State Government Victoria

Department of Education and Early Childhood Development

Powerful learning: taking educational reform to scale

Paper No. 20 March 2011

About the Author

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Between 2002 and 2005 he served three Secretaries of State as the Chief Adviser on School Standards at the Department for Education and Skills in the UK. Previously, he was Chair of the Leicester City Partnership Board and Dean of the Faculty of Education at the University of Nottingham. Before that again, he was a tutor at the University of Cambridge Institute of Education, a secondary school teacher and Outward Bound instructor. David is also an international mountain guide who still climbs regularly in the Alps and Himalayas. The argument presented in this paper is developed further in his recent books *Every school a great school* and *System leadership in practice* that are published by The Open University Press.

Published by Education Policy and Research Division
Office for Policy, Research and Innovation
Department of Education and Early Childhood Development
Melbourne
March 2011

Authorised by the Department of Education and Early Childhood Development,
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ISBN 978-0-7594-0639-1

Deputy Secretary's Foreword

The Victorian Government is committed to improving outcomes for all children and young people in the state. While there are many excellent outcomes in health and wellbeing, learning and development, the government is aware that there are locations of disadvantage where more can be done.

In 2009 the Department of Education and Early Childhood Development published the results of research into government schools which had achieved great success in improving outcomes for their students, despite challenging circumstances. The report, *Signposts: Research points to how Victorian government schools have improved student performance,* was based on the data collected by the Department over several years, supplemented by observations and interviews in selected schools. The report outlined the interdependent practices and behaviours that drove student success in these schools.

The system aims to build the capacity of schools to deliver high-quality educational services and improved student outcomes through continuous school improvement. This is achieved by building leadership capacity, fostering a culture of collaboration and collective accountability, and drawing on the expertise that resides in each school and across networks. The system provides support in many forms, such as professional learning opportunities, and clear frameworks and advice for performance development and strategic planning and implementation.

David Hopkins, Professor Emeritus at the Institute of Education (University of London) was asked by the Department to write a report about what is known about high performing education systems and systemic approaches to school reform. Since Professor Hopkins is a regular visitor to Victoria and consultant to the Northern Metropolitan Region, he was also able to reflect on that region's development of a system improvement model and its impact on schools. He analyses the Department's data, which show early signs of improvement in learning outcomes in Northern Metropolitan Region. Professor Hopkins concludes that both 'bottom-up' and 'top-down' approaches are necessary, and that further improvement across the system will result from deeper development of networking, including school leaders taking on system-wide roles.

I commend this report to you as an example of the work going on within Victoria's education system, and trust that it will both inform and raise questions for debate.

Chris Wardlaw
Deputy Secretary
Office for Policy, Research and Innovation

Regional Director's Foreword

The work undertaken in Northern Metropolitan Region is a subset of the efforts to lift achievement levels across Victoria. Its success to date is largely attributable to a systemic approach based on a clear moral purpose and a strategy aimed at developing the capacity of teachers and principals.

Northern Metropolitan Region's moral purpose – improving the outcomes of all students, regardless of location or background – has been the driving force and central to the words and actions of principals and teachers. In a region with a very diverse and relatively poor population, the message 'post code is not destiny' resonates sharply with school communities and the notion that all students can learn began a shift from rhetoric to belief and action.

Building the capacity of teachers and principals to deliver improved outcomes became the action component of the moral purpose. Teachers and principals understood that any improvement in outcomes could only come about through the work of teachers. It was also clear that if outcomes had been static, then approaches to teaching and learning would need to change.

The Department of Education and Early Childhood Development's *Effective schools model and Developmental learning framework for school leaders* further enhanced the ability to build the capacity of teachers and principals by providing a common language about key areas of work. These two models were instrumental in targeting the work of school communities. Other Departmental strategies and initiatives that we utilised are detailed in Appendix 1.

Northern Metropolitan Region's local, utilitarian definition of achievement – knowing more and being able to show you know more – covered the work of students, teachers, principals and regional staff. For example, teachers could demonstrate new knowledge by changing practice and principals could demonstrate new knowledge by creating an environment where teacher practice could change. Just as important, this definition did not limit the focus of work to literacy and numeracy outcomes.

This systemic approach, coupled with flexibility in resourcing and local knowledge, created a sense of optimism and urgency and was the genesis of the Achievement Improvement Zones initiative described in this paper.

Wayne Craig
Regional Director
Northern Metropolitan Region

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Introduction

... a region where a concerted strategic attempt at reform has been made at scale within the broader context of system improvement policies and initiatives...

This paper is a reflection on how to achieve educational, particularly school reform at scale. Since the early 1980s much has been learned about how to improve individual schools, but successful efforts at systemic improvement have remained elusive. As shall be described in a little more detail later, there have recently been ambitious attempts to reform whole systems, but these have tended to be: i) oppressive and resulting in considerable alienation such as some of the state-wide reforms in the USA; ii) well-designed and centrally driven but with impact stalling after early success as with the literacy reforms in England; or iii) sustained, but usually due to factors outside the immediate control of educators and policy makers such as in Finland. What is needed is a 'grand theory' of system change in education that results in relatively predictable increases in student learning and achievement over time. This paper is a modest contribution to that worthwhile and necessary goal.

The actual case example around which the argument is developed is the Northern Metropolitan Region (NMR) in Melbourne, Victoria. NMR has relatively high levels of socio-economic disadvantage and the educational intervention described in this paper is, by any metric, still a work in progress. It is however an example of a region where a concerted strategic attempt at reform has been made at scale within the broader context of system improvement policies and initiatives in Victoria. Although it is difficult to claim on the basis of the current evidence a causal relationship between the intervention – called the Achievement Improvement Zones (AiZ) initiative and now documented in their *Powerful learning: Northern Metropolitan Region school improvement strategy* booklet – and positive shifts in student achievement, there has been a reversal in academic trends over the period of the initiative and indicators are now pointing in the right direction. It is not likely that this association is a mere accident. This paper develops a narrative about system reform using NMR as a reference point and in so doing draws on the broader international experience and makes some proposals for ongoing work in this area. In particular:

- an analysis of the knowledge base that began with studies of school effectiveness and now focuses on system reform is presented;
- a further discussion on what we know about district/regional reform follows;
- the model of system reform – *Powerful learning* – that builds on that knowledge and experience is described;
- the evidence of impact in NMR is analysed; and
- a framework for systemic reform is proposed.

From School Effectiveness to System Improvement

We are now only beginning to understand the dynamics of improvement at the system level.

In his recent chapter in *Change wars* Sir Michael Barber (2009) reminds us that it was the school effectiveness research in the 1980s that gave increasingly well-defined portraits of the effective school that led in the 1990s to increasing knowledge of school improvement (i.e. how to achieve effectiveness). In the same way, we have in the last decade begun to learn far more about the features of an effective educational system, but are now only beginning to understand the dynamics of improvement at the system level. It is this insight that provides a useful organiser for the first section of this paper.

The equivalent of the school effectiveness research at the system level has been provided during the last decade or so by the advent of international benchmarking studies. Probably the best known and most influential is the Organisation for Economic Co-operation and Development's (OECD) Programme for International Student Assessment (PISA). Since 2000 when the OECD launched PISA, they have been monitoring learning outcomes in the principal industrialised countries on a regular basis. As a result of this work we have learned a great deal about high performing educational systems over the past ten years. This is not only from PISA, but also from secondary analyses such as Fenton Whelan's (2009) *Lessons learned: How good policies produce better schools* and the McKinsey study (Barber & Mourshed, 2007) *How the world's best performing school systems come out on top*.

Michael Fullan (2009) in his paper *Large scale reform comes of age* has also recently reviewed the evidence on the success of large-scale improvement efforts over the past dozen years or so. He identifies three phases that such reform efforts have passed through with increasing effectiveness.

The first phase is the pre-1997 period where the pressure for reform was mounting. Throughout the sixties and seventies there were examples of exemplary curriculum innovation but none produced success at scale. Similarly in the eighties and nineties, although the impact of the international research on school improvement sponsored by the OECD and national strategies for reform such as the introduction of national curricula and inspection regimes spoke of scalable ambition, impact still remained serendipitous.

In the second phase —the 1997 to 2002 period—some cases of whole system reform in which progress in student achievement was evident began to emerge. Below are the three examples referred to in the opening paragraph and their limitations. In the first example, Leithwood (1999) and his colleagues reviewed the impact of a number of 'performance-based' approaches to large-scale reform in states in the USA. Although there was some initial impact on test scores, this was not sustained over time. The fact that these reform strategies neglected to focus on instruction and capacity building must have contributed to their inability to impact positively on student achievement.

The second example is that of England when in 1997 it was the first government in the world to use an explicit theory of large-scale change as a basis for bringing about system reform (see for example, Hopkins, 2007). The *National literacy and numeracy strategy* was designed to improve the achievement of 11 year-olds in all 24,000 English primary schools. The percentage of 11 year-olds achieving nationally expected standards increased from 63 per cent in 1997 to 75 per cent in 2002 in literacy, and in numeracy the increase was 62 to 73 per cent. The achievements in literacy and numeracy were, however, not sustained post-2002, and the subsequent success was the consequence of a different strategic approach.

Finland, now recognised as one of the top performing school systems in the world, is the third example. Hargreaves (2007) and colleagues argue in their OECD review that Finland demonstrated between 1997–2002 that a medium-sized country (5 million people) could turn itself around through a combination of vision and society-wide commitment. However it could also be argued that in Finland much of their success was due to factors outside the control of the educational sector, such as the degree of homogeneity in social structures and the considerable intellectual capital already existing in the country.

Fullan's third phase is the period 2003 – to present. In reflecting on this era of more successful reform efforts, Fullan comments:

> *Coming of age does not mean that one has matured, but that people are definitely and seriously in the game. As this happens the work becomes more analytical as well as action-oriented. There is more convergence, but not consensus; debates are more about how to realise system reform, not so much what it is.*

In reflecting on how to realise system reform I suggest (Hopkins, 2007) that the key to managing system reform is by strategically re-balancing 'top-down' and 'bottom-up' change over time. Similarly, Barber (2009), stresses the need for system leadership along with capacity building. Hargreaves and Shirley (2009) argue for a 'fourth way of change' that consists of combining top-down 'national vision, government steering and support' with 'professional involvement' and 'public engagement' all for the purpose of promoting 'learning and results'.

Most agree that when standards are too low and too varied some form of direct state intervention is necessary and the impact of this 'top-down' approach is usually to raise standards, but only in the short term. But when progress inevitably plateaus – while a bit more might be squeezed out in some schools, and perhaps a lot in underperforming schools – one must question whether this is still the recipe for sustained reform. There is a growing recognition that to ensure that every student reaches their potential, schools need to lead the next phase of reform. The implication is that a transition is needed from an era of prescription to an era of professionalism – in which the balance between national prescription and schools leading reform will change significantly.

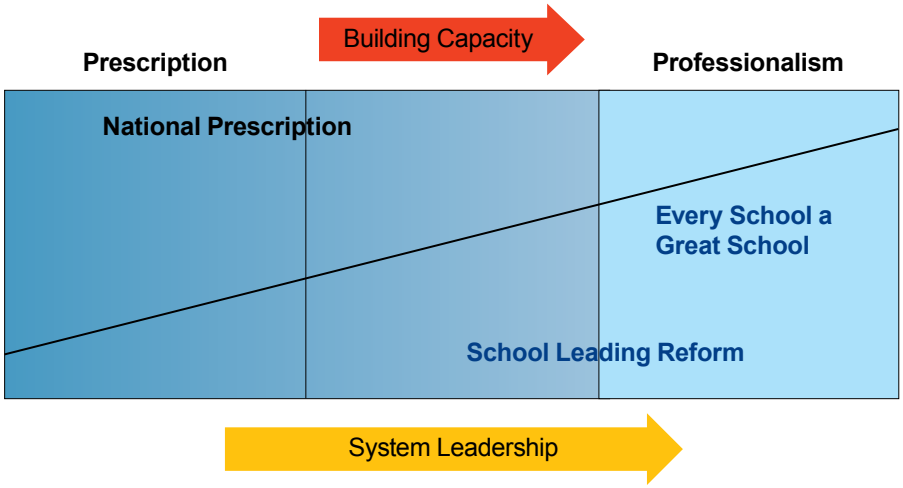
The key to managing system reform is by strategically re-balancing 'top-down' and 'bottom-up' changes over time.

However, achieving this shift is not straightforward. As Michael Fullan (2003) has commented, it takes capacity to build capacity, and if there is insufficient capacity to begin with it is folly to announce that a move to 'professionalism' provides the basis of a new approach. Fullan also recognised early on the importance of leadership in system reform and in *System thinkers in action* (2004) argued that:

> *... a new kind of leadership is necessary to break through the status quo. Systematic forces, sometimes called inertia, have the upper hand in preventing system shifts. Therefore, it will take powerful, proactive forces to change the existing system (to change context). This can be done directly and indirectly through systems thinking in action. These new theoreticians are leaders who work intensely in their own schools, or national agencies, and at the same time connect with and participate in the bigger picture.*

The key question though is 'how do we get there?' It is not possible to simply move from one phase to the other without self-consciously building professional capacity throughout the system. It is this progression that is illustrated in Figure 1 (Hopkins, 2007).

