

The primary school curriculum: Assimilation, adaptation, transformation

NZC at primary and intermediate level: Findings
from the NZCER National Survey of Primary
Schools 2010

Jacky Burgon, Rosemary Hipkins and Edith Hodgen



NEW ZEALAND COUNCIL FOR EDUCATIONAL RESEARCH

TE RŪNANGA O AOTEAROA MŌ TE RANGAHAU I TE MĀTAURANGA

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Executive summary

New Zealand Council for Educational Research (NZCER) national surveys, funded through NZCER's purchase agreement with the Ministry of Education (MOE), give a nationwide picture of what is happening in schools and provide information on the impact of any policy or social changes. This report focuses on the implementation of the New Zealand Curriculum (NZC) in primary and intermediate schools. The National Survey of 2010 was well placed to collect perspectives on progress, successes and barriers to the creation of a relationship between school-level curricula and the NZC national document because this was the year by which implementation was expected to have at least been well underway. A complementary report on NZC at secondary level is available from the 2009 National Survey of Secondary Schools (Hipkins, 2010).

Initial perceptions and actions

By 2010, three years after NZC was published, both teachers and principals had high levels of confidence in the framework itself. Widespread exploration of the new curriculum had already taken place and implementation was seen as a major achievement by 84 percent of the primary and intermediate principals. The high-level aspects of the front-end of the document had been thoroughly explored in most schools. Teachers were more likely than principals to report multiple types of encounter with NZC (whole-school, team-based and individual explorations). However, one in five teachers indicated that they had yet to explore learning area statements or achievement objectives.

Three areas of potential change, all clearly supported by the NZC framework, were top ranked as important aspects to consider during NZC implementation:

- the importance of fostering student self-management with lifelong learning goals in mind
- the need to develop or revise the school's "big picture" vision and values (which was accorded importance by more primary teachers and principals than by their secondary colleagues in the equivalent 2009 survey)
- the necessity to develop ways to make effective use of data to set goals and lift achievement of specific groups of students.

Developing or updating the school's vision and making effective use of data also stood out as being top of the *action* priorities: most schools were already working on these areas. The widespread support for making more effective use of data is a recurring theme throughout the

report. However, the aspiration to foster greater autonomy via student self-management was somewhat less likely to have been enacted in practice, although also highly valued in principle.

Change at the classroom level

In primary and intermediate schools, the NZC message about supporting students to become lifelong learners has translated into a focus on the value of metacognition and classroom discussions about acts of learning. Almost all the teachers perceived this broad intent to be important: “think and talk about how they are learning” was the top-ranking item for both importance and self-reported frequency of classroom enactment. There was a larger gap between what is valued and what is practised for those items that described affording greater autonomy in making *learning* decisions to the students themselves.

We found gaps between the value teachers accorded to specific practices and the self-reported frequency of classroom implementation of those practices. Seeing something as important had not necessarily translated into specific changes in pedagogy. The value/practice gaps with regard to specific aspects of teachers’ classroom practice were mostly larger than the gaps between their perceptions of important aspects of NZC and associated school-wide changes.

Comparing responses with the past two cycles of NZCER National Surveys of Primary and Intermediate Schools, the trend to stronger support for aspects of classroom practice related to *assessment* of core learning areas is particularly evident. Almost all the teachers reported that students work with them to set goals in reading, writing and mathematics, and that their students have opportunities to assess their work against set criteria. However, these classroom-based assessment actions correlate only moderately strongly with teachers’ views on NZC. This suggests that other influences are also likely to have contributed to these substantial shifts in practice over time.

Attention needs to be paid to developing teachers’ pedagogical skills in the use of Information and Communication Technology (ICT) to support the types of rich learning experiences intended by NZC. From 2007 to 2010, during a period of exponential change in the sophistication of ICTs available, there were only modest gains in practice. There was, however, relatively high in-principle teacher support for ICT use in classrooms. Many teachers who did not currently use ICT for more than basic purposes said they would like to do so. And many of them responded positively, or at least reserved judgement, in relation to the opinion statements concerning ICT’s *learning* benefits.

Changes at a school-wide level

The prevalence and emphasis given to developing a school-wide strengths-based culture has been a clear theme of other NZC implementation studies. In the 2010 survey, 73 percent of principals said they had used strengths-based approaches to celebrating success for more than 3 years and all

but a very few of the others had adopted such practices more recently. The pattern is similar for other school-wide initiatives that can be readily linked to the “front-end” messages of NZC: having students promote school values; affirmation of different cultural backgrounds; helping students to develop strategies to manage interpersonal interactions; and introducing a “buddy” system of student peer support. Most parents felt that the school supported their children well to develop skills in these areas.

Over the implementation period from 2007–10 the biggest school-wide changes were all in areas with the potential to foster key competency development: student involvement in environmental or gardening projects (a 61 percent shift over the 3 years to 2010); students developing strategies to manage their interactions with each other (40 percent); and student-led health and wellbeing activities (38 percent).

The importance of leadership and whole-school learning

Principal leadership is positively regarded by New Zealand’s primary and intermediate teachers. Their responses to a series of leadership statements were markedly skewed to the positive end of the opinion continuum provided. Factor analysis revealed a high level of coherence in each teacher’s responses: if they were positive about one or more aspects they tended to be positive about most. However, the comparatively high number of items that registered “neutral/not sure” frequencies between 10 and 20 percent points to a certain level of invisibility for some aspects of principal leadership, particularly in relation to their interactions with others in the school’s community. The negative responses, small in number though they were, point to the need for ongoing support for some principals to improve their leadership of their schools.

The relationship between the principal’s leadership and a school-wide culture of professional learning was stronger than the relationship between leadership and each teacher’s individual classroom practice. The evidence in the report also points to a stronger alignment between effective leadership support and a strengthening of foundational aspects of learning (i.e., those assessed by tools that allow trends in and across schools to be documented and accounted for; those highlighted by National Standards). Indications of a link between leadership and more transformative changes to the way in which the curriculum is enacted at the classroom level are not as readily apparent in the data.

One area of assessment was of particular concern to principals. They wanted access to sufficient funding to get good-quality external advice to support increased student achievement. This was of particular concern to leaders of smaller schools and rural schools.

Equity issues

There were indications that aspects of NZC related to the Treaty of Waitangi principle were not as highly valued or as often enacted in higher decile schools where there tend to be fewer Māori

students. It would appear that Māori students who attend high-decile schools are less likely to be receiving the full benefit of NZC principles and a large number of **all** New Zealand learners are missing out on opportunities to learn te reo and tikanga. Conversely, in the lowest decile schools there were indications of struggle and challenge in meeting obligations to boost student achievement: obligations of which these schools were well aware.

Challenges related to lifting the achievement of Pasifika students showed up in a number of ways. Students in schools with higher numbers of Pasifika students were less likely to be in classrooms where they were encouraged to assess their own work against specific criteria. Principals in schools with higher numbers of Pasifika students were less likely to be confident in the contributions that their board of trustees (BOT) members bring to discussions of academic and social achievement. Teachers in schools with higher numbers of Pasifika students were less likely to say that the school set useful targets for student achievement. Pasifika parents were more likely to want more assessment and were less likely than other parents to think their child's research skills had been well developed at school. This pattern of differences points to the possibility that lower expectations might prevail in some schools with higher numbers of Pasifika students.

There were also indications that, in 2010, many teachers had yet to experience professional learning with a specific focus on equity issues. Effective professional development opportunities in relation to Māori and Pasifika student achievement were reported much less often than professional learning in reading, writing and numeracy aspects of the curriculum. To a lesser extent this lack of professional learning opportunities was also an issue in the area of special education. Of note, too, were principal concerns about access to timely and appropriate support for students with special needs.

Barriers to curriculum implementation

As in past NZCER national surveys, the twin issues of time and funding were perceived as the predominant barriers to change, by both teachers and principals. Almost three-quarters of the principals wanted more time to reflect, read and be innovative. Almost two-thirds of the teachers wanted more time to work with individual students and still more of them wanted to reduce administration and paperwork.

Recruiting and retaining quality teachers was also seen as an issue, particularly in low-decile schools. There were some indications that poor student behaviour was an issue for some teachers, particularly in low-decile schools and where there were higher numbers of Māori and Pasifika learners. It does seem that teachers in the low-decile, more diverse schools face more challenges for making pedagogical changes than do their peers in high-decile schools.

While the introduction of National Standards has clearly diverted some energy and momentum away from NZC, just over 40 percent of the principals were looking to create alignments so that their NZC work could continue. The potential for diverted attention is also seen in teachers'

reports of their professional learning where the predominant focus was on literacy and numeracy aspects of the curriculum, and associated assessment practices and tools.

Assimilation, adaptation or transformation?

The responses of the principals and teachers did not suggest that NZC had been simply assimilated into previous curriculum directions. But neither did the 2010 data suggest there had been widespread changes to the curriculum actually enacted in the classroom – to the extent that learning experiences might be transformed in ways that empower all students to become the “confident, connected, lifelong learners” of the NZC vision statement. The overall picture was one of active exploration and adaptation and NZC implementation was still very much a “work in progress”.

The largest shifts in pedagogy appeared to have taken place in the area of assessment beliefs and practices. The intensive focus on professional learning and the resourcing of change in this area probably played an important part in this encouraging shift. However, the introduction of National Standards has generated mixed signals that appear to have diverted some attention and energy away from NZC implementation. Demonstrating how these curriculum and assessment/reporting policies can be productively aligned would help to leverage the potential for further and more transformative shifts in assessment practice.

