

PROFESSIONAL AUTONOMY, SCHOOL INNOVATION AND STUDENT ACHIEVEMENT IN THE 21ST CENTURY

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This paper draws on themes in *The Autonomy Premium* (Caldwell 2016a) and the findings of a national survey of principals, as reported in *What the Principals Say* (Caldwell 2016b). In terms of the conference theme, my aim is to provide insight on the power of professional autonomy if there is to be innovation in learning in the 21st century.

I draw from my work in leading the Australian contribution to the International Study on School Autonomy and Learning (ISSAL). Commencing in 2014, researchers from seven countries are contributing: Australia, Canada, China, England, Finland, Israel and Singapore. The focus is on public/state/government schools, but most of the findings are relevant to private/non-government schools.

Definitions and distinctions

'Autonomy' has become part of the vocabulary on governance, leadership and management of public schools in Australia and many other countries. There have been changes in recent decades. 'Devolution' was popular in Australia following the release of the Karmel Report (Interim Committee of the Australian Schools Commission 1973). The concepts of 'the self-managing school' or 'the self-governing school' emerged in Australia and New Zealand, and to some extent in England, in the 1980s and 1990s. 'School-based management' is the preferred term in some countries, especially Canada and the United States (but not in Australia).

The research reported in this paper suggested that it is helpful to distinguish between structural autonomy and professional autonomy rather than the generic concept of autonomy. The following definitions and distinctions are used throughout the paper.

Autonomy for public schools refers to the decentralisation from the system to the school of significant authority to make decisions, especially in respect to curriculum, pedagogy, personnel and resources, within a centrally-determined framework of goals, policies, curriculum, standards and accountabilities. This definition also applies to systemic non-public schools. Non-systemic non-public (independent) schools have a high level of autonomy in matters related to curriculum, pedagogy, personnel and resources without reference to a system authority.

Structural autonomy refers to policies, regulations and procedures that permit the school to exercise autonomy. Schools may take up such a remit in a variety of ways, or not at all, including ways that are ineffective if the intent is to improve outcomes for students. The granting of autonomy may make no difference to outcomes for students unless the school has the capacity to make decisions that are likely to make a difference, and uses that capacity to achieve this end.

Professional autonomy refers to teachers having the capacity to make decisions that are likely to make a difference to outcomes for students, and this capacity is exercised in a

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significant, systemic and sustained fashion. Professional autonomy calls for the exercise of judgement, with a high level of discretion in the exercise of that judgement.

The autonomy premium Evidence from national and international studies, along with case studies in Australia, suggest that there is a 'premium' available for systems of public education that provide schools with a higher level of autonomy. That premium is likely to deliver a higher level of student achievement than would otherwise be the case, but schools must have the capacity to take up the autonomy that is available to them, and this autonomy must be accompanied by professionally appropriate forms of accountability.

Student achievement or learning outcomes refer to student performance in matters considered important by the school and school system, as indicated in a range of ways, including results in national, system, school or classroom tests or assessments, and the success of students beyond the school in following various pathways in employment, further and higher education.

It is acknowledged from the outset that no public school, in Australia or elsewhere, has autonomy if the term is taken literally. Referring to the definition above, all must operate 'within a centrally-determined framework of goals, policies, curriculum, standards and accountabilities'. This is also true, but to a lesser extent, for private or non-government schools. Even charter schools in Canada, New Zealand and the United States must operate within a centrally-determined framework. The 'charter' can be withdrawn if the terms and conditions of the framework are violated or if the school fails. It would be preferable to abandon the use of the term 'autonomy'. Indeed, it is likely to fade from the scene as the exercise of professional autonomy becomes ubiquitous, as it has in some schools and school systems.

As we shall see, there are particular practices associated with the exercise of professional autonomy that link to improved outcomes for students. However, in a generic sense, most prescriptions of what is entailed in being a member of a profession refer to the exercise of autonomy. Hargreaves and Fullan (2012) referred to professional capital and distinguished between professional capital and business capital. They also distinguished between *being professional* and *being a professional*. While both are desirable, they pay particular attention to *being a professional*: 'Ideally, of course, it's best to be professional and be a professional at the same time – to have status and autonomy and be trusted and able to make informed judgments effectively' (Hargreaves & Fullan 2012, p. 81).

Hargreaves and Fullan cited the classic definition of Etzioni of what being a *profession* entails:

- Specialised knowledge, expertise, and professional language
- Shared standards of practice
- Long and rigorous processes of training and qualification
- A monopoly over the service that is provided
- An ethic of service, even a sense of calling, in relation to clients
- Self-regulation of conduct, discipline, and dismissals
- Autonomy to make informed discretionary judgments
- Working together with other professionals to solve complex cases
- Commitment to continuous learning and professional upgrading (Hargreaves & Fullan 2012, p. 80)

A case can be made that Australia has moved closer to these characteristics. Standards of practice have been adopted in the Australian Professional Standards for Teachers and the Australian Professional Standard for Principals, each formally endorsed by the Education Council of the Council of Australian Governments (COAG), as developed by the Australian Institute for Teaching and School Leadership (AITSL) (AITSL 2011a and AITSL 2011b, respectively).

