 3.5 per cent increase in house prices.[48] Often this 'selection by mortgage' reinforces the effects of academic selection, which takes children into schools on the basis of their academic performance. For example, 71 per cent of students at Melbourne High School (a select entry school and one of the highest achieving state schools in Victoria) come from the wealthiest quarter of the Australian population.[49] That is nearly three times the concentration of wealth we would expect if academic success was blind to the advantages created by wealth – or in other words, was based solely on merit.

At Princes Hill Secondary College in North Carlton, the median house price in the local neighbourhood was $1.1 million.[50] Students from outside the local catchment can apply if they have a specific 'curriculum ground.' The school will take students from wider Melbourne if they have learned to speak French or play two musical instruments by the age of 11. While it is possible to assess these achievements purely by performance, the demographic characteristics of children with these skills are not hard to predict.

For another illustration, compare the voluntary fundraising experience of two neighbouring primary schools in Melbourne. At Clifton Hill Primary School, the My School website shows that 77 per cent of students come from families in the best-off quarter of the Australian population. The school raised more than $108,000 at their 2014 fete. Just over a kilometre south of Gold Street, down Wellington Street and over Alexandra Parade, is St Joseph's Catholic Primary School. The My School website shows that 70 per cent of St Joseph's students come from families in the lowest quarter of socio-economic advantage. Their fete made $14.36 profit.

Data on education spending illustrates the rapid pace at which the gap is widening. NATSEM analysis of average family spending on education found that between 2003-04 and 2009-10 spending on pre-school/primary education increased by 79 per cent, and average family spending on secondary education increased by 101 per cent.[51]

"There is a fundamental question facing education systems at every level from early childhood through to lifelong learning. Are they moderating the dynamics of inequality by developing talent and creating opportunity across whole populations?"

Higher socio-economic status students are drifting out of the government education system into academically and socio-economically selective schools in all sectors. This drift risks exacerbating disadvantage and entrenching inequality. Analysis of Australian 2003 and 2006 PISA results confirms the long held impression that the mean socio-economic status of schools is strongly associated with academic outcomes, regardless of the individual socio-economic status of a student: the higher the mean socio-economic status of a school, the higher the level of academic attainment.[52]

Access to high socio-economic status schools is being restricted by the ability to pay, effectively segregating high socio-economic students into separate institutions. Students with low socio-economic status are then less likely to attend school with middle and upper socio-economic status peers, and the relationships between school socio-economic status and student achievement intensifies.[53] If allowed to continue in this fashion, without measures to mitigate the negative effects of stratification on the basis of ability to pay, Australia's education systems risk undermining the equity, fairness and inclusiveness for which they have been recognised.[54]

This is further exemplified by the widening gap in life chances between those who achieve high-level educational qualifications and those who do not.[55] Compared to the USA and UK, Australia has contained levels of income inequality, largely as a result of its progressive and targeted tax and transfer system. But recent dynamics of global change, and new bodies of evidence, point to the fundamental importance of assets (housing, financial capital) and marketable knowledge and skills in driving inequality.[56]

There is a fundamental question facing education systems, at every level from early childhood through to lifelong learning. Are they moderating the dynamics of inequality by developing talent and creating opportunity across whole populations? Or are they reinforcing inequality by concentrating the most lucrative and highest status opportunities in the hands of students who are already advantaged by family and community circumstances?[57] As Andrew Cuomo (the recently re-elected Governor of New York) put it, education has been the 'great equaliser' could now become the 'great discriminator.'[58]

When these trends are combined – a growing social and economic emphasis on the importance of education, an increasingly intense competition for places at 'good' schools, and a shortage of additional public spending – they add up to a huge challenge for education. It is a challenge felt by policymakers and practitioners alike.

3.3 Australia stagnating and going backwards

In this context, it is not such a surprise that in many systems educational steps forward are matched by slippage backwards.

On the one hand, central policymakers (at national, state and regional levels) feel ever-growing pressure to make education a priority and to demonstrate progress. For example, the recently elected Andrews government in Victoria has pledged to make it the 'education state.'[59] On the other hand, the 'systems' of schooling (including the social and economic systems that surround schools) are more and more fluid, fragmented and unequal.

Australia's performance since the introduction of NAPLAN has registered little discernible change. The 2013 NAPLAN results reveal a moderate improvement in year 3 and year 5 reading (19 and 18 scale points respectively) but almost no change in year 7 or year 9. Numeracy results have remained unchanged at every level between 2008 and 2013.[60] The findings are worse in OECD international PISA testing for reading and mathematical literacy where Australia went backwards (and scientific literacy remained unchanged) between 2003 and 2012.[61] Australia has reshaped much of its schooling policy architecture for the better over the last decade, through the curriculum, transparency, professional standards and longer term funding agreements. But these changes are not enough to achieve progress in student outcomes without a stronger connection to the practices of learning and teaching.

The search for momentum and progress in schooling systems involves questioning how to mobilise whole systems – thousands of teachers and students – in systems that are increasingly diverse, decentralised, fragmented.[62] In Australia, some focused initiatives have had modest achievement; for example, the Smarter Schools National Partnerships, created and funded by the Commonwealth government in collaboration with state and non-government school systems, showed that some progress is possible, including in schools serving disadvantaged students.[63]

3.4 The power of data

Alongside these changes is a new factor in education: the growing use of performance data to structure educational decision making. Having this data available has had huge effects on the focus of schooling policies and the ways in which systems pursue progress.[64]

Standardised measurement with technologies which allow for large-scale comparison, and the ongoing analysis of these measures, has led to an explosion of measuring, counting and ranking exercises. The growth of large scale measurement and data analysis is a worldwide phenomenon with national systems increasingly choosing state and national testing.[65] The assumptions on which standardised testing are based are much older. Internationally, tests such as Trends in International Mathematics and Science Study (TIMSS) (first administered: 1995), PISA (2000), Progress in International Reading Literacy Study (PIRLS) (2001) and Teaching and Learning International Study (TALIS) (2008) are now in their maturity and this internationally comparable data is readily available. Over the last two decades data about millions of students has been aggregated, synthesised, reduced to 'headline conclusions', and used to evaluate performance and to define the relative success of schools and systems.

In Australia, the introduction of NAPLAN testing (2008) and of My School (2010) created an entirely new basis on which to compare, analyse and understand system-wide educational performance. For the first time in Australia, it is possible to contextualise the attainment of students in different schools, and different types of schools, against their socio-economic backgrounds. My School allows the comparison of rates of student progress in different schools, including by comparing schools with their 'statistical peers.'

Using data to improve learning and teaching

On balance, these changes are a good thing. Where it is possible to gather data and seek rigorous evaluation of impact, it is worth doing. However, much of the use of data has been channelled into very specific technologies and techniques which offer benefits, but also raise problems and challenges. The existence of widespread and detailed data raises questions of what we judge, who judges, and who acts.

Around the world the repeated experience of education systems, and reforms, is that knowing that something is the case does not translate automatically into knowing how to act on the evidence. Instead, much of the

activity around data and measurement has fed a deep anxiety among education practitioners about power and control, and led to conflict over the interpretation of the results and the priorities that arise from them.

Perhaps the most visible manifestation of the power of the data agenda – and the anxiety that it creates – is reporting of the OECD's PISA program.[66] PISA tests reading literacy, mathematical literacy and scientific literacy across 32 OECD countries and 35 partner economies. Indicative of the expectations placed upon these measures, the Australian Council for Educational Research's (ACER) report on the 2012 PISA was titled *How Australia Measures Up*.[67]

New possibilities, and new anxieties, are now created by the next generation of data technology applications. Big data enables the analysis of factors previously dismissed as 'contextual' (such as social networks and demographics) alongside standardised data categories such as exam results, supermarket transactions or hospital episodes. Large-scale predictive data presents the possibility of examining the trends and patterns in different people's behaviour to identify risks and opportunities in their futures.[68] For education big data offers the potential to allow for more complex analysis of data gathered (educational data mining) and the development of predictive learning analytics.[69]

Very often the visible debate about these data applications is about the validity – the meaning – of the data itself. But there is always a subtext about the dynamics of power and control created by the existence of the data itself – about who gets to access it, and who gets to make decisions based on it.

3.5 Evidence and judgment

The rise of data has been accompanied by a growing focus on the role of evidence in educational policy and practice – and the search for ways to use evidence to improve learning outcomes.

This focus on evidence is apparent in many policy initiatives; for example, the Education Endowment Foundation in the UK began with a GBP £125 million grant from the Department of Education as a grant-making charity to evaluate and 'secure the evidence on what works.'[70] Where it is perhaps most visible is in the extraordinary spread of John Hattie's work on Visible Learning. His book, based on 30 years of work synthesising and reflecting on research evidence, has achieved what almost no centrally or commercially conceived intervention could – it has reached and engaged teachers in schools, prompting them to reflect on how to shape their own daily practice according to the available evidence.

A couple of crucial factors explain the spread of Hattie's work. The work is clear and accessible, firmly grounded in high standards of evidence. It is built around the idea of teaching and learning as the fundamental work of education. It adopts a format for presenting findings and communicating conclusions that is accessible to teachers, meaning that teachers can relate it to their personal practice, and that they can rank and compare different strategies in order of impact or salience.

Importantly, Hattie's work reinforces the idea that professional judgment is at the root of great education – and that educational strategies have to find ways of supporting and improving that judgment. His arguments in favour of visible learning begin from the premise – supported by his meta-analysis – that almost every strategy that is tried in education can 'work' in some way. This is enormously comforting to educators and leads to a discussion about what works most. Millions of teachers around the world now participate in efforts to 'know thy impact.'

Yet the challenge of moving from 'knowing that' to 'knowing how' – putting it into practice in a systemic way across thousands of locations – is still extremely difficult to achieve.

Even more challenging, one unintended effect of the response to Hattie's injunction to 'know thy impact' is to exacerbate a much greater risk in education policy – the separation of 'within-school' from 'beyond-school' factors as influences on student learning outcomes. This artificial separation is a barrier to achieving better outcomes.

3.6 School versus home: A false dichotomy

The cumulative emphasis on teaching and schools, the standardisation of performance data and the focus on using evidence better, all reinforce a conceptual distinction which does not exist in the lives of students. That is the idea, commonly reflected in policy debate around the world, that there is a basic separation between the professional and organisational impacts of the teacher and the school, and the social and cultural impacts of the home and the community.

Hattie's research synthesis shows that, in the round, the actions and decisions of teachers are not the most potent effects on student learning outcomes – but only the most potent within the school. Hattie found that student themselves account for about 50 per cent of the variance in achievement, the home an additional 5-10 per cent, schools a further 5-10 per cent, peers 5-10 per cent, and teachers 30 per cent.[71] Hattie argues, as a result, that we should focus on 'the greatest source of variance that can make a difference – the teacher.'[72] This is a reasonable conclusion if you assume that the other, wider factors, cannot be positively influenced through education. But the evidence, and the specific case studies we examine later in this report, show that there is variance in student achievement that can realistically be influenced for the better.

These possibilities are closed off by the assumption that only the impact of the teacher within the classroom should be the focus of policy, and that individual schools are the key unit of effectiveness. The working assumption is that teachers cannot be held accountable for influences beyond their control. In system after system, debate after debate, separating 'student, family and home' factors from 'school' factors becomes inevitable.

However, as we outlined earlier, the widening inequalities in many 'beyond-school' factors are creating negative effects in educational outcomes. Ignoring them leads to the perpetuation of inequalities and entrenched disadvantage that are bad for everyone.

Reinforcing the separation between 'within-school' and 'beyond-school' factors screens out many potent opportunities for lifting student achievement by building supportive relationships between, and extended learning opportunities for, students and their families. In practice, agencies other than education have traditionally taken responsibility for these beyond-school factors. To strengthen the relationships that can improve educational outcomes requires collaboration.

But because the other factors cannot be controlled by professionals working within existing schools they are too often assumed to fall outside a realistic repertoire of action.

Our silo-ed structures of government hamper the search for complementary strategies – actions which address the quality of student-teacher interactions within the school, *and* the wide spread of relationships which influence learning outcomes outside the school.

In that view, schools are the responsibility of education departments. Everything else is the domain of health and community services departments. Research reinforces professional assumptions which in turn entrench fragmented, competitive bureaucracies.

In fact, Hattie's research does not support this separation of 'within-school' and 'beyond-school' factors. His ranking of factors shows that according to the evidence socio-economic status has an impact comparable to study skills, direct instruction, and cooperative learning.[73] Even more telling, he shows that the quality of the

'teacher-student relationship' actually has a greater effect than 'quality teaching' per se. Hattie's analysis is built on the idea that it is the relationship – the interactive exchange of information and learning – between student and teacher that is the avenue to better outcomes. Seeking out and strengthening 'visible learning' is the great opportunity for deepening these connections.

> *"It is the job of the system to think about the whole student – but different methods, and different structures, are needed to make that a reality."*

In *Visible Learning*, Hattie also discusses the impact of a New Zealand project designed to engage parents of low socio-economic students in supporting their children's educational effort. The Flaxmere Project taught parents the 'language of schooling.' It shared concepts, methods and words that are routinely used by schools and professionals, but are unfamiliar to people who do not have their own extensive experience of education. Here is an example of co-production by both school and family, using common understandings of learning to support the student together.

This is not an either-or choice. It is not the case that reformers and educators must choose between a 'teacher quality' path to progress, or an 'anti-poverty' path. Yet the broad education policy debate too often presents it in these terms.

Instead, the question should be: how can we realistically address both sets of factors? And 'realistically' has to include cost-effectiveness.

It is the job of the system to think about the whole student – but different methods, and different structures, are needed to make that a reality.

3.7 System change

When we turn to recent system change efforts in schooling, these tensions become quickly evident. Many systems are pursuing two parallel trends – explicitly defining standards and 'evidence-based reform', alongside greater devolution and diversification of school organisation and supply.

In Australia, this emphasis has shown up in national reform in a series of ways. Through the design and adoption of national professional teacher standards, and through a shared national focus on school improvement, school performance and school development (for example, the national school improvement tool, and numerous 'performance and development' frameworks introduced by state and non-government systems).[74]

> *"What is rarely front and centre in discussion of system-wide improvement is the question of how schools interact with wider systems – both the formal system of governance and accountability, and the socio-economic system of employment, opportunity and advantage."*

Australian schooling now works within a largely shared framework for curriculum, professional standards, broad funding criteria and performance measurement. While states retain their own secondary school certificates and assessments, their participation in standardised student rankings for university entry (ATAR) means these certificates are not dramatically different from each other. This leads to a narrow form of excellence that excludes many other potentially valuable forms of student achievement.

The issue is not a lack of diversity. The issue is that growing social and pedagogical diversity is not being harnessed to support student learning systematically and, instead, risks becoming part of a story of growing inequality.[75]

This is not to say that policymakers have given up on the idea of improving whole systems of education – far from it. But the goal of system-wide improvement is expressed primarily in terms of making 'every school a great school', or 'bringing up' all individual schools to the level of performance achieved by the best.