NZC implementation needs to be treated as ongoing if its transformative potential is ultimately to be achieved. However, the widespread positive regard for the intent of NZC, and the strong professional learning culture in the primary and intermediate schools, together provide a solid platform for ongoing change and professional growth.

1. Introduction

Background to national surveys

NZCER national surveys of primary and intermediate schools have run since 1989, at generally 3-yearly intervals. These surveys give a national picture of what is happening in schools and provide information on the impact of any policy or social changes. They give NZCER the ability to spot emerging issues, to track trends over time and to explore reasons for those shifts. The national surveys are used by policy-makers and the sector. They are funded through NZCER's purchase agreement with the Ministry of Education (MOE), and have the support of the New Zealand Educational Institute (NZEI), the Principals' Federation and the New Zealand School Trustees' Association (NZSTA). Draft surveys are circulated to MOE and these sector groups for feedback, as well as being trialled with a small number of principals, teachers, trustees and parents: the groups we survey.

A series of reports are published on each round of surveys. A report has already been published from the 2010 survey. This report provided a brief snapshot of the overall findings and a full analysis of primary school principal, teacher, parent and trustee responses to the introduction of National Standards (Wylie & Hodgen, 2010).

This second report focuses on school curriculum at primary and intermediate level. In 2007 MOE published *The New Zealand Curriculum* (NZC) (Ministry of Education, 2007). All schools were to be engaged in the implementation process by 2010. The National Survey of 2010 was therefore well placed to collect perspectives on progress, successes and barriers to the creation of a relationship between school-level curricula and the NZC national document.

A complementary report on NZC at secondary level is available from the 2009 National Survey of Secondary Schools (Hipkins, 2010).

Methodology

The 2010 NZCER National Survey went to principals, teachers and BOT members in a random sample of 350 schools in late July 2010, and went to parents at a cross-section sample of 35 of these schools. Principals were sent their own survey and sufficient teacher surveys to cover half of their teaching staff, with guidance on how to distribute these randomly to their staff. BOT chairs were sent, via the school, their own survey and one other to give to another trustee. Schools that took part in the parent survey were sent sufficient surveys for a one in seven sample, with guidance on how to send these out randomly.

We received completed surveys from:

- 210 principals (a response rate of 60 percent)
- 970 teachers (an estimated response rate of 41 percent, based on an estimate of teacher numbers at each school according to the national average teacher:student ratio)
- 257 trustees (a response rate of 37 percent; 51 percent were BOT chairs)
- 550 parents (an estimated response rate of 35 percent).

We weighted the responses to provide as representative a response as previous NZCER national surveys of New Zealand primary and intermediate schools. The margin of error for the principals' responses is around 5.8 percent; for teachers' responses, around 2.4 percent; for trustee responses, around 6.2 percent; and for parents, around 4.5 percent.

The responses discussed in this report were routinely cross-tabulated with the following school characteristics: decile (referring to the socioeconomic community served by the school); roll size; proportion of Māori students on the school roll; location (rural or urban); and school type (primary or intermediate). We used unweighted data for these cross-tabulations, where the purpose was to see whether group differences were associated with differences in experiences and views.

We also checked to see whether the year level at which teachers taught, or their role in the school, might make a difference to their experiences and views. With trustees, we checked to see if BOT chairs and those who had just come onto their school board had different views from others. With parents, we checked for any differences in views related to parent qualification levels and ethnicity, and year level of their youngest child (about whom they answered some questions). We also checked for differences related to school characteristics, though this comes with the caveat that the parent sample is from 35 schools only, and so we have just a few numbers of each school kind.

The focus of this report

Survey content is refreshed at each survey cycle because:

- the survey questions need to reflect current issues
- the survey questions reflect the most recent thinking and research in education; NZCER staff who have been working in relevant areas of research in education contribute to the development of question coverage and wording for each round of surveys
- it is necessary to make pragmatic decision in terms of survey length for each of the four sets of respondents.

The 2010 surveys included a range of items related to the implementation of NZC. A new curriculum is a time to signal change. Change is managed differently by different teachers and principals in different schools. Sometimes change may not be discernable; NZC might be *assimilated* into the existing school curriculum without it being possible to distinguish any

difference in curricula approaches at a school level. Alternatively, a school might *adapt* aspects of NZC into the school with curriculum changes evident at school. Or, NZC may alter how a school approaches the development of a school-wide curriculum, with a specific focus on the empowering nature of learning opportunities offered to all students, both inside the classroom and beyond. Such experiences are likely to focus on “why” (i.e. perceived purposes) and “how” (i.e. pedagogy employed) not just the “what” of the planned curriculum content. The distinction we repeatedly make between learning opportunities and experiences is important: teachers may plan experiences that some students can access but others cannot. Obviously making an engaging experience available in the first place matters, but this must be done in such a way that all students have the opportunity to access the intended learning. This combination of opportunity (or affordance to use the sociocultural term) and actual access to challenging and personally extending learning experiences for each and every student is the *transformation* signalled by the title of the report.

This report looks at the potential for assimilation, adaptation or transformation of NZC, from a range of perspectives. It addresses the following questions:

- How are principals and teachers learning about NZC?
- How are principals and teachers prioritising components of NZC?
- What kinds of professional learning experiences do teachers value and what does this mean in relation to implementing NZC?
- What does the intended NZC look like in relation to what’s actually happening?
- What is the role of professional pedagogical leadership in relation to NZC?
- How does assessment inform the school curriculum?
- How does ICT support the school curriculum?
- What gets in the way of adaptation or transformation of the school curriculum?
- How are diverse voices being supported within the school curriculum?

An overview of the sections that follow

The following brief detail provides a reference point for keeping track of the various item sets on which we have drawn. The factors derived from these item sets are also listed for ongoing reference.

Section 2: The context for this report

This section outlines the policy context into which NZC was introduced and briefly describes the nature of NZC as a framework curriculum. Implementation of NZC is thus framed as a complex process that potentially entails far-reaching decisions and actions from all involved.

Section 3: Learning and thinking about NZC

This section outlines the nature of schools' early encounters with NZC and then documents principals' and teachers' views about the importance of a wide range of actions that could potentially be undertaken as part of NZC implementation. The responses to this item set formed a factor that we called *Views of NZC related changes*. Both groups were also asked to indicate whether or not each type of change had already been made or was going to be made in the near future.

Section 4: Aspects of student learning that teachers value and enact

This section explores teachers' beliefs about the importance of a range of briefly described learning experiences. The descriptions provided in this item set encapsulate learning experiences that could support the development and strengthening of students' key competencies: the factor for responses to this item set is called *Key competencies*. The section then reports on how well students' actual classroom learning experiences appear to match their teacher's beliefs. These responses create a second factor for the same item set: this one is called *Student experiences*. Parents' views of how well a range of curriculum outcomes have been achieved by their child are also included.

Section 5: Pedagogy and assessment

This section reports on teacher perceptions of students' opportunities to enact various assessment roles in their classroom (e.g. self assessor, peer assessor). Their responses formed a factor called *Student role in assessment*. Principals' leadership of strong assessment practice is also investigated. In turn this focus on leadership points to the importance of fostering a culture of professional conversations about what assessment data has to say about the learning challenges different students are facing. A subset of data from a wider set of items about the sharing culture of the school is introduced here. These selected items from the teacher survey comprise another factor called *Achievement-focused sharing*.

Section 6: Pedagogy and ICT

Two sets of questions probed teachers' use of ICT. This first set addressed the uses to which teachers put ICT tools and responses formed a factor called *ICT use*. The second item set asked for teachers' opinions regarding a range of statements about the use of ICTs to enhance learning. A subset of these items (all of which were positively worded) formed a factor we called *ICT positive*. The chapter explores how these factors align with other NZC-related parts of the survey. Principal and parent views on the use of ICT are also discussed.

Section 7: NZC and professional leadership

Both teachers and educational leaders have critical roles to play in the implementation of NZC. These different roles come together strongly in the development of, and support for, effective

pedagogy. A large item set probed teachers' views of their principal's leadership. Responses formed a factor we called *Principal leadership*. The section also reports on leadership of innovation in routines and school-wide practices to which everyone contributes—the “how we do things here” that constitutes the so-called hidden curriculum of the school. For this aspect on principals' responses are reported.

Section 8: Curriculum professional development

As for the ICT chapter, two sets of questions probed teachers' professional development experiences and views. This first set addressed the nature of teachers' professional learning experiences during the three years immediately preceding the survey. The second item set asked for teachers' opinions regarding a range of statements about their professional learning. A subset of these items (all of which were positively worded) formed a factor we called *Engaged by professional learning*. Another subset of more negatively worded items also made up a factor. We called this factor *Professional learning unhelpful*.

Section 9: Barriers to change

This section draws together suggestions of barriers to curriculum change already discussed in the preceding sections and presents some new data about the challenges that principals and teachers perceive for their work.

Section 10: A curriculum for all students?

This section begins to draw the threads together by returning to a recurring challenge in the data presented: there are a number of indications of differences in ways schools' equity obligations are being understood and enacted. The section recaps these differences and discusses ways they might be interpreted, in the process raising challenges for supporting ongoing implementation of NZC.

Section 11: NZC in primary and intermediate schools: assimilation, adaptation or transformation?

This short concluding statement highlights successes and ongoing challenges for NZC implementation, concluding that in 2010 it was still very much a work in progress.