Figure 1 – Towards system-wide sustainable reform



It is worth taking a little more time to unpack the thinking underlying the diagram. Four further points in particular need to be made. The first is to emphasise that this is not an argument against 'top-down' change. Neither 'top-down' nor 'bottom-up' change work just by themselves, they have to be in balance – in creative tension. The balance between the two at any one time will of course depend on context. The state reforms in the USA, previously referred to, employed a virtually exclusive 'top-down' approach and failed simply because they just did not adapt the strategy over time. Second, it must be realised that in England in 1997, for example, it was clear that more central direction was needed initially. This reflects the balance towards national prescription as seen in the left-hand segment of the diagram, but over time the policy agenda and school practice moved towards the right-hand side of the diagram which accounts for the subsequent rise in standards.

Third, there is no suggestion that one always has to start from the left hand side of the diagram and move in some sort of uniform way to the right. Some systems, like Finland for example, may well start from the middle and then move into the right-hand segment. Finally, it should be no surprise to realise that the right-hand segment is relatively unknown territory. It implies horizontal and lateral ways of working with assumptions and governance arrangements far different from what we know now. The main difficulty in imagining this landscape is that the thinking of most people is constrained by their experiences within the power structure and norms of the left-hand segment of the diagram.

Indeed the transition from 'prescription' to 'professionalism' is not easy to achieve. Moving from one to the other strategies requires not only continuing to raise standards, but also developing social, intellectual and organisational capital. Building capacity demands replacing the numerous central initiatives with a national consensus on a limited number of educational trends. As will be seen in the concluding section, there are four drivers – personalised learning, professionalised teaching, networks and collaboration, and intelligent accountability – that provide the core strategy for systemic improvement. They are the canvas on which system leadership and reform is exercised. The next section, however, will explore how such a transition – the strategic balancing of 'top-down' and 'bottom-up' change – is achieved by agencies at the local level such as local authorities, districts and regions.

The transition from 'prescription' to 'professionalism' requires not only continuing to raise standards, but also developing social, intellectual and organisational capital.

The Instructionally Effective Region

Under the right conditions at the district or regional level, significant and rapid progress can be made in enhancing the learning of students.

The research base on the impact of the district role on student achievement has a relatively recent history. There are a number of examples from the research on school districts in North America during the nineties that illustrate that under the right conditions, significant and rapid progress can be made in enhancing the learning of students (Fullan, 2009). The following three examples, in their different ways, are illustrative of the way the most successful regions or districts have balanced 'top-down' and 'bottom-up' change in order to make a real difference to student learning and achievement.

The first example is of the New York school system (see for example, Fullan, 2007). Here strong vision coupled with intensive staff development on instructional practices and capacity building within a constructive accountability framework led to significant increases in levels of student achievement. There were five components to their approach:

- it is about instruction, and only instruction;
- instructional change is a long, multistage process;
- shared expertise is the driver of instructional change – good ideas come from talented people working together;
- focus on system wide improvement; and
- set clear expectations, then decentralise – collegiality, caring, respect.

A second example is of successful school districts in California (Elmore, 2004). These districts showed a much greater clarity of purpose, a much greater willingness to exercise tighter controls over decisions about what would be taught and what would be monitored as evidence of performance, and a greater looseness and delegation to the school level of specific decisions about how to carry out an instructional program. In addition, they displayed three other common strategic characteristics:

- The districts strongly espoused values that typically focused on improvement of student learning as the central goal; a positive approach to problem-solving in the face of unforeseen difficulties; a view of structures, accountability, and data as instruments for improvement rather than as ends in themselves; and a heavy internal focus on the demands of teaching, rather than a focus on events in the external environment.
- Despite strong leadership, these districts were less bureaucratic than their counterparts. They tended to rely more on a common culture of values to shape collective action than on bureaucratic rules and controls.
- Superintendents in high performing districts were knowledgeable about whom were the key initiators of changes in curriculum and teaching strategies; active in monitoring curriculum and teaching in classrooms and schools, as well as active in the supervision, evaluation, and mentoring of principals; and also more likely to relieve principals of their duties on the basis of their performance.

A third more recent example of successful district reform is found in Montgomery County Public Schools (MCPS) in Maryland. In the conventional educational jargon of the day, the district for the past ten years has engaged in a sustained effort to 'raise

the bar and close the gap' in terms of student performance. An illustration of their success is that the top quartile of performers in MCPS from 2003 to 2008 raised their scores significantly and the lower quartiles improved even faster. Their chronicler, Stacey Childress (2009) identified the following 'lessons' as explaining their success:

- Implement common, rigorous standards with differentiated resources and instruction.
- Apply 'value chain' thinking to the K-12 continuum.
- Blur the lines between the traditional roles and responsibilities of the school board, leadership team, principals, teachers, and parents.
- Create systems and structures that reinforce the behaviours necessary for success, and changes in beliefs will follow.
- Confront the effects that beliefs about race and achievement have on student performance and help teachers and students apply this knowledge to their day-to-day work in classrooms.
- Lead for equity.

The guiding image of successful school systems is their ability to balance 'top-down/bottom-up' change over time in the pursuit of sustained excellence in student achievement. In doing this they follow a clear and articulated set of principles. Based on the best of global experience, below are the features of high performing educational systems at national and regional levels. Each principle has a high degree of operational practicality and is reflected in the specification of the school improvement model described later.

The guiding image of successful school systems is their ability to balance 'top-down/bottom-up' change over time in the pursuit of sustained excellence in student achievement.

Highly effective educational systems ensure that the **achievement and learning of students** is at the centre of all that teachers do. As a consequence, the **enhancement of the quality of teaching** is the central theme in any improvement strategy. This will be partially achieved by **selection policies** that ensure that only the very best people become teachers and educational leaders; and then by, putting in place ongoing and **sustained professional learning opportunities** that develop a common 'practice' out of the integration of curriculum, teaching and learning. This takes place in schools where **leadership** has high expectations, an unrelenting focus on the quality of learning and teaching, and has created structures that ensure that their students consistently undertake challenging learning tasks.

This further occurs within a system context where there is increasing clarity on **standards of professional practice**. To enable this, procedures need to be in place that provide **ongoing and transparent data** to facilitate improvements in learning and teaching. School performance is therefore amenable to **early intervention**; and **inequities in student performance** are addressed through good early education and direct classroom support for those falling behind. Finally, **system level structures** are established that link together the various levels of the system to support practice.

These principles are phrased with operational implications in mind and are amenable to interpretation at the regional level. The example of how Northern Metropolitan Region built an action framework on the basis of them is given in the following section.

Powerful Learning – Northern Metropolitan Region School Improvement Strategy

The goal is for all students in Northern Metropolitan Region to be literate, numerate and curious, with schools continuing to provide a broad-based 21st century curriculum.

This section of the paper outlines the approach to school improvement taken in the Northern Metropolitan Region based on the principles just described. It describes the educational goals and purpose of the region and a model of improvement applicable to all schools across the region that was developed within the context of broader school improvement strategies and initiatives by the Victorian Department of Education and Early Childhood Development (see Appendix 1). It is this approach that is summarised in the region's booklet *Powerful learning* (NMR, 2009) that has received wide circulation.

There are approximately one hundred and ninety-five schools in NMR, including one hundred and thirty-seven primary schools, thirty-six secondary schools, thirteen special schools, seven P–12 schools, one P–9 school and one 10–12 school. These schools have a population of more than 78,000 students. The schools are organised in eight networks that are mainly based on the local government areas of Banyule, Darebin, Hume, Moreland, Nillumbik, Whittlesea and Yarra. There are two networks based in the city of Hume. Each network is led by a Regional Network Leader (RNL). RNLs, who supports principals from the network, to lead the implementation of the network's annual implementation plan. The region also continues to work with a number of school communities, local governments and agencies to support regeneration projects, such as that in Broadmeadows. The regional office consists of a Regional Director, three Assistant Regional Directors – covering school improvement, operations, and early childhood and youth services – and regional officers in each of these broad teams. The regional team also includes the eight RNLs.

The moral purpose for school reform in NMR is to provide a high-quality education for all students regardless of background. This is to ensure that the conditions are in place to enable every student in the region to reach their potential. This moral purpose is reflected in a small number of tangible but ambitious objectives for student learning and achievement that are being vigorously pursued. These goals are also in line with the state government reform areas as well as those in the National Partnership agreements with the federal government.

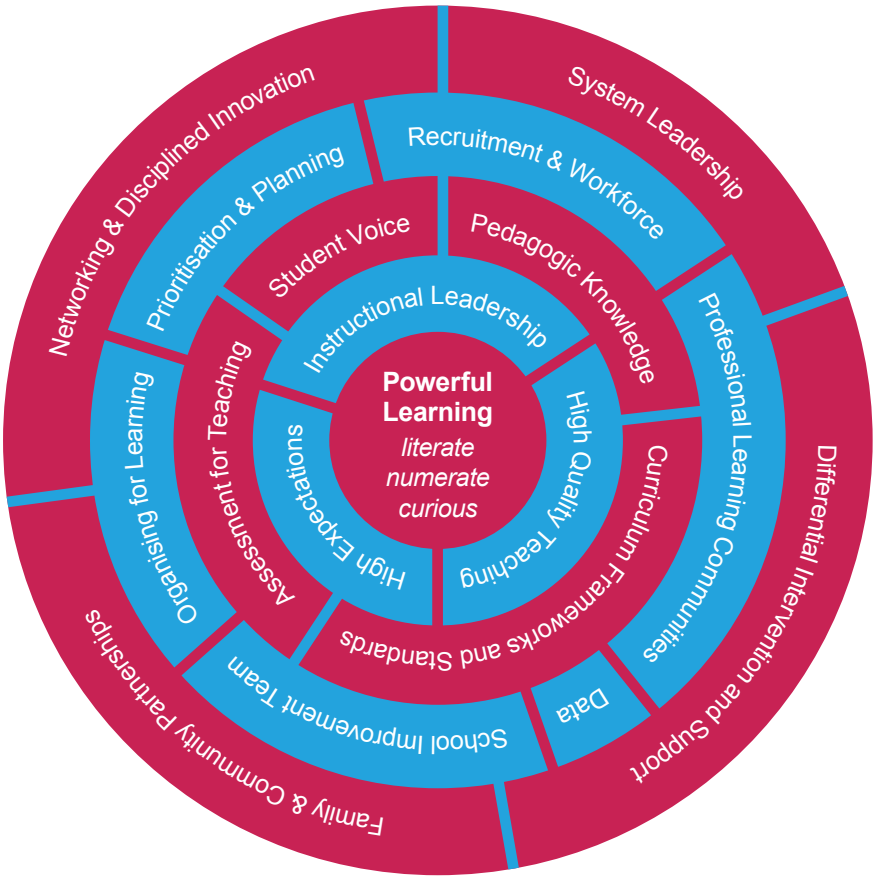
The goal is for all students in NMR to be literate, numerate and curious, with schools continuing to provide a broad-based 21st century curriculum. Through setting such a goal and establishing a process of school reform, they intend to achieve a step change in the quality of education for their students. If this is the goal, then the means of achieving it is the model of school improvement adopted by NMR. Based on the preceding principles, the model identifies the crucial elements of an effective school, demonstrates their interdependence and provides a guide to strategic action.

This is not, however, an approach to be followed slavishly. The model is more of a heuristic for school leaders – it helps them to think rather than telling them what to do. The model expresses the context and process of school improvement through the image of a series of concentric rings, as seen in Figure 2. The approach is designed to help both schools and the region to more effectively manage the re-balancing of 'top-down' and 'bottom-up' over time within an action framework. The overarching

theory of action for the *Powerful learning* strategy is, 'If all the distinct but interrelated parts of the NMR school improvement model – the rings and each component of each ring – are aligned and working together then all schools (as well as the system as a whole) will improve.'

In the centre of the model is powerful learning, which represents i) the school's goal that every student will reach their potential; and ii) a definition of achievement that embraces both standards of literacy and numeracy and learning capability-curiosity. A learning focus such as this will not only raise standards but will also reduce the range of performance in a school, thus simultaneously raising the bar and narrowing the gap.

Figure 2 – An integrated school improvement model (NMR, 2009)



Effective schools are not simply an amalgam of disparate elements. There are some essential features that need to be in place that lay the basis for greatness – these are the pre-conditions for effectiveness, upon which all else is built. Without these a school will be unable to achieve or sustain excellence. These three features are the necessity of instructional leadership, the quality of teaching, and a culture of orderliness and high expectations.