What is rarely front and centre in discussion of system-wide improvement is the question of how schools interact with wider systems – both the formal system of governance and accountability, and the socio-economic system of employment, opportunity and advantage. Two more recent changes bring this question into dramatic focus. In recent years school systems have shifted decisively towards greater decentralisation of decision making and funding management.

Decentralisation does not automatically lead to higher outcomes. Only where priorities and objectives are clearly established and widely shared does greater flexibility over resources and organisation contribute to better performance.[76]

For example, Victoria today has one of the most devolved school systems in Australia having begun the process in the 1990s with the Schools of the Future Program. Schools are highly autonomous. They control decisions on budgets and subjects taught, and some workforce hiring and performance appraisal, while the Department of Education maintains control over major capital works and principal appointments, employee classification and remuneration rates.[77] In New South Wales, the traditionally centralised education system has embarked upon a process of decentralisation since 2012. Under the *Local Schools Local Decisions* program schools will have increased authority over managing resources and staffing, and a new funding model (the Resource Allocation Model).[78] At the same time, systems have begun moving towards 'networked' and collaborative governance, as policymakers seek the 'joining up' of services to meet specific local needs more flexibly and, in some cases, cheaply.

Recently in 2014, South Australia restructured schools into a Local Partnership model, clustering together pre-school, primary and secondary schools into 60 partnerships based on geography. These Partnerships require site leaders to come together to develop improvement plans including targets in learning achievement, wellbeing and engagement, parent and community engagement and leadership capacity building. Supported by an Education Director, the Local Partnerships emphasise providing schools with opportunities to share good practice, resources and leadership.[79] This restructure has included substantial reorganisation of specialist support services for pre-schools and schools to emphasise greater integration of different services, such as psychology, speech pathology, social work and so on, greater engagement of families and front line support for teachers.[80]

Collaboration is essential in decentralised education systems

In Australia, as in many places around the world, education systems are going through great transition as the structures of governance, accountability, resourcing and knowledge-sharing are reshaped and rebuilt. There is growing emphasis on local flexibility, self-improvement, quality of teaching and school-level management of people and resources. In all these systems, policymakers have made a positive commitment to building knowledge, expertise and capability – for example New South Wales has established a new Centre for Education Statistics and Evaluation, and Victoria has the Bastow Institute of Educational Leadership.

But how does such capacity reach the places where it can make the greatest difference? We found that in many cases the process of restructuring and reorganisation has left schools uncertain about what support they can count on, and how they could relate to the wider system to which they belong. These questions, and the pressing needs for learning gains that stand behind them, prompt further discussion of the promise of collaboration.

4. The promise of collaboration

The emphasis of educational improvement strategies has intensified over the last two decades, creating pressures to improve learning outcomes in ways that are faster, cheaper and more sustainable.

The emphasis on the individual school as the unit of effectiveness continues to increase, but there is a growing focus on the needs and progression of each student. In focussing on the needs of individual students, there is growing attention to the impact that teaching relationships have on student outcomes, and to the impacts of other relationships within and beyond the school.

> *"Along with this evolving social reality, our economies increasingly demand people with the skills to participate successfully in collaborative work and organisation."*

In this context, interest in using collaboration in education has grown enormously.

Collaboration is the sharing of effort, knowledge and resources to pursue shared goals.

Collaboration is increasingly sought after in education (as well as in other sectors) because it seems to offer three key benefits:

1. Efficient coordination, of shared activities, avoiding the perceived cost and rigidity of centralised, bureaucratic organisational structures.
2. Authentic engagement and relationships built through voluntary, reciprocal action, which may moderate the fragmentation and isolation caused by intensive, silo-bound competition.
3. Flexible, differentiated support that matches teachers and learners with specific sources of support tailored to their specific needs and objectives.

Growing interest in collaboration within formal education coincides with a much broader shift, driven by changing social values and digital technology. That shift can be characterised as the transition to a 'network society', in which the dominant forms of coordination and exchange in both the economic and the social spheres are information networks, and where social identities and institutional forms evolve to reflect the ongoing impact of such networks.[81] Social and electronic networks make possible many new ways to access, share and coordinate information and services. Our personal, social and work lives, and those of children and teenagers, are evolving to reflect this.

Along with this evolving social reality, our economies increasingly demand people with the skills to participate successfully in collaborative work and organisation. Value and profit are created through innovation and differentiation. Skills increasingly prized in interconnected economies include working together through projects, integrating and applying information in complex environments, and using interpersonal skills to engage, persuade, coordinate and negotiate with others. This is reflected in growing expectation that schools will develop these skills and capabilities in their students.[82]

4.1 Networks and collaboration in schools

We have seen explosive growth of experimentation in networking and collaboration, starting with early efforts such as Finland's Aquarium Project, England's Networked Learning Communities and California's Bay Area School Reform Collaborative.[83]

Many of these efforts were designed to explore the spaces between formal institutional structures. They harnessed the enthusiasm and voluntary commitment of teachers for sharing knowledge and innovating new practices, beyond the formal scope and control of officially mandated accountability structures and improvement strategies. In this, they reflect a longer history of social movements in education, in which new pedagogical approaches or philosophies have grown through networks, even before the internet offered cheap, instantaneous information sharing tools.[84]

Recent growth has taken place around three main areas: collaboration among teachers, collaboration between schools, and collaboration between schools and partners in the community.

4.2 Collaboration among teachers

There is an ongoing shift away from the idea of an individual teacher being largely responsible for their own practice, working alone in front of a class. More and more, school organisation emphasises team structures through, for example, subject faculties. Schools are experimenting with team teaching in which pairs or small teams of teachers jointly run lessons with shared classes that they can then subdivide into smaller, more flexible groups of learners.

Just as significant is growing collaboration and networking among teachers in order to share professional knowledge, improve teaching practices and undertake professional learning.

Such activities have always been undertaken by professional and subject associations, by providers of expert coaching and specialist teaching expertise, and by organisations including teacher unions. There are thousands of organisations and networks offering teachers the chance to participate, learn and share in different ways with teachers across school, district and system boundaries.

Online forums like the New York Times Learning Network and the Guardian Teacher Network provide opportunities for interaction, lesson planning ideas and educational resources.[85] Education blogs,[86] podcasts[87] and orchestrated twitter chats[88] all provide ways for teachers to network online. They provide professional development across systems, sectors, borders and oceans.

In some respects, teacher networking is now reaching an unprecedented scale as traditional institutions, media, professional associations and curriculum authorities morph into an uncharted space of digital content creation and sharing.[89]

4.3 Collaboration between schools

Perhaps the greatest and most visible growth, with the most immediate impact on school systems and governance, is growing collaboration between groups of schools through forming into named, and sometimes branded, networks.

This manifests differently depending on context. For example, in England the controversial focus on free schools and academies has led to the formation of different networks and 'chains' of schools, including Specialist Schools and Academies, Federations like the Harris Federation, Academy Trusts (of various kinds) and, intriguingly, the Cooperative Schools movement.[90]

Other systems have also seen growing school to school collaboration. They have experimented with creating various dedicated networks for different purposes. For example, some independent schools groups in Australia have formed into 'systems', such as Lutheran Education Australia.[91]

Public education systems have also formed networks to pursue collaborative school improvement. From 2006-2010, the Victorian government formed regional networks of schools, coordinated through regional Departmental structures. They used dedicated funding to pursue area-based improvement strategies. One Victorian success story was the Northern Metropolitan regional network's Achievement Improvement Zone initiative (AiZ, subsequently called the Powerful Learning strategy).[92] This program took targeted national funding (Smarter Schools National Partnerships), and State System Improvement funding, and applied it to a collaborative improvement agenda.[93] The results showed that it is possible to achieve significant improvements in outcomes, and perhaps to sustain them.[94]

More recently other networks of schools have emerged, working together and independently from government (such as the Great Schools Network)[95] and schools working in partnership with universities (such as the University of Melbourne Network of Schools).[96]

4.4 Collaboration between schools and partners in the community

There is also growth in joint work, partnerships and collaboration between schools and other partners in the community, such as:

- local community organisations;
- service providers like primary health, family and social services;
- employers; and
- universities and colleges.

This growth is more controversial and more wide-ranging – what is its focus, what is its value, how far is it the core role and responsibility of schools, does it lead to corporatisation?

The OECD's six *Schooling for Tomorrow* scenarios developed in 2001 included a scenario of 'schools as core social centres.' In this scenario schools were envisaged as high-status community institutions providing a bulwark against social fragmentation. The scenario argued that through 'greater resource equality, experimentation, school autonomy, and shared roles' schools could contribute to social capital development.[97]

The notion of 'extended' schools has been explored around the world over the last two decades, including Australia. In the UK, Full Service Extended Schools were trialled to provide extended childcare, homework and study support, extracurricular tuition and activities, referrals to specialist health services and parenting support.[98] One prominent example of this work is Tower Hamlets where the provision of external, integrated council services and the development of community partnerships were two key foci that drove education transformation in the borough.[99] Similarly in the USA, since 1994 the Children's Aid Society and the New York City Department of Education have collaborated on developing Community Schools that provide extended hours and an extended range of services to communities and students.[100]

More recently in Australia, The Smith Family trialled school-community partnerships with the Kurnai Education Hub and the Wyndham Extended School Hub in Victoria, and the Swan Extended School Hub in Western Australia. These partnerships are designed to cater to student and community needs, connecting community agencies and services with students and parents.[101] In an example of the growing interest in this kind of

collaboration, the Schools First Awards program (an initiative of the Foundation for Young Australians and ACER) was developed and is focussed on school-community partnerships. The program offers significant prize funding for relationship building.[102]

The Catholic education system's initiative, Schools As Core Social Centres, was developed in conjunction with VicHealth. It has refocused the role of schools for the Catholic Education Office in Melbourne.[103] Fundamentally, the initiative brings schools together in clusters to engage with communities as 'outward-facing learning environments.'

Collaboration has expanded greatly, accompanied by confusion about purposes and level of value for those participating. How does collaboration work? How should it work? Does collaboration align with existing markets for support services? Where should we focus collaborative effort in education?

4.5 Understanding collaboration

This report pursues a deeper understanding about the roles of collaboration in the work of schools – roles that effectively support student achievement amid challenging and disadvantaged circumstances.

As this chapter has outlined, many Australian schools are already involved in collaboration in many different ways. But what do we know about what collaboration can help to achieve?

The case studies completed for this research focus on schools serving disadvantaged communities. In these schools collaboration is a strong feature of their approach, and student achievement is higher than would be expected for students in similar circumstances.

One case study was selected in each jurisdiction participating in the project. In each location a team of project investigators conducted interviews and document analysis with principals, teachers, former students, parents, partner organisation representatives, and community members.

At the local level the research questions focused on:

- What leadership behaviours and qualities contribute most to collaborative impact?

- What forms of organisational infrastructure support and enable collaboration, and how are they developed and maintained by different high impact local learning systems (HILLS)?

- What are the most important sources of feedback and learning underpinning HILLS?

At the system level the research questions focused on:

- What are the boundaries to the spread of collaborative learning and impact?

- What changes would unblock the transfer of learning and capability across wider systems of schooling?

- What role is played by system-wide strategy, governance and decision making?

The task was to understand both how the individual schools work, and whether and how they fit into a 'local learning system' of relationships that consistently supports the educational achievement and development of students.

5. The practice: Case studies in South Australia, Victoria and NSW

5.1 Parafield Gardens High School, South Australia

Nestled by the highway half an hour's drive from Adelaide's central business district sits Parafield Gardens – a testament to the 1970s dream of modern, planned communities. The Parafield Gardens High School (PGHS) was founded in 1976 to serve the growing local population of families moving into a new neighbourhood from many different points on the globe, hoping to share in the post-war Australian dream of secure jobs and housing, accessible health and education services, and a better future for their children.

The reality, as economic shocks of the 1970s gave way to the industrial restructuring of the 1980s, was somewhat different. While many of the policies pioneered by South Australian governments led to greater opportunity and equality, in Parafield the mix of ethnic diversity and economic marginalisation turned sour.

Unemployment in the area has remained stubbornly above national and state averages. The neighbourhood continues to struggle with the realities of economic restructuring in northern Adelaide. In 2011, across the City of Salisbury (the local council area which includes PGHS) the unemployment rate was 7.3 per cent (with a youth unemployment rate of 14.7 per cent). In some suburbs rates were as high as 14.8 per cent (youth unemployment rate of 28.7 per cent). Australian Early Development Index (AEDI) scores for Salisbury in 2012 show that the percentage of developmentally vulnerable children in the area is higher than for the state as a whole in each of the five AEDI domains (physical health and wellbeing; social competence; emotional maturity; language and cognitive skills and communication; and general knowledge).[104] In Parafield Gardens, 35.6 per cent of the population are born overseas, with the largest non-English speaking background communities coming from Vietnam (5.4 per cent), Cambodia (2.2 per cent) and the Philippines (2.2 per cent).

In the late 1990s and early 2000s social tensions broke out into ugly race politics when a family living near the school was part of an anti-Asian immigration campaign orchestrated by National Action.[105] Students found that in coming to school they faced the risk of violent attack. Some groups of students began to organise themselves for resistance and retaliation. School staff had to deal with the threat of violent incidents, compounded by a campaign of racist intimidation and hatred. Sensational media reporting exacerbated the perception that PGHS was an unsafe place.

A school founded to embody the 'comprehensive ideal' of the 1960s and 1970s – secondary education accessible to all, serving the full range of student needs and providing the basis for successful pathways into work and study – found itself struggling with low morale, chronic instability and social conflict. Since 1990, PGHS has had 11 principals. At its worst it faced the upheaval of three principals in three years. The difficulty it found in attracting and keeping leaders undermined its efforts to provide high quality education, and the attitude of its students and local community reflected that reality.

Putting the future first

This mix of isolation, suspicion and community division hardly seems fertile ground for the growth of educational achievement. But in some ways the boiling over of long standing community tensions was the impetus for the staff and parents to take a stand. They stood against ignorance, prejudice and fatalism and for the interests and futures of young people growing up in and around Parafield Gardens.

"In the absence of trust, hope, economic investment and strong connections to job opportunities, such diversity of student need can too easily be treated as an educational burden."

This positive, long term commitment to the future turned out to be the kernel of what today has become a flourishing community of learners. They use persistence, collaboration and a deep commitment to the value of learning to make real progress towards the comprehensive ideal the school was founded on.

Today, PGHS serves a diverse community with complex, pressing needs, heightened by relatively high levels of unemployment and disadvantage. The student population includes around 21 per cent from non-English speaking backgrounds, and 4 per cent Aboriginal and Torres Strait Islanders. Some 11 per cent of students are on a Negotiated Education Plan (for students with a disability) and 42 per cent of all students are on School Card, a funding support program for low-income families. The school's student profile reflects what has happened to its surrounding community over the last two decades, and the struggles through which their families are living.

In the absence of trust, hope, economic investment and strong connections to job opportunities, such diversity of student need can too easily be treated as an educational burden. The challenge facing PGHS has been how to convert the diversity of experience and need, brought through the door every day by its students, into a positive commitment to learning that will eventually pay off through educational achievement.

