

LEADERSHIP AUTHORITY FOR SCHOOL INNOVATION



educational
transformations



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LEADERSHIP AUTHORITY FOR SCHOOL INNOVATION

Brian J. Caldwell¹

It is difficult to name any field of endeavour where there is not currently a call for innovation. School education is no exception. Yet there have been far too many constraints that have prevented innovation from flourishing, leaving us with a host of seemingly intractable problems for which schools are frequently blamed. Most importantly, as a result of these constraints, we are shackling principals and other school leaders and short-changing students when it comes to preparing them for success in the 21st century.

This is a major theme in my recently co-authored book *The Self-Transforming School* (Caldwell and Spinks 2013) from which I shall draw in suggesting a way forward. I shall also set my remarks in the context of school reform in New South Wales and the Australian Professional Standard for Principals. It is clear that leading innovation is a core requirement for the principal.

Definitions and related concepts

How does the concept of 'the self-transforming school' differ from 'the self-managing school' that has been a theme of my work over the last 25 years, commencing with *The Self-Managing School* (Caldwell and Spinks 1988)?

A *self-managing school* is one to which there has been decentralised a significant amount of authority and responsibility to make decisions on the allocation of resources within a centrally-determined framework of goals, policies, curriculum, standards and accountabilities. Resources are defined broadly to include staff, services and infrastructure, each of which will typically entail the allocation of funds to reflect local priorities. A self-managing school has a high level of, but not complete autonomy, given the centrally-determined framework.

Whereas a capacity for self-management is chiefly concerned with process, self-transformation is intended to shift the focus to outcomes. A *self-transforming school* achieves or is well on its way to achieving significant, systematic and sustained change that secures success for all of its students regardless of the setting.

The self-transforming school includes but goes beyond the concept of the *self-improving school*. David Hargreaves has written a series of 'think pieces' for the National College for School Leadership in England organised around the idea of a 'self-improving school system' (SISS). He described how school improvement has 'come to be defined in terms of the processes of intervention in schools that are deemed, by whatever measure, to be underperforming' (Hargreaves 2010: 4). He argued that a SISS, once established:

reduces the need for extensive, top-down systems of monitoring to check on school quality, the imposition of improvement strategies that are relatively insensitive to local context, with out-of-school courses not tailored to individual professional needs, and external, last-ditch interventions to remedy schools in difficulties, all of which are very costly and often only partially successful. (Hargreaves 2010: 23)

Hargreaves considers a capacity for self-management to be a pre-requisite for self-improvement. However, limiting the approach to improvement does not address the need for transformation when one considers what is occurring in many nations. Improvement occurs

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within current approaches to schooling; transformation seeks success for all in what are certain to be dramatically different approaches to schooling in the years ahead.

In the statement cited above, Hargreaves captured some important features of what may be defined as a *command-and-control* approach ('extensive, top-down systems of monitoring to check on school quality, the imposition of improvement strategies that are relatively insensitive to local context'). A related practice is when schools are provided with inducements to accept funds to implement programs determined at a system level in what is basically a *carrot-and-stick* approach. Carrot-and-stick is also an apt descriptor of practice when a higher level of government with more resources provides funds to a lower level of government with fewer resources and requires acceptance by the latter of strict terms and conditions that are not necessarily those that would have been accepted if there was no such dependence.

An explanatory model

In *The Self-Transforming School* (Caldwell and Spinks 2013, Chapter 3) we described a model which explains how schools are being constrained in their efforts to be self-transforming.

The starting point in the development of an explanatory model was the identification of three dimensions, each of which provides a continuum on which schools, systems or whole nations may differ. One is the extent of school *autonomy*. While there are sound reasons for not using the concept of autonomy, it is employed here because of its wide use. It refers to the extent to which a school has the authority and responsibility to make decisions within a centrally-determined framework of goals, policies, standards and accountabilities. Schools may have relatively low or relatively high levels of autonomy.

The second dimension is the extent of *control* over schools, which may be relatively tight or relatively loose. While there is a relationship between autonomy and control, it is possible for an authority to exercise relatively tight control over schools on important matters while they may have a high level of autonomy on others. The third dimension is the *outlook* of the school or system, which may be relatively closed or relatively open, referring to the extent to which it is open to outside ideas and influences.

There are eight ways of classifying schools or system of schools on these dimensions, as illustrated in Table 1, and these are designated as types. Before explaining these it is important to note that they are broad classifications and there may be different ways of classifying a school or system of schools for different functions. Expressed another way, they may have the characteristics of more than one type.

Type 1: Low autonomy, high control, closed outlook In Type 1, schools have minimal authority and responsibility to make decisions in important matters and the system or other authority exerts tight control over their operations. The school is generally impervious to developments in its external environment. Type 1 may be a preferred approach if a sense of coherence and order is required to raise standards, especially if leaders have high levels of expertise. This is a classic command-and-control approach but ultimately unsustainable in a time of complexity and change.

Type 2: Low autonomy, high control, open outlook For Type 2, schools have minimal authority and responsibility to make decisions in important matters and the system or other authority exerts strong control over their operations. The school is open to new ideas from its external environment. Type 2 is a preferred approach if a sense of order and coherence is required to raise standards and leaders have a capacity to draw ideas from within and outside in times of complexity and change. While still command-and-control, Type 2 is likely to be more sustainable than Type 1.

Type 3: Low autonomy, low control, closed outlook Type 3 is likely to be a fragmented school or system of schools, making slow progress in building a sense of order and

coherence. It does not seek ideas from outside. Things do not augur well for such a school or system.

Type 4: Low autonomy, low control, open outlook Prospects for the school or system are likely to be better under Type 4 than for Type 3 because, while leaders are open to new ideas, they continue to exert minimal control over staff and schools that have limited capacity to make decisions that may improve their lot.

Table 1: Schools and systems of schools classified by type according to autonomy, control and outlook

Type	1	2	3	4	5	6	7	8
Autonomy	L	L	L	L	H	H	H	H
Control	H	H	L	L	H	H	L	L
Outlook	C	O	C	O	C	O	C	O

Type 5: High autonomy, high control, closed outlook Type 5 involves a higher level of autonomy than Type 4, and a relatively high level of control may be appropriate where there is a need for a stronger sense of coherence and order. There is an opportunity for schools to make decisions that reflect their particular mix of needs and priorities. However, a closed outlook suggests that leaders are shielding themselves from learning about a better way to do things.

Type 6: High autonomy, high control, open outlook Type 6 may be more effective and sustainable than Type 5 if leaders are open to ideas from outside. The danger is maintaining elements of command-and-control for longer than necessary.