The next ring in the model is comprised of those essential ingredients of effective classroom practice necessary for powerful learning – the teacher's repertoire of teaching and learning strategies, commonly known as pedagogical knowledge; the organisation of curriculum in terms of frameworks and standards; the way that learning is assessed in order to inform teaching; and the ways in which students are involved in their learning and the organisation of the school. Such classroom practice is found in schools that have organisational conditions supportive of high levels of teaching and learning. These key elements are found in the next ring:

- collaborative planning that focuses on student outcomes;
- professional learning that is committed to the improvement of classroom practice;
- regular use of data, enquiry and self evaluation to improve teaching;
- the recruitment of teaching staff and the deployment of the whole school workforce;
- the identification of a school improvement team to provide the research and development capacity for the school; and
- the way in which the school is organised to most effectively promote learning.

In today's educational systems no school is an island, but exists within a broader systemic context – the outer ring of the model. This is represented in the diagram by reference to four obligations and opportunities enjoyed by all government schools in Victoria:

- The first is the opportunity to network with other schools in order to share good practice and engage in disciplined innovation.
- The second is the way in which schools are sensitive to, and respond to the needs and embrace the opportunities provided by their parents and communities.
- The third is the new opportunities for principals to engage in broader forms of 'system leadership' where they take on a range of roles in supporting other principals and schools.
- The fourth is the opportunity to engage in more purposeful reflection on the effectiveness of the school's provision provided by the Department of Education and Early Childhood Development's regular reviews of schools and subsequent planning and differential intervention and support determined by the school's current performance.

This model of school improvement is more than the sum of its parts. Obviously, when all the circles are pulling in the same direction, then the aspirations of school improvement have much more chance of success. All need to exist in a reciprocal relationship if student attainment is to be enhanced. More than this, the approach not only illustrates how a region such as NMR is balancing 'top-down' and 'bottom-up' change in practical ways, it also introduces a new concept of successful change by moving from the 'inside-out' rather than the 'outside-in'.

Most school reform assumes that change comes from the 'outside-in'. The logic is that a high quality policy or program is developed and then implemented, with the assumption that it will impact upon the school and be internalised through the school's planning processes. In turn, it is assumed it will impact on classroom practices and, through this, will positively affect the learning and achievement of students.

In those schools that have made the jump from 'good to great' however, the linear logic of policy implementation has been inverted. Instead of doing 'outside-in' better or more efficiently, they start from the centre of the circle and move outwards – beginning at the other end of the sequence with student learning. It is as if they ask, 'What changes in student learning and performance do we wish to see this year?' Having decided these, they then discuss what teaching strategies will be most effective at bringing this about, and reflect on what modifications are required to the organisation of the school to support these developments. Finally, they survey the range of policy initiatives from the state and federal governments to see which they can most usefully mould to their own improvement plans.

Paradoxically, it is these schools that appear to be the most effective at interpreting the national, state and regional reform agendas. The underlying purpose of *Powerful learning* is to generate this degree of confidence and agency in schools. In the following two sections we assess how well the strategy is being implemented and its putative impact on student learning and achievement.

Those schools that have made the jump from 'good to great' start from the centre of the circle and move outwards – beginning at the other end of the sequence with student learning.

Powerful Learning – Implementation

Northern Metropolitan Region has a comparatively high concentration of high-density SFO schools. These schools and students require increased support and resources in order to enable them to fully reach their potential.

In the state of Victoria, Student Family Occupation (SFO) data serves as a proxy for the socio-economic circumstances of the students within a school, with high SFO density signifying low socio-economic status of the school. SFO has been correlated with student outcomes on the Achievement Improvement Monitor (AIM), National Assessment Program – Literacy and Numeracy (NAPLAN), and the Victorian Certificate of Education (VCE). NMR has a comparatively high concentration of high-density SFO schools. This does not mean, however, that high SFO density schools are unable to improve or that students in these schools cannot learn. What it does mean is that these schools and students require, and in any socially just system are entitled to, increased support and resources in order to enable them to fully reach their potential.

With this realisation and obligation firmly in mind, in 2007 NMR, led by its Regional Director, Wayne Craig, introduced a three to four year Achievement Improvement Zones initiative involving 55 schools. These schools included all of the schools involved in the Broadmeadows, West Heidelberg, Reservoir and South Whittlesea regeneration projects, and all schools in the city of Darebin. The AiZ initiative was the precursor of the region's *Powerful learning* strategy and included the following elements:

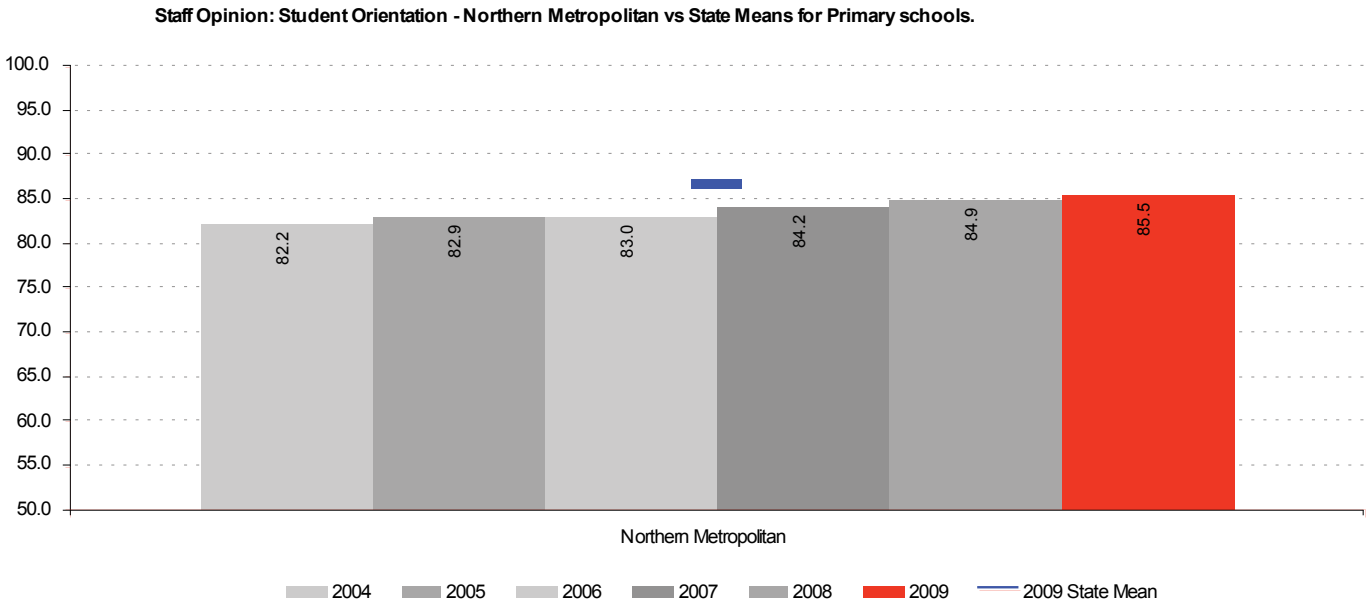
- Principals of all 55 schools were trained as instructional leaders using materials, case examples and activities to help them become more effective leaders of improvement in their schools.
- Around 140 teachers were selected as Learning Leaders to work with their principals in School Improvement Groups, and were released for training one day a week for 16 weeks prior to working as coaches in their own schools.
- The training they received was provided by recognised state and national experts and centred on the teaching of literacy and numeracy, student management, and assessment.
- Learning Leaders worked with other teachers in their schools to improve the quality of teaching as a result of this training, and worked through their School Improvement Group to determine a specific improvement project aimed at generating better learning outcomes for the students they serve.
- The actual projects the schools selected were predicated on high expectations for students in each of the schools and the need to improve baseline achievement data identified through state and national assessments.
- Opportunities also were provided for project schools to meet together in three smaller groups to share their progress and consider presentations from schools about the emerging project focus they were seeking to pursue.
- Senior Education Officers (now RNLs) from the region supported the 55 schools throughout the initiative, and played a role in ensuring the projects adopted were sufficiently rigorous and challenging, yet achievable in terms of improving learning outcomes in the school.

As such an initiative progressed, it was important to monitor implementation and impact in schools as they laid the foundations for success in both student learning and achievement. NMR enlisted the services of Vic Zbar to track the process of implementation and impact from the very start of the initiative. In his first report Zbar, (2008) reported systematically on the impact of early implementation.

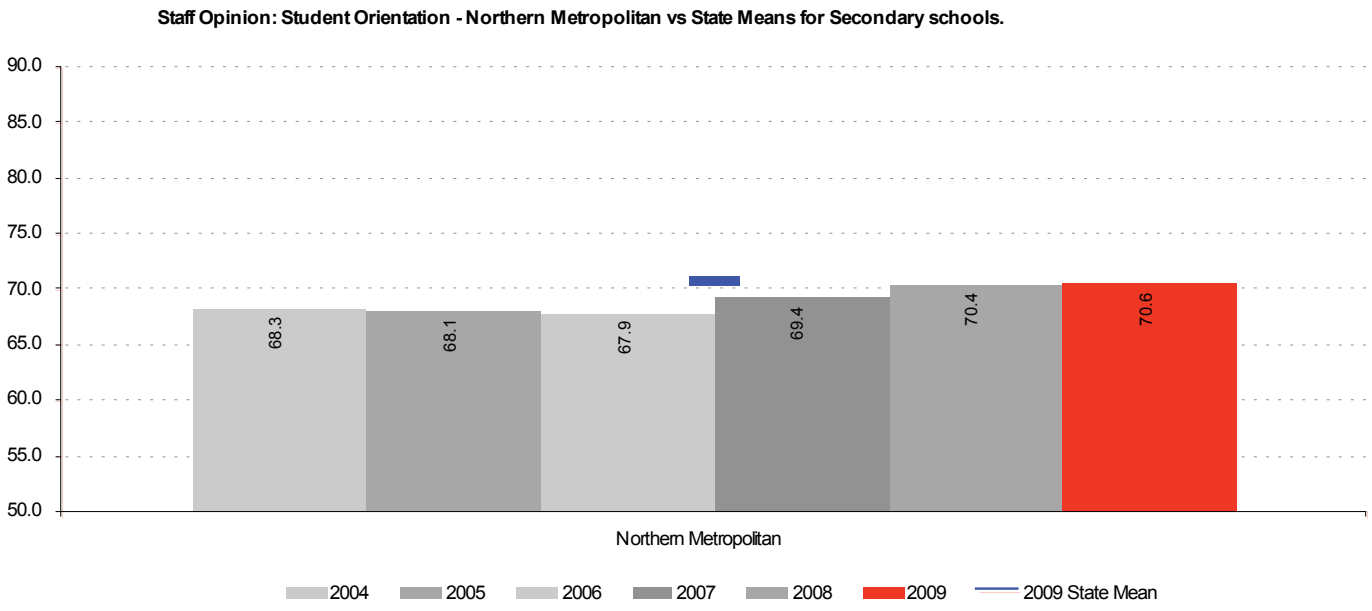
Students are the focus

Although inevitable differences exist between the various schools, without exception all of them indicated that the purpose of their project was to improve student learning outcomes. In almost all cases, this directly took the form of efforts to improve teaching and learning in literacy/English and numeracy/maths. Support for this contention was found in the Staff Opinion Survey questions on student orientation, particularly the item related to the extent to which students are treated as responsible individuals who are encouraged to experience success. As seen below, staff opinion in both primary schools and secondary colleges has increased positively year on year against the state mean since 2004.

Primary Schools in NMR



Secondary Colleges in NMR



Challenging targets have been set

Virtually all schools set targets for their project work. Most focused specifically on student learning and achievement and were expressed quantitatively. This example from Lalor West Primary School is illustrative:

- 75 per cent of Year 6 students will achieve at least two progression points per year of the strategic plan according to teachers' judgement against the Victorian Essential Learning Standards in writing.