Collaborating for student learning

The school's commitment to collaboration is central to how it has met that challenge, combined with its deep, unrelenting focus on the importance of student learning and on using every possible opportunity to improve it. The school's own description of its moral purpose gives a clear guide to its methods:

> PGHS, a partnership of students, staff, parents and the community, encourages every student to be the best they can be now and for the future, providing a caring and supportive environment with a culture of high expectations.

The school has developed a distinctive and powerful mix of professional focus on student progress within a wider culture of shared learning. Over the last decade, the relationships and methods built by the school have enabled it to support the educational progress of all its students, while creating positive effects in the surrounding community.

The school's principal, Nanette van Ruiten, is a smiling, fast-talking, force of nature. She combines a no-nonsense, non-stop sense of purposeful activity with an easy-going warmth and sense of welcome that is evident in her dealings with teachers, parents and students alike. By her account, and that of many of her colleagues, the process of creating educational achievement began with the decision made collectively by the staff that they that they wanted to make a positive, long term commitment to the school, despite the difficulties it faced.

External pressures were interfering with the school's ability to offer high quality education, but the staff did not choose to ignore these pressures, or to seek excuses for underachievement in a lack of external support, resources or expertise. Instead, they found within themselves and the school community the basis for a commitment from which long term achievement could eventually flow.

PGHS has always benefited from having some teachers who lived in the local area. Others, even when they live in other parts of Adelaide, have joined in making a sustained commitment to the life of the school and the success of its students. But personal commitment, however strong, is not enough to guarantee educational

outcomes. Nanette and her team also knew that to build the kind of school that could offer excellent education for every student, they needed to find a basis for organising it that was grounded in professionalism.

PGHS has done this by developing a set of positive relationships and expectations that are used to underpin individual student learning and help them to overcome many of the risks and pressures created by their family and community circumstances. Since 2006, PGHS has drawn upon the Council of International Schools accreditation program, using the accreditation framework as a tool for school improvement. The school has developed initiatives to improve student outcomes. It is a Trade School of the Future with a strong vocational education and training (VET) program. It is a tutorial centre and offers a series of intensive literacy intervention strategies. In 2011 the school began an acceleration program.

The Parafield Gardens High School local learning system

Recent South Australian Certificate of Education (SACE) achievement data indicates that PGHS is having a significant and positive impact on student progress in learning. Between 2001 and 2014 the school's SACE completion rate has improved from 66 per cent to 99 per cent. There has been a significant increase in students achieving A and B band grades (from 31 per cent in 2011 to 47 per cent in 2014) and a decrease in students attaining D and E grades (27 per cent in 2011 to 10 per cent in 2014). In 2014, five students achieved merits (an A+ subject grade). University and TAFE offers to students have grown from 65 per cent and 60 per cent respectively in 2011, to 88 per cent and 78 per cent respectively in 2014. Importantly, 100 per cent of the 2014 Aboriginal student cohort received ATARs, with four receiving university offers. Across the school, attendance has improved 5 per cent between 2011 and 2014, with a significant decrease in unexplained absences between 2013 and 2014.

Several factors are making this possible:

- Long term commitment and ambition for the school among a small group of leading staff and teachers.

- A rigorous, systematic approach to improving school quality, structured through a voluntary review and accreditation process with the Council of International Schools.

- A strong whole school focus on professional learning and performance, including lesson observation, assessment for learning and continuous dialogue focused on evidence of student learning.

- A central focus on personalised student progression and pathways, manifested in individual data profiles and Grade Point Average monitoring, intensive course counselling and study support, and a wide range of academic, vocational and employment-based pathways for senior students.

- Active partnership in network-based partnerships with local primary schools, Northern Adelaide high schools, the Northern Adelaide State Secondary Schools Alliance (NASSSA) and various community organisations.

- Strong investment in student wellbeing through youth work, pastoral care and behaviour support, including working with parents to reinforce positive expectations and solve problems that inhibit student learning.

- Active involvement of the school principal and senior staff in partnership and shared governance arrangements that extend beyond the school.

Our research team found that PGHS is building its own learning system through collaboration, extending from the school into the wider community through many networks and relationships. These include global networks of expert practitioners and researchers such as Dylan Wiliam and John Hattie, peer schools across Adelaide, and informal community partners in the Parafield Gardens neighbourhood.

PGHS systematically pursues ways to transform learning need into learning capability. Collaboration is an integral part of this method and has become a fundamental part of PGHS's identity, as its expression in the schools' moral purpose shows.

Pressures and lessons for the future

PGHS has had significant success in achieving and creating a culture of high expectations, and of providing pathways for every student. The school will naturally encounter pressures in the future.

- The school has made significant investment in developing their local learning system. All collaboration requires the investment and goodwill of external partners, as well as time and persistent effort. For example, the NASSSA exists thanks to the financial investment of PGHS and other schools. It provides coordinating staff and resources shared professional learning activities. Ensuring that the NASSSA is financially robust and fit for the evolving purpose of its partners is key to its longevity.

- The focus on individual student pathways is one of the school's great strengths and the foundation of its approach to collaboration. Continuing to develop that approach and ensuring that it counts for every student is challenging in the face of tight resources. It also tests the limits of class and subject-based teaching as the school works to find pathways and ways of organising learning that lead to rising student enrolments. As the diversity of the student body increases, there will be pressure to expand its collaborations to provide an increasingly diverse range of pathways.

- PGHS has created a positive, and trusting relationship with the parents of its students. However the school acknowledges the need to develop new ways of engaging them in the shared work of learning at and around the school. Parents are engaged in important individual conversations on issues affecting their children and the school council is constructively engaged in the school's development. Some parents are developing additional informal learning opportunities for specific groups of children. Finding deeper, broader and more sustained ways of working with parents is important for the future achievement of PGHS's vision of student achievement.

- The principal and other senior leaders have invested significant personal time and energy in developing the school and its collaborative relationships. They have created an impressive learning culture at the school. Ensuring the growth of this culture as key people develop their careers is crucial. Clarity about different leadership roles, and how they are best supported, is also needed. For example, principal Nanette van Ruiten puts an increasing amount of time and energy into local partnership activities, working with other schools and organisations as chair of the school partnership.

- There is lack of clarity about how the South Australian education system will support collaboration and systemic learning through the Department of Education and Early Childhood Development and other agencies. The system's new local partnerships model (discussed in Chapter 1) is in its early stages of implementation and questions about the focus, impact and resourcing of its work are yet to be answered.

- The implementation of Education and Child Development Local Partnerships in South Australia began in 2014. The specific model for these partnerships emerged over time, seeking to respond to unique local factors in each Partnership area. This desire to ensure that local context shaped each Partnership created some initial uncertainty and lack of clarity about the impact of the Partnerships and the optimal approach to their work. The evolution of the model continues, and in 2015 a significant project is under way to reshape structures and processes within the Department of Education and Child Development corporate office. When they are implemented, these changes will confirm a central place for the Partnerships in the design, governance and operation of the wider system's operating model, using them as a forum for collaboration between networked schools and preschools and between schools, preschools and the centre of the system.

5.2 Dandenong West Primary School and St Anthony's School Noble Park, Victoria

Dandenong in the south-east of Melbourne is a first arrival point for many of Australia's newest and most vulnerable migrants. The City of Greater Dandenong is the most culturally diverse local government area in Victoria. It has high numbers of refugees and asylum seekers. But this is nothing new for Dandenong. The area has been the home for new arrivals since the post-war period when industry and low cost housing attracted many as they built a new life in Australia. Such is the strength of this history that even today it is said locally that 'people don't migrate to Australia, they migrate to Dandenong.'

The City's communities face intense challenges of poverty, unemployment, disadvantage and isolation. The City of Greater Dandenong is the highest ranked in levels of disadvantage among the 79 Victorian municipalities.[106] The local area is also home to residents whose families have lived there for several generations, and come from white working class backgrounds. Many of them also live with poverty and unemployment.

These material challenges are amplified by challenges of cultural diversity and social cohesion arising from the very high number of different backgrounds and countries of origin. Across the five AEDI domains, the proportion of children in Greater Dandenong who were classified in 2012 as developmentally vulnerable exceeded the state average by around 7.5 per cent, with the largest difference in the area of communication and general knowledge.[107]

The benefits of collaboration in complex social environments

Dandenong West Primary School (Dandenong West) and St Anthony's Catholic Primary School Noble Park (St Anthony's), two primary schools, have forged a partnership that demonstrates the possibilities of collaboration amid complex, highly diverse circumstances.

The schools are as culturally diverse as the community they serve. At Dandenong West, 93 per cent of students have a language background other than English, and at St Anthony's around 73 per cent. As many as 50 different cultural and language backgrounds are represented among the student bodies.

The schools face the challenge of providing formal education to children with a huge range of different needs and experiences. Many families have sacrificed everything to ensure their children have a better education and better life in Australia. They value highly the opportunity for their children to go school. However, there is relatively little in the way of shared expectations, trust or understanding between these communities and the framework of Australian public institutions.

It is clear that community services are working hard to build trust with the community. A local health worker shared with the researchers the anecdote that a routine check of a child's height by a local child and maternal health nurse was met with a mother's fear that their child would be taken as a soldier. In this context, providing practical support and resources to families as they seek to achieve a decent quality of life is important. Doing so also involves building a set of civic and social relationships which may have even greater long term influence than material support.

> *"While the two schools have a different ethos, staff, histories and leadership, their relationship has grown out of an explicit commitment to their community, and to each other, which flows from the way they view their needs."*

The schools have formed a partnership through the Schools as Banks for Social Capital project, funded by Mission Australia. The project seeks to nurture stronger relationships and greater mutual understanding with families through collaboration and wider partnerships between their communities and the broader service system in the City of Greater Dandenong.

Both schools work in the same neighbourhood. Conventional wisdom and the status quo would see them being nothing more than passing acquaintances. Perceived competition for enrolments and the difficulty of working with two education bureaucracies might have prevented these schools from building a relationship.

While the two schools have a different ethos, staff, histories and leadership, their relationship has grown out of an explicit commitment to their community, and to each other, which flows from the way they view their needs. Together and separately they have become influential players in a wider network of learning activities and organisational partners. These activities serve the needs of their students and further the development and potential of the surrounding community to support the educational development of its children. School leadership is vital in making this commitment and providing coherent, challenging direction to the schools. Dandenong West principal Beverley Hansen and St Anthony's principal Marg Batt could best be described as unyieldingly supportive. Their leadership is not controlling, directive or transactional – it is strongly focused on supporting and working with the community of staff, students, parents and other partners to find and grow practices which add to the development of their students. They steadfastly believe in the success of their students, their staff and their communities.

Both primary schools maintain a strong focus on teaching and learning and on the development and progression of their students throughout their primary school careers. At the same time, they have set out to create a complementary growth in the relationships and conditions known to support the learning and development of their students. Both schools maintain the belief that they have a direct obligation to contribute to the wider community in which they operate, as a consequence of their role in relation to the children of that community.

The approach taken by Dandenong West and St Anthony's Noble Park is characterised by:

- Creating a shared sense of purpose and clear goals to strengthen relationships with families and partners in the community.

- Developing a culture of shared responsibility for growing and maintaining these varied relationships.

- Dedicating specific staff and time to building relationships.

- Supporting and encouraging a range of learning activities (often carried out on the edges of the school facilities and school day) that are valued by participants, engage families, and create a growing web of social connections and shared information between families, school staff and community members.

- Proactive, outward looking work to create dialogue and partnerships with other organisations, including other schools, local government, health services, libraries, and philanthropic and employer organisations.

- A visible commitment to developing shared norms and expectations with parents and community members, based on a reciprocal commitment to the children growing up in the local community.

- Growing capacity to combine organisational resources – time, money, people, information – in flexible ways that support collaboration on shared goals and outcomes.

- A clear, grounded belief in the educational value of learning and social development that underpins and enhances cognitive development and academic achievement.

Two distinctive features stand out in the consistent, determined approach to deepening family and community engagement in learning: social capital, and shared service platforms.

Social capital

The schools use a wide range of informal learning activities to create social capital – the connections, norms and networks that, in this context, support the development of children. These activities meet immediate, practical needs – playgroups, cooking groups, bike maintenance. They operate in ways that also spread information, grow trust and establish expectations of learning which complement and deepen the formal learning that takes place when the curriculum is taught in classrooms.

These activities, different in each school, provide meeting points for parents, staff and children. They create a series of 'points of contact' through which trust, understanding and relationships can grow. These activities have high value in a setting where so many languages are spoken, so many cultures practiced, and so many families face a struggle to secure their basic material needs.

This is possible through the explicit commitment of some school resources to developing these activities through the roles of some dedicated workers, budgets and facilities. But their value is only realised when these resources interact with the rest of the people on the school sites. That interaction requires the dedicated workers to have an appropriate skill set and a specific approach to their work. It relies on a culture of sharing, openness and joint effort across the rest of the school.

There is a strong commitment to education in the community. With many migrating to Australia to give their children a better life, they recognise that education is the means to achieving that. As a result there are very high levels of trust in the school to know what is best for their students. Importantly though, Australia's education tradition is quite different from those experienced by many parents. It is necessary to communicate the principles and standards of the schools to both students and their parents.

Shared service platforms

There is no shortage of services in Dandenong, supplied by the City of Greater Dandenong, various state government departments, NGOs and community groups. One of the largest challenges is connecting families to those services and many see the opportunity for other organisations to leverage the school's social capital to reach the community.

"Over time, communication across the network of participants has evolved a great capacity to match resources to specific needs with far greater precision than any centralised or formalised structure could achieve."

The two schools have influenced the development of an extensive, sophisticated network of inter-agency collaboration. This network comprises shared activities and investments, service offerings and projects, ranging from libraries to health promotion, art and photography to preventive health and adult skill development. Proactive participation in a range of shared activities has helped them to access a wide range of resources which benefit the children and families they serve.

In the process, both schools have earned reputations as 'good partners', well known by many other agencies working in the City of Greater Dandenong. In turn this has produced a positive feedback effect, bringing them further opportunities and resources. The partnership approach is not indiscriminate – both principals emphasised that 'the school is not a venue.' The schools regularly decline offers or invitations if they do not match with clear priorities or needs. Over time, communication across the network of participants has evolved a great capacity to match resources to specific needs with far greater precision than any centralised or formalised structure could achieve. The network includes Mission Australia, Adult Migrant Education Service, Southern Migrant and Refugee Centre, Healthy Together, and City of Greater Dandenong services such as the Library, Child and Maternal Health and Best Start.

The connections between workers across organisations, and the shared knowledge they hold, has evolved into an 'exchange network' that can communicate different opportunities to the network members, and test and match them to those most able to take them up and benefit from them.

The Dandenong West Primary School and St Anthony's Catholic Primary School Noble Park local learning system

The schools are proactively building their own local learning system to support and enhance their students' learning. Their systems focus on the learning of students and of the whole community. The commitment to building a lifetime learning culture for its students is typified by the shared aim of 'developing a culture of learning and providing every child with the opportunity to succeed.'[108]

These two primary schools and their partners demonstrate the most explicit commitment in any of our research to creating social capital. They have built an intentional, concerted approach to building informal networks and norms among people who may have a connection with their school communities.