Professional autonomy is sharply focused to the extent that teachers have a high level of discretion in decision-making, a point that Hargreaves and Fullan made by including decisional capital in their formula for professional capital: 'The essence of professionalism is the ability to make discretionary judgements', adding that 'We take the idea of decisional capital from case law' (Hargreaves & Fullan 2012, p. 93). However, they warn against mimicking practice in the legal ('case law') and medical profession ('instructional rounds') too closely. Behaving like a professional calls for teachers and their leaders to draw from the findings of a range of cases in exercising professional judgement. This is accommodated in the concept of decisional capital.

On the evidence, professional autonomy trumps structural autonomy. Expressed another way, building capacities associated with professional autonomy should be the 'lead driver' (Fullan 2011) in efforts to link school autonomy to student achievement. Structural autonomy – the policies, regulations and procedures that permit the school to exercise autonomy – may have no impact, or even negative impact, if capacities for the exercise of professional autonomy have not been built. This does not mean there is no place for structural autonomy. Indeed it may be an enabler for the exercise of particular strategies in professional autonomy; for example, selection of staff or flexibility in the use of funds. To use the language of Fullan, structural autonomy is not well-placed to be the 'lead driver'.

The autonomy premium endeavours to make a contribution to 'case law' through the inclusion of five studies of schools in Australia (Table 1), responding to the question: 'How have schools with a relatively high degree of autonomy used their increased authority and responsibility to make decisions that have led in explicit cause-and-effect fashion to higher levels of student achievement'?

Case studies in Australia

Nominations of schools were sought from senior leaders of three jurisdictions (Australian Capital Territory, Queensland and Victoria). There were three criteria. First, the nominated schools had taken up a higher level of autonomy for at least two years. Second, the nominated schools had achieved gains in measures of student achievement, or have shown noteworthy improvement; and third, there was confidence that nominated schools could describe in direct cause-and-effect fashion how they used their autonomy to achieve success (while acknowledging there will be a range of factors that have contributed). Leaders were invited to nominate up to three schools in their jurisdictions from which the researcher made a selection to ensure that different kinds of schools (primary, secondary and primary-secondary) and locations (urban, regional and rural) were represented in the initial set of four. The selection was limited to some extent by the resources available for the research (an acceptable delimitation according to Stake 2005, p. 451). A fifth school was added so that the set contained a senior high school that gave explicit attention to and was making good progress in the development of 21st century skills. This school was nominated by senior leaders in the Department of Education and Training in Victoria.

Table 1 summarises the characteristics of the five schools and, for the first four schools, the three examples nominated by principals where they believed links between school autonomy and student achievement are demonstrated and can be explained. The schools were in three settings: urban, regional and rural. Three of the five schools had an ICSEA score between 900 and 1000, indicating a moderately low level of socio-educational advantage. The median score for all schools in Australia is 1000. One had an ICSEA score between 1000 and 1100 indicating a moderately high level of socio-educational advantage.

There is no claim that the nominated schools are 'the best' as far as gains in student achievement are concerned, or 'the best' in exercising school autonomy, or the best in addressing 21st century skills. They are not a representative sample, and no attempt is made to generalise the findings. The schools are intended to be 'demonstration' schools of how the links were made.

Table 1: Characteristics of case study schools

School	Jurisdiction	Level	Setting	2014 ICSEA	Examples of where links to student achievement were demonstrated
Broadmeadows Primary	Victoria	Primary	Urban	927	International experiences in professional development Coaching Local selection of staff
Specimen Hill Primary	Victoria	Primary	Regional	970	Setting higher expectations for students ('Great Expectations') School improvement Team planning [with an integrating theme of wellbeing]
Canberra High	ACT	Secondary (7-10)	Urban	1086	Selection of staff Student support and development of literacy and study skills Band and music program
Millmerran State P-10 School	Queensland	Primary - Secondary	Rural	944	Whole-school capacity-building Targeted personalised approach Community engagement
Glen Waverley Secondary College	Victoria	Secondary (7-12)	Urban	1098	This case study was concerned with how an already high-performing school had used its autonomy to address 21 st century skills

*An ICSEA (index of Community Socio-Educational Advantage) above 1000 (the median for all schools in Australia) indicates a relatively high level of socio-educational advantage; a score less than 1000 indicates a relatively low level.

THE AUTONOMY PREMIUM

The book describes and illustrates how schools can build the capacity to achieve higher levels of student achievement by using the autonomy that has been granted to them in recent years – thus gaining the autonomy premium – and how school systems can support

them. The book draws extensively on research that underpinned an Australian contribution to ISSAL including case studies of the schools described in Table 1. It addresses eight key questions:

1. Why are there mixed results in research on the links between school autonomy and student achievement?
2. What is it that schools actually do with a higher level of school autonomy when they take action that leads to gains in student achievement?
3. Why is it that some critics or sceptics about school autonomy advocate approaches to school improvement that assume or require schools to have a relatively high degree of autonomy?
4. How important is a higher level of school autonomy when all of the forces that may help achieve gains in student achievement are taken into account?
5. Is a higher level of school autonomy likely to foster innovation of a kind that will yield benefits to the student and the nation, especially in the development of new approaches to learning in the 21st century?
6. How important is school leadership and how may principals and other school leaders be prepared for and supported in their roles?
7. What is the role of the school system in encouraging and supporting a higher level of school autonomy?
8. Where is the profession heading for principals and other school leaders if trends to higher levels of school autonomy are sustained and new approaches to learning are developed?