Type 7: High autonomy, low control, closed outlook Type 6 provides an opportunity to move from self-management to self-transformation as the chains of an excessive command-and-control approach are cast aside and schools have the capacity to take charge of their operations. The approach will be constrained to the extent that schools are shielded from ideas from outside.

Type 8: High autonomy, low control, open outlook Type 8 maximises the opportunity for self-transformation if schools have the capacity to take charge. Schools are open to developments from outside.

It is important to stress that these classifications are silent as far as capacities and outcomes are concerned. Whether schools are effective depends on their capacities and the kinds of support they receive.

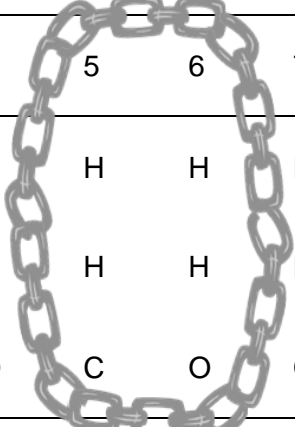
A major source of concern is the extent to which a command-and-control approach is unnecessarily constraining the efforts of self-managing schools, or has been maintained if not strengthened beyond what is necessary to achieve coherence in a system that is focusing its efforts on improvement. An inappropriate ‘chaining’ of self-managing schools is illustrated in Table 2.

The appropriate response under these circumstances is to break the chain, as illustrated in Table 3. It is important to stress that the chain does not entirely disappear for it is necessary to ensure transparency and accountability. This ‘unchaining’ provides a window of

opportunity, as it were, for many schools to move from self-management to self-transformation.

Table 2: Chaining the self-managing school

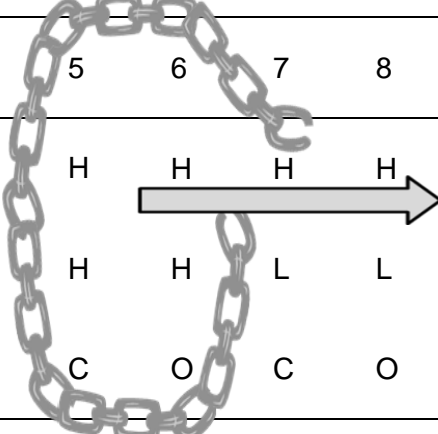
Type	1	2	3	4	5	6	7	8
Autonomy	L	L	L	L	H	H	H	H
Control	H	H	L	L	H	H	L	L
Outlook	C	O	C	O	C	O	C	O



Houle and Cobb (2011) declared that 2010-2020 should be the decade of transformation in education. In describing the realities of exponential developments in technology and how these may apply to schools, they used imagery that is consistent with the model in stating that 'we need to break out of the box entirely' (Houle and Cobb, 2011: 71).

Table 3: From self-management to self-transformation

Type	1	2	3	4	5	6	7	8
Autonomy	L	L	L	L	H	H	H	H
Control	H	H	L	L	H	H	L	L
Outlook	C	O	C	O	C	O	C	O



The transformation of schools in New South Wales

It is intended that government schools be unchained in significant ways in New South Wales, as explained in a presentation of the Minister for Education at the Education World Forum in London on 21 January 2014. The paper presented by Adrian Piccoli was entitled *Transforming Education: The New South Wales Reform Journey* (Piccoli 2014). He described the reforms under the following headings: (1) reforms across the teacher career cycle, (2) a funding model that puts students first, (3) education architecture of the future, (4) public school governance, (5) targeted reform – closing student performance gaps in rural and remote schools, and (6) micro-targeted reform – throwing out the rule book in complex communities. The following statements illustrate the intention to unchain and build a capacity for innovation.

- The bureaucracy has historically been highly centralised and schools have had limited say in how they spent their budget, hired staff or made decisions about their local students.

This “control and command-style” bureaucracy was not equipped to meet the challenges of the rapid global transformation of education. (p. 2)

- The lessons from high-performing education systems around the world guided our policy development. Key features of these systems point clearly to factors that lead to better student outcomes, including increasing school principals’ authority over decision-making and fostering a culture of collaboration and innovation within and between schools. (p. 5)
- We have established 65 networks of principals to encourage collaboration across schools and innovative approaches to student engagement and learning needs (p. 6)
- Already we are witnessing the innovation that comes with freedom and flexibility. Schools are hand-picking staff with particular expertise for their local needs, rather than having teachers imposed on them through a central transfer system. (p. 6)
- We are guided by evidence and research as we reform the NSW education landscape, but there are times when governments need to throw out the rule book and start afresh with new ideas and new thinking (p. 7)

Some important distinctions

It is helpful at this point to make the connections between innovation, change and reform. Innovation and reform are intersecting sub-sets in the broader domain of change, as illustrated in Figure 1. Expressed simply, not all reform is innovation; not all innovation is reform; reform and innovation are examples of change.

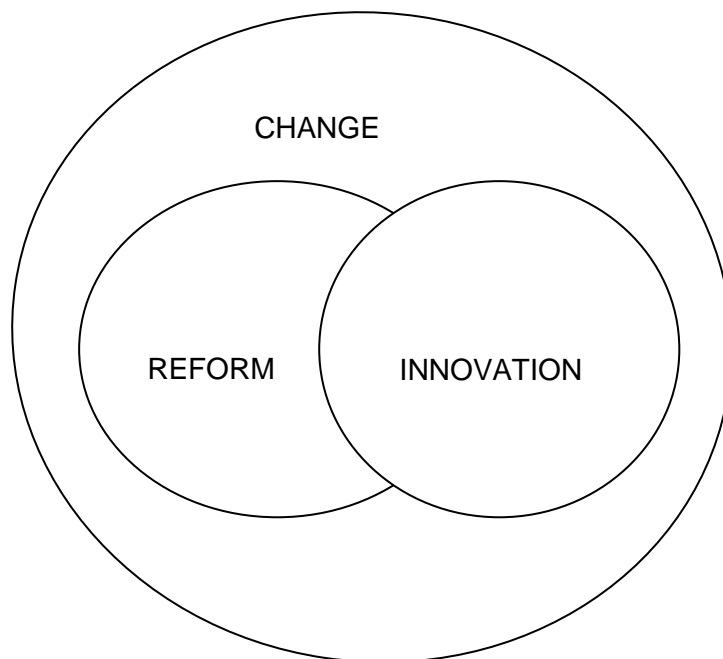


Figure 1: Relationship between change, reform and innovation (Caldwell and Spinks 2013: 103)

It is also helpful to distinguish between leadership and management, and this is accomplished in Table 4 based on the work of John Kotter, Professor Emeritus in Leadership at Harvard Business School (Kotter 1990).