2. The context for this report

This section provides a context for the reporting of results and the associated discussion that follows. By briefly outlining a range of challenges for curriculum implementation, it frames the process as necessarily complex for everyone involved and underscores the wide-ranging and far-reaching types of decisions that need to be made and acted on.

Challenges for curriculum development

Since the first introduction of a national curriculum in New Zealand in the 1870s there have been a series of issues, dilemmas and challenges for national curricula.

Prescriptive detail or high level

Over time national curriculum documents have been developed in a range of ways: the trend has seen a gradual shift from nationally prescriptive documents towards high-level frameworks that require shaping at school level. NZC is a framework curriculum of the latter type.

Breadth and content

Debates in this area have covered: how much teachers need to “cram” into a day; the relative weights to be given to the “3 Rs”; and how much emphasis to place on schools’ socialising/citizenship functions. How these debates are framed depends on the position that is taken concerning the related questions of what can constitute “learning” and “knowledge”.

Intent versus actual (hidden) curriculum

Many educational researchers have described the changes that occur in the journey from written curriculum to what a student actually learns in the classroom. One such description is a sequence of four steps through which the curriculum moves from inception to the classroom: the *official curriculum* (the actual New Zealand Curriculum document); the *intended curriculum* (what teachers interpret the official document to be as mediated by the school curriculum); the *transmitted curriculum* (what teachers actually teach); and the *actual curriculum* (the ideas, strategies and knowledge the students construct in response to the transmitted curriculum) (Biddulph, 1988, p. 57). Opportunities to change the way a school develops its curriculum can occur at any of the stages of the curriculum journey from official to intended.

What success for Māori looks like in a national curriculum document

Curriculum for Māori has been strongly debated since the government accepted responsibility for the education of Māori students in the Native Schools Act of 1867 (Ewing, 1970, p. 7). The purpose of the “official” curriculum has been hotly contested, as has the divide between the “official” and “actual” curriculum. International curriculum stocktake reviews have noted the bicultural emphases in New Zealand curriculum documents prior to the development of the final NZC in 2007:

The most dominant feature of the New Zealand curriculum—from the outsider’s perspective—is the strong emphasis on recognising and protecting New Zealand’s bicultural heritage and features unique to New Zealand. (Le Metais, 2002, p. 21)

Professional development that reflects the intent of the national curriculum

Effective teacher training and professional development have been seen as critical vehicles for successful curriculum implementation so that the actual curriculum reflects the intent of the official/intended curriculum. MOE’s recent Best Evidence Synthesis (BES) publication in the area of teacher professional learning and development (Timperley, Wilson, Barrar, & Fung, 2007) examines closely the relationship between professional learning and development and the resulting impact on student outcome. This synthesis looks at the “black box”:

... situated between particular professional learning opportunities and their impact on teaching practice. Little is known about how teachers interpret the available understandings and utilise the particular skills offered during professional learning opportunities, or the consequent impact of these on teaching practice and student outcomes. What is known is that the relationship is far from simple. (Timperley et al., 2007, p. xxiii)

The BES work and the body of literature for effective schooling improvement yield a great deal of information about the types of professional development that lead to improved student outcomes, and about the critical roles teachers play in students’ learning. Over recent decades, professional development approaches have increasingly incorporated discussion about pedagogy, the role of assessment in student learning; and the use of ICT to change the nature of students’ learning experiences and opportunities. The importance of pedagogy to achieving the national curriculum is signalled by the inclusion of a section on effective pedagogy within the framework document itself. Other new features of NZC are briefly outlined next.

What is different about the New Zealand Curriculum (NZC) 2007?

NZC reflects current thinking on the issues raised above, and on valued outcomes for curriculum development in the New Zealand context. The NZC framework seeks to bring together a complex but integrated set of ideas that set the scene for lifelong learning: vision; principles; values; key

competencies; and learning areas. NZC includes some major changes from the curriculum documents of the 1990s:

- a shift from “essential skills” to “key competencies” that integrate knowledge, skills, attitudes and values
- expanded statements on values in the curriculum
- inclusion of four future-focused themes: sustainability; citizenship; enterprise; and globalisation
- guidelines on school-based curriculum design and a set of principles to guide decision making as the curriculum is planned and enacted
- a clearer vision statement
- advice on pedagogy and on assessment
- a reduction in the achievement objectives in all learning areas and the inclusion of these in one streamlined document rather than separate documents
- increased emphasis on the teaching of languages other than English.

The high-level nature of NZC

Unlike some previous curriculum documents, NZC (2007) provides a *framework* for the school curriculum. The entire nationally mandated curriculum is in one slim document, rather than in a series of publications for different learning areas. Each school is required to develop a school-based local curriculum that reflects the national framework:

The New Zealand Curriculum sets the direction for teaching and learning in English-medium New Zealand schools. But it is a framework rather than a detailed plan. This means that while every school curriculum must clearly be aligned with the intent of this document, schools have considerable flexibility when determining the detail. In doing this, they can draw on a wide range of ideas, resources, and models. (Ministry of Education, 2007, p. 37)

The way NZC has evolved does present challenges for schools. As the high-level development work of the more generic components of NZC was developed, the learning area components were developed by subject writing teams. Timing precluded a sequential focus and this made it more difficult for writers of the different learning areas to incorporate newer aspects such as the key competencies. As a consequence:

Schools are now required to integrate the front-end (future-focused) and back-end (revised and updated learning area guidance) for themselves as they develop their local curriculum. Curriculum Implementation Exploratory Studies (CIES) commissioned by the MoE have found that doing so successfully calls for considerable sophistication in curriculum thinking and has proved thus far to require an iterative, extended period of professional learning. (Hipkins, Cowie, Boyd, Keown, & McGee, 2011, p. 9)

The key competencies as a new component in NZC

Key competencies are integral to NZC and have been well regarded in schools as one of the defining features of this new national curriculum (Cowie et al., 2009; Sinnema, 2011). Hipkins

(2006) posited that the introduction of key competencies requires profound changes to curriculum thinking:

Making space for the key competencies in a crowded curriculum cannot be a token gesture. ... a profound refocusing of curriculum priorities will be needed, moving away from prioritising content acquisition as a primary purpose of learning (p. 67). For the curriculum change to succeed, key competencies will need to be valued as a *priority* for learning. As long as teachers think they do not have time, or students and parents think of authentic tasks as a distraction from ‘proper’ content learning, the change is likely to be resisted. (p. 73)

As well as being a focus in their own right, NZC also describes the development of competencies as “the means by which other ends are achieved” (Ministry of Education, 2007, p. 12). Other valued curriculum ends might include: strengthening intellectual challenge within subjects; making more effective use of assessment feedback to support achievement gains; developing learning-to-learn capabilities; fostering action competencies in areas such as citizenship and education for sustainability; strengthening intercultural competencies; and, for students from Years 7/8 onwards, the development of Career Management Competencies. All of these are areas that MOE has addressed in some way immediately before, during or since the formal NZC implementation period (e.g., via professional learning programmes such as Assess to Learn [AtoL], or new policy documents). Curriculum goals such as these imply using key competencies to change the “how” and “why” of teaching and learning, not just the “what”.

Some of the 2010 survey items on NZC were framed to look at how teachers and principals are interpreting the key competencies as the NZC newcomer. We were interested in whether the key competencies would serve as a stimulus for redevelopment of curriculum at the local school level so that students’ learning opportunities would be transformed in ways that address the how and why of learning, not just the what. Like the other areas of debate outlined above, it is likely that an individual’s views of the nature of learning and of knowledge will influence their understanding of the nature of key competencies and the types of changes (or not) that they signal for curriculum and pedagogy. This observation points to the importance of the opportunities that teachers and school leaders experienced to learn about NZC and its intent. The nature of early encounters with NZC and the sense that principals and teachers made of these encounters are discussed in Section 3.

3. Learning and thinking about NZC

The New Zealand Curriculum (2007) is a framework document. It explicitly requires schools to develop a local curriculum that is responsive to their students' needs, set in the context of their local community. Therefore, how principals and teachers respond to NZC is critical in the journey from the official through to the intended, transmitted and actual curriculum, and whether NZC is positioned to be a change agent.

Previous data on NZC

The section begins by reporting on the very early days of NZC implementation. We were able to capture these data in 2007 at the time of a previous round of the NZCER National Survey of Primary Schools. It was too early to expect all schools to have fully engaged with NZC at that time because it was only released in its final form late that year, although a draft had been circulated in 2006. However, between the 2003 and 2007 NZCER National Surveys of Primary Schools MOE had undertaken wide consultation as part of the process of revision of the national curriculum, so we would expect some familiarity with what was coming.

In the 2007 survey we found that:

- about one-quarter of principals identified the new curriculum as a key focus area
- one-third reported that they had introduced the key competencies, and a further half were considering the introduction of key competencies
- about half of the teachers responding to the 2007 survey felt that the revised national curriculum would help them integrate different curriculum areas and skills development; almost as many felt that it would allow them to focus on fewer things. However, 30 percent said that it would not make much difference to what they were already doing
- in 2007, mathematics, reading and writing were the top curriculum priorities for schools. A quarter of parents surveyed had heard of the new curriculum, but most were unsure of its likely impact, or were adopting a “wait and see” approach” (Schagen & Hipkins, 2008, p. ix).

Levels of confidence by 2010

Initial engagement with a new curriculum requires a certain level of confidence. By 2010, principals and teachers could no longer “wait and see”, as some had said they would do in 2007. All would have been expected to be actively engaging with NZC. How confident were they that they were on the right track?