Shifting the focus to professional autonomy: key sources

The conclusion of OECD was that 'Autonomy and accountability go together: greater autonomy in decisions related to curricula, assessments and resource allocation tend to be associated with better school performance, particularly when schools operate within a culture of accountability' (OECD 2011, p. 4).

Hanushek, Link and Woessmann drew on four waves of PISA tests involving more than one million students from 42 countries. In a robust approach to data collection and analysis, they estimated the effect of school autonomy from within-country changes in the average share of schools with autonomy over key elements of school operations. They summarised their findings in the following terms:

Countries with otherwise strong institutions gain considerably from decentralised decision-making in their schools, while countries that lack such strong existing structures may actually be hurt by decentralised decision-making. The negative effect in developing countries emerges most clearly in areas related to academic content, but also appears for autonomy in the areas of personnel and budgets. (Hanushek, Link & Woessmann 2012, p. 213)

Fullan and Watson (1999) reviewed several quantitative studies by highly-regarded researchers to show that SBM (school-based management) had been mainly a structural reform, shifting authority and responsibility to schools, but that there had been negligible and sometimes negative impact on the professional practice of teachers resulting, in turn and understandably, in failure to impact on student achievement. They cited the conclusion to a large-scale study by Leithwood and Menzies (1998):

There is virtually no firm, research-based knowledge about the direct or indirect effects of SBM on students . . . the little research-based evidence that does exist suggests that the effects on students are just as likely to be negative as positive. (Leithwood & Menzies 1998, p. 34)

Fullan and Watson then drew on more promising developments that focused on changing the professional practice of teachers and the kind of support that is required:

We are now in a position to reconceptualize SBM for success. . . While SBM has a structural element, it is culture that is the primary agent of change, i.e., a culture that focuses on that of continuous improvement. (Fullan & Watson 1999, p.11)

A report on competition and autonomy was published by the Grattan Institute (Jensen 2013). A balanced but generally negative assessment of the impact of autonomy on student achievement was presented, drawing on a range of international reports. One explanation for a failure to meet expectations was poor design and delivery of strategies that evidence suggests should have an effect. Jensen’s conclusions included the following:

There are few differences in key school improvement programs in highly autonomous schools compared to centralised schools. They too often share the same bad practices. This doesn’t mean that school autonomy should not be pursued but it does show that it is often poorly implemented . . . (Jensen 2013, p. 36)

A critical issue in any search for evidence on the impact of higher levels of school autonomy on student achievement is the extent to which impact, should it exist, is direct or indirect. Are there mediating factors? Is a higher level of autonomy a ‘triggering mechanism’ that enables other factors, not otherwise possible, to come into play? If so, does the school take action to bring these other factors into play, or does it simply have the autonomy but not use it? Does the school not use it because it does not have the capacity to do so?

Summary of findings

Table 2 summarises the responses to each of the questions around which *The Autonomy Premium* is organised.

Key question	Summary of response
Why are there mixed results in research on the links between school autonomy and student achievement?	Some schools in developed countries have the will and capacity to take up a high level of autonomy. Other schools in developed countries and many in developing countries lack capacity and system infrastructure to do this.
What is it that schools actually do with a higher level of school autonomy when they take action that leads to gains in student achievement?	In addition to a capacity to successfully implement strategies for improvement, schools may achieve an autonomy premium through their capacity to select staff and strategically target a larger pool of resources over which they have discretion. Teachers and their leaders must go beyond knowledge and understanding of what is required; they must be able to successfully implement what ought to be done.
Why is it that some critics or sceptics about school autonomy advocate approaches to school improvement that assume or require schools to have a relatively high degree of autonomy?	A limited amount of autonomy is seen by some as being part of an earlier phase of school improvement whereas there is now a greater focus in successful approaches to autonomy that make effective the link to higher levels of achievement. School autonomy, especially professional autonomy, should be seen as one strategy in contemporary approaches to school improvement.