Strategies in use

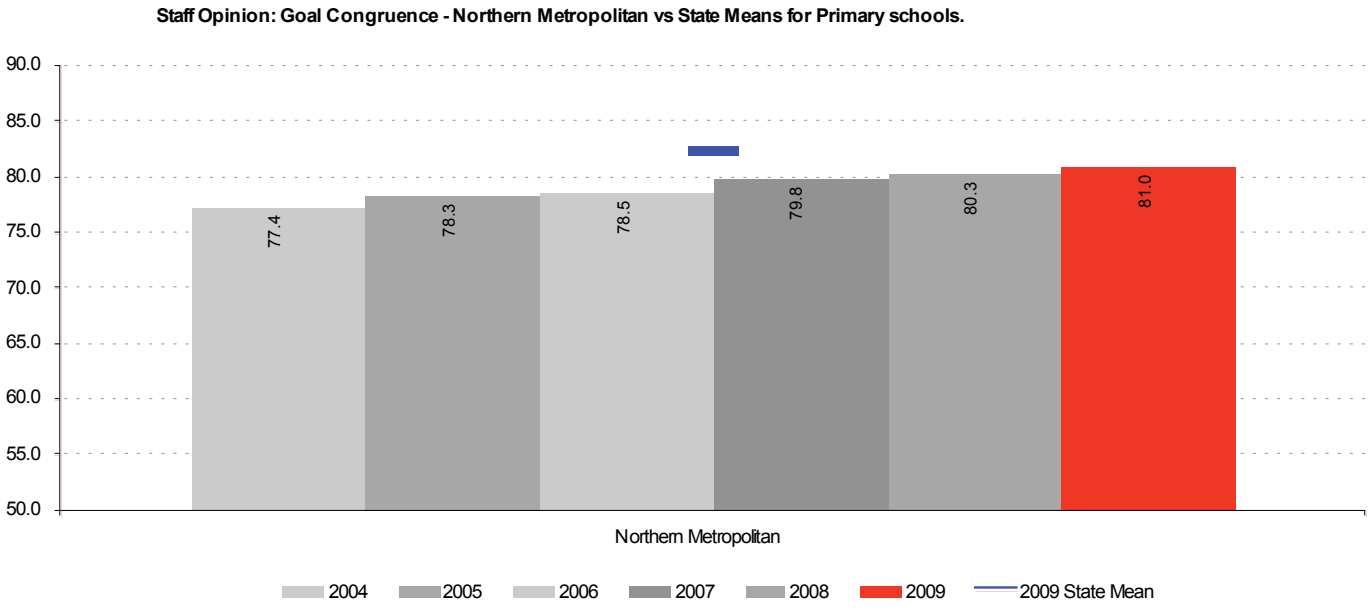
Three strategies in particular were evident across most schools:

- building capacity at various levels in the school;
- adopting common and consistent practices; and
- linking the AiZ training and activity to professional learning in the school.

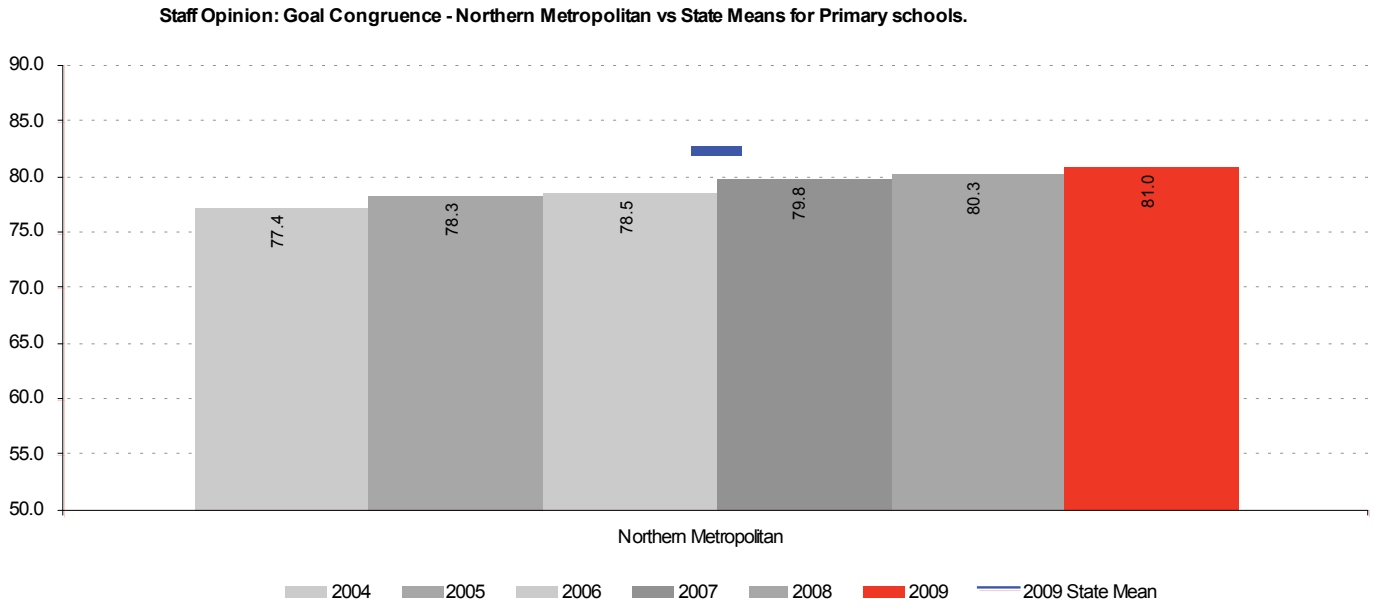
Gaining staff support

All schools have worked to ensure that staff are fully informed of the AiZ project developments, training and expectations, and increasingly engaged along the way to ensure their support. This trend is also reflected in the Staff Opinion Survey with reference to the item related to goal congruence, which is the extent to which there is shared commitment and understanding about teaching and learning and the school's goals and objectives. As seen below, in both primary schools and secondary colleges there has been a positive increase in staff opinion year on year against the state mean since 2004.

Goal Congruence in NMR Primary Schools



Goal Congruence in NMR Secondary Colleges



The training has mattered

Training has mattered in two ways in particular. Some schools have valued the training more for the way it prepares them for the type of change on which the more detailed literacy, numeracy and other training can be based; others embraced the practical strategies embodied within the training as important support for change that is already underway; and many, of course, spanned the two.

Based on these and other findings in his initial report Zbar (2008) concluded that:

> *The upshot of all this activity is that the schools involved have all identified their own, unique set of 'next steps' to ensure their project can progress. For the most part, these tend to involve continued professional learning for leaders and then staff, the progressive adoption of new teaching and learning strategies in classrooms through the schools, and efforts to engage more and more staff in the process so a sustainable critical mass can be built.*

This conclusion reflects the increasing 'bottom-up' as well as 'inside-out' nature of the work in schools.

In his second narrative, Zbar (2009) notes a considerable deepening and expansion of the work. This was partially due to the greater traction achieved through the introduction of the RNL role in Victoria. He concluded that during 2009, the AiZ initiative started to have 'real bite in a number of schools and is becoming embedded for some'. What is more, the consensus appeared to be that the AiZ in a very real way had:

- established a moral imperative across the region as a whole that now drives its efforts to improve;
- contributed to the development of a common language that informs the dialogue within the region, its networks and schools;
- strengthened the understanding and use of data by teachers in schools, particularly data that can inform the way in which they teach;
- raised the expectation that teachers work together in professional learning teams, share their practices, and perhaps most important of all, observe each other teach; and
- introduced a range of proven, effective practices in the areas of literacy, numeracy and behaviour management that have helped to raise the capacity of teachers in and across schools.

Another key development in 2009 was the considerable expansion of the AiZ initiative. A further 17 schools became involved in Phase 2 of the initiative, which was formally launched in May 2009. These schools received separate training with a particular focus on getting the preconditions of leadership and an orderly learning environment in place. It was around this time also that the region obtained the first tranche of substantial additional funding under the federal government's National Partnership agreements targeted at improving the three key areas of literacy and numeracy, low-SES, and teacher quality.

Given the emerging success of the AiZ approach – which was caught succinctly by one principal when he said, 'the AiZ is us … It's not separate … It's what we do' – it made perfect sense to use this experience across the whole region. What Zbar has documented is the example of a region developing a theory of action about systemic school reform by virtue of doing and learning from itself as implementation proceeds.

Consequently, the Regional Director convened an expert group to develop a model of school improvement and an associated program of action, based on the AiZ initiative, for using this funding to the greatest effect. This strategy, described in the previous section, is now embodied in the booklet *Powerful learning: Northern Metropolitan Region school improvement strategy* that builds on the AiZ initiative and advances a model for improvement that schools can apply according to their own context and developmental stage.

During 2009, the Northern Metropolitan Region Achievement Improvement Zones initiative started to have real bite in a number of schools and is becoming embedded for some.

Powerful Learning – Impact

Northern Metropolitan Region's *Powerful learning* strategy reflects the best of current knowledge on effective large scale and regional improvement strategies.

It is all very well describing the evolution and initial implementation of a strategy, but at some point one has to measure impact on the espoused goals of the initiative – student learning and achievement. In any large-scale effort at educational change there are three critical variables:

- accurate diagnosis and high quality strategic response;
- pervasive and consistent implementation; and
- consequent positive impact on student learning and achievement.

High quality strategy

In terms of the first variable it should be clear by now that NMR's *Powerful learning* strategy reflects the best of current knowledge on effective large scale and regional improvement strategies. There is a clear connection from the research and case examples cited in the first two sections of this paper and the *Powerful learning* strategy.

Implementation

In terms of the second variable, Zbar's detailed narratives give a strong indication of the effectiveness of implementation. A strong flavour of his findings has already been summarised above. Although Zbar used contemporary qualitative methods in his work, he did not specifically measure the quality of implementation. A re-analysis of his narratives has been undertaken using the well established and reliable *Levels of use of the innovation: Typical behaviours scale* (Hall & Hord, 1987). The seven point scale provides a means of assessing the quality of implementation and likely impact on student achievement. A summary of the scale and the related behaviours is provided in Figure 3.

The re-analysis suggests that the practice in at least three quarters of schools was at level four. The behavioural indices associated with level four are two: Level 4A – routine, is where the user is making few or no changes and has an established pattern of use; and Level 4B – refinement, is where the user is making changes to increase outcomes. The other twenty-five per cent of schools were outliers; some were at 'non-use' and 'orientation' and others at 'integration' and 'renewal'. This would suggest that the level of implementation of the overall strategy and its specific aspects was sufficiently powerful.

Figure 3 – The Levels of Use (LoU) Scale (Hall & Hord, 1987)

Levels of Use		Behaviors Associated with LoU
0	Non-Use	No interest shown in the innovation; no action taken
1	Orientation	Begins to gather information about the innovation
2	Preparation	Begins to plan ways to implement the innovation
3	Mechanical	Concerned about mechanics of implementation
4A	Routine	Comfortable with innovation and implements it as taught
4B	Refinement	Begins to explore ways for continuous improvement
5	Integration	Integrates innovation with other initiatives; does not view it as an add-on; collaborates with others
6	Renewal	Expores new and different ways to implement innovation

Impact on student learning

The third variable relates to the impact of the *Powerful learning* strategy on student achievement. Fortunately there is now in the state of Victoria and nationally relatively good data on student achievement that can be used to monitor strategic interventions at the regional level. The overall conclusion to be drawn from this data is that over the past four years there has been a quite dramatic shift in the metrics from a largely negative to a strikingly positive direction in NMR.

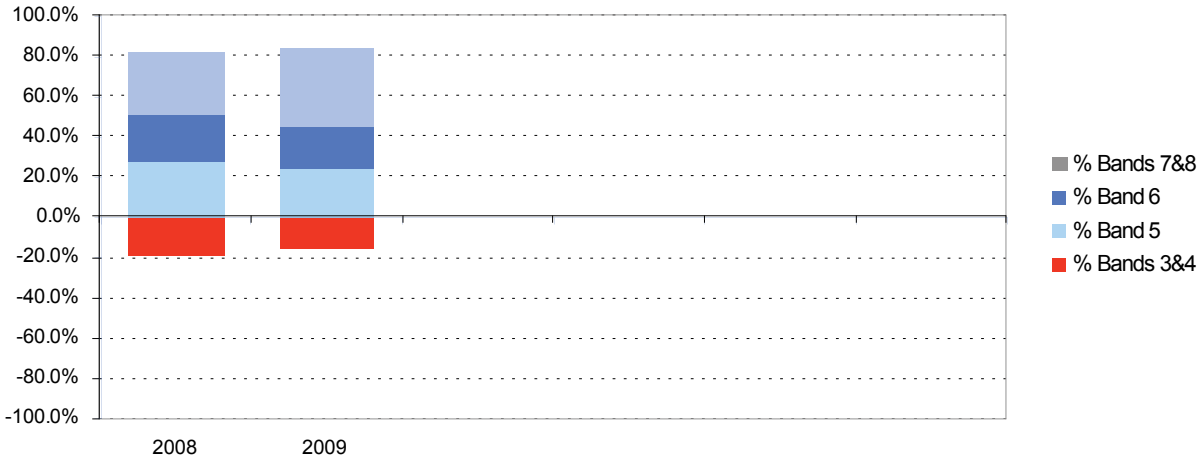
In particular, literacy and numeracy measures for years 3, 5, 7 and 9 are at or near state benchmarks with the data generally trending upwards. VCE data is also beginning to move in a positive direction despite major structural issues associated with the region having a relatively large group of small secondary schools that find it difficult to offer the diverse, quality programs necessary to engage senior students.

Not only are average scores improving across the region, but the proportions of students in the lower bands of achievement are being reduced, while the proportions in the higher bands are being increased. The distribution of regional outcomes for students in Year 5 against the national NAPLAN reading assessment is shown here as an example.

Over the past four years there has been quite a dramatic shift in the data metrics from a largely negative to strikingly positive direction in Northern Metropolitan Region.