In 2010, there were clear signs of confidence about implementation of NZC. Fewer than 10 percent of teachers were neutral or not confident about using the new curriculum, 31 percent reported being confident and 55 percent were very confident. Principals were almost as positive in their descriptions of teachers' confidence: just 11 percent of principals thought teachers were neutral/not sure/not confident; 25 percent reported that teachers were very confident; and 63 percent reported teachers to be confident.

There were some differences in the confidence ratings of different groups of teachers:

- Teachers with poor morale were more likely to say they were not confident about implementing NZC. We found the same type of association between morale and confidence in the secondary survey conducted in 2009 (Hipkins, 2010).
- Principals with lower morale were also more likely to rate teachers' confidence about implementing NZC as low.
- Teachers at the junior level (Years 0 and 1) were more likely to report confidence in using the new curriculum than those teaching at higher levels.
- Deputy principals and assistant principals were also more likely than other teachers to report confidence in using the new curriculum (again, a similar finding to the secondary national survey conducted in 2009).

Attitudes to implementing NZC

In 2010, principals were more likely than the other three groups of respondents to see the implementation of NZC as a major issue facing the schools (38 percent). Only 13 percent of teachers, 16 percent of BOT respondents and 9 percent of parents saw NZC implementation as a major issue facing the school.

We found no significant demographic differences in any of the four groups' views on NZC implementation as a major issue facing their school. Nor did there appear to be any differences related to particular characteristics of principals or teachers; seeing NZC as an issue facing the school was not significantly related to teacher or principal morale or to length of time in the role of principal, or in the role of principal at the current school. In fact, 84 percent of principals saw the implementation of NZC as a major achievement for their school, along with 39 percent of teachers and 45 percent of BOT members.

Curriculum breadth and coverage has been a specific curriculum issue for teachers and a topic of public commentary over a long period of time, so it is not surprising that we found some indications that this could be a concern for teachers. One question in the survey asked teachers what they would like to change about their jobs. Overall, 26 percent of teachers said they wanted to reduce curriculum coverage and size. Deciles 7 and 8 teachers were nearly twice as likely as deciles 1 and 2 teachers to want to reduce curriculum size and breadth. Teachers who reported poor morale were also more likely to want to have reduced curriculum coverage and size.

Aspects of NZC that had been explored by 2010

In order for a curriculum to effect change, schools must have had exposure to that curriculum, and time to explore its implications. Accordingly, we next report on aspects of NZC that had been explored by 2010. Caution needs to be exercised when comparing implementation data from the 2007 and 2010 surveys. As outlined above, the final form of NZC was just about to be released in 2007 and should have been very familiar by 2010. With this caveat, there are broad indications that by 2010 there had been considerable movement in specific aspects of implementation. In 2007, one-third of principals had introduced the key competencies and another half were considering doing so. By the time of the 2010 survey, all the high-level aspects of NZC, including the key competencies, had been explored by most teachers and most principals (see Table 1).

Table 1 **Principal and teacher reports of aspects of NZC already explored**

Section of NZC explored in some way	Principal (n = 210) %	Teacher (n = 970) %
Key Competencies	98	97
Principles	98	91
Values	98	96
Vision Statement	97	93
Effective Pedagogy	91	94
Curriculum Design and Review	88	90
Essence/Learning Area Statements	82	83
Achievement Objectives	79	88

As the table shows, almost all the principals and only slightly fewer teachers reported that their school had explored the NZC vision statement, principles, values and competencies. The next most commonly explored area was effective pedagogy. The least explored areas were learning area statements and achievement objectives, but even these had been explored by more than three-quarters of respondents. Note that 88 percent of teachers but only 79 percent of principals said they had explored the achievement objectives. This difference doubtless reflects their different roles in the school: it is possible that some principals left leadership at this level of detail to the school's middle managers. Who undertakes the exploration of any specific part of the curriculum is the aspect of implementation reported on next.

The nature of opportunities to explore NZC

The types of professional learning opportunities that individuals experience are critical to achieving change in the *actual* curriculum implemented. A growing body of research has documented the types of professional learning approaches that are likely to enhance student

outcomes (for example, Timperley et al., 2007). Such studies point to the importance of whole-school approaches to professional learning opportunities around NZC. When teachers and school leaders learn together there is more chance that shared understandings will emerge and less chance that individuals will experience mixed messages. In addition, greater curriculum coherence is likely to be achieved and links between the classroom curriculum and the wider school curriculum are more likely to be made. When people learn together they are likely to develop a shared language for any innovations they plan and to jointly explore any required structural changes to the school day (see Hipkins, 2010, p. 14 for further detail).

With these dynamics in mind, the 2009 Secondary School Survey asked about the nature of individuals' learning encounters with NZC and the 2010 Primary School Survey included the same questions. Principals and teachers were asked to indicate whether their learning about different elements of NZC took place in whole-school, team-based and/or individual settings. We collated these separate responses to show the combination of types of encounters each person said they experienced. Tables 2 and 3 show the results.

Table 2 **Types of exploration reported by principals % (*n* = 210)**

Section of NZC	Whole staff only	Whole staff & teams	Team only	Indiv. only	Staff, teams & indiv.	Other mixes
Vision Statement	82	8	2	1	4	1
Principles	81	8	3	2	3	1
Values	81	9	2	1	4	1
Key Competencies	76	11	3	2	5	1
Effective Pedagogy	65	8	9	1	7	1
Curriculum Design and Review	59	8	11	3	5	1
Essence/Learning Area Statements	50	7	11	6	6	2
Achievement Objectives	42	6	14	8	5	5

Table 3 **Types of exploration reported by teachers % (*n* = 970)**

Section of NZC	Whole staff only	Whole staff & teams	Team only	Indiv. only	Staff, teams & indiv.	Other mixes
Vision Statement	65	12	3	2	10	1
Principles	64	11	4	2	8	2
Values	65	13	4	2	11	2
Key Competencies	59	16	4	1	15	2
Effective Pedagogy	51	13	5	4	18	3
Curriculum Design and Review	45	18	13	2	10	2
Essence/Learning Area Statements	40	12	15	3	9	3
Achievement Objectives	33	11	17	5	16	6

For both principals and teachers, whole-staff approaches were more frequently reported in relation to the “high-level” aspects of NZC compared to the exploration of more fine-grained elements such as achievement objectives.

While there was reasonable similarity between teachers and principals reporting *which* aspects of the curriculum had been explored (aside from achievement objectives), the two tables show differences between teachers’ and principals’ reports of *how* those aspects had been explored. Principals more frequently than teachers reported that exploration of aspects of NZC had only taken place in whole-school settings (e.g., for the vision statement, 82 percent of principals compared to 65 percent of teachers). Teachers were more likely than principals to say they had taken part in both whole-school and team settings. The difference was most marked for explorations of the School Curriculum Design and Review section of NZC. Eighteen percent of teachers but only 8 percent of principals said this had taken place in both whole-school and team settings. Similarly, 18 percent of teachers but only 7 percent of principals said they had explored the Effective Pedagogy section in all three of the possible ways (whole staff, team and individual exploration).

These differences can be accounted for in a number of ways:

- There is not a one-to-one correlation between teachers and principals answering the survey—more teachers may have returned the survey in one school than in another school, leading to some variation in response.
- Some teachers (4 percent) were working part time. Others may have been unwell or not have been at the school for very long. All of these could be reasons for missing whole-staff or team learning session(s).
- There may have been different interpretations by principals and teachers as to the content of sessions; again, whether school-wide or in smaller teams.

- Principals in some schools may not have been aware of some of the smaller group work occurring in some areas; for example, in the exploration of achievement objectives.

An analysis of responses of both teachers and principals from any one school confirms that there were some differences in views of teachers and the principal of the same school about whether or not an activity had taken place, especially in regard to achievement objectives. This finding supports the comment earlier in this section that some principals do appear to have delegated the detail of NZC implementation to others.

Differences by demographic characteristics

Teachers in rural schools were more likely to report having experienced fewer types of exploration of values, key competencies, effective pedagogy, learning area statements and achievement objectives. There was a similar trend for school size: teachers in smaller schools were more likely to report they had only undertaken whole-staff exploration in most areas. These findings are not unexpected and are likely to be confounded: rural schools are mostly small schools. It is easier for all staff to work together all the time when there are smaller numbers.

There were no significant teacher differences in relation to school decile.

What do teachers and principals see as priorities?

Principals and teachers were given a wide range of possible actions related to NZC's implementation. The item bank was designed to cover a wide range of possible actions; from those that might simply entail a "tweaking" of current curriculum to those that would entail more profound changes to the learning that students experience.

Both principals and teachers were asked to rate the importance of each of those items. They were also asked to say what action had been taken in relation to each action (no plans to do this; in the school plan for this to happen; already doing/happening now). Figures 1 and 2 juxtapose the results for both ratings (relative importance/nature of school actions so far).

Note that only differences of 10 percentage points or more will be commented on throughout the analysis of these large item banks. Small differences can arise for any number of reasons and we wanted to ensure we kept our eye on meaningful patterns in the data.