Table 4: Relationship between leadership and management (based on Kotter 1990)

Leadership	Management
Establishing direction	Planning and budgeting
Aligning people	Organising and staffing
Motivating and inspiring	Controlling and problem-solving
Achieving change	Producing a degree of stability

Note how the different elements of management ‘line up’ with different elements of leadership. For example, the management counterpart of ‘establishing direction’ (leadership) is ‘planning and budgeting’. Note also that the intention of leadership is ‘achieving change’. One might add ‘with moral purpose’, which in the case of leadership for transformation calls for significant, systematic and sustained change that secures success for all students in all settings.

It is also helpful to clarify the meaning of ‘governance’, which is often difficult to distinguish in everyday use from ‘government’, and to describe how leadership and management contribute. Governance includes, but goes beyond a description of how policies are determined and decisions are made. For a school, for example, governance also involves a relationship between those who make decisions for and on behalf of the school, as set out in a legal framework, and the network of individuals, organisations and institutions that have the capacity to support or be supported by the school as it seeks to fulfil its mission. School governance therefore has a strategic focus, because this mission is the provision of education to secure success for all of the school’s students, taking account of their needs, interests, aptitudes and aspirations, and this also involves making a contribution to the public good. Strong educational leadership and effective management are prerequisites for successful governance.

Embedding a capacity for innovation

In general, there has been enough experience to question the expectation that a ‘whole-of-system’ outcome can be achieved through a ‘centre-energised approach’, where this is based on early evidence of successful innovation in one or a few settings that can be scaled up and become the focus of a ‘whole-of-system’ strategy. Scaling up innovation in this manner is in many respects ‘the holy grail’ of improvement and transformation in a system of public education.

Successful innovations often arise in unexpected fashion when the right culture allows them to do so. Not all innovations need to be scaled up or can be scaled up. The efforts of a discrete unit within an education department may have little impact or be unnecessary because some innovations are ‘disruptive’ (Christensen, Johnson and Horn 2007). An example of a centre-energised approach driven by a discrete unit was the decision in some systems to test through research the efficacy of the tablet computer with a sample of students in a sample of schools. Most schools took the matter into their own hands as parents and students provided the tablets, or schools purchased or leased them, as teachers quickly saw their merit. A ‘tipping point’ (Gladwell 2011) was reached very quickly. Events moved quickly in self-managing schools that had the authority to take action, and aspects of learning and teaching were quickly transformed. Apart from these considerations, selecting which innovations are to be scaled up can, on occasion, come close to ‘picking winners’ that do not work out in the long run, in which case needless expense and loss of trust are incurred.

The Innovator's DNA

Dyer, Gregersen and Christensen (2011) built on the concept of 'disruptive change' to describe 'the innovator's DNA'. Their work was an outcome of research over eight years in which leaders of the most innovative companies were interviewed to determine their personal attributes. The questions were penetrating to the extent that these attributes are quite fundamental in a personal sense, hence the idea of 'the innovator's DNA'. The companies were private profit-making enterprises but the authors made clear that the findings are more broadly applicable. There is no reason to believe that they are not pertinent to innovation in schools, with the authors identifying the following as the core skills: (1) associational thinking – innovative thinkers connect fields, problems, or ideas that others find unrelated; (2) questioning – innovators are consummate questioners who show a passion for inquiry; (3) observing – innovators are intense observers who gain insights into and ideas for new ways of doing things; (4) networking – innovators spend a lot of time and energy finding and testing ideas through a diverse network of individuals with different backgrounds and perspectives; and (5) experimenting – innovators are constantly trying out new experiences and piloting new ideas.

Disciplined innovation or the discipline of innovation?

Peter Drucker, one of the most influential writers on leadership and innovation in the last one hundred years, laid the foundation for the response to this question in an article in the *Harvard Business Review* entitled 'The Discipline of Innovation' (Drucker 2002 based on Drucker 1985).

The following excerpts from the Drucker article shed further light on the nature of innovation in all fields, for he included public services as well as business in his analysis:

- '[Innovation is] the effort to create purposeful, focused change in an enterprise's economic or social potential'. (p. 6)
- 'There are, of course, innovations that spring from a flash of genius. Most innovations, however, especially the successful ones, result from a conscious, purposeful search for innovation opportunities which are found only in a few situations'. (p. 6)
- Innovation opportunities arise from or are presented by unexpected occurrences, incongruities, process needs, industry and market changes, demographic changes, changes in perception, and new knowledge.

Drucker proposed the following 'principles of innovation':

- Purposeful, systematic innovation begins with the analysis of the sources of new opportunities.
- Because innovation is both conceptual and perceptual, would-be innovators must also go out and look, ask, and listen.
- To be effective, an innovation has to be simple and has to be focused. It should do only one thing; otherwise it confuses people.
- Effective innovations start small. They are not grandiose
- Above all, innovation is work rather than genius. It requires knowledge. It often requires ingenuity. And it requires focus. (Drucker 2002: 9-10)

Drucker shed further light on his view of innovation in *Management Challenges for the 21st Century* which was published in his ninetieth year (Drucker 1999):

- '... an enterprise has to have a policy of *systematic innovation*' (p. 84)
- 'Innovation is not "flash of genius". It is hard work.' (p. 85)
- 'But every organization – not just businesses – needs one core competence: *innovation*. And every organization needs a way to record and appraise its *innovative performance*.' (p. 119)
- Continuous innovation has to be built into the knowledge worker's job. (p. 146)

The implications of these statements could not be clearer. Innovation is not something done occasionally or in good times or when one or a small number of staff have a propensity for it. It must be built in to the daily operations of an enterprise; it must be a discipline as much as other disciplines that underpin good leadership and good management.

A framework for energising innovation in schools

Where then are the opportunities for innovation in schools? Figure 2 provides a framework. It is complex at first sight, especially in printed form, illustrated better in a series of PowerPoint slides (as is done in the presentation that accompanies this paper).

The opportunities for innovation are indicated by ① in Figure 2, indicating that innovation can occur in curriculum, personnel, budget, community engagement, learning and teaching, and outcomes. However, this innovation does not arise spontaneously; its practice depends on how the school is led and managed, and approaches in these are determined to a large extent by approaches to governance. What can or cannot be done at the school level is constrained to the extent that the school has the necessary authority to act and this is an example of where the system framework is important. New South Wales is committed to increasing this authority -- the 'leadership authority' in the sense captured by the title of this paper.