NAPLAN Reading Assesment – Year 5 in NMR

Year 5	% of Students by NAP Band					
	Band 3	Band 4	Band 5	Band 6	Band 7	Band 8
2008	6.5%	12.0%	27.2%	24.0%	16.6%	13.7%
2009	4.4%	11.5%	24.2%	20.9%	25.1%	13.9%



This pattern is repeated with consistency across Years 3 and 7 for reading outcomes. Data from 2010 will be of particular importance in the confirmation of these apparent trends.

In Appendix 2 data sets are provided for Years 5 and 7 that compare region and state performance, to give an indication of this positive shift both in terms of performance and trends. NAPLAN details 2008 and 2009 performance and AIM data from previous years provides a trend indicator.

Further support for the contention that there is a link between the *Powerful learning* strategy and the rise in student achievement can be found by comparing the NMR school improvement strategy with those in other regions. The five key variables in any regional approach that relate directly to the research base on district/regional effectiveness previously described are:

- clear and comprehensive model of reform;
- strong leadership at the regional level;
- substantive training related to the goals of the program;
- implementation support at the school level; and
- an increasingly differentiated approach to school improvement.

A now well-established methodology for assessing the performance of public services is by 'RAG rating'[1]. This involves red, amber, and green rating on a range of critical variables such as those noted above. When this process is applied to NMR it scores highly. It appears to have a more consistent upward trend in its data compared to other regions. This gives one a degree of confidence in claiming that the *Powerful learning* strategy is one main explanation for the upward shift in academic performance of the students in NMR.

Despite this, Regional Director Wayne Craig notes an ongoing challenge for the region is to lift the performance of the least able and least affluent. Progress to date, however, is very satisfying and reflects great credit on the professionalism and commitment of teachers and school leaders in NMR. The concluding section will reflect on ways in which the *Powerful learning* strategy could be further deepened and strengthened to ensure success for all students.

An ongoing challenge for Northern Metropolitan Region is to lift the performance of the least able and least affluent.

1 The 'RAG Rating' approach and other aspects of the methodology of delivery of public sector reform are described in detail in Barber (2008).

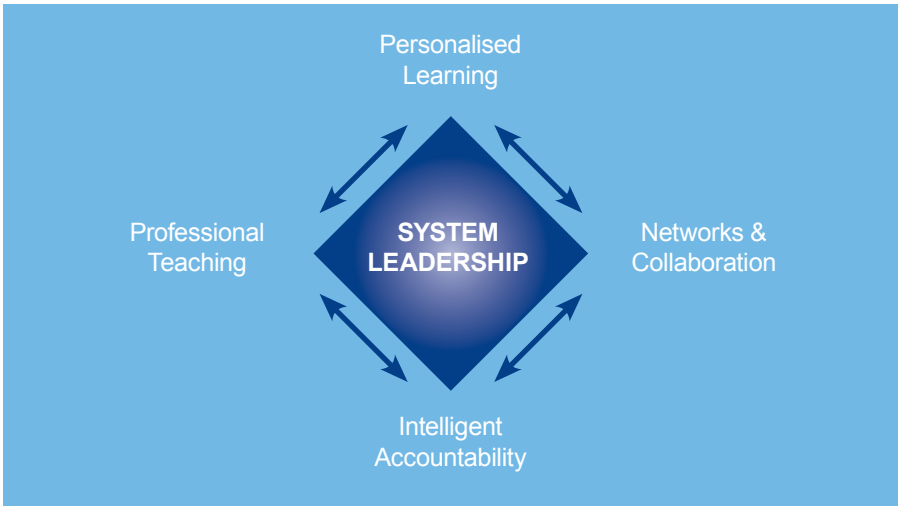
Reflecting on the Future

The four key drivers of system reform provide the core strategy for system improvement.

The purpose of this paper has been to add value to the discussion over the role of a regional strategy in supporting a school improvement agenda. In doing this an analysis of large scale reform has been undertaken that suggests in terms of balancing 'top-down' and 'bottom-up' change there needs to be increasing devolution of responsibility to schools by the system as competence and confidence increases. This move is complemented in terms of the NMR *Powerful learning* strategy by an increasing impetus for change coming from the 'inside-out.'

So in this concluding section it may be instructive to reflect on what regions like NMR should continue to do, to deepen and sustain the rise in standards of learning and achievement over time. In doing this it may be helpful to return to the challenge noted at the end of the first section of the paper, that in the transition from 'prescription' to 'professionalism' strategies are required that not only continue to raise standards, but also build capacity within the system. It was claimed there that there are four drivers – personalised learning, professionalised teaching, networks and collaboration, and intelligent accountability – that provide the core strategy for systemic improvement. As seen in the 'diamond of reform' below (Figure 4) the four trends coalesce and mould to context through the exercise of responsible system leadership.

Figure 4 – Four key drivers underpinning system reform



Personalised learning

It is important to reach down into the classroom and deepen reform efforts by moving beyond superficial curriculum change to a more profound understanding of how teaching connects to learning. In particular it requires a direct and unrelenting focus on what many are now calling the 'instructional core'[2].

In its simplest terms, as seen in Figure 5, 'the instructional core is composed of the teacher and the student in the presence of content' (City et al, 2009). Although there are a number of principles associated with the definition of the instructional core, two features in particular require emphasising.

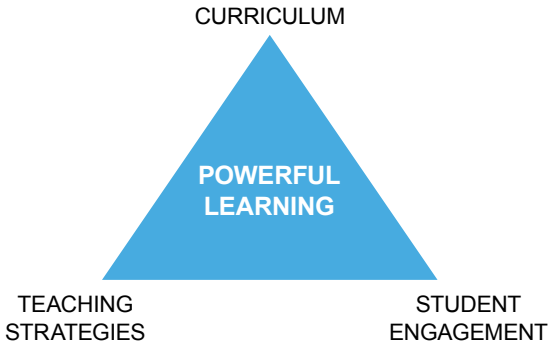


Figure 5 – The Core of Professional Practice

The first feature is that one cannot change one element of the core without impacting directly on the other two. The three need to be regarded as a whole if authentic change in student achievement is to occur. It is the relationship between the teacher, the student and the content – not the qualities of any one of them by themselves – that create powerful learning experiences. Each corner of the triangle has its own particular role and resources to bring to the personalising of learning.

The second feature is more subtle but even more important. It is the tasks that students undertake that are at the heart of personalised learning. It is not what teachers think they have asked students to do, nor what the prescribed curriculum says they should be doing, but what students are actually doing and the sense they make of it that is fundamental. This is why in *Models of learning, tools for teaching* (Joyce et al, 2009) we claimed that:

> *Learning experiences are composed of content, process and social climate. As teachers we create for and with our children opportunities to explore and build important areas of knowledge, develop powerful tools for learning, and live in humanising social conditions.*

It is the relationship between the teacher, the student and the content – not the qualities of any one of them by themselves – that create powerful learning experiences.

2 Here and in the rest of the article I am using the words instruction, pedagogy and teaching synonymously; reflecting as they do American, European and Anglo-Saxon definitions of the same concept.

Teaching quality is the most significant factor influencing student learning that is under the control of the school.

Professionalised teaching

Significant empirical evidence suggests that teaching quality is the most significant factor influencing student learning that is under the control of the school (Barber & Mourshed, 2007). The phrase 'professionalised teaching' implies that teachers are on a par with other professions in terms of diagnosis, the application of evidence-based practices and professional pride. The image here is of teachers who use data to evaluate the learning needs of their students, and are consistently expanding their repertoire of pedagogic strategies to personalise learning for all students.

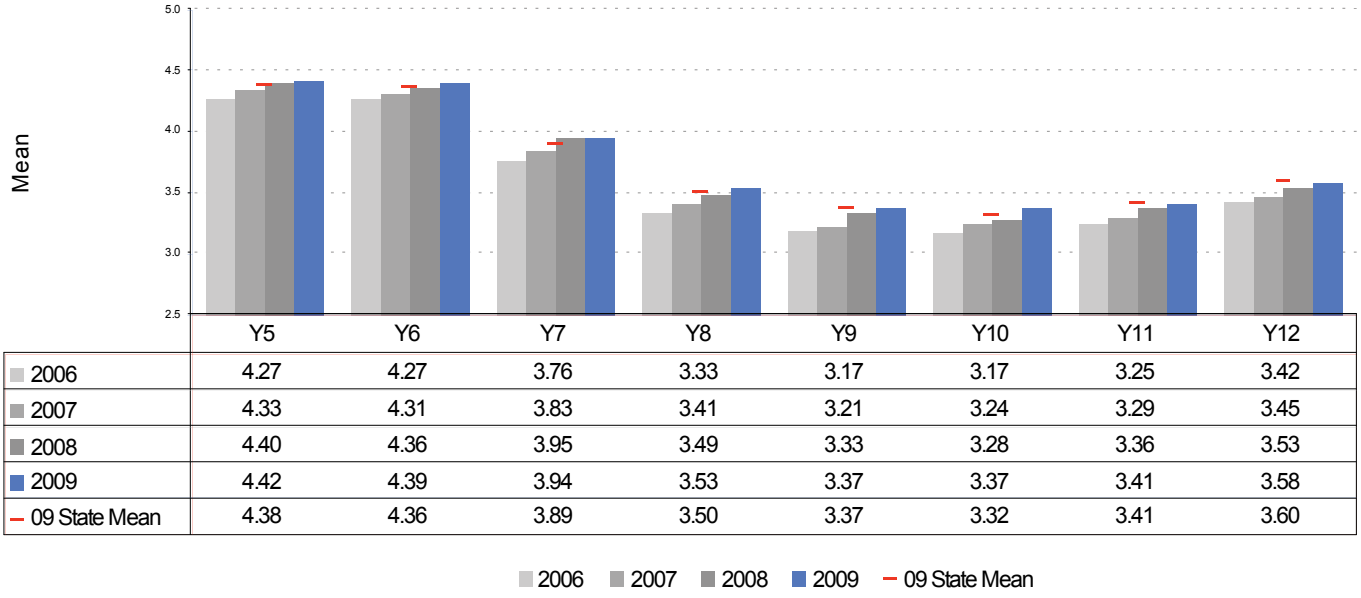
There are two broad categories of strategies that have a proven track record in building such work cultures within schools. The two contrasting approaches are:

- ***Inductive*** – where one works from the existing knowledge base of the teachers within the school and progresses iteratively through a process of description/analysis/predication to develop theories of action that discipline and deepen the professional culture of all the teachers in the school. The best-known current approach in the inductive mode is the application of the 'rounds' approach from medical training to the work in classrooms that is currently being popularised by Richard Elmore and his colleagues (City et al, 2009).
- ***Deductive*** – where again the staff works collectively to change the existing culture of learning in the school, but begin with specifications of what is known about effective teaching. The best-known strategy within the deductive mode is the now established approach to 'coaching' developed by Bruce Joyce and his colleagues (Joyce & Showers, 1995; Joyce et al, 1999). They incorporate that research-based knowledge into their own, individual and collective repertoires through a process of peer coaching that utilises the theory/demonstration/practice/feedback/coaching model.

Although both approaches should end up at the same place, the choice between them depends on where a school is starting from. It may, for example, be more appropriate in a school that has a very weak culture of teaching and learning to use a deductive approach initially to master basic knowledge and skill before moving into a more iterative approach. Similarly, a school with a more healthy professional culture may start using the inductive approach but fairly rapidly assimilate the range of specifications of models of teaching into their work.

Already in NMR, there are early indications that the increasing professionalism of the teaching workforce is visible to students. As seen below, students' experiences of teacher effectiveness are improving across all year levels from upper primary through to senior secondary to exceed or match state-wide averages.

NMR Teaching and Learning Factors - Teacher Effectiveness



	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12
2006	4.27	4.27	3.76	3.33	3.17	3.17	3.25	3.42
2007	4.33	4.31	3.83	3.41	3.21	3.24	3.29	3.45
2008	4.40	4.36	3.95	3.49	3.33	3.28	3.36	3.53
2009	4.42	4.39	3.94	3.53	3.37	3.37	3.41	3.58
09 State Mean	4.38	4.36	3.89	3.50	3.37	3.32	3.41	3.60

Intelligent accountability

This refers to the balance between national or state determined approaches to external accountability on the one hand, and the capacity for professional accountability within the school that emphasises the importance of formative assessment and the pivotal role of self-evaluation on the other. There are two key purposes for accountability. The first is as a tool to support higher levels of student learning and achievement. The second is to maintain public confidence. In those situations where there is a need for more robust forms of external accountability it should always be designed to support teacher professionalism and the school's capacity to utilise data to enhance student performance.

The 'direction of travel' in most high performing educational systems as regards 'intelligent accountability' can be summarised as follows:

- ***Tests*** – a mixed economy with a presumption of external testing in core subjects at key stages, but with a gradual move to moderated teacher assessment in most other cases.
- ***Target setting*** – with a move to 'bottom-up' school-owned targets, informed by individual student-level data, to drive up performance.
- ***School performance summary*** – with a move to contextual value-added reporting combined with the school profile to give a clear picture of progress, such as seen with the introduction of the 'Victorian Government School Performance Summary' and the national 'My School' website.