Figure 1 Principals' views on importance and actions so far (n = 210)

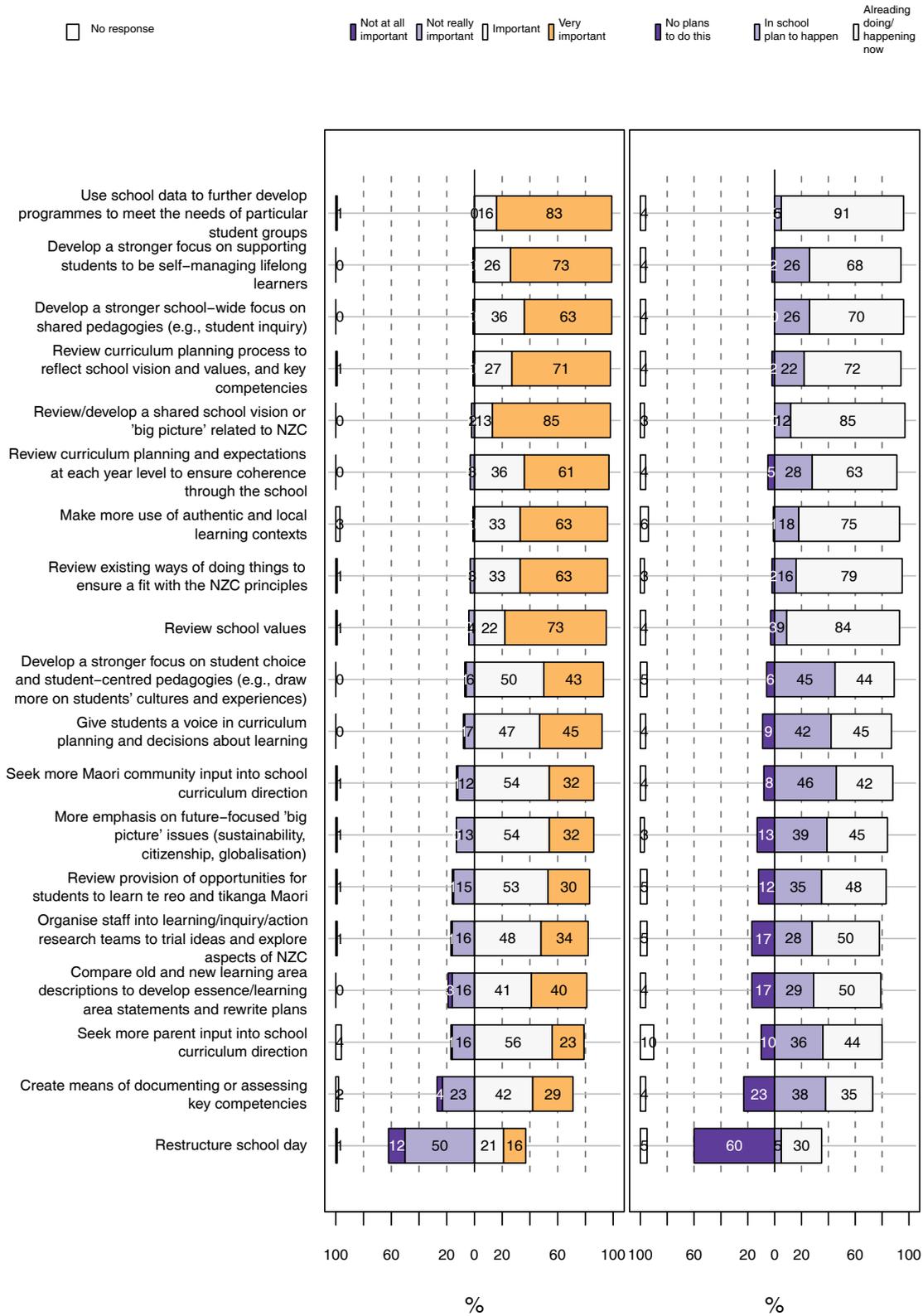


Figure 2 Teachers' views on importance and actions so far (n = 970)



Patterns in views about important implementation actions

The two figures show relative agreement between the two groups about which items were *very* important. The highest percentage of “very important” ratings was for:

- develop a stronger focus on supporting students to be self-managing lifelong learners (principals 73 percent; teachers 71 percent)
- review/develop a shared school vision or “big picture” related to NZC (principals 85 percent; teachers 68 percent)
- use school data to further develop programmes to meet the needs of particular student groups (principals 83 percent; teachers 74 percent).

When compared to teacher ratings, principals did have a tendency to more frequently rate some “big picture” items as *very* important rather than important. However, overall, the high ratings for most items suggest teachers and principals are embracing a good number of the goals of NZC, including those aspects related to the national focus on assessment for learning.

Also of interest are the activities regarded as not really important. Ten percent or more of teachers and principals regarded the following activities as “not really important” or not important at all:

- restructure school day (62 percent of principals; 58 percent of teachers saw this as not important)
- create means of documenting or assessing key competencies (27 percent of principals; 14 percent of teachers)
- organise staff into learning/inquiry/action research teams to trial ideas and explore aspects of NZC (17 percent of principals and teachers)
- seek more parent input into school curriculum direction (17 percent of principals; 22 percent of teachers)
- review provision of opportunities for students to learn te reo and tikanga Māori (16 percent of principals; 15 percent of teachers)
- more emphasis on future-focused “big picture” issues (sustainability, citizenship, globalisation) (13 percent of principals; 11 percent of teachers)
- seek more Māori community input into school curriculum (13 percent of principals; 20 percent of teachers).

The first of these items is understandable. Secondary schools are more likely to perceive a need to restructure the school day because they are more likely to have a strongly defined structure to begin with. The second item likely reflects debate and some confusion about whether or not key competencies should be assessed. MOE provided advice about this as part of an early implementation pack (Hipkins, 2007) but the issue has continued to lack clarity, no doubt because it is a complex question and there are many layers of interpretation to be explored when working out the pedagogical impact of key competencies on current curriculum practice (for an extended discussion, see Hipkins & Boyd, 2011).

An NZC interpretation factor

Factor analysis revealed a strong degree of coherence in the manner in which individuals responded to this large set of items (principals, $\alpha = .88$; teachers, $\alpha = .90$). Individuals who thought a change was very important were likely to think many of the changes were very important, while those who were less supportive were likely to adopt this stance to many of the items. We called this factor *Views of NZC-related changes*.

What are schools actually doing about NZC?

Several action areas stood out as garnering broad agreement from both principals and teachers: around three-quarters (or more) of both the principals and teachers reported that their schools had already responded to NZC by:

- using school data to further develop programmes to meet the needs of particular student groups (91 percent of principals and 83 percent of teachers agreed they were doing this)
- reviewing or redeveloping a shared school vision or “big picture” related to NZC (85 percent of principals; 87 percent of teachers)
- reviewing existing ways of doing things to ensure a fit with the NZC principles (79 percent of principals; 82 percent of teachers)
- reviewing school values (84 percent of principals; 82 percent of teachers)
- reviewing the curriculum planning process to reflect the school vision and values, and key competencies (72 percent of principals; 78 percent of teachers).

There was a small number of items where differences between the two groups’ ratings of what their schools were already doing were greater than 10 percentage points. Teachers were more likely than principals to say the school was already creating a means of assessing key competencies. Principals were more likely to say the school was already making more use of authentic and local learning contexts and giving students a voice in curriculum planning and decisions about learning. Both of these items could be seen as more aspirational and bigger picture in scope. Overall, there was a very strong level of agreement between the groups about what was already happening.

Adding intentions to current actions

When *intentions* are added to *current actions* we find a slightly greater number of items with frequency differences between the two groups of 10 percentage points or more. In every case more principals than teachers said the following were already happening or the school planned for this change to happen soon:

- giving students a voice in curriculum planning and decisions about learning (a difference of 26 percentage points)

- seeking more Māori input into school curriculum direction (a difference of 17 percentage points)
- comparing old and new learning area descriptions to develop essence statements and rewrite plans (a difference of 16 percentage points)
- developing a stronger school-wide focus on shared pedagogies such as student inquiry (a difference of 13 percentage points)
- developing a stronger focus on student choice and student-centred pedagogies (e.g., drawing more on students' cultures and experiences) (another difference of 13 percentage points).

These differences largely reflect the numbers of teachers who said their school had no plans to do these things. For example, 17 percent of teachers reported that their school had no plans to develop a stronger focus on student choice and student-centred pedagogies (e.g., draw more on students' cultures and experiences) and 29 percent said they had no intention to give students a greater voice in curriculum planning (see Figure 3 in Section 4).

There could be several possible explanations for these differences. Both the items identified in the previous paragraph imply a need for teachers to work out ways of sharing their decision-making power with students. It may simply be that some teachers resist by denying that school plans for such changes exist. This would be congruent with a level of resistance that we found in the secondary school teachers' responses in 2009 (Hipkins, 2010). An alternative explanation is that principals are more likely to be very familiar with the detailed school programme/plans so we would expect to see some differences. However, some teachers may be less familiar with the planned directions of a school than is desirable. Robinson, Hohepa and Lloyd (2009), for example, comment on the need for school leadership to clearly articulate to staff the school goals:

... evidence ... suggests that the level of staff consensus on school goals is a significant discriminator between otherwise similar, high- and low-performing schools. (p. 40)

Whether the reason for the differences is a teacher lack of awareness or an element of resistance, these findings point to some areas where school principals might wish to check that their expectations of change are shared by all the staff.

How do actions relate to what is viewed as important?

One test of the actual curriculum is to match schools' *activities* (current and planned) with *perceptions* about what is important.

By and large the match was very close for the principals: for the collated frequency data there were no differences greater than 10 percentage points between ratings of items as important/very important and plans for enacting them, or having already done so. For the teacher responses, just six of the 19 items showed a difference of 10 percentage points or more between ratings of importance and plans to act or that action having already been implemented. Table 4 shows these items.