The authorities and accountabilities that shape what can be done at the school level are shown at the left of Figure 2, but other aspects of the system framework apply, and these include the application of a national/state curriculum (described in more detail below), the various enterprise agreements, and policies and procedures concerning the human resource, including approaches to the selection of staff and performance management. System support is crucial, hence the inclusion at the bottom of Figure 2 of funding, infrastructure and professional support to build the capacities of schools in learning and teaching.

The descriptions above suggest a 'top-down' approach to innovation. However, it should also be 'bottom-up' and that is why system learning, shown at the right of Figure 2 is important. The system should 'learn' from what schools accomplish including, and especially, the outcomes of innovation. These should be shared through the networking of knowledge, and this is the intention in New South Wales. The areas of potential impact on the various elements of the system framework are shown in the 'feedback' arrows at the top and bottom of Figure 2, which should in turn have an impact on what occurs in schools.

Illustrating opportunities in curriculum

Australia has a national curriculum for the first time in its history. Apart from an effort to meet the needs of an increasingly mobile population, its development is one of a range of strategies to help lift the performance of students. Developed by the Australian Curriculum, Assessment and Reporting Authority (ACARA) it was adopted with the support of all state and federal ministers for education. It is currently under review.

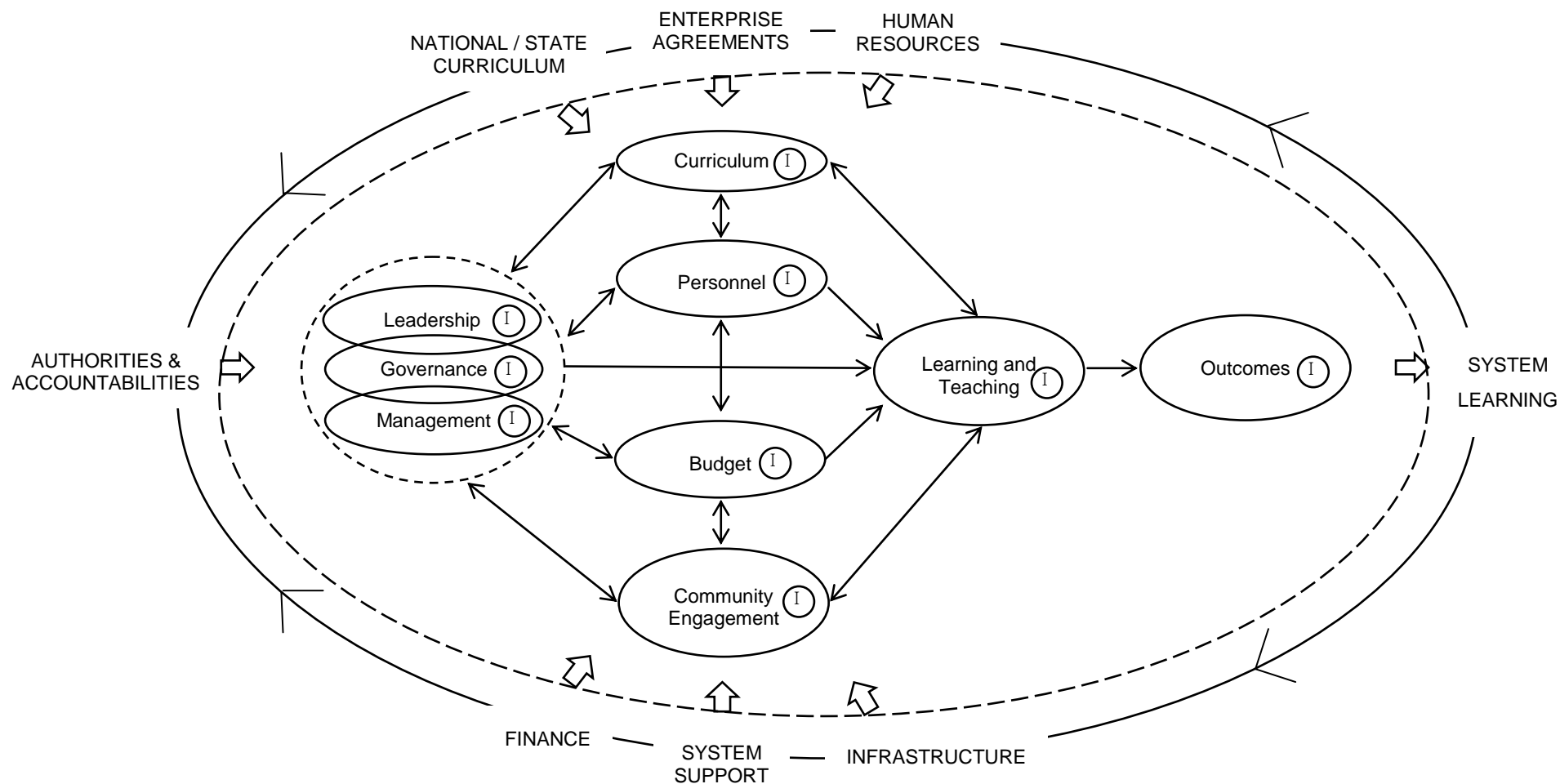


Figure 2: Framework for energising innovation ©

ⓘ opportunities for innovation

Closer examination of delivery reveals that the national curriculum, as such, is not necessarily manifested in the learning experience of students in classrooms around the nation. Figure 3 illustrates the 'delivery chain', so to speak, with the national curriculum incorporated in state curricula, with adaptations to suit priorities in particular states, with further adaptation at the school level. Inevitably, teachers then tailor experiences to the needs of their students. Key questions are posed in Figure 3: Does the school have or exercise authority to adapt the curriculum? Do teachers have the capacity to adapt the local version of the curriculum to the needs of their students? Do the school and its staff have the capacity to tailor the curriculum in personalised learning? Achieving success for all students in all settings assumes an affirmative response to each of these questions, and the nature of these responses determines the nature and scope of innovation in schools.

Affirmative responses call for action in three 'policy domains', as illustrated in Figure 3. Policy Domain 1 calls for states to adapt the national curriculum to suit their circumstances. Policy Domain 2 requires states to provide schools with significant autonomy to tailor the curriculum to meet the mix of student needs and local priorities / specialisations. Policy Domain 3 requires teachers to have the capacities to personalise learning.

Illustrating opportunities in learning

Milton Chen is former executive director of The George Lucas Education Foundation and one-time director of research at Sesame Workshop, working on Sesame Street. He is well-placed to frame the possibilities for the transformation of learning. Writing in *Education Nation: Six Leading Edges of Innovation in our Schools* (Chen 2010) he described six 'leading edges' that are giving shape to the transformation of learning.