The two key purposes for accountability are as a tool to support higher levels of student learning and achievement, and to maintain public confidence.

Segmentation refers to the systematic and strategic collaboration of schools in order to positively exploit the natural diversity occurring within the system.

- ***Review/inspection*** – with a move to short duration reviews/inspections with minimal observation, informed by self-evaluation, small teams and a short, sharp report with clear recommendations for improvement.

Looked at from the perspective of the previous two drivers, there are strong arguments for moderated teacher assessment. It can be very reliable and links well to personalised learning, supports teacher professionalism, and through external moderation encourages the transfer of curriculum innovation between schools.

School-led collaboration

The prevalence of networking practice in recent years supports the contention that there is no contradiction between strong, autonomous schools and strong networks, rather the reverse. However, effective networks require strong leadership by participating principals and clear objectives that add significant value to individual schools' own efforts. It is becoming clear that networks support improvement and innovation by enabling schools to collaborate on building curriculum diversity, extended services and professional support to develop a vision of education that is shared and owned well beyond individual school gates.

However, to achieve system transformation requires a deeper form of networking called segmentation. Segmentation refers to the systematic and strategic collaboration of schools in order to positively exploit the natural diversity occurring within the system. In order to be successful this 'segmentation approach' requires a fair degree of boldness in setting system level expectations and conditions. There are five implications in particular that have to be grappled with. First, there is a need to increase the resource of 'system leaders' who are willing and able to shoulder wider system roles. In doing so they are almost as concerned with the success and attainment of students in other schools as they are with their own (Higham, Hopkins & Matthews, 2009).

Second, all underperforming (and potentially low-achieving) schools should have a leading school that works with them in either a formal grouping such as a federation (where the leading school principal assumes overall control and accountability) or in a more informal partnership. Third, schools should take greater responsibility for neighbouring schools in order to build capacity for continuous improvement at the local level. This would be on the condition that these schools provided extended services for all students within a geographic area, but equally on the acceptance that there would be incentives for doing so.

Fourth, the incentives for greater system responsibility could include significantly enhanced funding for students most at risk. Beyond incentivising local collaboratives, the potential effects for large-scale long term reform include a more even distribution of 'at-risk' students and associated increases in standards, due to more schools seeking to admit a larger proportion of 'at-risk' students so as to increase their overall income. There should also be a significant reduction of 'sink schools' even where

'at-risk' students are concentrated, as there would be much greater potential to respond to the social—economic challenges (for example by paying more to attract the best teachers; or by developing excellent parental involvement and outreach services).

Finally, there needs to be a rationalisation of national, state and local agency functions and roles to allow the higher degree of regional support required for this increasingly devolved system.

The four key drivers provide a core strategy for systemic improvement through building capacity whilst also raising standards of learning and achievement. It is system leadership though that adapts them to particular and individual school contexts. This is leadership that enables systemic reform to be both generic in terms of overall strategy and specific in adapting to individual and particular situations. It needs to be made clear however that, as was intimated earlier, for transformation, system leadership needs to be reflected at three levels:

- ***System leadership at the school level*** – with, at essence, principals becoming almost as concerned about the success of other schools as they are about their own.
- ***System leadership at the local/regional level*** – with practical principles widely shared and used as a basis for local alignment with specific programmes developed for the most at-risk groups.
- ***System leadership at the national/state level*** – with social justice, moral purpose and a commitment to the success of every learner providing the focus for transformation and collaboration system-wide.

In concluding, it is important to remember that the challenge of system reform has great moral depth to it. It addresses directly the learning needs of students, the professional growth of teachers and enhances the role of the school as an agent of social change. Imagining a new educational future requires a new way of working, capable of realising a future where every school is a great one. This is the example that the Northern Metropolitan Region has provided in this paper. Through developing a coherent school improvement strategy, re-balancing 'bottom-up' and 'top-down' change and moving to the 'inside-out' they have enhanced the life chances of increasing numbers of their students and are continuing to do so. They have demonstrated that the collective sharing of skills, expertise and experience creates much richer and more sustainable opportunities for rigorous transformation than can ever be provided by isolated institutions. It is this approach, as NMR has demonstrated, that will eventually lead towards 'every school a great school' as well as the 'good society.'

System leadership adapts the four key drivers to particular and individual school contexts. It enables systemic reform to be both generic in terms of overall strategy and specific in adapting to individual and particular situations.

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Appendix 1:
Department of Education and Early Childhood Development school improvement strategies and initiatives

Effective Schools Model

The Effective Schools Model identifies eight domains in which schools must be active, and continuously improving. The NMR school improvement model reflects these eight domains: professional leadership; focus on teaching and learning; purposeful teaching; shared vision and goals; high expectations of all learners; accountability; learning communities; stimulating and secure learning environment.

Developmental Learning Framework for School Leaders

The Developmental Learning Framework for School Leaders articulates the leadership capabilities teachers and school leaders need to create and sustain effective learning environments. The framework describes five domains of leadership and identifies levels of performance for each domain. It assists teachers and leaders to determine how best to continue developing their leadership capabilities.

More information is available at:
http://www.education.vic.gov.au/proflearning/bastowinstitute/resources/DLFschooleaders.htm

e^5 Instructional Model

The e^5 Instructional Model describes five domains that characterise quality teaching: engage; explore; explain; elaborate; evaluate. The model offers a common language enabling teachers and school leaders to discuss and enact quality teaching practice.

More information is available at:
http://www.education.vic.gov.au/proflearning/e5/default.htm

Principles of Learning and Teaching

The six Principles of Learning and Teaching (PoLT) identify the conditions under which students learn best. The six principles provide an important framework that teachers and school leaders can use to reflect on and to strengthen teaching practice.

More information is available at:
http://www.education.vic.gov.au/studentlearning/teachingprinciples/default.htm

Principles for Highly Effective Professional Learning

The Principles of Highly Effective Professional Learning provide guidance for the design of professional learning opportunities that are most likely to enrich teaching practice. The seven principles are a companion to the Principles of Learning and Teaching, which support teachers to select teaching strategies, review teaching practice and identify areas that would benefit from professional learning.

More information is available at:
http://www.eduweb.vic.gov.au/edulibrary/public/staffdev/teacher/induction/ProfLearningInEffectiveSchools.pdf

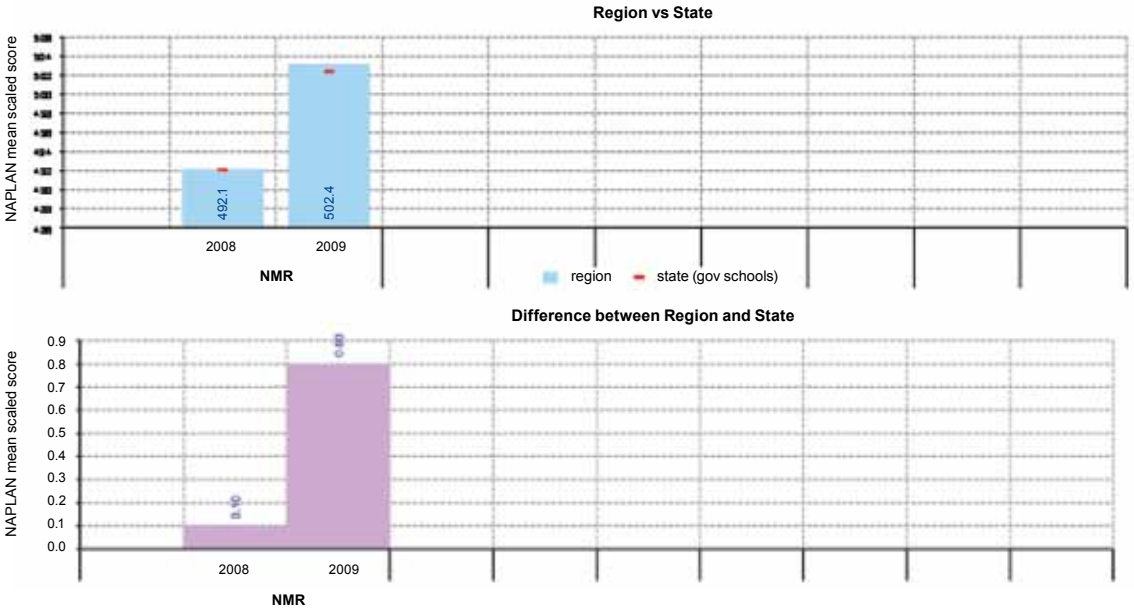
Appendix 2
Data trends for Northern Metropolitan Region

NAPLAN Reading – Year 5, 2008, 2009

NAPLAN Benchmarks – Region vs State

Select year level: 5
Select strand code: Reading

NAPLAN – Year 5 Reading – mean scaled scores, 2008



NAPLAN State Benchmarks (gov schools)

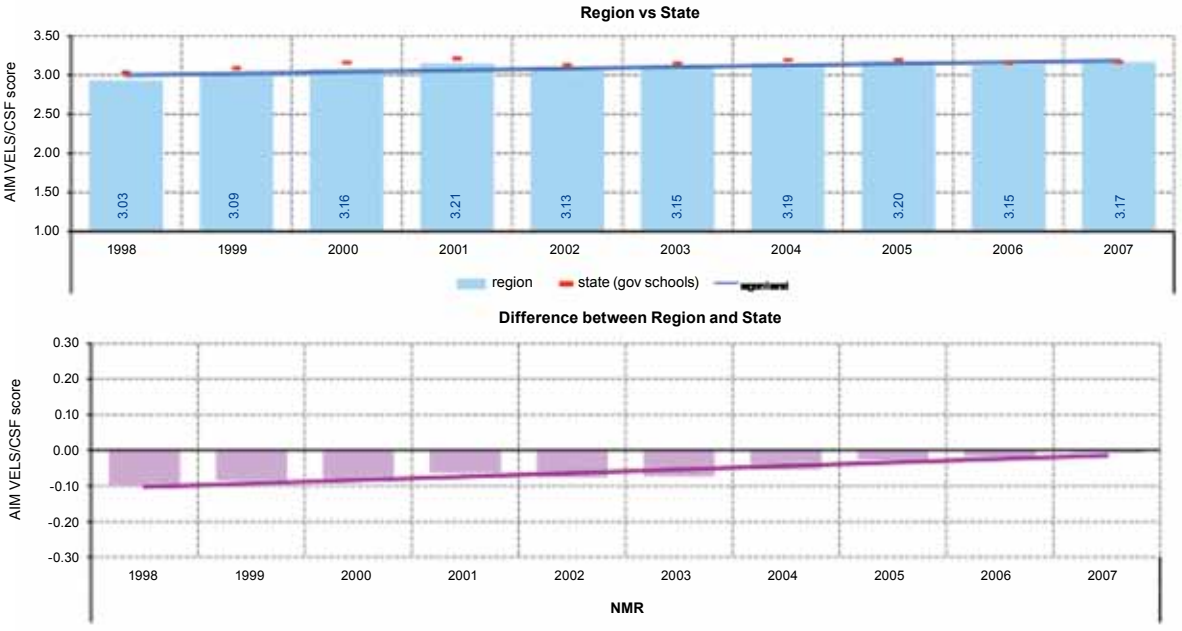
Year	Mean Scaled Score
2008	492.1
2009	502.4

AIM Reading – Year 5, 1998–2007

AIM Benchmarks – Region vs State

Select year level: 5
Select strand code: Reading

AIM Year 5 – Reading mean VELS/CSF scores, 1998-2007



AIM State Benchmarks (gov schools)

Year	VELS/CSF Score
1998	3.03
1999	3.09
2000	3.16
2001	3.21
2002	3.13
2003	3.15
2004	3.19
2005	3.20
2006	3.15
2007	3.17

NAPLAN Reading – Year 7, 2008, 2009

NAPLAN Benchmarks – Region vs State

Select year level: 7
Select strand code: Reading

NAPLAN – Year 7 Reading – mean scaled scores, 2008

NAPLAN State Benchmarks (gov schools)