Table 4 **Teachers' indications of differences between valuing and acting (n = 970)**

Item	Important/ very important %	Already doing or plans to do %
Give students a voice in curriculum planning and decisions about learning	80	61
Develop a stronger focus on student choice and student-centred pedagogies	91	76
More emphasis on future-focused big picture issues	85	74
Develop a stronger focus on supporting students to be self-managing lifelong learners	97	87
Develop a stronger school-wide focus on shared pedagogies	93	83
Organise staff into learning/inquiry/action research teams to trial ideas and explore aspects of NZC	79	69

It is notable that all six items were rated by at least three-quarters of the teachers as important or very important, even though fewer of them thought this action was happening or planned to happen. This pattern suggests that in many cases uncertainty rather than resistance is the reason for perceived lack of action. This reinforces the point made above: these are areas where school principals might wish to check that their expectations of change are shared by all the staff.

What's not seen as important or happening, for which teachers and principals?

While the above findings indicate widespread agreement and action on many aspects of NZC, some components of NZC were not regarded as important, or not seen as happening, by specific subgroups of teachers or principals. Because many of the action items were shaped to represent aspects of NZC that could lead to more transformative changes in the nature of students' learning experiences it is interesting to look at *which* teachers and/or principals did not prioritise specific changes. Caution is needed when considering the lack of difference for principals in areas where teacher differences were found: this could simply reflect the statistical challenge of finding significant differences within a smaller overall group.

Decile-related differences

Deciles 9 and 10 teachers were significantly more likely than deciles 1 and 2 teachers to rate seeking parental input (in general) into the curriculum as not really important. Similarly, nearly three times as many deciles 9 and 10 teachers as deciles 1 and 2 teachers rated seeking more Māori community input into school curriculum as not really important. Congruent with these views, teachers in low-decile schools were more likely to report that seeking parent input in

general and Māori parent input in particular was already happening and twice as many teachers in deciles 5 to 10 schools reported no plans to consult either generally or with Māori parents.

Principals and teachers of high-decile schools were more likely to say it was not really important to review provision of opportunities for students to learn te reo and tikanga Māori. Teachers in lower decile schools were more likely to rate doing this as important.

Teachers in deciles 1 and 2 schools were more likely to report that restructuring the school day had already happened, and teachers in deciles 3 to 10 schools were more likely to report no plans for this to happen.

Differences related to Māori or Pasifika enrolment

Teachers in schools with a Pasifika student roll of more than 11 percent were more likely to see seeking parental input into the curriculum as important, as were those who taught in schools with higher numbers of Māori students. There were indications of these differences for principals but they did not reach significance. Similarly, teachers at schools with higher Māori rolls were more likely to see it as important to seek more Māori community input into school curriculum, while those in schools with few Māori students were at least twice as likely to say there were no plans for seeking such input.

Along the same lines, reviewing the provision of opportunities for students to learn te reo and tikanga Māori was more likely to be seen as important by both principals and teachers of schools with higher numbers of Māori students.

Teachers at schools with higher Māori rolls were more likely to see documentation or assessment of key competencies as important while principals in schools with a Pasifika roll of more than 11 percent were more likely to report this was already happening. Principals in schools with low numbers of Pasifika students were more likely to report no plans to document or assess key competencies.

Principals and teachers at schools where the Pasifika roll was higher than 11 percent were more likely than all other groups to see restructuring the school day as important. This difference also held for teachers at schools with higher numbers of Māori students, but not for principals of these schools.

Teachers in schools with a Māori student roll of 30 percent or more were more likely to report that they had not yet placed more emphasis on the named future-focused issues (sustainability, citizenship, globalisation, enterprise) but they were also more likely to report plans for this to happen.

Differences related to school size and rural or urban location

As already noted, school size and location are likely to be confounded variables, hence their grouping here. Principals of small schools were significantly more likely to rate restructuring the school day as important and also more likely to report they were already doing this.

Principals of urban schools were more likely to report that they were already reviewing the provision of opportunities for students to learn te reo and tikanga Māori.

The documentation or assessment of key competencies was seen as more important by teachers in urban schools. Those in rural/smaller schools were less likely to rate this as an important aspect of NZC implementation. Congruent with their views, teachers in urban schools were more likely to report that documenting or assessing key competencies was already happening, and teachers in rural schools were more likely to report that there were no plans for this.

Teachers in smaller schools were less likely to see the organisation of staff into learning/inquiry/action research teams to trial ideas and explore aspects of NZC as being important and they were more likely to say they had no plans to do this. Teachers in urban schools were more likely to report that such inquiry was already happening and they were also more likely to see it as important to place more emphasis on the future-focused issues.

Differences related to school type

Intermediate school teachers were more likely to report that the school was already reviewing provision of opportunities for students to learn te reo and tikanga Māori. Primary teachers were more likely to report that there were no plans to do this.

Principals in intermediate schools were more than twice as likely to report they were already placing more emphasis on the future-focused issues.

Differences related to teacher or principal characteristics

Teachers who reported low morale were more likely to say that documentation or assessment of key competencies was not very important. The same pattern held for reviewing the provision of opportunities for students to learn te reo and tikanga Māori. Neither trend was evident in the principals' responses. However, principals with high morale were more likely to say they had already reviewed provision of opportunities for students to learn te reo and tikanga Māori.

Interestingly, both principals and teachers with either high or low morale were more likely to say seeking more Māori community input into school curriculum was important, compared to those with middle ratings for morale.

Compared to assistant or deputy principals, middle management teachers or subject specialists, classroom teachers were less likely to rate seeking more Māori community input into school curriculum as being important to NZC implementation. Deputy and assistant principals reported

plans for seeking such input more frequently than middle management teachers and classroom teachers. A similar pattern held for seeking parental input more generally.

Principals with low morale were less likely to report that the school had already placed more emphasis on the future-focused issues, and more likely to report no plans to do this.

Differences between primary and secondary responses

Finally in this section we report on some sector-related differences. The 2010 NZCER National Survey of Primary Schools used some of the same items as the 2009 NZCR National Survey of Secondary Schools. We now report on all the items discussed in this section that could be meaningfully compared. Caution is needed when considering what these differences might mean because the secondary survey was conducted a year earlier than the primary one. Secondary teachers and school leaders had had less time to explore and make changes. However, as Table 5 shows, the sector differences in principals' and teachers' views are quite large.

Table 5 **Primary and secondary teacher and principal views on important/very important aspects of NZC implementation**

Aspect	Primary principal (<i>n</i> = 210) %	Secondary principal (<i>n</i> = 187) %	Primary teacher (<i>n</i> = 970) %	Secondary teacher (<i>n</i> = 870) %
Review/develop a shared school vision or big picture related to NZC	98	66	97	55
Make more use of authentic and local learning contexts	99	85	93	70
Give students a voice in curriculum planning and decisions about learning	92	77	80	53
Seek more parent input into school curriculum direction	81	61	75	45
Seek more Māori community input into school curriculum direction	86	72	76	56
Compare old and new learning area descriptions to develop essence/learning area statements and rewrite plans	81	88	70	89
Create means of documenting or assessing key competencies	71	52	85	58
Restructure school day	37	48	37	44

Greater numbers of primary principals and teachers rated the aspects listed in Table 5 as important or very important. The two exceptions to this trend are the items relating to rewriting unit plans, and restructuring the school day. This suggests that higher numbers of secondary principals and

teachers, in 2009 at least, were seeking to adapt NZC by adjusting the shape of the day and reviewing lesson plans/schemes. Higher numbers of primary teachers and principals rated some of the signals in NZC that could lead to more transformative changes in pedagogy as being important (for example giving students a voice in curriculum planning and decisions about learning). Also of note is the size of differences between principals and teachers at the respective sector level. There are generally much larger gaps between principals' and teachers' views about what is important at secondary level than there are at primary level.

Concluding comment

Responses in this section suggest that by 2010, three years after NZC was published, both teachers and principals had high levels of confidence in the framework itself. Widespread exploration of the new curriculum had already taken place and implementation was seen as a major achievement by 84 percent of the principals. The high-level aspects of the front-end of NZC had been thoroughly explored in most schools. Teachers were more likely than principals to report multiple types of encounter with NZC (whole-school, team-based and individual explorations). However, one in five teachers indicated that they had yet to explore learning area statements or achievement objectives.

When responding to statements highlighting the perceived *importance* of the various elements of NZC, three messages, all clearly supported by the NZC framework, emerged in the top-ranking spots:

- the importance of fostering student self-management with lifelong learning goals in mind
- the need to develop or revise the school's "big picture" vision and values (which was accorded importance by more primary teachers and principals than by their secondary colleagues in the equivalent 2009 survey)
- the necessity to develop ways to make effective use of data to set goals and lift achievement of specific groups of students.

Developing or updating the school's vision and making effective use of data also stood out as being top of the *action* priorities. The widespread support for making more effective use of data will be a recurring theme throughout the report. This element of NZC could not have come as a profound surprise to school leaders: it was the focus of the Planning and Reporting policy that preceded NZC. In addition, making effective *formative* use of student data has been a focus of many large-scale professional learning initiatives such as AtoL and literacy and numeracy whole-school professional learning programmes, as well as being the focus of cross-school networks such as Extending High Standards Across Schools [EHSAS] clusters. Nevertheless, it does seem to be an idea whose time has come and some aspects of the post-NZC National Standards policy have doubtless given the assessment/classroom learning connection yet more impetus.