<p>How important is a higher level of school autonomy when all of the forces that may help achieve gains in student achievement are taken into account?</p>	<p>School autonomy is just one of many forces that impact on student achievement, and even then it is not the major force. Others include student background, quality of teaching, school leadership, social capital and financial capital. School autonomy and the achievement of the autonomy premium may make an important contribution through the school's capacity to select its staff in a way that matches the profile and context of the school. Strategic resourcing to help build professional capital is important. School autonomy has never been claimed to be a 'silver bullet'.</p>
<p>Is a higher level of school autonomy likely to foster innovation of a kind that will yield benefits to the student and the nation, especially in the development of new approaches to learning in the 21st century?</p>	<p>Research suggests there is no direct association between higher levels of autonomy and innovation in schools. Schools that are good or better are, or should be, more innovative than those still on the journey from poor to fair to good. School-initiated innovations within centrally-constructed frameworks that encourage innovation are necessary. There should be much system learning and sharing from innovation in schools. Networks should be more than administrative units. Innovation should be part of the 'core business' of every school and school system.</p>
<p>How important is school leadership and how may principals and other school leaders be prepared for and supported in their roles?</p>	<p>School leadership, especially by the principal, is critical if the autonomy premium is to be achieved. Programs for preparation and development should focus on the Australian Professional Standard for Principals, the National School Improvement Tool, and use of the case method or case studies. Exclusive reliance on university-based programs in school leadership is of limited value unless they include such approaches. Research on principal wellbeing has yielded some disturbing findings and strategies for support must be in place.</p>
<p>What is the role of the school system in encouraging and supporting a higher level of school autonomy?</p>	<p>The aim of the system should be to create conditions under which professional autonomy can flourish within a centrally-determined framework that minimises constraints that impair the capacity of schools to achieve the autonomy premium. The system should help build the capacity and the will of schools to take up the opportunity.</p>

Where is the profession heading if trends to higher levels of school autonomy are sustained and new approaches to learning are developed?

The major driver is technology and school and system leaders must know and understand what is occurring and likely to emerge, taking the lead in ensuring a positive response in their work settings. Success should make a contribution to an enhanced profession in building capacity to make informed professional judgements, solve complex cases and shape continuous professional learning.

WHAT THE PRINCIPALS SAY

More information was gleaned from responses to the national survey of principals in public schools in Australia, as reported in *What the Principals Say* (Caldwell 2016b), conducted after *The Autonomy Premium* went to press.

The research question guiding work in the international project (ISSAL) is 'How does school autonomy – in terms of both structures and cultures - influence leadership practices in relation to curriculum and learning. . . in the 21st Century?' The sub-questions are:

1. What aspects of structural autonomy are the most influential on leadership practices in relation to learning?
2. How do school leaders consistently utilise their autonomy to improve student learning and outcomes, to develop successful lifelong learners, and to develop new pedagogies and competencies? In particular, how do they develop staff capacity, quality and distributed leadership?
3. How do different school systems build cultures of autonomy?
4. How do accountability structures (including national tests, inspection and targets) support or constrain the development of cultures of autonomy?
5. What are the roles that need to be undertaken by intermediate level structures (i.e. districts, authorities, divisions) to ensure equity and whole system performance, and how do these roles impact on school autonomy?
6. How is any of the above influenced by school context?
7. What practices aimed at fostering new pedagogies for the 21st Century exist in the schools? What are the views/conceptions of school leaders regarding the development of these 21st Century competencies and of the pedagogical challenges involved in their implementation?

These sub-questions were adapted to the Australian context and provided a framework for the survey reported in *What the Principals Say*.

It is important to make clear at the outset that the survey reported here was not in itself a comprehensive study of school autonomy. It is restricted to a relatively small number of issues of particular interest at this stage of the ISSAL project. Earlier and later studies taken together with the findings of this survey provide a more complete picture of the phenomenon.

Methodology

A questionnaire was developed with the aid of experts in the ISSAL project and key people in organisations in Australia with an interest or expertise in the area. Arrangements were made with ACER to draw a stratified sample of 630 schools across Australia, representing slightly fewer than 10 percent of public schools in categories to be surveyed (primary, secondary, combined primary-secondary, special). The questionnaire was delivered online to the sample in May 2016. The Kruskal-Wallis test was employed to identify any statistically significant differences among different groups of respondents. A total of 58 statistically significant differences ($p < 0.05$) were found among the various categories of respondents.

There are limits to the generalisability to a whole population when a sample of that population is drawn for the purposes of a survey. That is the case for this survey. The stratified sample drawn by the ACER helped maximise the generalisability when a sample of about 10 percent of principals was employed. This generalisability was reduced when response and completion rates fell below the numbers in the stratified sample. While the characteristics of respondents who returned a completed questionnaire were generally the same as those in the independent sample, the limitations of the study are acknowledged – the margin of error is larger.

It is acknowledged that this was a survey of principals only. As is often the case, different responses may have been received if teachers and others at the system or school levels had been included in the study.

Summary of findings

The findings of the survey are summarised in Table 3 for each of the sub-questions that were adapted for Australia from those that were common to each of the countries participating in the ISSAL project. Noteworthy findings in the table include strategies adopted by principals to build the capacity of staff, support of the school system in building a capacity to exercise autonomy, progress in addressing 21st century skills, and a general preference for more autonomy. Noteworthy were views on supporting and constraining forces:

Six are generally viewed as clearly constraining and four are perceived to be both constraining and supporting. In the first category are national/system curriculum, national/system testing, expectations/demands on principals' time, expectations/demands on teachers' time, national/system targets for improvement, and compliance requirements. In the second category are performance management requirements for principals, performance management requirements for teachers, system requirements for school review, and system requirements for accountability. The most constraining factor was compliance requirements. The most supportive was performance management requirements for teachers