At first sight Chen is concerned with innovation which, in the distinction provided at the start of the paper, is more concerned with 'discrete elements' whereas transformation is more holistic. However, the 'six leading edges' he described give a sense of coherence to the many domains in which change may occur. The following is a synopsis.

The Thinking Edge: 'the most basic prerequisite to creating an Education Nation is changing our thinking about the enterprise itself – the learning process, the role of students, teachers and parents, and what is possible given the opportunities afforded by technology' (p. 11). An illustration of 'the thinking edge' is to turn 'either/or' debates into 'both-and' syntheses. Chen lists ten; for example, rather than teacher-centred instruction or student-centred learning he offers a synthesis: 'teachers are vital in a student-centred classroom, but they play a different role when technology is the platform for content and collaboration' (p. 23).

The Curriculum Edge: 'the curriculum edge represents the growing trend of transforming and reorganising the most fundamental educational activities; what students are taught and how their learning is assessed. This edge recognises that today's curriculum has not kept up with the rapid pace of change in every discipline. The very definition of what a course is, how it is organised, and what it covers needs to be reconceived for advances in twenty-first century knowledge' (p. 35).

The Technology Edge: 'until every student has his or her own computer, the benefits of using them on a regular, ongoing basis are undercut' (p. 87). While he documented the extraordinary growth in the number of school students taking online courses, he is careful to acknowledge that attending a 'bricks-and-mortar' school will continue to be important. He has reservations about the position taken by writers such as Christensen, Johnson and Horn (2008) in *Disrupting Class* that online learning is a competitive force 'that finally will challenge the dominance of bricks-and-mortar schools relying on teachers in physical classrooms' (p. 111).

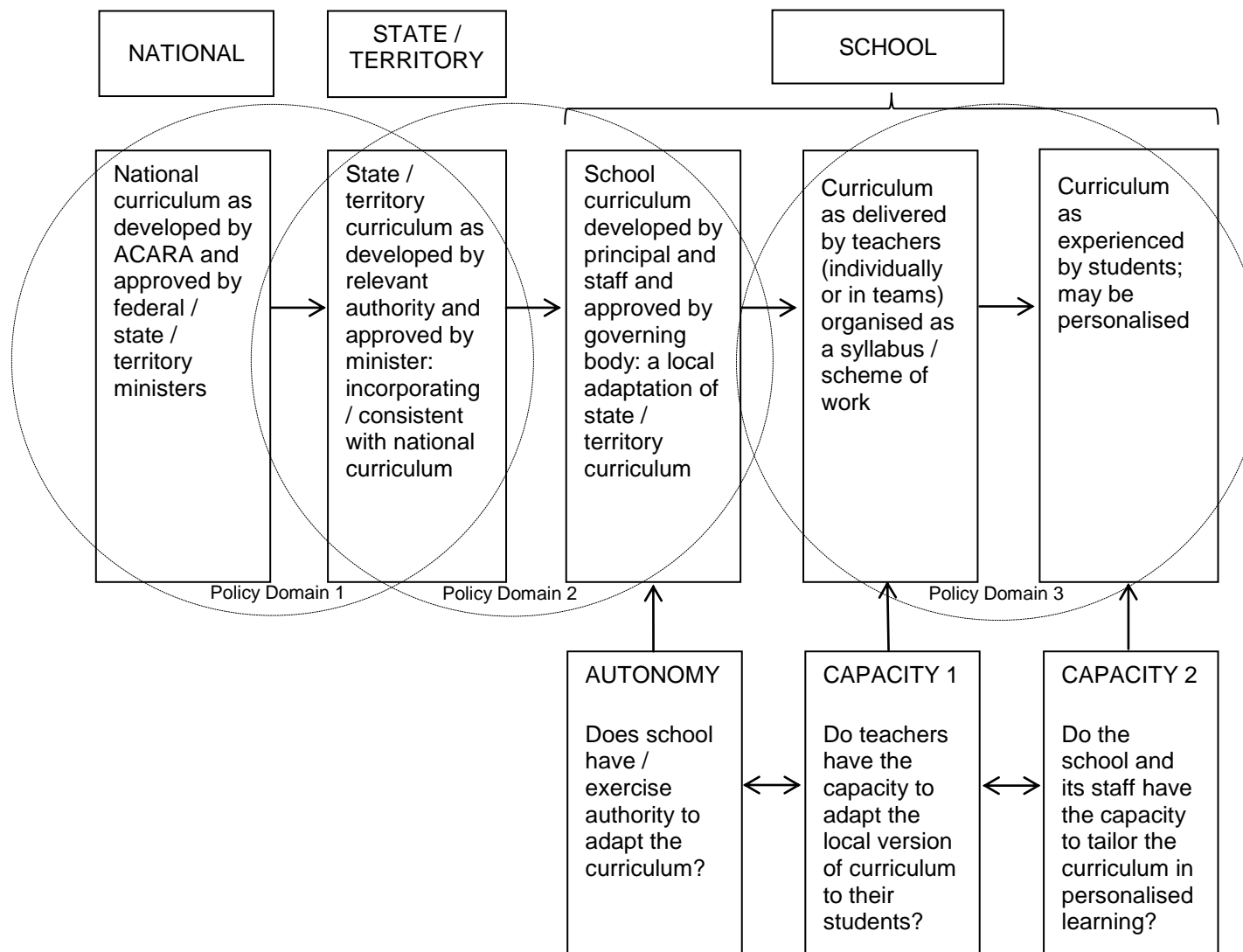


Figure 3: Framework for energising innovation in curriculum ©

The Time/Place Edge: which ‘represents the destruction of the old view of education happening within the four walls of the classroom’ (p. 139). Noteworthy are the illustrations provided by Chen of the benefits for those who do not or cannot attend school and who have benefited from learning after school and in summer programs. He referred to one study ‘in which law enforcement officials chose the expansion of afterschool programs over hiring more police by a 4-to-1 margin to reduce youth-related crime’ (p. 149).

The Co-Teaching Edge: Chen acknowledged that teachers are the most important resource in securing the success of students but described partnerships with others who can support the effort, including parents, professionals in other fields and students.