Pressures and lessons for the future

- Their approach is aligned and integrated with the long term development of the schools. However, many of the arrangements put in place to support social capital and community relationships are contingent on project-based funding and voluntary effort.

- The sustained efforts of the project worker involved are funded through Mission Australia and the Schools as Banks for Social Capital project. This funding is finite and project based.

- The direct role of central structures of both the Catholic and state education systems in developing these practices has been limited. It is important to find ways of supporting and spreading collaborative practices that are genuinely effective and worth the inevitable investment of time and effort that is required.

- This wider potential is not limited solely to schooling systems. It can apply to wider platforms for cross-service collaboration and governance. There is great potential for groups of primary schools to participate in shared service platforms which provide access to a network of support and learning activities for local families. However, it is crucially important to achieve clarity about what makes most sense for the schools themselves to participate in such platforms, and what forms of shared infrastructure, governance and support may be needed.

5.3 Canley Vale High School, New South Wales

Canley Vale High School (CVHS) sits in a small oasis of green land near the railway line from Sydney Central to Macarthur and the Southern Highlands. One stop along from Cabramatta, in Sydney's south-west, the school is surrounded by a neighbourhood that has long been an arrival point for new settlers. It is a meeting point for families from very different points of origin.

Cabramatta and Canley Vale fall in Gough Whitlam's former federal electorate of Werriwa, and are part of the rich history of suburban development in New South Wales. It was the struggles of these outer suburban communities that convinced Whitlam of the need for the Commonwealth government to play a direct role in providing infrastructure and services.

In the 1970s these communities experience profound and positive changes under Whitlam's policies for free university education, sewers that worked, universal health care and fair school funding. Half a century later, the suburbs in western and south-west Sydney are still among the nation's fastest growing. They pose huge new challenges for education, economic opportunity and social inclusion.

Cabramatta and Canley Vale are places of hope and opportunity, but they also host some of the most profound economic disadvantage and social alienation found in modern urban Australia. Since the early 1900s, the area has acted as a place of settlement for new arrivals to Australia, including Chinese, Vietnamese, and Pacific Islanders. In Canley Vale, 64.3 per cent of the population was born overseas, with 26.9 per cent born in Vietnam, 6 per cent in Cambodia and 4.6 per cent in China. These represent large populations of newly arrived migrants from these countries, compared with national averages of 0.9 per cent, 0.1 per cent and 1.5 per cent for each respectively. The unemployment rate at the time of the 2011 census was 13.2 per cent and weekly incomes are significantly below the New South Wales (NSW) and national median. The percentage of developmentally vulnerable children was higher in Canley Vale in 2012 than for NSW as a whole on all five AEDI measures, especially communication skills and general knowledge.[109] CVHS's Family Occupation and Education Index (176) places it among the top 5 per cent of government schools for socio-economic disadvantage. It is the largest school in that top 5 per cent with enrolments of 1425 students. Among the school's parent population, 62 per cent have an education lower than year 12 and 43 per cent are unemployed. CVHS achieves outstanding academic results and senior secondary completions. At the same time the school serves a disadvantaged community in an area of western Sydney that traditionally sends relatively few of its young people to university. The educational achievements of CVHS students are excellent. The fact that they are making them in a context of relative disadvantage is an outstanding collective achievement by the school and its community.

Collaboration contributes to the impact and excellence of schooling

CVHS was built 60 years ago, in 1965, and its tightly packed buildings convey the brutal lines of concrete modernism – square, utilitarian, lacking grandeur or invitation.

Nonetheless, invitation is at the school's core. Collaboration plays an essential role in its success, contributing to a distinctive and focused model of impact and excellence.

"Our research uncovered an interlocking set of relationships that support exceptional student growth and achievement."

Important challenges face CVHS – sustaining its living tradition of teaching, learning and assessment, while meeting the changing learning needs of its students and strengthening relationships with the wider education system. Today, CVHS produces educational outcomes that attract admiring attention. They are enough to attract admiring attention from some of Sydney's wealthiest and most exclusive schools. CVHS has built up a culture of sustained academic excellence. The school's Higher School Certificate (HSC) performance is outstanding compared to any school in the state. In 2013, 99 per cent of students entering year 12 attained their HSC, 78 per cent went to university, and a further 13 per cent went to TAFE or private colleges. NAPLAN data shows that CVHS moved from below the state average to above it between 2009 and 2014.

CVHS now receives more than 400 applications for 240 year 7 places available at the start of each school year. Parents trade tips and gossip about the best way to get children into CVHS. Some go to extreme lengths to make sure they live within the school's catchment area. It's starkly different from 15 years ago when the school had barely 700 students, and many of those did not regularly attend.

So what explains this long burst of extraordinary educational achievement? Why does CVHS produce academic results and student progression that go so far beyond the norm associated with the backgrounds of its students?

Our research uncovered an interlocking set of relationships that support exceptional student growth and achievement. Demographics and family culture play their part. So do accomplished teaching and a professional culture of high expectations. But what makes CVHS distinctive is the combination of these qualities, particular features of its local and physical environment, and crucially, its institutional partnerships in the wider NSW education system.

The compact site at CVHS means that students and staff alike must learn to co-exist in close proximity. The school is surrounded by public parkland and is a few minutes' walk from the railway station and main roads; it is a relatively quiet and tranquil spot, undisturbed by passing traffic other than the morning surge of the school run.

The Canley Vale High School local learning system

Despite the sardine-like accommodation, the prevailing atmosphere is quiet, orderly and friendly. This visual and auditory impression was confirmed by the numerous times that the research team were told by staff, former students and other local stakeholders about the 'lovely' nature of the school and the relationships it creates. Close examination shows this achievement is supported through a concentrated focus on teaching and learning, held in place by students, teachers and school administration alike. These pedagogical achievements also rest on social foundations.

CVHS's outstanding student achievement rests on:

- Community trust in the school built over many years, including through the tenure of a particular former principal. He and his team, for example, worked to allay community fears about drug crime and the safety of the nearby train station by spending many mornings and afternoons there watching over the safety of their students, and communicating with police and other public agencies. These relationships are not just a question of physical safety. A deep reservoir of trust and understanding now exists between the school and families, which the school continues to value and prioritise. The community clearly also understands and believes that the school is working for the best interests of their children, and that the professionals are committed to the students and their futures.

- A long term commitment by staff and teachers, many of whom have worked at the school for decades, and who remain committed to serving the students and developing their professional practice.

- Longevity of staff tenure is combined with openness to new ideas and methods. Participants in the research interviews described a 'willingness to try new things.' This openness to experimentation is grounded within a very clear structure.

- A commitment to subject and faculty-based lesson structures. This fits hand in glove with the NSW syllabus and examination structure, which has a strong and widely respected emphasis on rigorous assessment of academic knowledge and understanding.

- Many senior teachers are markers for the HSC. Staff described this experience as hugely valuable professional learning. It keeps a high percentage of the teaching staff actively aligned with HSC requirements, criteria and structure. It gives them deep familiarity with the knowledge, skills and learning methods needed to achieve in the HSC.

- The school's academic focus is actively supported by a large and skilful welfare team. The school maintains a system of 'year advisers' in which an individual worker often stays with a cohort of students from year 7 through to year 12. The welfare team plays a vital, integral role in the school, making an important contribution to faculties' ability to maintain their academic focus. The contribution of the welfare team to the overall welfare and wellbeing of students is widely acknowledged and highly regarded by staff, parents and the broader community.

- In many ways, the students make CVHS work through their application to learning, their commitment to each other, and their ability to transcend the physical and material constraints of their schooling. They create shared endeavour and positive commitment to the future. The enthusiasm and commitment of students for additional and extended learning activities beyond the formal curriculum is also clear, despite the limited space, time pressures and family commitments they must also weather.

CVHS has developed a distinctive approach to supporting student achievement in its own specific circumstances. This approach focuses strongly on excellent teaching and committed learning within the school, and is integrated with the subject-based curriculum and timetable. It is closely, productively aligned with the family relationships and community expectations that surround the school. It is brought to life by the positive, engaged attitude of CVHS students.

The strong focus on depth and continuity of teaching is made possible by an informal culture of collaboration and sharing. Teachers support each other to develop their skills and cover their classroom commitments. A large, skilled, welfare team works constantly to identify and address student needs that might interfere with or disrupt their learning at school. The team maintains effective relationships with families and local agencies where it is useful to do so.

A strong culture of professional collaboration

Collaboration is essential to CVHS' success and the school's sustained focus on student achievement.

In some respects, that collaboration occurs within the structures and confines of a traditional single school organisation. Parents, students and teachers all know their roles and stick to them with great commitment. Informal collaboration is used to maintain consistency, to socialise new teachers, to initiate extracurricular learning and to identify professional learning opportunities. Teachers can concentrate on teaching, free from distractions and disruptions. This increases the longevity of their tenure at the school, their enthusiasm for teaching and their commitment to the students.

Four forms of external collaboration are vital to the school's success, even though they may not be immediately visible from the outside.

First, the collaborative participation of many school staff in the HSC assessment system is a vital source of professional learning and alignment with challenges that students need to meet in their formal assessments at the end of secondary school. This interchange is clearly highly influential, and leads to a sharing of professional expertise between senior teachers and early career teachers.

Second, there are strong, growing collaborative links between CVHS and many NSW universities. Student teachers come to CVHS from different teacher education courses and the school can select known teacher candidates from those sources when it has a vacancy. CVHS prioritises links with universities to support student aspirations, applications and transitions to universities.

Third, the welfare team maintains a wide network of low key collaborative links with families, local agencies and other schools. This plays an important part in maintaining the stability and order of the school, and in helping students to deal with issues arising that might interfere with their learning.

> *"The lessons from Canley Vale's experience, and the expertise it has built up, are important for learning how to lift student achievement more sustainably, across the state and beyond."*

Fourth, Canley Vale High School has developed a strong collaboration with its local primary schools, through a partnership to improve transition from year 6 to year 7. Teachers at the schools have worked together to compare assessment approaches, share student data and identify common goals that can help students successfully navigate the transition from primary to secondary school.

Pressures and lessons for the future

Canley Vale's success over the last decade is an outstanding achievement. From a school operating at half capacity in a community frightened by street violence, it has become a school bursting at the seams with student achievement, exemplifying the value of high quality teaching in a free, secular, public education setting.

This is important in a context where NSW has embraced major reforms of the school system, prioritising great teaching, decentralising support and decision making from central institutional structures to schools, and focusing resources on student need.

The lessons from Canley Vale's experience, and the expertise it has built up, are important for learning how to lift student achievement more sustainably, across the state and beyond.

But for the school, success creates new pressures too. They combine with other changes taking place in the wider economy and society to pose questions about the future.

Four pressures stand out: growth, student learning culture, limited explicit systems, and the academic framework.

Growth

Rising student enrolments means CVHS is at the limits of its physical capacity. It has to deal with constant, growing pressure to take more students as a result of its positive reputation and popularity.

This makes learning more difficult in an everyday sense, as students and teachers struggle to fit into the facilities and move around the site.

There are administrative pressures as the school processes multiple applications for every place. Increasingly time is taken up with the demands of enrolment and verification. Increased enrolments place pressure on the school's ability to take international students – an important part of the school's development over the last decade or more.

Without overtly adopting selection, many successful schools find popularity means their student intake is selected by socio-economic forces as their catchment areas shrink and house prices rise.

Finding ways to balance non-selective, community status with the social pressures and competition that arise from popularity will become a priority for CVHS.

Student learning culture

One part of CVHS's success is the close alignment between teacher, student and parent motivations. Strong parental support does not explain all of CVHS' educational success, but it is a positive factor.

The learning culture of students is changing. Their hunger for learning translates into a desire – and sometimes demand – for more interactive learning experiences. They want to test what they know in the wider world, take responsibility for shaping and sometimes designing their own learning activities, and develop skills and techniques that go beyond the traditional curriculum and classroom structure.

The demographics of the local area are also changing, leading to more students from Indigenous, Pacific Islander and other ethnic and cultural backgrounds. The emergence of these new, more diverse learning needs is a challenge to the highly aligned, faculty-based routine that CVHS relies on.

There are clear signs that staff and students are actively responding to these changes. They take opportunities to innovate, and adapt to make sure they can sustain high expectations and achievement among a more diverse student group. Will the responses meet changing needs? Will they fulfil all the learning potential that students bring? What other approaches and systems might be needed?

Limited explicit systems

CVHS has a highly developed culture and ethos, including a strong emphasis on high quality teaching informed by data and by professional learning.

It is noticeable that many of the systems on which the school runs are relatively informal, maintained by individual effort and informal collaboration. They are not visibly strengthened by systems that are intentionally designed, collectively maintained, or supported by organisational and technological infrastructure.

This may reflect the school's concentration of its resources on establishing the relationships and the teaching and learning focus that are fundamental to its impact.

But the lack of explicit systems over time may become a problem, especially as the future challenge involves sustaining and diversifying established practices. The new principal, Peter Rouse, has prioritised the development of rigorous, explicit, collaborative systems in the school. For example, he has begun to make improvements to information systems, designed to support teachers, ease collaboration and improve workflow.

As the school changes and develops further, it will need to build more explicit systems to support different learning and professional activities. It will need to reduce its current reliance on informal arrangements maintained by individual faculties and by small groups and teams.

The academic framework

The final source of pressure on the school is the academic framework itself. As we have noted, CVHS has a very strong alignment between teaching, HSC assessment, school organisation and university entry. This is a positive thing, and reflects a proud tradition in NSW.

But it is also evident that the dominance of the academic framework is a source of pressure for both students and staff as the circumstances, the reputation and the environment surrounding the school continue to change. One manifestation of this is the growth of mental health and emotional wellbeing issues in years 11 and 12 students, in keeping with the wider experience of young people around Australia.

Another is the limitation on the range of vocational pathways that the school can offer, while maintaining its strong emphasis on working within the HSC framework.

The challenges of sustainability and adaptation are confronting many school systems.

6. Lessons and contrasts: Learning from the case study schools

The three case studies discussed in this report generated many insights and conclusions.

Our goal is to understand the roles played by collaboration in supporting the educational achievement of the students, as the schools worked to overcome the barriers to achievement that are created or increased by socio-economic and geographic disadvantage.

Our selection of sites was guided by a few simple criteria. We studied schools that:

- have demonstrated a positive impact on student achievement and engagement;
- worked amid significant community disadvantage; and
- used collaboration as a major part of the repertoire of methods and relationships to pursue student achievement.

We also selected for variation in the setting, focus and organisation. This allowed us to learn about different patterns and pressures in the way case study schools worked, and the issues encountered by people working in these schools and their communities.

The experience in each case study is directly influenced by its location, and by the formal education system that surrounds it. Systems in different states and local areas have varying histories, cultures, institutional structures and political pressures. Part of our goal was to understand how these variations impact on the experiences, needs and priorities of the schools and those with whom they collaborate.

What we found was a powerful set of common themes, as well as interesting contrasts and variations in practice and outlook.