Table 3: Summary of findings in the survey of principals

Sub-question addressed in survey of principals in Australia	Summary of findings
Is the extent of autonomy greater than, about the same as or less than what was provided five years ago?	Nearly half of the principals reported that schools had more autonomy than five years ago. Very few reported less autonomy.
To what extent do schools have the authority to make significant decisions in curriculum, pedagogy, personnel and resources?	Relatively few decisions listed at the right are made by the system without consultation with the school. Schools tend to make decisions within a centrally-determined framework. A noteworthy finding is the relatively large number of principals who report making the selection of teaching and non-teaching staff in full autonomy (within terms and conditions of enterprise agreements).
To what extent does autonomy enable principals to make decisions that help achieve improved learning outcomes?	Principals generally perceive factors listed at the right help achieve improved learning outcomes. Capacities to raise funds locally or to form a school board or council were viewed positively but less so than other factors.
What approaches do principals adopt to build the capacity of their staff to make decisions that will help improve learning outcomes?	A large majority of principals considered they employed all strategies listed at the right to a moderate to very frequent extent. This is most encouraging if generalised to all schools across the country since each is invariably included in lists of what ought to be done. It may be that some principals were rating what is desirable as much as what is current practice.

- Adapting national/system curriculum to reflect local context
- Adapting national/system curriculum to address special education needs
- Determining approaches to learning
- Adopting new or innovative curricula
- Selecting continuing teaching staff
- Selecting continuing non-teaching staff
- Raising funds from the wider community to support the school
- Formulating the budget of the school for funds provided to your school by the system
- Establishing a school board/council

- I make use of system support / consultants
- I make use of non-system support / consultants
- I take a lead in encouraging staff to engage in professional learning at the school level
- I arrange the timetable to allow professional learning to occur during the school day
- I ensure professional learning among staff is consistent with school priorities
- I take a lead in encouraging staff to engage in professional learning beyond the school
- I provide leadership opportunities for staff
- I personally model the exercise of professional autonomy, for example, take action on the basis of assessment data
- I encourage teachers to adopt new or innovative approaches to learning and teaching
- I make use of student test results or assessments, including NAPLAN (except for special schools) to set priorities in school plans

<p>How has the school system built an enduring capacity among its schools to exercise their autonomy?</p>	<p>Principals provided generally positive ratings on the effectiveness of the strategies listed at the right that systems adopt to build capacity for autonomy. This suggests a strong culture of autonomy is being built. Noteworthy were the consistently high ratings of effectiveness of setting school-based targets for improvement.</p>	<ul style="list-style-type: none"> • Consistent advocacy by the state / territory government / minister • Consistent advocacy by the senior leaders of the system • Consistent advocacy by professional associations • System-level support for principals as they build a capacity to exercise autonomy • Inclusion of desired capacities in performance management and development plans for principals • System-level support for teachers as they build a capacity to exercise professional autonomy • Inclusion of desired capacities in performance management and development plans for teachers • Setting system-wide targets for the demonstration of desired capacities • Setting school-specific targets for the demonstration of desired capacities • System requirements for school review • System requirements for school accountability
<p>To what extent is there an enduring capacity among schools to exercise their autonomy?</p>	<p>Principals generally gave high ratings of the extent to which an enduring capacity is being built across the system and in their own schools. Ratings were generally higher for their own schools.</p> <p>Analyses revealed no statistically significant differences among groups of respondents. This was one of only two instances where this was the case.</p>	
<p>What should the school system do to secure alignment across the system as far as quality and equity is concerned?</p>	<p>Principals were invited to rate the effectiveness of strategies adopted by their school systems to secure alignment across the system for quality and equity. This item did not specifically refer to autonomy. All items were considered to be more effective than ineffective.</p>	<ul style="list-style-type: none"> • Consistent advocacy for quality and equity • Needs-based funding of school budgets • Setting targets for the system • Monitoring of targets for the system • Setting targets for schools • Monitoring of targets for schools • Conferences at system level • Conferences at regional level • Conferences at network level • Support for principals on related matters • Support for teachers on related matters

<p>To what extent do accountability structures and processes support or constrain the exercise of autonomy in schools?</p>	<p>There was a dichotomy in the ratings of items listed at the right. Six are generally viewed as clearly constraining and four are perceived to be both constraining and supporting. In the first category are national/system curriculum, national/system testing, expectations/demands on principals' time, expectations/demands on teachers' time, national/system targets for improvement, and compliance requirements. In the second category are performance management requirements for principals, performance management requirements for teachers, system requirements for school review, and system requirements for accountability. The most constraining factor was compliance requirements. The most supportive was performance management requirements for teachers.</p>	<ul style="list-style-type: none"> • National/system curriculum • National/system testing • Expectations/demands on your time • Expectations/demands on teacher time • National/system targets for improvement • Compliance requirements • Performance management requirements for principals • Performance management requirements for teachers • System requirements for school review • System requirements for school accountability
<p>What new pedagogies have been developed in schools? What progress has been made?</p>	<p>Principals were asked to assess progress for several pedagogies that are common to most lists of so-called 21st century skills, especially collaboration, creativity, problem-solving, communication, and new approaches to the use of digital literacy/ technologies in learning. Also included were new topics or new emphases in the traditional curriculum. Most involve new approaches to assessment and the creation of new assessment rubrics. They reported moderate to high levels of progress in each instance, with most progress for collaboration and least for the use of digital literacy/ technologies in learning.</p>	<ul style="list-style-type: none"> • New topics or new emphases in the traditional curriculum • Higher priority on collaboration • Higher priority on creativity • Higher priority on problem-solving • Higher priority on communication • New approaches to the use of digital literacy / technologies in learning • New forms of assessment