The Youth Edge: today’s students ‘are marching through our schools, carrying a transformational change in their pockets in the form of powerful handheld devices. Yet this generation, 95 percent of the stakeholders in education and the ones who stand the most to lose from a poor education, are often left out of the conversation about how to change it’ (p. 213). Chen provided the following description of the twenty-first century learner:

In the traditional classroom, a student’s main job is to sit, listen, take good notes, do the homework, memorise facts, figures, and formulae, and repeat this information back in quizzes and tests. The twenty-first century student uses technology to actively seek out reliable and high-quality information, analyse these sources, and utilise them in producing a product of his or her knowledge. In the traditional classroom, the teacher works hard and the students rest. In classrooms emulating the modern workplace, the students should be the ones working the hardest. (Chen 2010: 237)

Figure 4 illustrates the continuum of possibilities for each of the leading edges. How far a school or classroom or learning experience has moved along the continuum for each of the leading edges may be mapped, as illustrated in the three lines that connect each continuum. The dotted line at the left illustrates the traditional classroom in the traditional school. There is only one way knowledge is transmitted (either / or), the curriculum is traditional and largely discipline based, few students and probably few teachers are empowered with current technology, formal learning occurs in the classroom and is delivered by the teacher alone, and students are largely passive recipients in the process, with teachers doing all the work.

The centre solid line which moves backwards and forwards across the various continua, illustrates a school that has moved some way to developing a ‘both / and’ way of managing knowledge, but does so in a fairly traditional classroom but about half the students have access to up-to-date technology. Most but not all of the formal learning occurs at the school site. The teacher is not the sole source of knowledge; those who work in other settings are brought in as experts on some occasions, either face-to-face or online. Students are gaining their voice; they are not passive but teachers still do much of the work. This classroom has made a modest start to the transformation of learning. The double line at the right represents a school where learning has been transformed.

These illustrations do not convey the depth of knowledge and skill required to move from left to right across Figure 4. We know far more than ever before about how young people learn and the efficacy of different approaches to learning and teaching and the support of learning and teaching. Building the capacity of the profession on these matters is critically important.

It is neither possible nor desirable for a school system to command and then control the rate of movement of schools along these continua. It can provide a lot of support, ranging from building the capacity of teachers to investing in the necessary infrastructure. It may conduct trials and pilots but these should give way to school decisions about the speed of change. The school should be self-transforming and therefore innovating in the domain of learning.

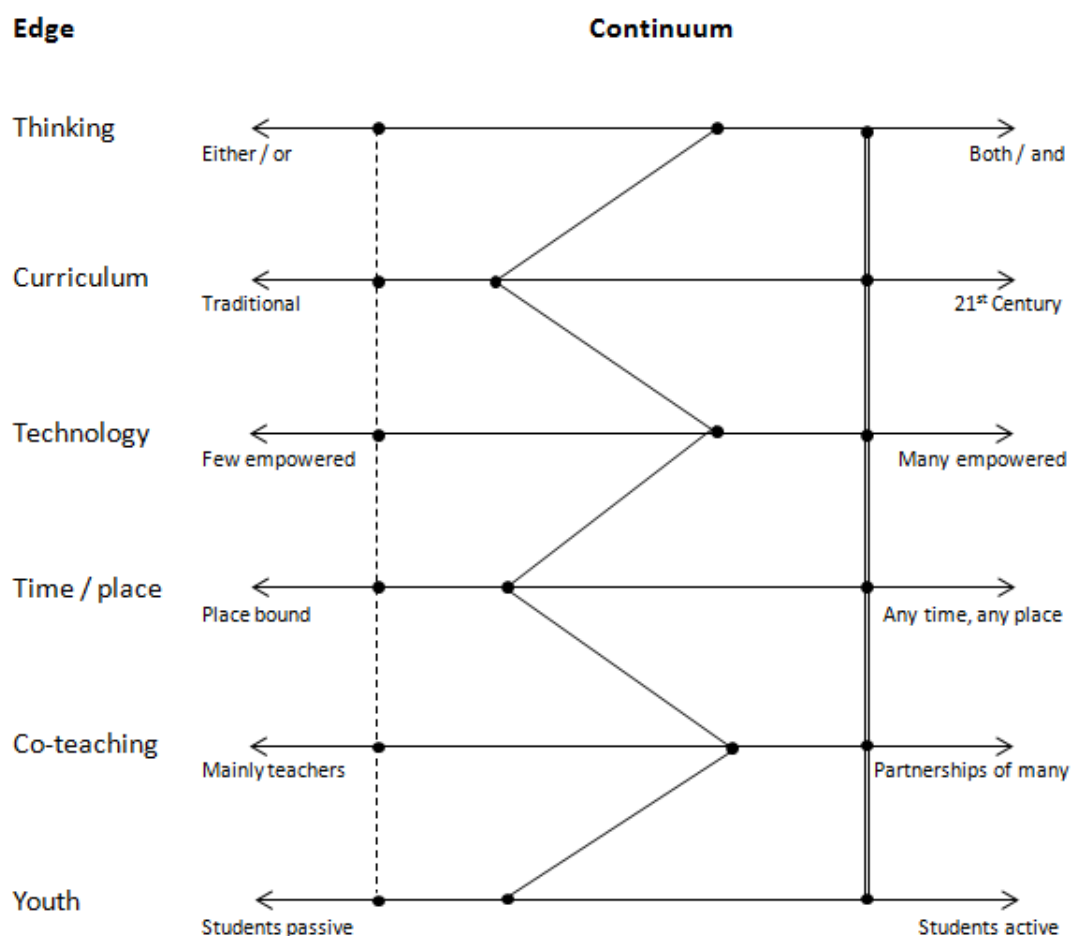


Figure 4: Mapping the leading edges of innovation (Caldwell and Spinks 2013: 122) (based on classifications described by Chen 2010)

A futures perspective

Complementing the need for deeply embedding a capacity for innovation in schools is the importance of gaining a 'futures perspective'. Caldwell and Loader (2010) adopted the metaphor of 'seeing' in describing a futures-focused school. A futures focused school 'sees ahead', but it also 'sees behind', honouring and extending its accomplishments in the past. It 'sees above' in the sense of understanding the policy context. It 'sees below', demonstrating a deep understanding of the needs, interests, motivations and aspirations of students and staff. It 'sees beside' by networking professional knowledge to take account of best practice in other schools in similar settings. It 'sees beyond' by seeking out best practice in other nations and in fields other than education. It is consistent and persistent; it 'sees it through'. The metaphor of 'sensing' is also helpful given that 'seeing' refers to what is already in place or is projected. A futures-focused school is alert to signals in its internal and external environment that may influence what may occur in the future and that may subsequently be 'seen'. These signals may be strong or weak and a high level of sensitivity is required to distinguish among them (Caldwell and Loader 2010: 20).