This project has not set out to gather primary evidence of impact. Nor has it set out to evaluate the performance of schools against established standards of evidence or against the declared measures of effectiveness for the school systems in which they operate. Instead, our intention was to study, explore and illuminate the ways in which these schools work, to identify insights and lessons that may be more widely applicable, and to understand with greater rigour the opportunities and challenges for schools that may be tackled more systematically through collaboration.

So what are the distinctive features of life and work in these schools? Which aspects of their cultures and relationships stood out by comparison to each other, and to the conventional wisdoms of policy and public debate?

6.1 Shared purpose: The commitment to learning

First among the shared characteristics is a deep commitment to student learning, which is then translated differently into priorities for collaboration, and into sustained learning by adults.

In each location, we were struck by the consistency with which people talked about the goals of their work and the depth of their shared commitment to the learning and development of students. This is more than a general sense of commitment to the students, and the idea of their learning. In all the schools we studied this commitment had become an animating force, driving and shaping adult behaviour, stretching the boundaries of school organisation, focusing conversation and influencing the allocation of resources.

At PGHS the learning purpose is a deliberate, considered approach developed by the leadership team towards building a coherent, encompassing education for all their students. This is articulated as providing a pathway to every student – a big challenge, given the school's history and the community's current circumstances.

> *"In all cases, the schools have developed a positive long term view of their learning purposes. They clearly use them to shape their actions over time and to guide the development of collaborative priorities."*

Both Dandenong West and St Anthony's express a powerful commitment to building the learning capacity of their whole community (not just their students). Each of their individual school approaches to teaching and learning are integral to that commitment. It is an explicit part of their outlook that the learning and development of their students requires the strengthening and growth of relationships between families, schools and other community partners. The schools do not restrict their vision of what they can do solely to actions they can take within the classrooms or the organisational structures that they happen to inherit.

At CVHS the learning purpose is clearly understood and supported by staff, and visibly embodied in the culture and attitude of students. However, we found that it was less explicitly articulated within the school or within the wider local community. Among the education professionals, collective understanding of the school's goals in giving students the kind of education that will take them further in life ('outside the Canley Vale bubble') is fundamental to their choice of actions and partnerships, and equally fundamental to the success of those collaborative relationships.

In all cases, the schools have developed a positive long term view of their learning purposes. They clearly use them to shape their actions over time and to guide the development of collaborative priorities.

Their goals are not primarily driven by the planning and accountability requirements of their systems, nor are they dependent on three or five year school plans. They are not articulated solely as data driven goals, percentage increases or NAPLAN scores. The schools have instead taken a carefully considered view of where they want the school and their students to be decades from now.

This commitment to student learning, and its use in shaping collective purpose and relationships, relates to 'moral purpose' which has become more widely discussed in education in recent years.[110] However, the commitment is both more specific in its focus on student learning, and more concrete in its application to behaviour, relationships and organisation.

The school leaders openly acknowledge that they do not yet know every detail of how their goals will be realised. Indeed, this openness is a large part of the explanation for using collaboration systematically to access new knowledge, resources and opportunities. But they are making a visible leadership commitment to student learning; for example, at PGHS teachers and school staff play in regular concerts and performances as part of a wider commitment to student and teacher engagement and wellbeing. At CVHS, the former principal regularly taught classes.

It might seem that a commitment to student learning is an obvious feature of schools that achieve positive impact. But the commitments here transcend the obvious and the norm in various ways. In all these community settings, high expectations of student learning were not normal, and various physical, economic and cultural barriers stood in the way of widespread student success.

In the school systems studied in this report, the status quo does not produce high achievement among all students. Attainment is correlated with socio-economic status. There are geographical concentrations of disadvantage linked to low educational attainment which pose major social and economic risks for the future.

To bring about a positive, long-term shift in outcomes, schools need to bring about changes in outlook and expectation, and adopt specific actions and patterns of organisation that will achieve year on year growth in formal student learning and attainment.

Recognising the importance of this commitment to learning, and the way it is developed and applied to the schools' organisation and relationships, is central to understanding how:

- collaboration can be used purposefully to lift achievement; and

- how education systems can reconfigure themselves to support learning more effectively.

6.2 Combining longevity and energy in staffing

Another distinguishing feature that emerged clearly from the three case studies was a distinctive combination of long-serving senior teachers with younger, newer staff.

In the schools we studied there is a significant presence of teachers with decades of professional experience who had often worked at the school for many years. In both CVHS and PGHS the teaching staff includes veterans who have worked and lived in the local area for more than 20 years. For example, at CVHS the Head Teacher, Teaching and Learning, Sue Neferis, and school manager, Judith Dack, have worked at the school for 27 years.

In both high schools the leadership teams also include staff who were promoted from classroom teachers to school leaders over many years. At PGHS the principal, Nanette van Ruiten, has been at the school for many years, and Deputy Principal Angie Michael has been at the school for 20 years. Angie has made the transition from design teaching to a leadership role. Head of the Senior School, Nick Zissopoulos, has been at the school for 15 years, transitioning from a year level coordinator into a more senior role. They have a wealth of knowledge about the history of their schools, community relationships, what has been tried before and the nuances of teaching in their specific field.

The presence of veteran teachers does not, unfortunately, mean there will necessarily be a commitment to professional excellence or development. What linked experience to the school-wide emphasis on excellence in all three locations was senior teachers' strong belief in their own continuous development as professionals, and their equally strong commitment to inducting and developing new staff with less experience.

New teachers are an equally important feature of the case study locations. They bring energy and enthusiasm for experimentation, recent knowledge from studies, experiences outside the local areas, ambition for the students and for their own careers, and perhaps greater flexibility in workplace organisation. They are hungry for new ideas and experiences and aware that they are in a formative stage of their career.

This combination of attributes enables the schools to achieve consistency in their workforce, to accumulate knowledge within their professional teams, and to integrate, socialise and learn with recently arrived staff. In these ways the schools maintain a strong focus on excellent professional practice.

6.3 Collaborative leadership

All our case study schools showed distinctive, sustained forms of leadership which supported and directed collaboration between the schools and their communities. This leadership was exemplified by the school principals and, by design, also extended to others.

At PGHS the leadership team's composition reflects the long term commitment to the school made by a core group of staff. Nanette van Ruiten's leadership as principal exudes enthusiasm and confidence. Her approach

encourages and rewards people who experiment with new ideas and opportunities. Many teachers spoke of bringing their own ideas to Nanette to be met with the response, "if you think you can do it, go for it."

This embrace of individual initiative rests on a clear, strong, group structure. PGHS staff exercise discretion across clearly defined areas of responsibility. In taking this approach with senior leaders and classroom teachers, the principal empowers a wider collective to share leadership responsibility. Indicative of the success of this collaborative leadership approach was a recent request for volunteers to contribute to the school's site improvement plans which elicited 28 staff volunteers (one third of the school's staff).

PGHS's highly articulated approach to school organisation and effectiveness reflects the comprehensive process of review and accreditation required by the Council of International Schools. But the striking thing about the school's leadership and senior management relationships is that they are clearly directed towards both building up effective forms of organisation, and building relationships outwards, in a continuing quest for new ways to support and secure student achievement.

This commitment to clear structures and process, and to strong, positive relationships, is manifest in the school's culture of collaboration, and in its various relationships with the wider community. A culture of 'continuous conversation' was consistently reported to us as we talked to staff members about how they pursue improvement and discuss their understanding of what is happening with different groups of students, in different subject areas, and with different sets of data. Conversation, both formal and informal, is a continuous thread in the pursuit of learning, and a powerful tool of organisational development.

Nanette maintains a positive and forceful presence in the school's routine (for example, by co-leading whole-school professional learning activities). She has also embraced roles which broaden and extend the school's relationships and contribute to progress in the surrounding community. Perhaps the most visible expression of this is her chairing of the local schools partnership in which PGHS works alongside five pre-schools and six local primary schools to pursue improved learning outcomes, and professional and community development.

At Dandenong West and St Anthony's, the two principals clearly provide an open, purposeful and ambitious leadership direction. It is intentionally designed to support staff development. They welcome new ideas and initiatives that might make a difference, whether they come from teachers, the community or external partners. This emphasis is not unique, but it is different from the forms of leadership more commonly practiced and encouraged by education systems which focus heavily on individual school effectiveness, on the role of leaders in creating 'instructional improvement', and on the idea of a single, high-performing organisation.

"Principals have embedded their schools within a wider community focussed on the success of their schools. They have fostered a culture where good ideas are welcome from all corners."

At PGHS it is not a case of 'either' classroom practice 'or' community relationships. It is a case of combining both with clear purpose. This broader attitude co-exists with focused, data driven, ambitious efforts to improve professional learning, classroom practice and student progression in the formal curriculum. At Dandenong West and St Anthony's, Beverley Hansen and Marg Batt model this by taking responsibility for clearly articulating the values and direction that their schools pursue, while sharing the responsibility for action widely among staff, students, parents and other partners.

One manifestation of this was the ease with which many workers from organisations outside the schools joined in a series of lunchtime and evening conversations during our study visits. These discussions reflected on the importance of clear, purposeful conversation and the value of regular, flexible interaction with and

through the schools. Classroom teachers in both schools commented that it is a feature of daily life to meet people from elsewhere in the corridors, and for the regular routines of the school day to coincide with other forms of project work and visits.

Such a range of activity and collaboration might not easily take place if it was controlled and coordinated more closely through top-down management structures.

The more flexible range of activity could not take place with clear purpose and value unless a shared understanding of its goals had been built by building consistent, trusting relationships. This growth of relationships reflects the strategic orientation of leaders in the two schools. In doing so the principals have embedded their schools within a wider community focussed on the success of their schools. They have fostered a culture where good ideas are welcome from all corners of that community, rather than only from within the school itself.

At CVHS the head teacher leadership structure built during the tenure of the former principal provided a strong foundation for continuing faculty-based teaching and professional development. In this structure, subject-based teaching teams have a high degree of flexibility and responsibility to maintain the quality of their teaching and to develop it through experimentation and professional development. This structure proved helpful in some respects as the school navigated the transition to a new principal appointment, including a long period when it rotated between two acting principals.

The loss of focus, structure and momentum that can beset individual schools after high impact principals move on is a well-recognised problem in school systems around the world. One way to mitigate the problems of maintaining continuity during succession is to build collaborative relationships that can adapt flexibly to changing circumstances, while sustaining the shared focus and commitments that provide the logic for their existence.

It is notable that, during the extended period of transition imposed on CVHS by these circumstances, the direction and explicit decision making structures became less clear. Consequently some formal routines and explicit systems, built up during the previous decade, fell away. Underlying collaborative routines and team relationships survived, and in many ways carried the school through.

New principal Peter Rouse has established his own approach to enabling leadership during his year in the role. He is focussed on bringing about positive change and on future planning for the school. He is also emphatic that change not be to the detriment of the successful structures already in place. Without disrupting the school's existing structures he has provided much needed leadership by building confidence among the school leadership (head teachers), enabling them to pursue long term initiatives that sat idle during the period without the leadership of a principal.

6.4 Community trust, professional trust

Each case study school has invested significant time and energy in building trust with their wider community and among their staff. The focus of this work has differed in each location. However, the underlying principle is consistent.

At CVHS long term effort has gone into persuading families that the school is acting in the interests of students, and that it is a safe place to be. Early in his tenure, as mentioned earlier, the former principal and members of his senior staff addressed safety fears by taking up a visible presence at the train station, watching over students as they went to and from school.

Similarly at PGHS, a bedrock of community trust was needed in the face of orchestrated racial hatred, fear and violence on the school grounds. The response of the school's staff was to address the problems and assert the

right of students to attend a safe school. This was a formative factor in developing a more positive long term relationship between the school and the community.

Both schools very successfully built student and community trust and began translating it into confidence among the parent body in the school's ability to teach students for future success. Such was the success of this work that the schools have seen a positive cycle of social capital formation, with past students returning to contribute to the school and the community.

> *"In both high schools there were clear signs that the underlying attitude among parents to the school is an important factor in improved attainment by students."*

At Dandenong West and St Anthony's the challenge was to turn the inherent but passive trust in education already held by many parents into active participation in the community for themselves and their children. Their success has built widespread trust that the school is a safe, supportive learning place for the whole community. It has given the schools the opportunity to teach students the social and civic roles individuals play in a community in Australia – in essence, how to be a part of a community.

In both high schools there were clear signs that the underlying attitude among parents to the school is an important factor in improved attainment by students. The trust and confidence of parents is often implicit. However, it is constantly the subject of informal conversation beyond the school gates. At Dandenong West and St Anthony's, the challenges are different again, but the role of informal trust is just as great. Their community comprises people from different places and cultures, all arriving and adapting to life in one part of south-east Melbourne. The role of informal norms and social connections is acutely important in influencing the possible outcomes of education and the community's relationships with public institutions and services.

Dandenong West and St Anthony's find that many of their children are not challenging or disruptive in school. Their parents value the chance to get an education for their children. But very often they do not know what to expect and have no experience of voicing their priorities or their concerns. In engaging families and parents in a range of learning activities focused on meeting immediate, practical needs, the schools can support valuable social learning. Parents learn to talk and socialise together, for example, while learning to cook. Parents and workers build trust while sharing information at playgroups for very young children, building the confidence of parents and contributing to the school-readiness of the children when they arrive in prep classes.

The informal norms and networks of social exchange and information are highly influential, but usually implicit in the way that education is organised and evaluated. These schools show how the practice of collaboration helps them to build trust and grow informal relationships that have a strengthening effect on the culture of families and the efforts of schools.

Trust building is not only important for the community, however. In all the case study locations it was equally important to build trust among groups of teachers and other staff in order to improve professional practice and develop more effective methods of organisation.

At PGHS many people described to us the slow process of overcoming the traditional isolation of classroom-based practice and building relationships through which all members of staff share in the professional scrutiny of peers and subject their practice to data-based evaluation of impact. At CVHS trust within subject-based faculty groups is highly developed. An unintended consequence of that structure may be that cross-cutting relationships and networks also need nurturing to sustain trust and shared action across the whole school. At Dandenong West and Noble Park, the relationships between classroom teaching and wider community activities are not always easy and smooth. Trust and confidence between staff working in different roles needs to be built up carefully.

6.5 Drawing on external expertise

The schools in this study are strong believers in learning from each other, building capacity within their own organisations, recognising their own expertise, and developing it further. They have a strong, sustained focus on building up the skills and effectiveness of their own staff. However, none of them are interested in reinventing the wheel or avoiding good ideas invented elsewhere. In their quest for student achievement, each school consistently pursued and made use of expertise and specialist knowledge from outside the bounds of their own experience.