<p>What is principals' level of confidence in autonomy as one strategy for helping to achieve higher levels of student achievement?</p>	<p>The pattern of responses was clear: 10.9 percent of principals provided a rating on the low side of 'moderate' whereas 68.7 percent rated it on the high side of 'moderate.'</p>
<p>Taking all things into account, would principals prefer more, less or about the same level of autonomy?</p>	<p>A majority of principals (57.9 percent) prefer more autonomy. Just 2.8 percent prefer less autonomy while 39.3 percent prefer the same as at present. There were no statistically significant differences ($p < 0.05$) among the preferences of different groups of principals, one of only two instances where this was the case.</p>

AGILITY, INNOVATION AND AUTONOMY

An important aim in education is to raise levels of student achievement and to do so for all students. It seems that continuing to do things the same way as in the past, but doing them better, will not suffice. In addition to improving the delivery of current approaches, there is a need for innovation at every level, from the nation to the classroom to the individual student. An important issue is whether granting schools more autonomy is likely to make a contribution. I express this in the form of a general question: 'Will a higher level of school autonomy contribute to innovation of a kind that will lead to higher levels of student achievement?'

Reference is often made in public discourse to agility and innovation, with Prime Minister Malcolm Turnbull frequently linking the two, occasionally referring to nimble as well as agile. Even though the term had been around for many years, agility has become a cliché, with some commentators and cartoonists making fun of it. There is, however, a serious intent. A degree of agility is required if an organisation is to take up or lead an innovation in a timely fashion. Under current arrangement, the state of affairs in some organisations may have deteriorated to the point that a rapid or agile response is necessary to save it. In school education, agility refers to the growing importance of schools and school systems being able to make rapid change without sacrificing a commitment to high performance or, better still, to higher levels of performance.

Agility

Proposals and priorities for agility and innovation in schools and school systems are not new. One of the most engaging contributions was made four decades ago by Dr Hedley Beare in his role as the foundation Chief Education Officer of the Australian Capital Territory Schools Authority. He had previously led the establishment of the education department in the Northern Territory; indeed, he was the leader in the two most-recently established systems of education in Australia. He left the ACT in 1981 to become the foundation Professor of Educational Administration at the University of Melbourne and was one of Australia's pre-eminent leaders and scholars in school education over the last half-century.

Hedley Beare made a presentation to staff at a conference of the ACT Schools Authority in February 1977 that was subsequently published in booklet form (Beare 1977) under the title of *The Beare Eleven*. He presented eleven propositions about an education organisation

which he believed should be 'the bases for its organisational style'. Most have been advocated or assumed for many years, but several are especially applicable to professional autonomy. Proposition 4 ('the organisation must be organismic and in dynamic flux') is essentially a call for what is currently described as 'agility'. Beare elaborated: 'It has dynamic movement in it; there is a certain degree of excitement within it; it is an organisation pulsing with life' (Beare 1977, p. 11). He drew attention to the dysfunctions of the traditional hierarchical organisation and called for greater networking and interaction among different levels.

Hedley Beare's introduction to Proposition 10 ('the education organisation should encourage innovation') was provocative: 'if we are not here to change the traditional modes of operating schools, what the hell are we here for?' He challenged the system that he led, which 'could be one of the most visible and creative school systems in the world' (Beare 1977, p. 23) before providing an agenda for innovation that could well have been written in 2017, let alone 1977!

Agility in the case study schools

It was not a primary purpose in the case studies to explore each school's capacity to make an agile response to its circumstances. The research question was 'How have schools with a relatively high degree of autonomy used their increased authority and responsibility to make decisions that have led in explicit cause-and-effect fashion to higher levels of student achievement?' However, it is worthwhile to reflect on how a higher level of school autonomy may have helped them make an agile response in their efforts to raise levels of student achievement.

At Broadmeadows Primary an earlier selection of staff did not work out with some teachers, and the leadership group met to devise a better approach. New teachers were selected and, as noted: 'the school quickly recovered. It seems that performance can collapse and then pick up in a relatively short time'. At Specimen Hill Primary, relatively low performance on NAPLAN tests in 2008 and 2010 were followed by impressive turnaround in 2012 and even bigger gains in 2014. Driving forces included the appointment of a new principal under arrangements for the local selection of principals, changes in staff that were made possible in the framework for school autonomy in Victoria, and school-based professional development that resulted in higher expectations and teachers acquiring and applying new knowledge and skill in a relatively short time.