The challenge for schools is to do well in what they are currently expected to do at the same time that they keep an eye on promising innovations and future possibilities, basically a 'split screen' approach. Each must be done well if a self-managing school is to be also a self-transforming school. A cause for concern is that so much time and energy is taken up with what are proving to be dysfunctional aspects of current demands, especially those concerned with the frequently excessive and unrelenting focus on testing, and the seemingly endless and often unnecessary demands for accountability.

Strategic navigation

Strategic planning and operational planning continue to be important, but they need to be managed differently. Old-style strategic planning with voluminous documents covering almost every aspect of school operations, invariably based on unmanageable often data-free SWOT analyses, should pass into history, as should similar efforts in school improvement planning. This kind of work can only be fruitful if there is a degree of stability and predictability in matters that may involve large commitments of funds over time. Examples include strategic planning for new facilities. The complexity and pace of change demand a different approach for most aspects of strategic decision-making

One way of doing this is through a process Richard Hames called 'strategic navigation' (Hames 2007) an approach adapted to the school sector by Caldwell and Loader (2010: 48-49) from which this summary is drawn. Instead of generating a plan with dated and static intelligence, strategic navigation responds to real-time, current intelligence. Instead of leaders following directions and meeting deadlines, they are free to respond to the situation as they read it. Instead of an emphasis on the plan, the emphasis is upon the navigation. The result is a more dynamic approach to strategy that is more inclusive of staff in both the assessment of the issues and in the development of responses. Strategic navigation is more suited to the current turbulent times where continuous corrections are necessary.

Strategic navigation calls into question the idea of strategy as a linear process which assumes that if strategy is implemented then the desired result will follow. Strategic navigation takes its strength from an ecological perspective. Strategy in this view is not the implementation of bureaucratic directions but the freeing of individuals to act in accordance with how they read the situation in the context of the strategic direction of the school or school system. At the same time there is an emphasis on balancing the symbiotic relationships that exist within the organization, discouraging individualism.

Strategic navigation challenges the idea that purpose and direction are determined solely by a few, the leadership team at the top. This is achieved by the sharing and gathering of ideas within the community. Before the social networking capabilities of Web 2.0 and the knowledge storing of web-based technologies, collective intelligence was more difficult and expensive. Today, listening to the community and harnessing its collective intelligence is much easier; it is a critical component of strategic navigation.

Strategic navigation is a systems approach to planning and operating. The organization will live or die as a complete system, not as a collection of independent parts. The system is gathered together into a complex whole, members working with one another and the external environment. The members work towards a common overall objective with an overriding moral purpose and a shared identity (moral centre). Values clarification is important. Good communication is critical.

Strategy is no longer a once-a-year task. For the school and school system leaders and their colleagues it is the very core of their daily work, and the essential lens through which they evaluate and prioritise that work. As a result, what schools and school systems need is a community of leaders who understand the social and political trends, who share a desire to deliver an agreed possible future and who are therefore able to be responsive and innovative within a strategic framework. The goal of strategic navigation is to engage the whole community in a continuous ongoing process that will address complexity, manage uncertainty and embed a disciplined approach to innovation.

Networking knowledge about innovation

New South Wales has organised 65 networks of principals 'to encourage collaboration across schools and innovative approaches to student engagement and learning needs' (Piccoli 2014: 6). Networks may serve many purposes and it is important that the purpose stated by the Minister is at the fore of intentions.

Figure 5 illustrates possibilities for schools joining other schools in a chain in which there are common interests, that is, there is knowledge to be shared, issues of common concern to be addressed, and there is the possibility that resources can be shared. Chains may be formal or informal, temporary or permanent. They may be created at the local or state (jurisdictional) levels or beyond, national or international.

Some jurisdictions organise schools into networks based on geographic location and, while there may be good networking of knowledge among participating schools, they are often essentially administrative units. These typically consist of several secondary schools and the primary schools from which their students are mainly drawn. There are common interests, for example, the wellbeing of the students and teachers may be enhanced in transition arrangements from primary to secondary. These are good reasons for an administrative unit, but there may be little genuine networking. Some jurisdictions select a person to lead the network and these people are sometimes styled as 'network leaders'. Role conflict may be experienced if these people have responsibility for the performance management of principals.

However, schools in a local network may have more in common with some schools in another network in the same jurisdiction, and a chain of schools may be formed. This is illustrated in Figure 5 in the chains linking some schools in a local network and schools in another network in the same state or jurisdiction. Small or remote schools may come together in such an arrangement, meeting from time to time, face-to-face or online, and sharing resources. These chains may be created by the system itself; others may be at the initiative of schools.

The chain may be extended to schools in other networks across a nation. The chain may operate in different modes, including face-to-face or online, involving many schools, or less formal but nonetheless powerful activities that link a pair of schools in different countries.

In many instances schools will take charge by 'unchaining' themselves from control by a jurisdiction, for example, withdrawing from local networks that are essentially administrative units, although they may continue their involvement if compelled or if they wish to maintain cordial professional relationships with colleagues in the same geographic area. A feature of the self-transforming school is that participation in a chain is more likely than not a voluntary association, with the school joining or withdrawing from a network to the extent that participation adds value to its operations.

For New South Wales, the 65 networks represent a promising approach but they are just one of many possibilities suggested by Figure 5. It is likely that the best schools in the future will be characterised by a variety of constantly forming and re-forming formal and informal arrangements to share knowledge, including knowledge about innovations, address issues of common concern, and share resources.