At PGHS the commitment to professional learning is explicit. Knowledge gained outside the school is to be brought back and disseminated among staff. The expectation that knowledge is shared is an important tool in the active research engagement of staff. Actively seeking out external expertise has played a fundamental part in the achievements of PGHS. This has taken place through the process of Council of International Schools accreditation and through partnerships with academic experts. The leadership team identified the work of UK scholar Dylan Wiliam as valuable for developing their teaching practice. They made the investment to bring Wiliam to the school for one-on-one advice on how to implement his work in meaningful ways.[111] At St Anthony's the leadership identified scholarly research that fitted the school needs (the work of Anthony Bryke) and made a commitment to applying that research fully.[112]

Dandenong West and Noble Park formed a partnership with Mission Australia through Schools as Banks of Social Capital. Along with academic evaluation of the project, the partnership played an influential role in forming both schools' priorities for, and outlook towards, strengthening relationships. Likewise, CVHS creates and draws on external expertise through the network of HSC markers. Teachers who participate in marking the annual assessments bring their knowledge back to the school. They enrich teaching and professional learning strategies and focus their students on the standards and criteria for assessment success. The school's active partnerships with universities have also strengthened their teaching and mentoring of students preparing for higher education.

It is striking, though, that what appears to make a difference in these schools is not straightforward application or imposition of defined good practices validated by existing evidence. What makes a difference is an active process of exploring, engaging and re-creating regular practices in the school. Each school – through its network of collaborative partnerships – identifies and accesses possible sources of knowledge and expertise. They try them out systematically, gather their own data, and then absorb into everyday routine those practices that turn out to have positive impact.

6.6 Permeable boundaries

Another related and potentially important feature of these schools, and their ability to create value from collaboration, is their ability to sustain 'permeable' boundaries of organisation.

All the schools maintained clear organisational routines and timetables, with clear professional and administrative structures focused on teaching and learning activity. At the same time, when they can identify a clear benefit to their students they share time, funds, physical resources and knowledge.

Dandenong West and St Anthony's, for example, have opened their gates to support activities that offer a clear benefit to students and families (such as Australian Institute of Sport's active after-schools program) and to the wider community (through language, computer and ready-to-work classes). Dandenong West has given a corner of its school grounds for a Men's Shed, for which it has successfully applied for fit-out funding from the Commonwealth Department of Human Services.

CVHS has used revenues earned from its inclusion of international students to build a recently-completed lecture theatre and teacher lounge on the school grounds. This new, welcoming facility provides a platform for the school to support gatherings of professionals and others from the wider community to share knowledge and discuss common interests. It is a possible platform for professional learning activities and another point of connection between the core of the school's routine and a far wider network of knowledge and expertise.

PGHS exemplifies permeability in its support for the Sammy D Foundation. The Foundation grew out of the response to an unspeakable tragedy – the killing with a single punch of a South Australian teenager. His mother, Nat Cook, was determined to respond to the loss of Sam by strengthening the ability of young people to avoid and prevent similar risks. Out of her determination grew an organisation that offered peer education through a range of activities including dance and sports. It is now active and influential across Adelaide. The Sammy D Foundation started up and grew through its partnership with senior staff at the school, especially Senior Leader of Middle School, Mike George. He provided data, professional skills, local knowledge and personal connections to support students, families and the community to raise awareness with the aim of avoiding similar tragedies.

PGHS has partnered with local primary schools in a collaboration that has resulted in new methods and courses being integrated into its own curriculum, and the development of a non-profit organisation capable of working with many schools across the wider community. The school's permeable boundaries mean it was able to translate social need and commitment beyond its own routine into new organisational capabilities that create substantial positive value for students.

6.7 Wellbeing and formal attainment: Co-evolution

A fundamental theme that surfaced again and again during our research was the dynamic (and essential) relationship between the wellbeing of students and their ability to progress towards formal, educational attainment.

Debate has raged for generations about the relative priority between formal instruction and attainment, and the material, emotional and social needs of students who are grappling with challenges and barriers not encountered by their advantaged peers.

Of course, on some level this debate has always been a false dichotomy. But in recent decades the policy consensus has swung towards the idea that it is qualifications and formal attainment that will make the greatest difference to the life chances of disadvantaged young people, so we should prioritise their academic performance and concentrate on effective strategies to lift that attainment.

The three case study schools provide a fascinating range of practice to learn from because of the differences in their context and orientation. In CVHS we found a highly academic school aligned with a very strong family culture prioritising exam results and university admission. At PGHS, community commitment to the value of formal education is much more varied, and the pathways to economic opportunity and jobs are under real threat. In Dandenong West and Noble Park, the primary-age children who come to school are usually not challenging in their behaviour or questioning of the value of school. However, the circumstances of their childhoods mean that their emotional, social and interpersonal development is likely to be inhibited or lacking in various ways.

So all the schools face, differently, the question of how wellbeing and 'non-cognitive skills' should be addressed alongside a strong emphasis on progress in literacy, numeracy, and other markers of formal attainment. Is there competition between these priorities? And how should they be addressed?

Student wellbeing is core business

At PGHS, Nanette van Ruiten describes the importance of achieving 'conditions for learning' that make it possible for teachers to teach, and for students to concentrate. PGHS serves as a powerful reminder of schools, many in socio-economically disadvantaged areas, where those conditions are not in place, and the disruptive effects this can have.

Progress in learning is the casualty if students are not convinced of the value of learning, if they are dealing with other intrusions on their attention, if schools are disorderly, and if teachers have to spend energy every day tackling bad behaviour and trying to maintain order and discipline.

International surveys of teachers show that behaviour is among the most significant causes of professional dissatisfaction and stress.[113] In most schools, the priorities of wellbeing and academic success compete for time, attention and resources. The risk is that wellbeing initiatives miss out if they are not seen to be part of a school's 'core business.'

By contrast, PGHS spent some years working to achieve the 'conditions for learning' in which lessons are conducted in consistent, orderly and respectful terms. The benefits are there to be seen in the life of the school. An important aspect of school life is ongoing investment in relationships and wellbeing, through dedicated year-level coordinators and senior staff responsible for student welfare and behaviour. In our research visits we heard about and witnessed some of the daily tensions between responding immediately to the needs and behaviour of individual students, and continuing with the planned delivery of the curriculum.

At CVHS, teachers repeatedly told us that the school is so favoured among professionals because they can teach without disruption: teachers and students alike are committed and ready to concentrate on teaching and learning. In CVHS perhaps the challenges to wellbeing manifest themselves differently because the culture of hard work and attainment is so strong. The school's dedicated welfare team constantly works to identify students with family issues or emotional needs that may interfere with their schoolwork, and to find ways to support students with the stresses and pressures of teenage life and impending exams.

"Significantly, the schools in our case studies used collaboration and the formation of wider relationships to find new ways to meet student wellbeing needs."

All the case study schools have a clear belief that schools have an important role to play in the wellbeing of their students. The schools have communicated that belief through explicit investment in welfare initiatives. Social workers are on staff and welfare teams at each school ensure that the school takes a holistic approach to supporting their students.

Importantly, the focus on welfare is not solely on behaviour management. There is a recognition that what goes on outside the classroom has a significant impact on student learning. At Dandenong West the welfare team provides mental and physical health support to students, and ensures that even with a highly mobile student population the students receive targeted, personalised support. In this location, that commitment has fed into the evolution of a 'shared services platform' capable of supporting a much broader range of personalised support to students and families than traditional channels of service delivery can manage.

The case study schools demonstrate that wellbeing and formal attainment are not always in competition. Over time they become natural allies, working together to support growth and development.

It is undeniable that student welfare and wellbeing compete in the immediate context of a finite school resource package. The demands of teaching the formal curriculum compete for resources and attention with many characters, voices and needs for time. The schools demonstrate in practice both that there is no neat separation between the family taking care of emotional development, and the school taking professional responsibility for cognitive advancement. Nor is there a single formula for addressing the wellbeing needs of students.

We observed that the wellbeing of students is always dynamic and evolving, presenting new questions and challenges for the adults working with them. Significantly, the schools in our case studies used collaboration and the formation of wider relationships to find new ways to meet student wellbeing needs; for example, through the formation of the Sammy D Foundation, or the development of family learning activities at the primary schools. When relationships grow laterally across and beyond school organisations, they actively nourish the social and emotional needs of students and adults alike. They create new organisational possibilities for reconciling the conflicting pressures of time, space and attention.

7. The shared work of learning: Policy and action for systemic change

Our case studies and analysis point to some urgent priorities for education.

The emphasis of school and system improvement strategies has intensified over the last two decades, creating relentless pressures to improve learning outcomes in ways that are faster, cheaper and more sustainable.

> *"Simply promoting competition through our existing institutional and socio-economic structures will reproduce and accelerate inequality, stall educational progress, stunt economic growth and cause deep social harm."*

The emphasis on the individual school as the unit of effectiveness continues to increase. Yet both the national and international comparison data discussed in Chapter 1 makes a compelling case that urgently needed gains in student achievement will not arise from further extending the techniques of competition and control that have dominated schools policy for the last two decades. There is growing attention to the needs and progression of each student.

If policy and system change focus only on individual school and individual teacher performance, they will ignore many of the factors that are most powerful in preventing students from learning more. Simply promoting competition through our existing institutional and socio-economic structures will reproduce and accelerate inequality, stall educational progress, stunt economic growth and cause deep social harm. Incremental improvement in teacher quality through conventional means cannot keep up with, or effectively counter, that trend.

What should we do?

The examples and evidence we have considered show that collaboration, combined with strong learning purpose, professional excellence and collaborative system leadership, can achieve powerful and positive long term effects. They point to significant lessons for policy and practice. But the case studies are local and small scale. How, amidst these diverse and swirling currents, can student achievement be pursued systematically in jurisdictions of millions of people?

In this chapter we spell out an agenda, focused on collaboration, for systemic change that effectively supports the learning needs of every student.

7.1 A different view of 'the education system'

In his classic study of 'high modernism' in government and state formation during the 19th and 20th centuries, James C. Scott described as 'seeing like a state' the historical process of imposing linear, ordered priorities on a complex, self-organising and unruly community.[114]

Scott showed how the very establishment of the routines and structures of government creates 'lines of sight' via geographical boundaries, official statistics and bureaucratic hierarchies. These structures in turn determine the flow of information to decision makers and shape their perspective on the world they are trying to influence for the better.

> *"We argue for a system-wide agenda which focuses on the fundamentals of teaching and learning."*

Scott argued powerfully that the prevailing assumption of high modern governments, that they could use centralised rationality to improve the human condition, is flawed.

Today, we live in a different era. The decentralised logic of market information and power has run too far in shaping our world and public institutions are trying to adapt to new and vocal forms of public need. Yet education systems are still struggling with the problem of high modernism – how to avoid the trap of 'seeing like a state' in schools policy, defining progress and fairness only through the official statistics and the narrow prism of bureaucratically-channelled performance information.

This 'top down' perspective to education policy is insufficient to achieve progress, yet we cannot afford to abandon system-wide ambition. Leaving the momentum of educational improvement to the status quo will result in widening inequality and stagnation, at great cost to our society and our economy.

Instead, we argue for a system-wide agenda which focuses on the fundamentals of teaching and learning. It is an agenda that works to combine them with wider relationships that can support and sustain student learning outcomes in 21st century communities and economies.

To achieve that, the way 'system' is defined in education policy and management needs fundamental alteration. The dominant understanding of 'education system' is that hierarchies of institutional control and accountability govern schools from above. A formal education 'system' is a group of schools governed by a 'system authority.' It may be as small as Lutheran Education Australia (85 schools), or as large as the NSW public education system (2218 schools) – the largest formally governed collection of schools in the southern hemisphere.

In this definition, the system is defined by its institutional hierarchy. It is the classic three level bureaucracy – a chain of accountability with Ministers and Directors-General at the top, school councils and principals in the middle, teachers at the bottom, and little visibility of students, their families and the community.

The reality of course, is more complex. In federal nations like Australia there is more than one government, and more than one minister, and more than one bureaucracy for every jurisdiction. Federal and state sources of public funding are combined through negotiated funding structures. Private sources of funding make a huge difference to education outcomes for different students. Within each state or territory there is more than one formal school 'system', because Catholic and non-government school systems, with their own institutional authorities and bureaucracies, are established in every jurisdiction.

In this traditional view, the main focus of activity is competition. Different 'systems' (federal, state, Catholic, private and so on) and different senior players within the systems, compete for greater 'control' over policy and the resources that are directed to individual schools. As well as the overt competition between schools for results and high value students, there is intense competition within the systems for power, status and resources.

This approach wastes vast amounts of time and energy in a sterile competition over the levers of funding and bureaucratic power. It produces little to no effect on student learning outcomes. But it also ignores that there are other factors at work. These factors are systemic, in a different sense from the institutional structures described above, and have an equally powerful effect on students' educational outcomes.

An alternative view of 'the system' is needed so that policymakers and educators can learn to influence it differently, in ways that do support greater student achievement.

Local learning systems – complex, adaptive systems

The focus of strategic policy and system-level leadership is shifting in many countries, from top-down national and state strategies to a focus that might be better described as 'middle out.'[115]

This focus brings together the agenda for change at a level of aggregation somewhere between individual schools and central departments. It acknowledges that system-wide gains cannot arise from working one school at a time, and that central bureaucracies are too remote from the specific contexts and motivations of teachers and students to be able to direct progress successfully. This is precisely why learning to support collaboration effectively is the overwhelming strategic priority for education policy and management. It applies simultaneously at the level of teachers and students in local communities, and of systems and agencies working at the level of cities and regions.

Our case studies provide an important insight into how this priority might be translated into system-wide practice. They show how each of the schools has worked to construct its own local learning system, by actively seeking out connections and resources, and by using collaboration to build them into relationships and routines which create value for their students.

The study of just three locations reveals how diverse these local systems are – ranging from working connections with the Board of Studies in NSW, the network of Northern Adelaide High Schools in South Australia, and the City of Greater Dandenong Library Service and VicHealth in Victoria. This diversity, and the ability of schools to build relationships that are 'fit for purpose', speak to the importance of flexibility in their organisational arrangements and clarity in their learning goals.

Every Australian school has dozens of connections stretching beyond their individual organisations – larger schools have hundreds. These connections form part of a 'hidden wiring' of social capital and informal exchange. It is wiring that supports the work of teaching and learning, and provides a constant supply of information and social learning, influencing the behaviour and outlook of everyone in the school.

As chapter 2 outlines, a wide range of collaborative efforts are focused on reducing under-achievement and disengagement in schools and communities around Australia. This effort often involves a partnership between schools and community or non-profit organisations with a specific mission to tackle disadvantage. Some focus on developing social supports and connections to increase and sustain educational participation, for example through mentoring. Others promote school-to-school collaboration to identify and spread new and effective approaches to teaching and learning among schools with similar needs.

Collaboration can lead to connections that are more authentic, more sustainable and better adapted to the needs of participants than more hierarchical or instrumental structures on which education systems traditionally rely.

"Rather than setting rules and allocating resources separately across thousands of competing individual schools, education systems must find new ways to support shared action to improve outcomes for all students."

Collaborative networks make it possible to find specific resources and information relevant to specific needs and situations, well beyond the gaze or the level of detail of which centralised policy making and analysis are capable.

Collaboration makes possible the sharing of knowledge and resources with an efficiency unmatched by either market exchange or command control. And under the right conditions, the experience of collaboration leads to the creation of social capital – informal networks and norms which exercise a powerful influence on the aspirations and social and educational development of children.