Millmerran State P-10 School in Queensland made very impressive gains in NAPLAN results from 2012 to 2014 to the extent that ACARA selected it in 2015 as one of Australia's leading schools as far as improvement was concerned. Canberra High used its authority to select six new teachers who, in a relatively short time, made a major contribution to a change in school climate and the sharing of new knowledge and skill with other members of staff.

Each of the responses described above were made possible by government/system-initiated policies on school autonomy, but principals, other school leaders and teachers had the capacity, or acquired the capacity, to exercise that autonomy in ways that made a difference for students. The same observation may be made about the responses at Glen Waverley Secondary College. The Victorian Government established a number of 'Navigator Schools' in the mid-1990s to take the lead and become centres for professional development in the adoption of ICT. Glen Waverley seized the opportunity to be part of the program and was soon recognised as an international exemplar. Glen Waverley was also an early adopter of 21st century skills as part of its curriculum and pedagogy and gained a reputation in the progress it was making. It was explained how the school used its autonomy in the selection and designation of staff to help ensure that there was common school-wide acceptance and understanding of the initiative, and teachers acquired the knowledge and skill to implement the new pedagogies.

School autonomy and innovation

There have been claims from time to time that a relatively high degree of autonomy provides conditions that enable innovation to flourish, and that more centralised arrangements may stifle innovation. There is invariably an implication that innovation is desirable and is likely to lead to practices that may improve performance. As is often the case, the relationships and associations are more nuanced, and evidence is required to make clear the connections and the factors that should come into play if there is indeed to be improvement.

The potential benefits of innovation in schools, as described in an OECD (2014) report, included:

- Educational innovations can *improve learning outcomes* and the quality of education provision.
- Education is perceived in most countries as a means to *enhance equity and equality*.
- Education should remain relevant in the face of rapid changes to society and the national economy. (Adapted from OECD 2014, p.21)

The report acknowledged that the measurement of innovation is in its infancy (OECD 2014, p. 22) and that innovation indicators should be linked to social and educational objectives (OECD 2014, p. 23).

An important finding is that, with few exception, and contrary to often-held beliefs, innovation in education is as high or higher than in other fields, both public and private, and that, within education, it is greater in higher education than in the schools' sector. Overall, there seemed to be more innovation in education than in other sectors in the public domain and about the same as in health.

Other findings on innovation in education were based on changes in practice, as reported in international tests such as PISA, TIMSS and PIRLS. The following are some of the key findings (OECD 2014, p. 16). There have been large increases in the adoption of innovative approaches to pedagogy, especially the development of higher order skills, interpretation of data, the personalisation of learning, approaches to assessment, and the use of resources to support learning. Other areas of innovation included the building of professional learning communities, more engagement with stakeholders including parents, and in approaches in special education. Associations were found between level of innovation and (a) results in tests in mathematics in Year 8, (b) level of equity in outcomes for students, and (c) level of teacher satisfaction. Overall, expenditure tended to be higher in more innovative systems but levels of student satisfaction were about the same as in less innovative systems. In general, while the findings are of interest, there was no compelling evidence in the OECD report of noteworthy connections between autonomy and innovation.

Intuitively, it may be argued that a relatively high degree of autonomy provides a school and its staff with more degrees of freedom to innovate, but this depends on them having the necessary capacities, a willingness to take risks, and a professional environment in which the foregoing are not unduly constrained by accountability requirements or time limitations. However, these considerations may also apply in systems where the level of autonomy is relatively low as far as school governance and formal structures are concerned; the level of professional autonomy at the school level may be sufficient to initiate and sustain innovation that may have an impact on student achievement.

An earlier OECD report (Kärkkäinen 2012) drew on several of its comprehensive data bases. The focus was on innovation in curriculum, and the study did not seek to investigate the links between school autonomy and student achievement. However, it provided detailed accounts of centralised and decentralised approaches and a combination of the two, along with a description of the conditions under which each is likely to be effective. The findings were summarised in the following terms:

In terms of formal and structural arrangements, education systems need to balance some central influence on curriculum decision making with enough flexibility at school level. The optimal balance between centralisation and decentralisation depends on the conditions under which decisions on curriculum are taken. (Kärkkäinen 2012, p. 50)

Kärkkäinen spelt out these conditions, and they have implications for school autonomy. She argued that centralisation, though not complete centralisation is indicated in systems where teachers and principals are poorly prepared and there will be difficulty in motivating them to be innovative. There will, however, need to be well-aligned policies, with a strong evidence base, as well as engagement of stakeholders, including teachers and principals. There are other conditions where a lighter centralised touch is indicated, especially where teachers and principals are well trained and there is a culture of research or the use of the findings of research. There should be incentives for participation in innovation.

These findings are consistent with those in a well-known McKinsey study in systems with schools on the journey from poor to fair to good to great. A high level of centralisation is indicated for schools that are poor, or moving from poor to fair to good.

In contrast, systems moving from good to great, characterised by higher skill educators, provide only loose, central guidelines for teaching and learning processes, in order to encourage peer led creativity and innovation inside schools, the core driver for raising performance at this stage (Mourshed, Chijioke & Barber 2010, pp. 33-34).