Year	Mean Scaled Score
2008	531.1
2009	534.7

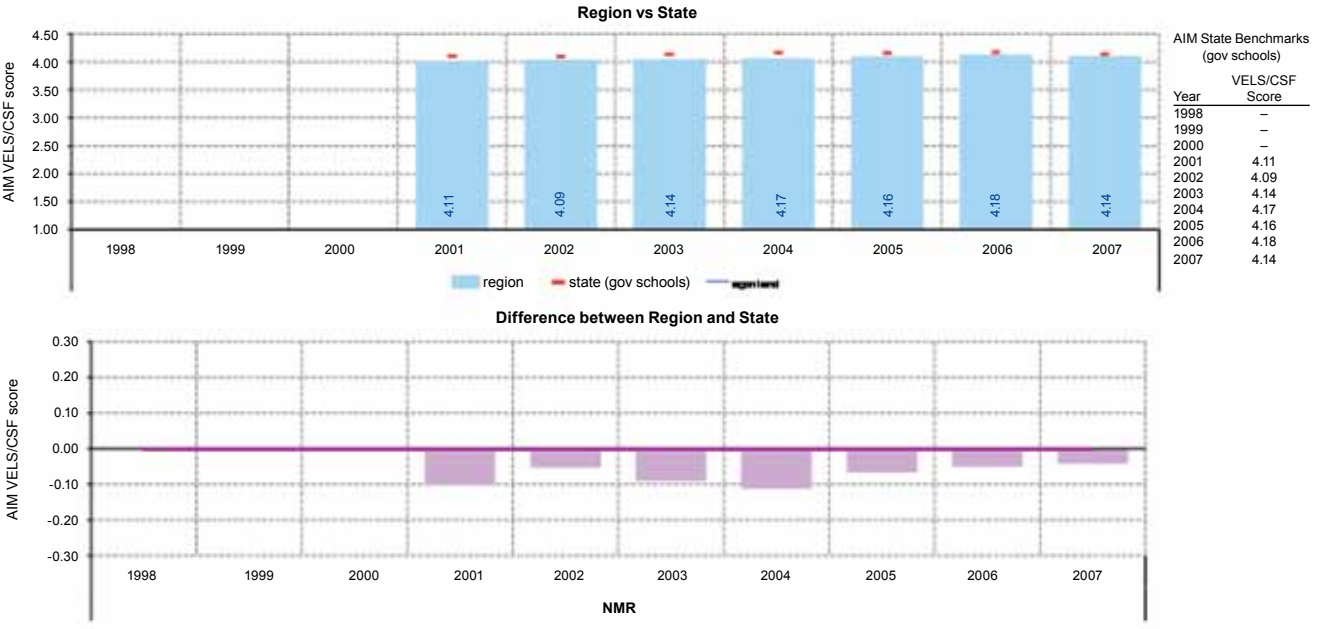
AIM Reading – Year 7, 2001–2007

AIM Benchmarks – Region vs State

Select year level: 7
Select strand code: Reading

AIM Year 7 – Reading mean VELS/CSF scores, 2001-2007

(Note: In 2001, only half of all schools with students in Year 7 participated in AIM)



AIM State Benchmarks (gov schools)

Year	VELS/CSF Score
1998	–
1999	–
2000	–
2001	4.11
2002	4.09
2003	4.14
2004	4.17
2005	4.16
2006	4.18
2007	4.14

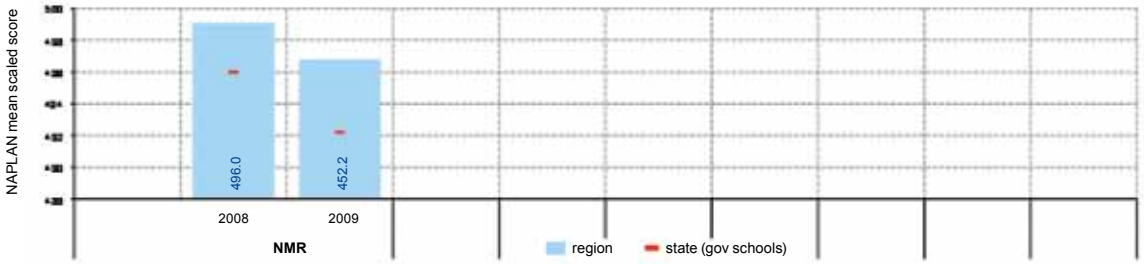
NAPLAN Writing – Year 5, 2008, 2009

NAPLAN Benchmarks – Region vs State

Select year level: 5
Select strand code: Writing

NAPLAN – Year 5 Writing – mean scaled scores, 2008

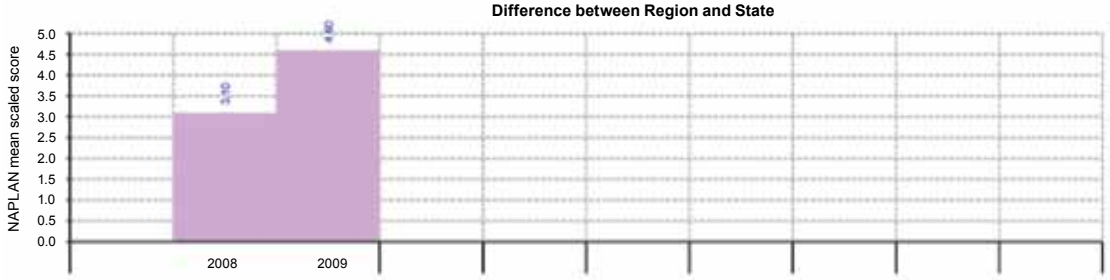
Region vs State



NAPLAN State Benchmarks (gov schools)

Year	Mean Scaled Score
2008	496.0
2009	452.2

Difference between Region and State



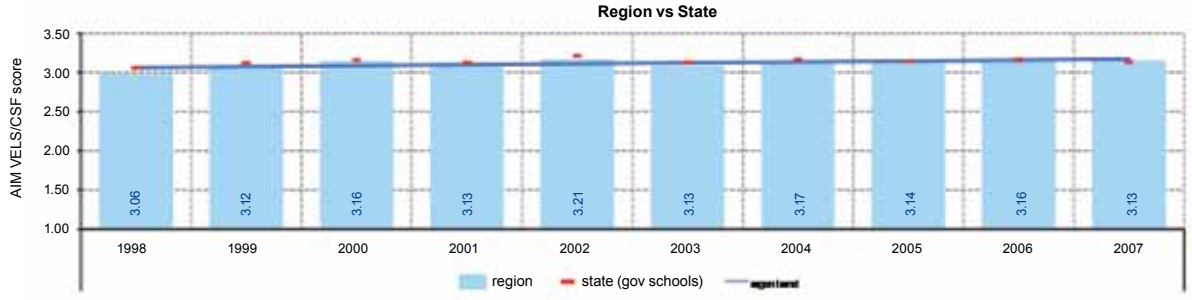
AIM Writing – Year 5, 1998–2007

AIM Benchmarks – Region vs State

Select year level: 5
Select strand code: Writing

AIM Year 5 – Writing mean VELS/CSF scores, 1998-2007

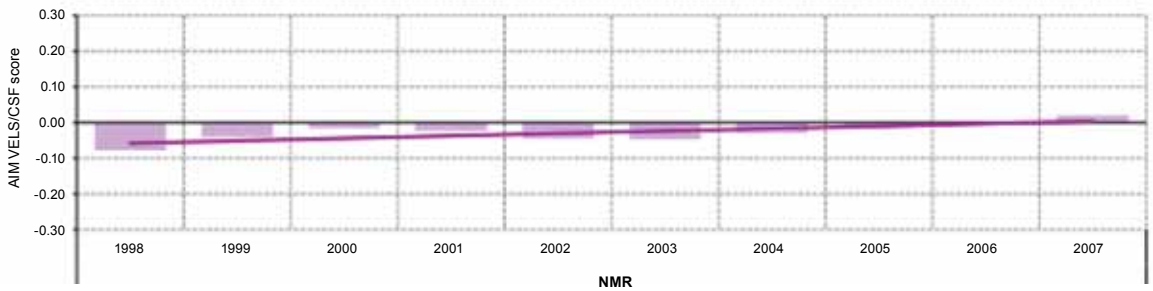
Region vs State



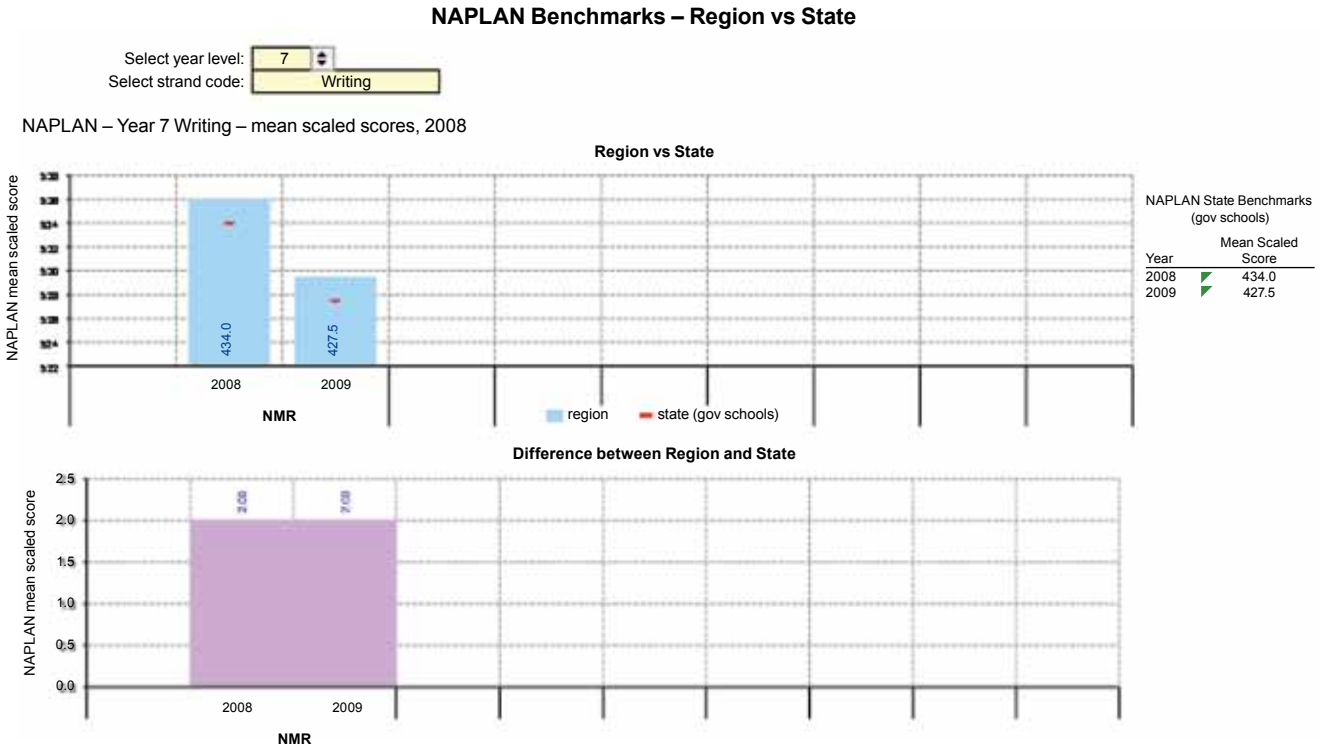
AIM State Benchmarks (gov schools)

Year	VELS/CSF Score
1998	3.06
1999	3.12
2000	3.16
2001	3.13
2002	3.21
2003	3.13
2004	3.17
2005	3.14
2006	3.16
2007	3.13