These relationships seem to have the greatest positive impact when they are grown by the participants themselves, and integrated into their routines and organisations through a process of iterative, trial-and-error development. Fundamentally, this approach creates trust.

Historically, such collaborative efforts have been treated as if they are purely voluntary, because they rely on informal relationships and discretionary effort. As we saw with our school fete example, this tradition can easily magnify pre-existing inequalities, rather than moderate them.

A new strategic role and focus for education systems

We argue in this report that a change is needed in the perspective, priorities and capabilities of education systems, including in their central offices and policy-making functions. This shift is driven by a need to recognise the integral role played by collaborative relationships in creating student outcomes, and a need to design intentional strategies which use collaboration to improve those outcomes for every student.

Education systems, operating as agencies and decision making hierarchies above the level of the individual school, cannot hope to define, drive or prescribe such collaboration successfully at the level of nuance and local diversity that makes it effective. What they can do is learn to support collaboration effectively, and link it to overarching goals which are in turn supported by the wider community.

Rather than setting rules and allocating resources separately across thousands of competing individual schools, education systems must find new ways to support shared action to improve outcomes for all students.

This approach views education as a 'complex adaptive system' – a set of relationships through which a wide range of people and activities are coordinated to create more than the sum of their parts.

Complex adaptive systems are defined by relationships of interdependence, not by their separation of formal functions into different boxes in an organogram. They are a means of coordination, differentiation and adaptation that has evolved in social, economic and natural systems over millennia. Our institutional and policy systems are built on these ever-shifting evolutionary foundations, but they tend to embrace a different logic to justify and organise themselves. We need to learn better how to shape these complex adaptive systems to reflect our human values and purposes.

What is an education system in this view? It includes the formal institutions and organisations, the authorities and legislation, the budgets and job descriptions, the professionals and the evaluation structures. These are parts of a wider system which includes both informal and formal relationships.

This view acknowledges for example, that schools from different sectors that are situated in the same local area all compete for 'high-value' students. These schools impact on each other, and collectively they impact on the learning outcomes of students, even though the schools are governed and run separately.

It acknowledges that the social mix of families and students, their past experiences and expectations of learning, and the kinds of work that parents do, have a deep shaping effect on what schools and students can achieve between 8:30am and 3:30pm during the school day (or indeed how schools are structured and operate).

It acknowledges that the governance of education in a given community is influenced by the hierarchy of education officials, and by the wider set of governance relationships and services – health, infrastructure, housing, jobs, tertiary education and community development.

And finally in this view, the education system includes social capital – the informal network of trust, norms and information that grow between people who interact with each other repeatedly. Social capital is regarded as a powerful and precious resource for education, not simply a background factor in which schools or systems have no intentional or legitimate role.

The task of education system leadership is to work out how to use all these elements, bringing them together coherently to support the goal of student learning.

In the next section, we set out a series of priorities and recommendations for action at all levels of practice and policy. They are designed to achieve cumulative systemic change by building and linking together capabilities for shared action.

7.2 An agenda for systemic change: Recommendations for policy and action

To progress towards becoming the next great education systems, all systems need to learn over time: from the continuous feedback of professional practice and local knowledge, from increasingly rigorous analysis of large-scale data sets, and from examples and challenges created by innovation in other systems and sectors.

The priorities outlined below are designed to achieve cumulative impact and to be flexible in their implementation, varying according to the different needs and contexts of different schools in different places. They are not directed just at policymakers, or just at teachers: they are priorities that should be considered, and should prompt questions at every level of the system.

7.2.1 Priority 1: Identify learning need

The first leadership task for policymakers and for school leaders is to give voice and visibility to the learning needs of students. Articulating why education matters, how it is valuable, and where it is most needed in our community, is fundamental to crafting any effective strategy for change.

That most people agree so strongly on the importance of education does not lessen the need for this visible identification of need. Making the need visible is a prerequisite for making clear choices about how to meet it. Leaders of education systems must be fearless and rigorous in identifying educational needs that are unmet, in order to focus and challenge the many parts of our education systems to meet those needs through innovation and collaboration.

The process of identifying and agreeing on what is needed is also part of the process of building community legitimacy for the actions needed to improve outcomes. Policymakers can rely too much on standard

measures and international comparisons to define the value of education, when it is better to regard them as indicators of progress towards the vision of a learning society.

Education and learning create multiple forms of value. They transform individual lives, enrich our shared culture, create greater capability for economic innovation, and embed trust and civility. All these values need a concrete voice and constant renewal. That is a task of political, policy and community leadership.

Action 1: Identify visible learning goals

- Ministers and education officials should invest in broad-based community processes to identify, discuss and develop learning goals for their education systems. Departmental strategies should include developing and refreshing these goals with the wider community.
- Through their quarterly and annual planning cycles, education departments and regions should identify the learning goals that are high priority, and make them publicly visible to encourage collaboration and exchange of lessons and solutions.
- System leaders should consistently articulate, model and communicate these learning goals; part of their leadership should involve making them clear and visible to the wider community.
- Local learning systems also need visible, shared learning goals and priorities, which can be articulated through various formal and informal means. System architecture and data policies should help them in this task (see Priority 4).
- Central offices and operating systems should be reshaped to focus on the decisions and resources that will enable policy and system leadership to align capability and resourcing with the greatest areas of unmet need.

Checklist

- What are the greatest and most urgent student learning needs among students in your system?
- What are the most important learning goals of your system?
- How do they impact on your organisation and priorities?
- How widely shared and understood are the goals?
- How is progress measured and evaluated?

Action 2: Dedicate resources to learning need

Transparent, needs-based funding systems are the essential foundation of any strategy for improving student outcomes. They need to be implemented and improved in every jurisdiction.

There is little prospect that an education system can make overall progress unless money is allocated transparently according to learning need.

Where specific learning needs are identified – for example the attainment of Indigenous students, or students in socially segregated high schools in regional towns – then sustained effort must be focused on using additional resources to bring about improvement in learning outcomes.

These financial resources make a material difference to the availability of skilled people and learning materials. But equitable resourcing also matters because confidence and shared belief in the fairness of resource allocation makes a difference to the commitment and performance of people working in the system. The OECD found that in higher performing systems, a higher percentage of school principals agree that school funding is allocated equitably.[116]

In Australia, this is a partially completed task. Completing it requires:

- the full implementation of needs-based, sector-blind, 'resource standard' models in states, territories and non-government systems; together with

- a federal government funding framework that delivers an equitable allocation of overall resources and a real increase in education spending, weighted rigorously towards student need.

Much of the legislative, regulatory and data framework needed for such a system is already in place, despite the efforts of some governments to ignore and dilute them. To complete the task will require a refreshed National Education Agreement and a medium term year-by-year funding strategy.

Checklist

- How well does the allocation of financial and staff resources reflect learning need in your system?

- Are the means of identifying need and allocating resources fair?

- Can they be applied transparently and consistently across the whole community of schools and students?

- What changes are needed to achieve a better match between learning need and resource allocation?

7.2.2   Priority 2: Build platforms for professional collaboration

The priority for professional learning is to dramatically increase the opportunities for professional collaboration by building platforms which:

- enable teachers to work together across the organisational and geographical boundaries of school sites; and

- support professionals from different disciplines to work together to solve common problems across education, health, families and community development.[117]

Professional learning is a crucial ingredient of successful systems and a priority for school reform everywhere. Our case studies confirm the central place of focused, collaborative, professional learning, influenced by hard data and guided by specialist expertise, for sustained improvement in student outcomes.[118]

At the level of daily practice, connecting together dedicated time for professional learning with planning, teaching and evaluation is fundamental to achieving the next breakthroughs in performance and building the capabilities of the school workforce.[119]

Where schools can create and access shared 'platforms' for collaborative professional learning, they are better able to accelerate and sustain their progress. Crucially, when these platforms act as shared resources for a wider community, they also increase the pool of time, expertise and connections available to meet specific learning needs.

In our case studies we saw this repeatedly – in the faculty-based team structures at CVHS and PGHS, in the formation of professional learning partnerships between the high schools and their local primary schools, and in the formation of cross-agency, cross-disciplinary working groups in Dandenong West and Noble Park.

Often these platforms were formed with the help of some dedicated financial resources, such as Smarter Schools National Partnership funding, money allocated to support the implementation of the new Australian Curriculum, or the Australian Institute for Teaching and School Leadership's Australian Professional Standards for Teachers.

The introduction of new externally validated standards was translated into an opportunity for shared learning, joint enquiry and knowledge exchange among groups of professionals who did not traditionally have the means to communicate and work together.

Every school system has multiple resources and organisations dedicated to professional learning. Surprisingly few of them are designed to support collaborative sharing and learning in these ways.

Extending, refining and diversifying these platforms, and supporting schools to participate in them on an everyday basis, is a pressing system reform priority. The following recommendations for action are designed to achieve that goal.

Action 3: Every school needs a 'home group'

As in South Australia's Partnerships, and as modelled by CVHS, local groups of neighbourhood schools must be able to work together to:

- prioritise successful transitions between schools;
- form connections between teachers with similar professional responsibilities;
- harmonise student record keeping; and
- build systems for transfer of records which support greater personalisation and continuity for students as they move from pre-school to primary school and on to high school and beyond.

Neighbourhood-based 'home groups' can form an important base layer, supporting everyday collaboration and improving the conditions and systems that support wider collaboration.

Checklist

- Are there strong relationships between the different institutions through which students progress in your system?
- Is all the relevant information about students (academic, social and emotional) gathered and communicated between schools?
- Is the language and terminology broadly similar enough to be understood by students, parents and teachers?
- Is there clear curriculum progression and alignment of assessment between stages?
- Where are students repeating curriculum and what would be needed to make that unnecessary?

Action 4: Every teacher should have a 'home group' too

Modelled on the use of study groups in Shanghai, Singapore, British Columbia, and the practice observed in many of our case studies, school systems should move towards identifying a study group for every teacher when they join a school, and especially during pre-service training and induction. School systems should support them to work through study groups as one of a school's basic organisational units and a link into wider teacher and professional networks.

Checklist

- Do teachers of different experience levels, disciplines and institutions have the opportunity to work together?
- What opportunities are teachers given to develop professionally together in these groups?

- Do teachers and other staff have time in their routines to meet their peers in other local schools and other professionals in community and industry, to work out responses to shared problems of practice?

Action 5: Schools should get support to consider 'twinning' and 'federation' where there is a clear student-led rationale

System authorities should step up experimentation with 'federated' governance structures for schools, supporting groups of schools to come together around shared operations and leadership where there is a clear rationale for doing so.

For example, school federations in regional Australian towns can create a platform for high quality pathways for every local student.

Systems should actively promote and try out the use of 'twinning' arrangements between schools with complementary strengths and weaknesses, where there is a clear need and mutual interest in working together to fuse leadership structures and foster deep collaboration across schools. Cross-sector twinning should be actively supported.

Checklist

- Are there groups of schools in your system facing common challenges that could be better addressed together?

- What system changes would be required to allow that to happen?

7.2.3 Priority 3: Grow community voice in decision-making

Collaboration to improve student outcomes is not solely a professional conversation.

Our research and a wide range of evidence show that attitudes, relationships and decisions in the wider community also have a powerful influence on what students get from education and which resources schools can access. Building stronger relationships with the communities that surround schools leads to higher student achievement.

In our case studies, permeable organisational boundaries were crucial in allowing effective collaboration. They enable schools to find and absorb new ideas and methods while maintaining clear, purposeful organisational routines.

Yet the voice and role of other members of the community – parents, residents, employers, and other organisations – remains the most ambiguous and underdeveloped area of practice and policy in education. The structures, pressures and current focus of school leadership do not properly support the goal of strengthening community relationships.

In the USA, Carrie Leana found that principals spend only a small amount of their time on building external social capital – that is relationships with parents, community and other organisations. When they did spend more time, 'the quality of instruction in the school was higher and students' scores on standardized tests in both reading and math were higher.'[120]

Local governance arrangements for schools rest on individual school councils and governing bodies, which generally combine professional staff members with parents and other volunteers from the wider community, and with diocesan representatives in religious schools. These local committees are faced with an explosion of information and operational complexity. They have a very limited range of methods through which to reflect and articulate the voices and contributions of the community they seek to represent.

Our study revealed the fundamental importance of building shared goals and understanding with families for student achievement. Most of the schools had a very practical, case-based approach to these relationships. They worked to deal with specific issues and to build positive, mutually respectful relationships with families and with other community partners.

But it is also clear that the current range of roles and formal relationships found in local school structures was not doing much to help the growth of purposeful collaboration. School leaders were often aware of the need to find new ways to grow parental involvement and networks.

The answers may not arise from changes to formal governance and representation structures. They are more likely to emerge by expanding the range of methods through which local communities are engaged in talking with, and using, schools and the activities and facilities that they might offer.

One promising method is to widen the use of open inquiry and consultation structures to create more active opportunities for students and families to play a role in shaping the objectives and priorities of the schools. For example, the UK's Harris Student Learning Commission appointed a group of experts, including senior high school students, to investigate the priorities for future learning and the ways in which students could be more engaged in making them happen.[121]

The Commission found benefits in actively engaging students in conversation about what matters to their learning and how to improve it. Students can become contributors to an ongoing, virtuous cycle of feedback, shared commitment and learning outcomes which becomes part of the organisational routine.

Student-teacher feedback is crucial to the efficacy of teaching interventions. Similarly, collective participation in the culture and organisation of schooling can improve the long term efficacy of education.

School systems should invest in identifying, trialling and spreading the use of community consultation, dialogue and enquiry models to increase the commitment and participation of their surrounding communities.

Action 6: Dedicate funding for cross-school community workers

Education systems should create dedicated funding streams and employment structures for workers in roles similar to those at Dandenong West and St Anthony's. Their role is to work deliberately across multiple schools and with other community partners, supporting both professional and community collaboration across local communities. Quality youth and multicultural workers who are outwardly focused can create bridges between students, families, schools, services and businesses.

Checklist

- How could your system share community workers effectively across schools?

- What would be the priorities for community consultation?

- How can school leadership roles better reflect and influence community engagement?

Action 7: Include student voice in decision making

There is no part of the community more invested in the success of education than the students themselves. Education systems should consider ways in which students can play an active role in the governance structures of schools and how their views can be recognised in establishing learning priorities. Dandenong West experimented with student involvement in staff selection panels and found the experience to be positive and empowering for both students and those being interviewed. Students presented an important alternative view on selection criteria.

At CVHS the student body representatives invested their energy in the school's ongoing success, taking their responsibility to the student body seriously enough to be involved in inducting the next year's leaders. While

this is not unusual within schools, student leaders and former student leaders are rarely harnessed as a way of building and maintain community engagement in schools.

Checklist

- How could students be involved in decision making at all levels of the education system?
- How could students be included in school governance structures?

Action 8: Develop at least three 'open access networks' for every local government area

Schools should also have the option, and the opportunity, to join at least one wider network of schools which deliberately spans a much greater scale and range of locations. This might be a system-sponsored network, or linked to a specific institution or interest with which individual schools can affiliate. For example, science and maths schools, the Great Schools Network, or networks run by universities.