IMPLICATIONS FOR POLICY AND PRACTICE

What are the implication for policy and practice? The following is what I have taken from the research reported in these pages.

1. Despite the frequently negative headlines, Australia has policy settings that will lift it to the top of international rankings of student performance within a decade. What's stopping us? Implementation must improve. Governments must align their efforts. The evidence on what works must be robust. Resources must be better targeted. The teaching profession must be strengthened.
2. National and international assessments confirm that overall performance has fallen or plateaued even though we spend much more on our schools than in the past and more per student than most nations.
3. One of the policy settings is giving public schools more authority to make decisions within an overall system framework, often referred to as giving schools more 'autonomy'. Governments of all persuasion at the federal level and in the states and territories have adopted the strategy.
4. What is the evidence that a higher level of autonomy makes a difference? It seems that the impact has been zero or even negative in some countries, systems and schools, despite the logic that different kinds of decisions are needed at the local level given the unique mix of student needs in different settings.
5. We now have good evidence on what schools with a higher level of autonomy actually do when they lift the performance of their students. The evidence is brought together in *The Autonomy Premium* drawing on studies around the world as well as in Australia where it was possible to map the links on the basis of gains in student achievement.
6. I conclude however that it is not sufficient for governments to simply grant more autonomy to their public schools. Schools must have the professional know-how to use that autonomy by adapting the curriculum, setting priorities, selecting and supporting talented staff, strategically targeting their resources, and engaging parents in the effort. This calls for a high level of professional autonomy. A 'premium' is achieved when schools have these capacities and know how to use their new powers.

7. Principals are optimistic about the merit of a higher level of school autonomy judging from the results of a recent national survey, as reported in *What the Principals Say*. Most (90 percent) believe that learning outcomes are enhanced if the school has a capacity to adapt national/system curriculum to local and special education needs, if it can determine approaches to learning, adopt new or innovative curriculum, select teaching and non-teaching staff, set the budget for funds allocated to the school, and garner support from the wider community. Principals value the support of their school systems as they build a capacity to be more autonomous but nearly 60 percent prefer a higher level of autonomy.
8. Principals believe that some factors are constraining the exercise of autonomy, with a majority citing national/system testing, expectations/demands on their time and that of teachers and, especially, compliance requirements placed on the school by the system.
9. School systems should re-double their efforts to strengthen professional autonomy and minimise tiresome compliance requirements that divert the attention of school leaders and their colleagues. Education departments should be reconfigured to a small bureaucratic core to satisfy statutory requirements; all others should be employed in flexible ('agile') arrangements for the exclusive purpose of providing support for schools.
10. There is a steady call for Australia to be a more innovation nation but we'll be forever constrained if schools do not have the time and talent to nurture innovative students and they continue to be distracted if not worn down by tiresome administrative chores.
11. Innovation must not be the 'let a thousand flowers bloom' variety: it must be standards-driven. A high level of professional autonomy is a characteristic of a strong profession but so too is a set of professional standards. Australia has these for teachers and principals. They are evidence-based and supported by all governments and professional associations.
12. There is a good case that Australian teachers spend too much time in the classroom compared to counterparts in high-performing nations. The recent OECD Education at a Glance Report found that Australian students receive 11,000 hours of compulsory instruction from P-10 compared to an OECD average of 7,540 hours over nine years, Finland and Korea 6,327 hours and 6,410 hours, respectively. Teachers in China may teach for only 50 percent of the week. We should seriously consider freeing up teachers to work individually and in teams for preparing state-of-the-art lessons, planning innovations and engaging in professional learning
13. Universities must pick up the pace in strengthening initial teacher education programs. They should partner with the best schools. We lag far behind Finland, a world leader, which accepts just 10 percent of applicants who are rigorously assessed to determine their suitability to teaching before they are admitted.
14. Many schools, including some in the most challenging circumstances, are doing well in lifting their performance to world-standard. They have high levels of professional capital or know-how. Strategies must be aligned and resources targeted so that all can be just as effective.
15. We know how to do this. The Australian Curriculum, Assessment and Reporting Authority (ACARA) has designed a national curriculum that can be adapted to or integrated with state/territory curricula, with further adaptation at the local or classroom level. The Australian Institute for Teaching and School Leadership (AITSL) has set the standards. Melbourne University's Laureate Professor John Hattie is a world leader in sorting out the evidence and many schools are responding. New South Wales has committed to minimising compliance without placing schools at risk. Victoria has had needs-based funding for its public schools for more than two decades.
16. How to fund these policy settings is currently at centre-stage post-Gonski as federal minister Birmingham negotiates with the jurisdictions. Why not send the money

directly to schools on a needs basis, matching schools across the country according to need, and make this a condition of federal funding? Otherwise we'll have endless arguments, states and territories will build bigger bureaucracies, which they should fund themselves, and little will pass through the classroom door.

The vision is of all schools having the capacity to become as world-class as some. Every school and every student must have access to talented teachers as well as those who lead and support them. Standards driven, innovation oriented professional autonomy, and strategically focused needs based funding are central to the effort.

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