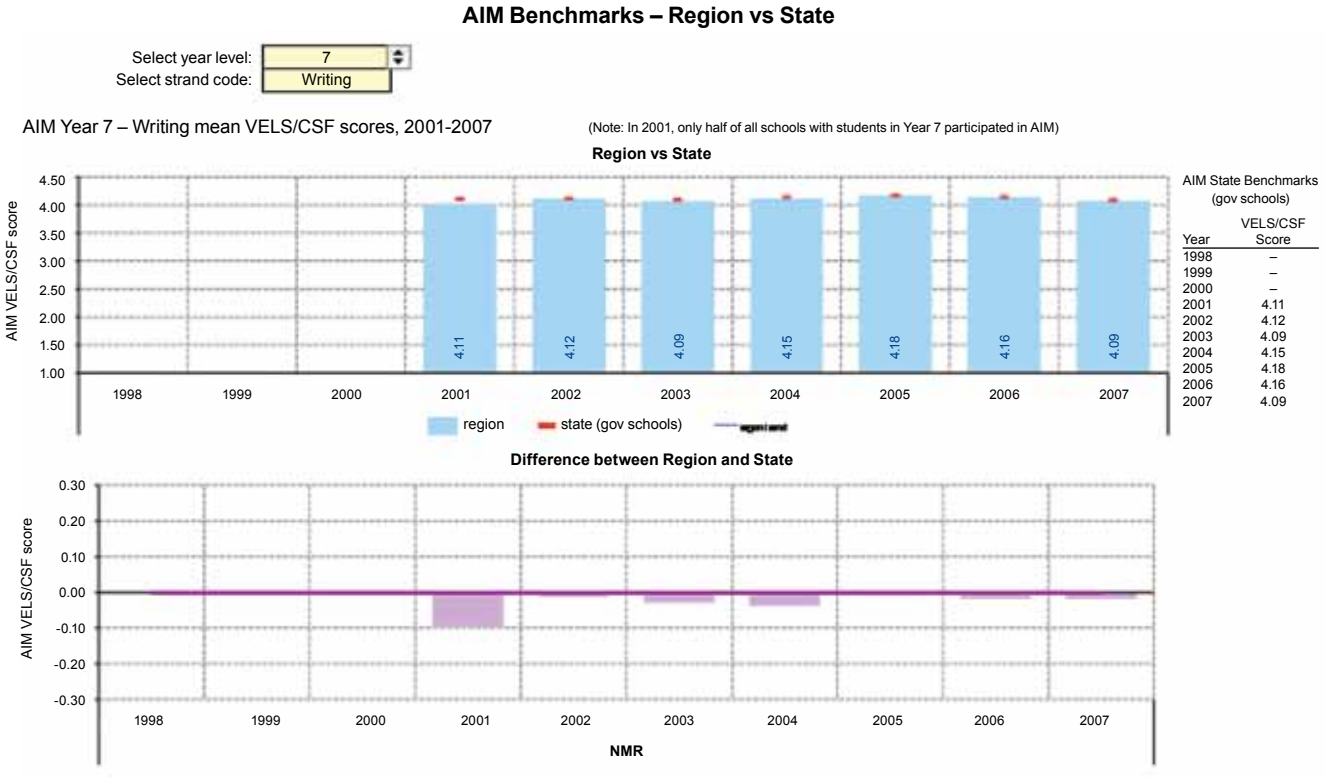
Difference between Region and State



NAPLAN Writing – Year 7, 2008, 2009



AIM Writing – Year 7, 2001–2007

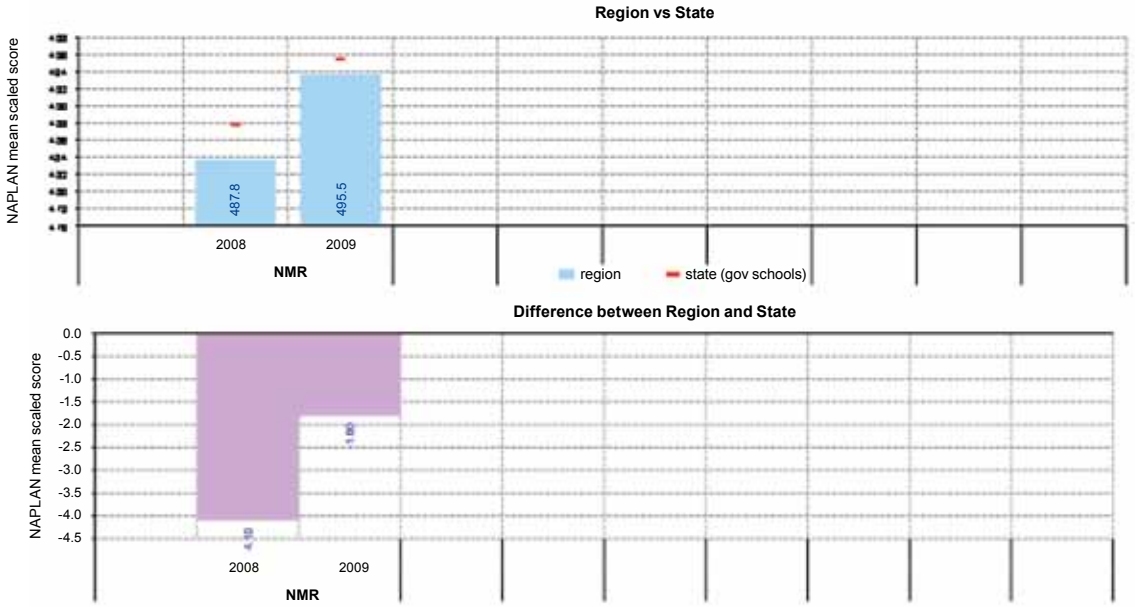


NAPLAN Number – Year 5, 2008, 2009

NAPLAN Benchmarks – Region vs State

Select year level: 5
Select strand code: Numeracy

NAPLAN – Year 5 Numeracy – mean scaled scores, 2008



NAPLAN State Benchmarks (gov schools)

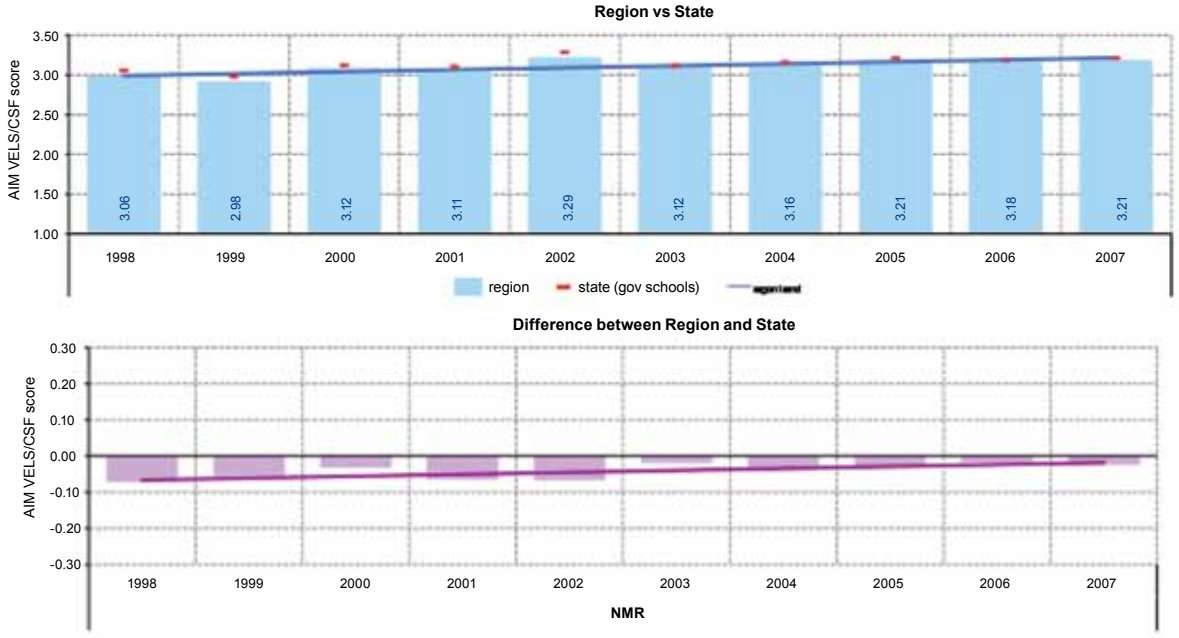
Year	Mean Scaled Score
2008	487.8
2009	495.5

AIM Number – Year 5, 1998–2007

AIM Benchmarks – Region vs State

Select year level: 5
Select strand code: Number

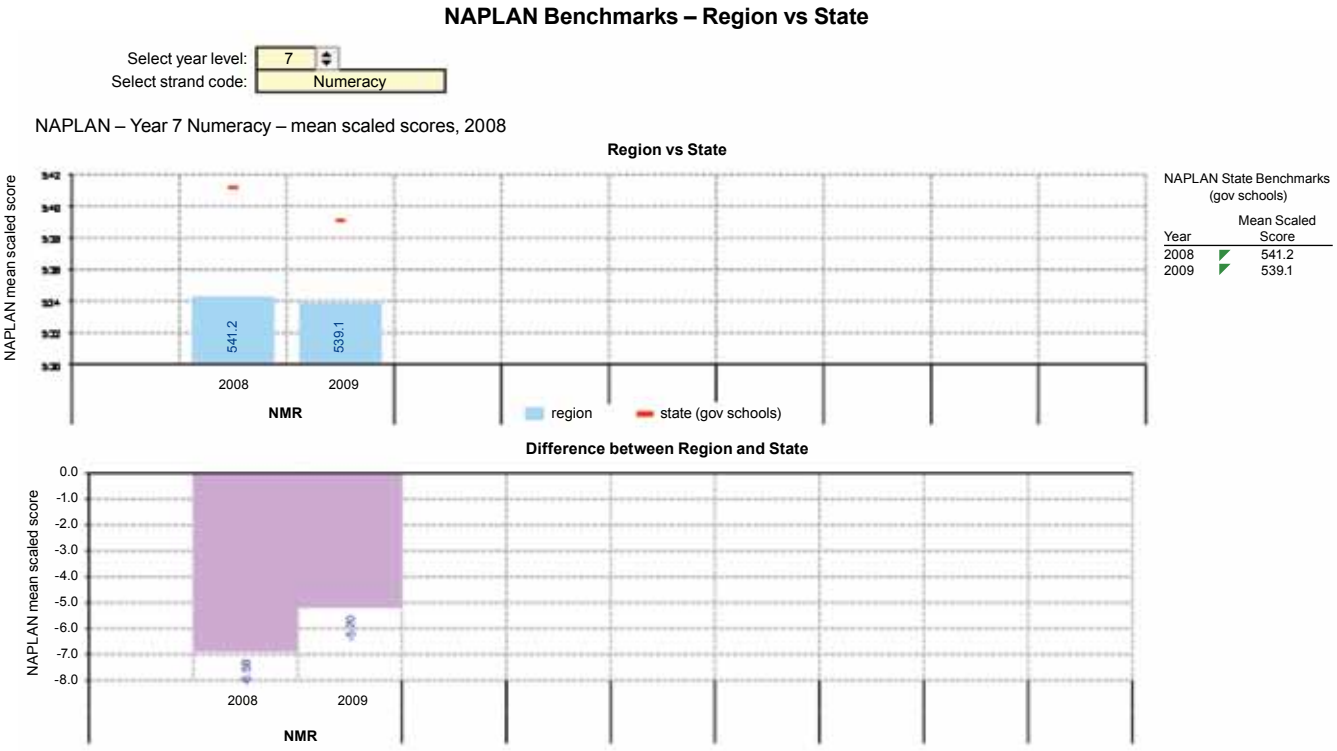
AIM Year 5 – Number mean VELS/CSF scores, 1998-2007

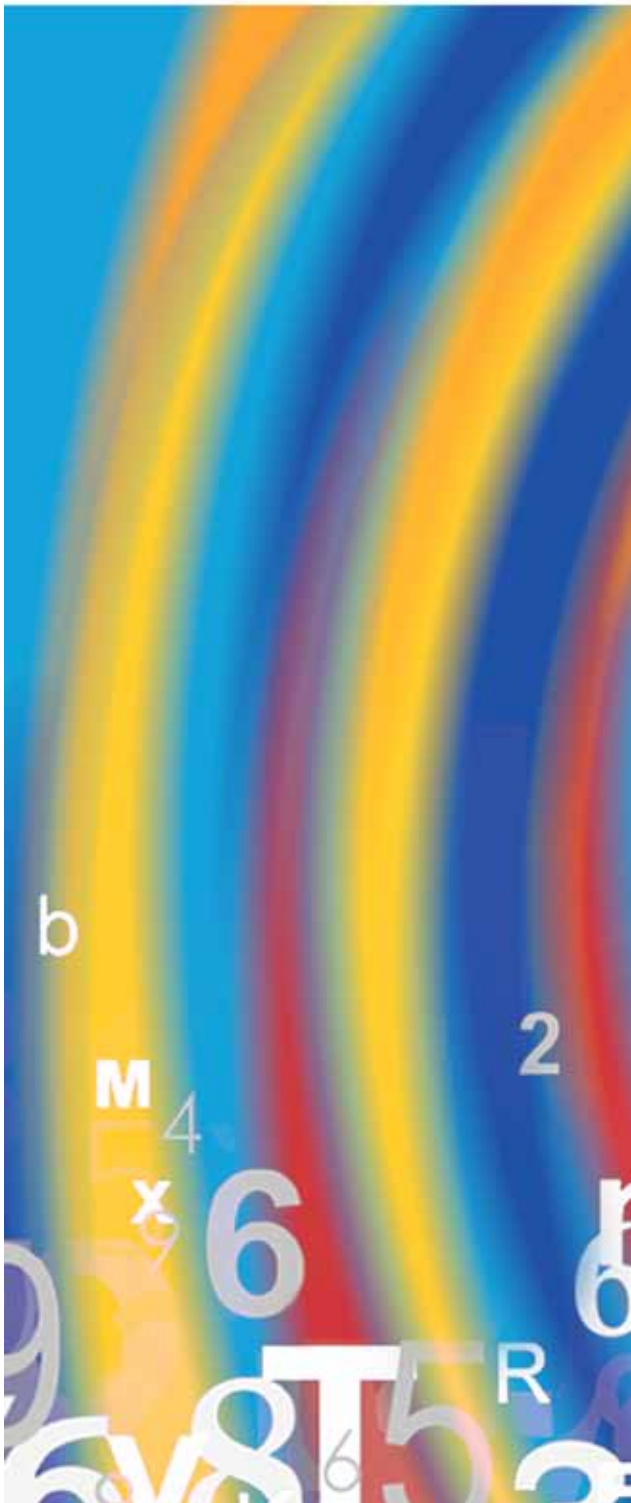


AIM State Benchmarks (gov schools)

Year	VELS/CSF Score
1998	3.06
1999	2.98
2000	3.12
2001	3.11
2002	3.29
2003	3.12
2004	3.16
2005	3.21
2006	3.18
2007	3.21

NAPLAN Numeracy – Year 7, 2008, 2009




b
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