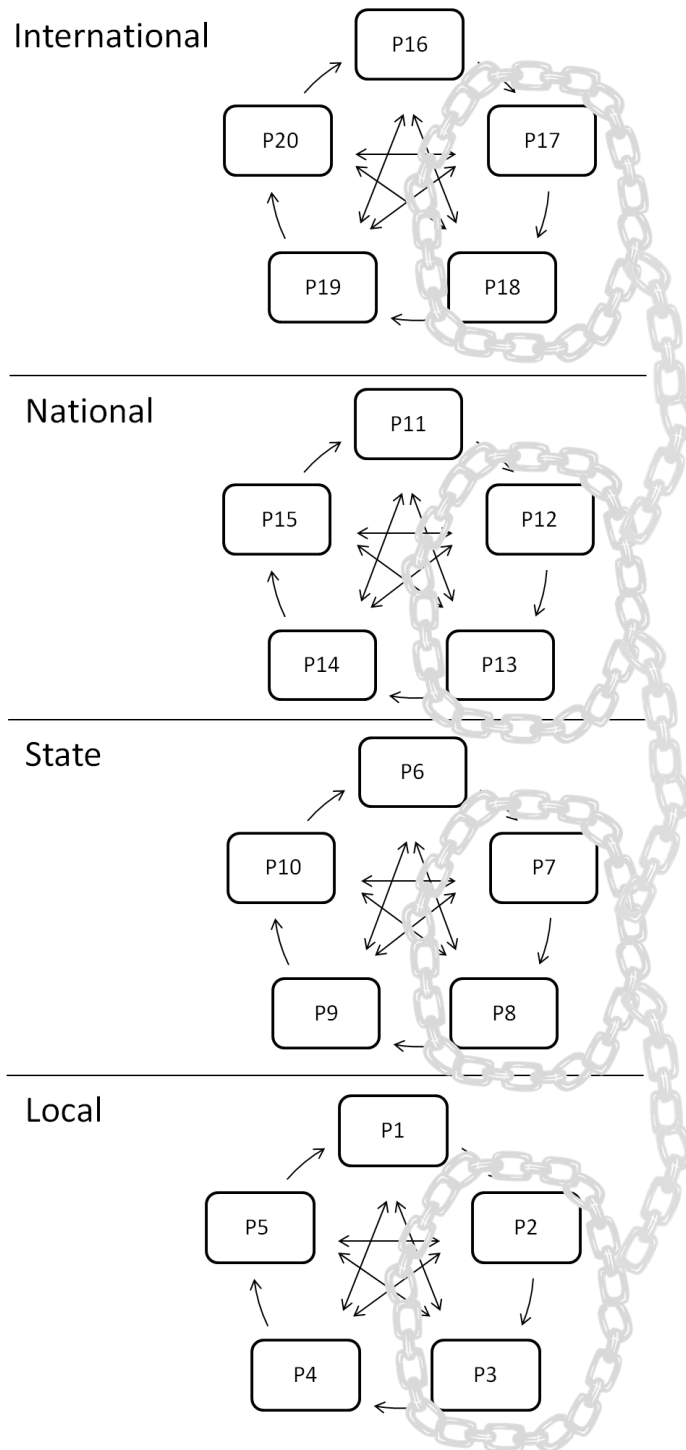


Figure 5: Dissemination of innovation through networks and chains (Caldwell and Spinks 2013: 181)

Global Schools Innovation Network

Examples of significant innovations are contained in *The Self-Transforming School* (Caldwell and Spinks 2013, Chapter 9: The Transformation of Learning), including the flipped classroom and blended learning, with summaries of cost-benefit analyses in each instance. However, reports in books are time-specific and it is better for schools to network their knowledge in 'real time'. An example of a disciplined approach to innovation through online networking is the service provided by the Global Schools Innovation Network (GSIN) which was established in 2011 for the primary purpose of offering a fortnightly online service to subscribers to report innovations in school education, drawing from a network of sources around the world. The service calls for a commitment to 'disciplined access', consistent with what Drucker called 'a conscious, purposeful search for innovation opportunities' (Drucker 2002: 6).

The service is offered under the title of NOVA. I was involved in its establishment so have an interest. I am a trustee along with David Loader, Principal Fellow, Graduate School of Education at the University of Melbourne and former Principal of Wesley College and MLC in Melbourne; and Steve Holden, Communications Manager, Australian Council for Educational Research (ACER). We were subsequently joined as trustees by Tony Mackay, Executive Director at the Centre for Strategic Education.

The service began in early 2012 and has now been conducted for 24 months with 40 issues to date, each contained in an archive available to subscribers. Holden serves as Editor, accessing world-wide sources on innovation in schools. It is a disciplined approach to innovation because of the way in which he must devote himself to the task but also in the way subscribers, all of whom are in schools, must set aside time each fortnight to access the service. Recent reports in NOVA include the impact of digital technology on learning, game-based learning, interactive whiteboards, making mathematics more practical, and effective strategies in literacy and numeracy. Case studies of innovation in schools are included.

Australian Professional Standard for Principals

Exhibit 1 contains excerpts from the Australian Professional Standard for Principals (Australian Institute for Teaching and School Leadership 2011) as these relate to innovation. These are self-explanatory and it is sufficient to note that innovation is a core requirement for the principal and what is described and illustrated in this paper address how the role may be taken up. This is consistent with Drucker as cited earlier: 'every organization . . . needs one core competence: *innovation*' (Drucker 1999: 119).

Conclusion

It is fair to conclude that meeting the expectations of the public and profession for securing success for all students in all settings will require more than incremental change or working harder to implement current approaches. Innovation is an imperative. It is possible to map the way forward, as framed by the descriptions and illustrations in this paper and the inspiring work of school leaders in a host of schools around the country.

A reassuring description of what is likely and what is preferred is contained in the following vision offered by Houle and Cobb (2011) in *Shift Ed: A Call to Action for Transforming K-12 Education*.

A transformed school will not look like that brick building set apart from the society it is intended to serve. A transformed school will be an integrated part of the community and its students will be active participants and contributors to the community. In short, *a transformed school will look more like life*. (Houle and Cobb 2011: 72)

It's a paradox, isn't it, that we are innovating to make schools more like life!

Exhibit 1: Excerpts related to innovation in the Australian Professional Standard for Principals (Australian Institute for Teaching and School Leadership 2011)

Role of the principal

Principals are able to embrace uncertain, complex and challenging contexts and work with others to seek creative and innovative solutions that support quality outcomes for all.

Standard

The Standard is based on three leadership requirements:

- vision and value
- knowledge and understanding
- personal qualities and social and interpersonal skills.

These requirements are enacted through the following five key professional practices

- leading teaching and learning
- developing self and others
- leading improvement, innovation and change
- leading the management of the school
- engaging and working with the community.

Leading improvement, innovation and change

Principals work with others to produce and implement clear, evidence-based improvement plans and policies for the development of the school and its facilities. They recognise that a crucial part of the role is to lead and manage innovation and change to ensure the vision and strategic plan is put into action across the school and that its goals and intentions are realised.

Professional practices

- Work with the school community to promote and sustain school improvement informed by school effectiveness research. Lead and facilitate through teams the necessary innovation and change to reflect changing demands on and expectations of the school and use project management to foster both efficiency and effectiveness in achievement of goals. Take a strategic role in the development and implementation of new and emerging technologies to enhance and extend teaching and learning experiences.
- Develop quality assurance and review strategies to demonstrate the need for and effectiveness of innovation and change to secure improvement. Ensure the vision for the school is shared, clearly understood and acted upon effectively by all.
- Motivate and work with others to foster creativity, innovation and the use of appropriate new technologies to achieve excellence. Demonstrate personal commitment to continuous improvement using problem solving, creative thinking and strategic planning. Use appropriate leadership styles sensitive to the stage, growth and development of the school.

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