These open access networks would help to create wide-ranging weak ties across networks of schools and other learning institutions. This would encourage connections and dialogue across local sites and beyond agency silos. Creating cross-network connections would build network leadership and promote information sharing and community engagement, providing expertise on areas of shared interest and informing community voice to deepen community dialogue on education.

Checklist

- What kinds of networks already exist in the system?
- How can school systems and their regional offices support the formation of a wider range of 'open access' networks?
- What shared data, dialogue and evaluation practices would accelerate learning about the impact and operations of 'open access' networks?
- What existing networks of practitioners in schools have the potential to evolve into more structured and wide-ranging 'open access' networks?
- What forms of network leadership, both institutionally funded and voluntary, would increase the value of network activity?

7.2.4   Priority 4: Share pools of data

Collaboration relies on shared, trusted information. Systematic support for this kind of collaboration requires a revolution in sharing and using educational data.

Performance information threatens to dominate our daily lives in negative and unsustainable ways. The digital sharing of personal information is a growing social risk for young people. At the same time the growing power and sophistication of relevant data, and its application to 'learning analytics', offers huge new insights and gains. It is an essential part of an education system that supports every learner.

Perhaps the biggest change in the organisational environment of schooling, as in all sectors in the last decade, is the availability of 'big data.' But the crucial shift yet to be made is towards the widespread sharing and use of outcome and progression data to support learning and decision making.

Our case studies point the way towards some of these approaches.

Accurate, accessible data underpins PGHS's commitment to learning for every student. It is embedded in every aspect of the school's organisation. In the absence of available data the school has created its own. It has found ways to interpret the data required by the education system for formal accountability – NAPLAN,

Progressive Achievement Tests in Mathematics and Progressive Achievement Tests in Reading – in ways that are meaningful and useful to teachers and students. At PGHS, grade point average is a useful tool for students to self-monitor progress and for staff to monitor and mobilise around the needs of individual students.

But data is only as good as the tools and structures that surround it, and here the organisation of schools and education systems places basic, unnecessary, constraints on using data to enhance learning.

Much of the debate about use of school performance information, such as through the My School website, has focused on the assumed risks of people making uninformed comparisons or drawing invalid conclusions from the availability of such information. But the experience of many schools is that that the availability of student performance data is constrained by the limitations of technology and support systems. Reluctance to share data across organisational boundaries, and to work together to interpret the data, holds back some of the greatest opportunities to improve student learning.

Many school systems are moving towards more specialised and flexible data capabilities, creating anonymised data sets of whole cohorts of students and developing software applications which allow different aspects of the data to be mined, compared and analysed. Yet official structures and protocols for analysing such data often lag far behind the needs and experience of schools; for example, senior teachers being unable to access centralised data warehouses from anywhere but fixed terminals in the school building (as was the case in South Australia), and aggregated data often arriving in schools months after it would have been useful.

The greatest challenge evident in the three case study sites was the data being accessible and useable. Too many schools are currently inventing their own solutions to this problem, resulting in systems that further fragment and isolate schools from each other.

Different systems also protect their own data far too jealously. They restrict access when it could provide a rich source of wider insight and analysis. They try to develop exclusive and proprietary systems for managing data when it would be cheaper, quicker and more useful to use applications and solutions developed by the market or the open source community.

As John Hattie argues, 'the system needs to provide resources to help schools to know their impact… What is not suggested is more tests: schools are awash with tests and data that, in whatever language they are packaged, lead only to more summative than formative interpretations. Instead what is requested are more formative interpretations.'[122]

Our report shows that it is not just teachers within schools who need data to support collaborative action. A wide range of partners working together around schools also need the data. Accelerating the development of 'open source' data, and public sharing of relevant data, constitute an important priority.[123]

Action 9: Remodel public sector data and evaluation structures

Education departments and other social policy agencies should commit to open data sharing and community-level data protocols. They should invest jointly with other systems and institutional partners in open data repositories and software applications for educational use.

Checklist

- How can data be stored in ways that protect privacy but actively encourage use?

- How can community standards of data privacy be considered and developed to ensure confidence in structures that make the best use of data that is gathered?

- What can systems do to work together to create collective data structures?

Action 10: Build common standards for analysis, data security and categorisation

A key priority for policy is to develop architecture that promotes sharing and pooling while protecting privacy and data integrity.

Checklist

- What methods of analysing data can be developed, communicated and valued across sectors?

- To allow data sharing, what privacy considerations must be accounted for?

Action 11: Create data platform sharing between departments and schools in 'many to many' relationships.

Creating a culture of 'transparency of results and practice' is fundamental to the next stage of system change and to realising the benefits of collaboration.

Checklist

- Is the data currently gathered being shared with all parts of your system?

- How can each part of your system access data that is relevant to them?

- Is data literacy among practitioners high enough to make use of shared data?

- What would be needed to allow practitioners to make the best use of the data collected?

7.2.5   Priority 5: Restructure governance around learning

Finally, education systems need to reshape their own governance structures and relationships to focus more strongly on learning outcomes to strengthen local learning systems and build shared capability for system-wide learning.

This means moving further away from the vertical, functional structures that have dominated historically, and moving towards a new combination of:

- lean, transparent accountability and coordination structures;

- lateral, network-based relationships which facilitate sharing of resources, rapid transfer of knowledge, and voluntary collaboration across education systems; and

- new capability at the centre of education systems for rapid 'system learning' and strategic interventions, based on large-scale learning cycles, including 'development and research' innovation strategies.

The most important structural manifestation of this is to build strategic partnerships at the level of city-regions, to focus the efforts of schools and colleges, and to foster collaboration with other sectors that are crucial to lifting student learning outcomes and building more pathways into work and tertiary education.

Action 12: Develop regional collaborative structures – working with health and human services, tertiary education and employers

Each jurisdiction needs to establish clear regional collaborative structures designed to support cross-institutional collaboration for student learning. These partnerships should bring together health, local government, tertiary education and economic development institutions, along with employer and community organisations, to identify and support shared actions to lift educational outcomes across their regions.

These partnerships will vary from one jurisdiction to another, but their scope, scale and focus are critical.

Over time, they can also become the vehicle for substantial decentralisation of funding and service delivery. The can support integration or alignment of financial investment in infrastructure and service development across education, skills, health, housing and transport.

Checklist

- Which regional organisations should be involved in a collaborative structure?

- How can regional organisations be encouraged to consider student learning goals?

- What barriers are currently preventing regional collaboration?

- What accountability and funding structures would need to change to allow collaboration?

Action 13: Support the development of collaborative leaders

Education authorities and Leadership Institutes should investigate and support the development of dedicated programs for school leaders to strengthen and share the skills of community-level collaboration.

These programs should draw on current practice, including practice in other countries, and experiment with forming networks of collaborative leaders which provide ongoing mutual support and action learning.

Checklist

- Do leadership competencies and courses currently identify or recognise the importance of collaboration and community-based partnerships?

- Do some school principals and senior educators in your system already hold significant experience and expertise in this area?

Action 14: Increase the use of challenge-based funding

In keeping with this open, problem-solving approach to planning and coordination, education policy makers should rapidly increase the use and funding of public 'challenge' structures to find and share new solutions to tangible problems.

Challenges are centuries old, but have seen a resurgence in the last 20 years as the internet has made large scale distributed search and collaboration possible. Public challenges such as the European City Mayors' Challenge and the Longitude Prize (NESTA) show the potential for using modest amounts of money to find and share novel solutions to entrenched problems in education.

This means creating public 'learning challenges' which spell out specific learning intentions and goals, inviting participation in trials to solve them, and then publicly sharing the results and evaluation.

Checklist

- What are the current sources of targeted funding available to support collaborative problem solving of shared, concrete problems in education?

- How could existing investments and program funding streams be enlivened by adopting more open, challenge and project-based methods of funding and problem-solving?

Action 15: Encourage development and research partnerships

Education systems should step up their use of Development and Research (D&R) networks to foster innovation, and to test and spread effective practices. This can be achieved by developing a range of partnership structures through which they can develop a knowledge base with expert organisations, researchers and practitioners.

This approach offers faster routes to impact and scale, more rigorous evaluation of outcomes, and clearer accountability for learning outcomes. It involves moving further beyond the traditional structures of separate policy, administration, research and practice functions.

Checklist

- Who has responsibility for research and evaluation in your system, and how can they be engaged more directly in shaping priorities for implementation and knowledge sharing?

- How can D&R partnerships be created to support schools to draw upon external expertise?

- What do we need to learn about how and when different forms of collaboration can be effective in meeting shared educational needs?

8. The next great education systems

Our future education systems are emerging, unevenly distributed, from the practices of the present.

What they look like and how well they work in a generation's time depends on which signals we pick up on collectively, which relationships we strengthen, and which ones we allow to wither.

This report has collected and presented insights and evidence about the role of collaboration in student learning outcomes, and its potential role in creating system change.

In conclusion, drawing on preceding sections of the report, we offer a series of characteristics that could become defining features of our future education systems.

8.1   All students learn and progress along a pathway they value

The overarching test, relentlessly applied, should be whether all students are learning sufficiently. This applies from the most motivated, highest-achieving students through to the most disadvantaged and least engaged. Part of the test is whether the system is engaging them and ensuring their progress along some valuable pathway. The goal defined by PGHS – that every one of its students finds a positive pathway beyond year 12 – has to become the goal of education systems overall.

At the moment, in virtually every system around the world, whether every student is learning and making progress is not the priority goal driving the behaviour of most people working in the system. Instead, schools are focused on their own performance, however defined, and departments are focused at best on improving outcomes for specific cohorts of students. The achievement of personalised learning and universal progress fall through the cracks.

8.2 Diverse system outcomes are all valued learning outcomes

Too much time and energy is currently consumed in educational politics over a supposed contest between priorities: formal attainment and cognitive development through literacy, numeracy and qualifications, versus 'soft' outcomes including wellbeing, resilience, collaboration and creative problem-solving.

Falling into the binary contest between these two priorities is a sign of a system that is under-performing by squandering its effort on meaningless conflict. Critical thinking and collaborative problem-solving need a greater place than they currently occupy in school curriculum and pedagogical practice. But they need to be integrated with, and reinforce, cognitive development, content knowledge, and essential numeracy and literacy skills.

Schools which claim to prioritise civic responsibility and emotional intelligence among their students, while maintaining ferociously competitive exam regimes and highly selective entry procedures, are also reproducing an unproductive status quo. They are helping to intensify the pressures felt by individual students and further widening societal inequality. Equally, schools serving disadvantaged student populations do a disservice to the learning needs of their students if they resist accountability for their performance in literacy and numeracy on

the grounds that they disagree with the narrowing of the curriculum. That status quo, at both ends of the spectrum, needs to be challenged.

The truth is that both elements are essential to student success. In the 21st century the emphasis on non-cognitive development, creativity and collaboration is growing because our society demands more. It is no longer acceptable to assume a separation of roles between schools taking care of formal curriculum content while families shape the character of their children.

> *"High performing education systems must clarify the full range of valuable learning outcomes, and then identify honestly and accurately which ones are being prioritised, and for what reasons."*

The test of a high-performing education system is whether it can promote the development of both sets of outcomes in ways that are integrated, workable and available to *all students*.

In high performing education systems, all these outcomes will be valued and visible, concrete and tangible, reviewed and debated, taken seriously for every student.

New and reliable ways of assessing student growth in these areas are rapidly becoming more available. The University of Melbourne's Assessment and Teaching of 21st Century Skills project is an example. They need to be a central part of future assessment and qualification reform.[124]

But the most important shift in emphasis probably comes from the language and the goals adopted by system leaders – ministers, officials, school principals, commentators. Instead of falsely polarising a zero-sum contest between two sets of learning outcomes, high performing education systems must clarify the full range of valuable learning outcomes, and then identify honestly and accurately which ones are being prioritised, and for what reasons.

Collaboration is most important here because of its role in creating shared purpose. Collaboration holds the potential to support innovation in practice which allows the integration of cognitive knowledge and understanding with non-cognitive skills and relationships.

8.3 Many to many relationships

The pursuit of better learning outcomes needs to take place through relationships that are 'many to many.' Rather than one-to-one (coaching, supervision, feedback) or one-to-many (lecturing, broadcasting, prescribing), the relationships through which learning flows in a network-based society are many to many.[125]

Great systems will pursue intentional strategies to create many, dynamic, interlinked relationships, in different locations and at different levels of scale. They will then learn systematically how to use them to create better learning outcomes. They will eschew the pursuit of planned objectives through a vertical chain of command that allocates fixed roles and resources to units with separate functions in the system.

Perhaps the most important connections to be made are between the sites of practices – the places where students learn and where teachers teach – and other sources of knowledge, expertise and resources.

8.4 Resources directed towards learning need

To ensure that all students are learning, high performing education systems will explicitly channel resources towards need. This may seem straightforward, but it is too rarely achieved.

Resources are not just about the equitable direction of funding, however. In the broader view of systems that we have outlined, resources are both formal and informal. They include the skills, knowledge and connections of the educational workforce and the surrounding community.

For example, a public education system is not functioning well if incremental funding is directed towards highly disadvantaged school communities, but the most experienced and best paid teachers flock to schools serving highly advantaged middle class students in leafy suburbs.

At a micro level, our case study schools excel at using all available resources in the service of student learning, and prioritising learning need. Education systems must learn how to achieve the same impact at a much larger scale.

8.5 System-wide cycles of learning

To do this, high performing education systems will constantly translate knowledge and information into action, capability and outcome.

The strategic role of policy centres and system-wide administration will increasingly focus on designing and performing these cycles of learning, adjusting governance structures and routines to better serve the learning objectives and capabilities that are identified as priorities in each system and community.

The practice of teams of teachers is based on a cycle of designing, enacting and then evaluating the impact of their practice. Similarly, education systems need to undertake the same functions at larger scale.

To make the most of collaboration and to tackle under-achievement and disadvantage effectively, education systems need to make a further shift in their focus and priorities. They need to learn to build new capabilities in support of those goals. Creating these capabilities will be the major focus of efforts to restructure central policy-making, administrative and regional structures over the next decade. There is an essential, proactive strategic role to be played at the centre, whose success will increasingly rely on mobilising and spreading learning outcomes without exercising direct control.

Resourcing and accountability will be focussed around building and shaping learning systems – systems that actively invest, identify, amplify and recognise the actions that lead to sustained improvement in student learning outcomes.

Systems do this by providing resources, working to form shared intentions, and supporting repeated efforts by practitioners to achieve specific learning outcomes. The capability is then applied purposefully to achieving student progression and development.

Embracing and harnessing collaboration could create the next wave of big gains in education. These gains are essential to prevent the slide of our education system into increasing inequality, and to create better outcomes, literally for every student.

This requires a radical shift in policy emphasis and political language. It does not rest on a single intervention or 'lever.' It requires us to build new capabilities out of what parts of our systems already know and can do. The good news is that this work is already happening. The challenge is to make it count for every student.

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Mitchell Institute for Health and Education Policy
300 Queen Street, Melbourne, Vic 3000
+61 3 9919 1820
mitchellinstitute.org.au
info@mitchellinstitute.org.au