By contrast with the item about making effective use of data, specific actions with the potential to develop the students' self-management were not so evident at the top of the set of action rankings.

Indeed the comparison between what is valued and what has been enacted reveals some tensions, particularly in the area of fostering greater student autonomy. This is a challenge we will return to in Section 4 of the report.

In 2010, principals and teachers tended to place less importance on some of the community and bicultural aspects of NZC. Lower rating aspects of NZC included seeking parental input or input from the Māori community into the school's curriculum direction and reviewing the provision of opportunities for students to learn tikanga and te reo. Here we see indications that the attention given to the eight NZC principles had been somewhat selective, at least by mid-2010 when the survey was conducted. The Education Review Office has also noted this as an issue (Education Review Office, 2011). Almost all the principals and 91 percent of the teachers said they had explored the NZC principles, yet we already see suggestions in this section that some implications of the *Treaty of Waitangi* and *community engagement* principles may not yet have been fully apprehended, especially in the higher decile schools, which are likely to have lower numbers of Māori and Pasifika students. Again, this challenging issue will be a recurring theme throughout the report.

Summing up this section in relation to the overarching question posed by the report's title, the signs are that some adaptation has certainly taken place. However, at this point we reserve judgement on the matter of more substantive changes in actual teaching and learning, notwithstanding widespread approval of the front-end of NZC and its signals of potentially transformative changes to both school-wide and classroom-based curriculum enactment. On this note of mixed signals, we now address evidence that compares what is valued with what has actually been enacted in classrooms.

4. Aspects of student learning that teachers value and enact

Introduction

Section 3 reported on priorities and progress in school planning around the key aspects of NZC. This section moves closer to the seat of “actual” curriculum—teachers and classrooms. The section explores teachers’ beliefs about the value of different kinds of learning experiences and then reports on how well their students’ classroom learning experiences appear to match those beliefs. The alignment of beliefs and actions is then related to newer aspects of NZC and specifically the key competencies. The 2010 survey questions about teaching and learning approaches were adapted from the Competent Learners longitudinal study, and from schooling improvement literature, with the intention of probing beliefs and actions related to key competencies.

When reporting on a similar item bank for the 2009 secondary survey we noted that:

A focus on the difference key competencies might make to pedagogy is apt. Exploratory research has shown they have the potential to bridge the front-end/back-end divide in NZC. They do this by reframing traditional content-focused teaching to enact the future-focused front-end messages in ways that make a demonstrable difference in classroom practice. (Hipkins, 2010, p. 31)

Another reason for framing these items with key competencies in mind is that NZC describes the development of competencies as both “an end in itself (a goal) and the means by which other ends are achieved” (Ministry of Education, 2007, p. 12). Areas where key competencies might be regarded as a means for achieving other valued curriculum ends include: strengthening intellectual challenge within subjects; making more effective use of assessment feedback to support achievement gains; developing learning-to-learn capabilities; fostering action competencies in areas such as citizenship and education for sustainability; and strengthening intercultural competencies. Most of these are implicated in one or more of the items used in the survey. Note that assessment for learning will be the subject of a separate section so none of the items described next refer directly to participation in assessment activities.

We first report on teachers’ views on the relative *importance* of different learning experiences in the classroom, and then move on to the *frequency* of those different learning experiences in their classrooms.

Teachers' views on the relative importance of different learning experiences in their classrooms

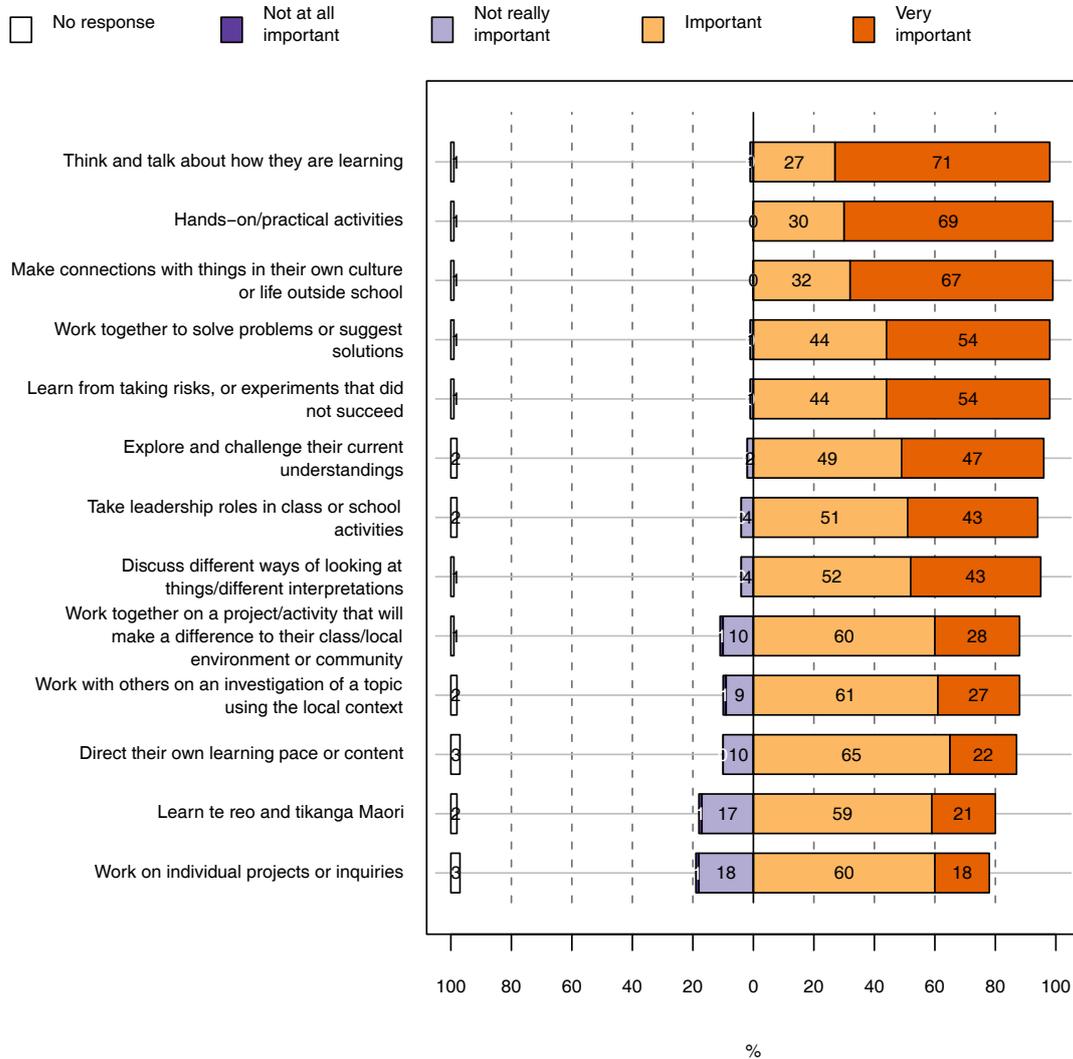
Teachers highly valued a range of learning experiences. As Figure 3 shows, more than two-thirds of them believed it was *very* important for students to: think and talk about how they are learning; make connections with things in their own culture or outside school; and experience hands-on/practical activities. Around half of them believed it would be *very* important for students to: work together to solve problems or suggest solutions; learn from taking risks or experiments that did not succeed; and explore and challenge their current understandings. Most of the other activities described were rated by a clear majority of teachers as at least being important.

Just five of the provided learning experiences were seen as not important by 10 percent or more of the teachers: working together on a project/activity that will make a difference to their class/local environment or community; working with others on an investigation of a topic using the local context; directing their own learning pace or content; learning te reo and tikanga Māori; and working on individual projects or inquiries. Even for these experiences, which all have clear links to the “other learning ends” listed above, Figure 3 shows that this was clearly a minority view.

A key competencies factor

There was a strong association between responses to the individual items discussed in this section. We called this factor *key competencies* to highlight the reasons for the selection of items ($\alpha = .80$). Those who endorsed any of the learning experiences as very important tended to similarly value many of them. Those who were less inclined to value such learning experiences tended to value few of them.

Figure 3 **Teachers' views of the relative importance of learning experiences in their class (n = 970)**



What's not seen as important, by which teachers?

Notwithstanding the high overall ratings for importance, there were some differences in response patterns.

Differences related to the age of the students

A number of learning experiences were more likely to be rated as not really important by teachers of younger students. For example, teachers in Year 0 or Year 1 classrooms were twice as likely as Years 7 and 8 teachers to rate discussing different ways of looking at things, directing their own learning pace or content and working with others on an investigation of a topic using the local context as not really important. They were also four times more likely to rate individual learning

projects/inquiries as not really important. To some extent at least these findings are not surprising because teachers of new entrant children are likely to focus on early learning and school routines.

Teachers from Year 0 to Year 6 were three times more likely than Years 7 and 8 teachers to rate exploring/challenging current understandings as not really important.

Differences related to school type and location

Primary teachers were more likely than those in intermediate schools to rate hands-on/practical experiences as very important. Intermediate teachers were more likely to rate as very important: discussing different ways of looking at things; exploring and challenging current understandings; and working on individual projects/inquiries. Arguably, as for the age-related differences, the different emphasis given by intermediate teachers could reflect changing expectations of the amount of autonomy to be granted to students as they mature.

Teachers in urban schools were more likely to say it was very important for students to think and talk about their learning, while those in small schools were more likely to say it was not important to discuss different ways of looking at things. Since small schools are more like to have students of different ages in the same class, this difference could again be an age-related response.

Differences related to school decile, Māori and Pasifika enrolment

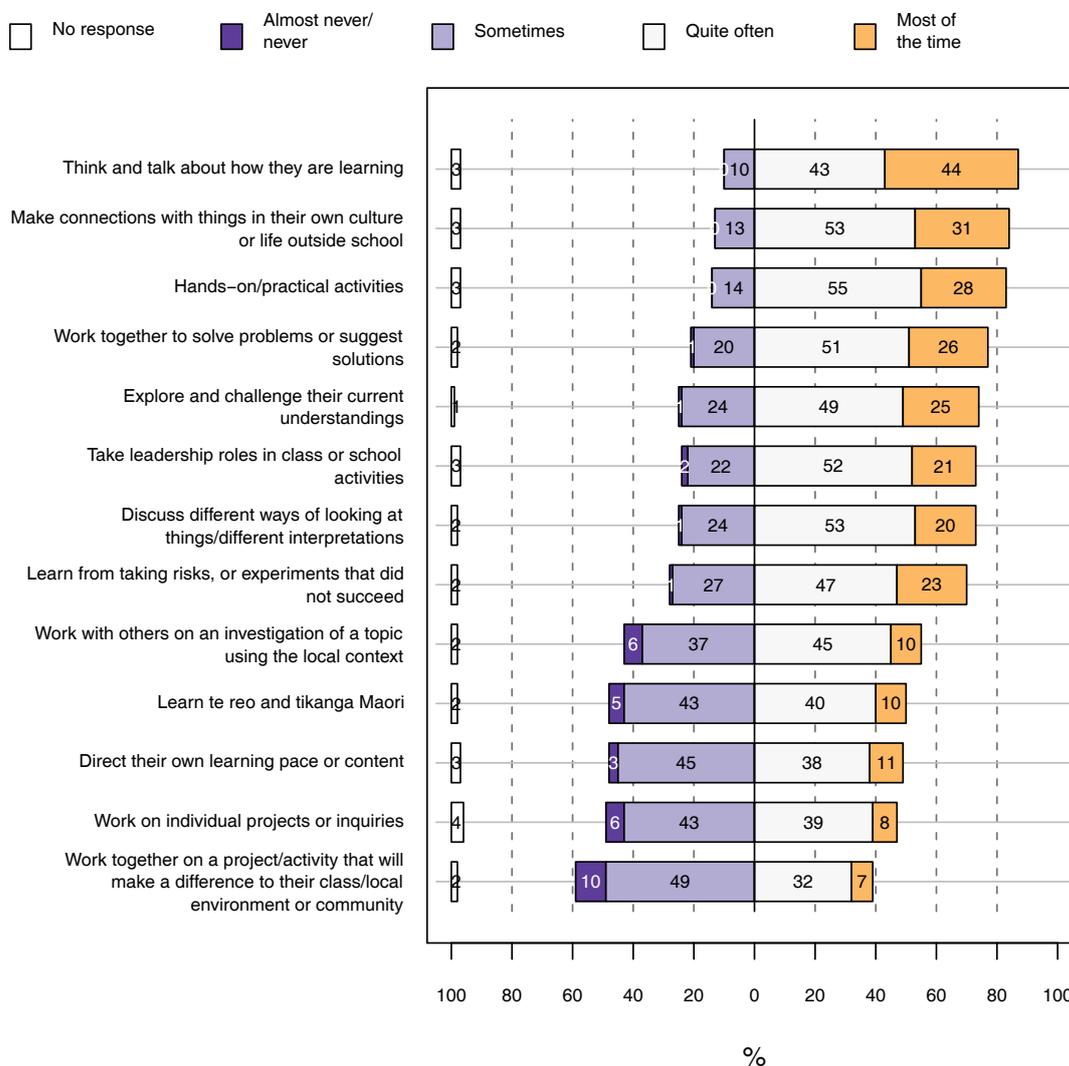
School decile and Māori/Pasifika enrolment are grouped together here as these are likely to be confounded variables. Congruent with the views reported in Section 3, teachers in deciles 9 and 10 schools were nearly twice as likely than teachers in deciles 1 and 2 schools to say that learning te reo and tikanga Māori was not really important. Teachers in schools with lower numbers of Māori students were more likely to rate learning te reo and tikanga as not really important.

Teachers in schools where Pasifika students constituted more than 11 percent of the roll were more likely to say it would be very important to discuss different ways of looking at things.

Teachers' reports on frequency of the different types of learning experiences for students in their classes

Teachers were asked to think about *how often your students are able to do* the learning opportunities discussed in the previous section. They responded to a 4-point Likert scale and Figure 4 shows the results.

Figure 4 **Teachers' reports of the frequency of different learning experiences in their classrooms (n = 970)**



As Figure 4 shows, the five most frequently reported activities were for students to: think and talk about how they are learning; make connections with things in their own culture or outside school; take part in hands-on/practical activities; work together to solve problems or suggest solutions; and to explore and challenge their current understandings.

At the other end of the ranking, 10 percent of teachers reported almost never or never working together on a project/activity that will make a difference to their class/local environment or community. Other less frequent activities included: working on individual projects or inquiries; student-directed learning pace or content; learning te reo and tikanga Māori; and working with others on an investigation of a topic using the local context.

A student experiences factor

As for the key competencies factor, there was high consistency between a teacher's estimations of how often the various described experiences took place in their classrooms. If they rated one of the described experiences as happening most of the time, they were likely to rate a number of them this way. If they said they never did these things, this estimation was likely to apply to a number of the experiences. We called this factor *student experiences* ($\alpha = .81$).

The relationship between these two factors (*key competencies* and *student experiences*) is not totally clear cut because they are only moderately strongly correlated ($r = .54$). We might expect that teachers would be more likely to offer certain sorts of learning where they value these highly, but as we will see shortly, there can be a gap between what teachers think is important and what they actually do.

What's not happening, in which classrooms?

As already outlined for ratings of importance, there were some differences in the patterns of responses. Generally speaking, these patterns of difference match. If teachers were more likely to see something as important they were also more likely to say they were already doing it, or had plans to do so.

Age-related and school type differences

When compared to Years 7–8 classrooms, hands-on practical experiences were significantly more likely to occur most of the time in Years 0–1 classrooms. This difference is also reflected in school type. Teachers in primary schools were more likely than those in intermediate schools to say their students could use hands-on/practical activities.

Teachers in Years 7–8 classrooms were twice as likely as Years 0–1 teachers to say their students could challenge and explore their current understandings. Again, we see a similar pattern of differences for school type. Teachers in intermediate schools were more likely than those in primary schools to say their students could: discuss different ways of looking at things; explore/challenge current understandings; and take leadership roles in class. The numbers of teachers reporting that their students would experience leadership roles in the classroom/school also increased significantly at higher year levels in primary school, as did work on individual projects/inquiries and work on an investigation of a topic using the local context.

Differences related to decile and to Māori enrolment

Deciles 1 and 2 teachers were more likely to report that learning opportunities in te reo and tikanga occurred most of the time, as were teachers in schools with higher numbers of Māori students (these variables are likely to be confounded).

Teachers in deciles 1 and 2 schools were also more likely to report that they discussed different ways of looking at things/different interpretations most of the time. Teachers in schools with fewer than 15 percent of Māori students on the roll were more likely to say students could at least quite often work on individual projects/inquiries.

Other school-related differences

Teachers in urban schools were more likely than those in rural schools to say that students had opportunities to learn at their own pace/content. Teachers in the smaller schools were more likely to report that students took part in learning te reo and tikanga most of the time. However, teachers in smaller schools were also *less* likely to say their students could take leadership roles in class and school activities, or work with others on a topic using local context.

Differences related to teacher characteristics

Teachers with lower morale were more likely to disagree that students could often explore and challenge their current understandings or learn from taking risks and experimenting.

Differences between importance and frequency of occurrence

Asking teachers to indicate importance and then subsequently estimate the frequency with which these activities occurred in the classroom allows insight into differences between the “intended” and “actual” curriculum. Table 6 makes this comparison. Notice that items ranked highest for importance tend to be located towards the bottom of the table—the gap between valuing these experiences and actually providing them at least quite often is mostly smaller for those items ranked higher for importance. Working on individual inquiries is the most noticeable exception to this general pattern.

Table 6 Differences between responses to matched items (Figures 3 and 4)

Description of activity	Teacher responses % (n = 970)		
	Important or very important	Do most of time or quite often	Difference
Work together on a project or activity that will make a difference to their class/local environment or community	88	39	49
Direct their own learning pace or content	87	49	38
Work with others on an investigation of a topic using the local context	88	55	33
Learn te reo and tikanga Māori	80	50	30
Learn from taking risks or experiments that did not succeed	98	70	28
Explore and challenge their current understandings	96	74	22
Discuss different ways of looking at things/different interpretations	95	73	22
Work together to solve problems or suggest solutions	98	77	21
Take leadership roles in class or school activities	94	73	21
Work on individual projects or inquiries	78	57	21
Hands-on/practical activities	99	83	16
Make connections with things in their own culture or life outside school	99	84	15
Give students time to think and talk about how they are learning	98	87	11

A key competencies lens provides an interesting perspective for considering what might make some things harder for teachers to do in practice, even when they say they value them in principle. For example, it is interesting that almost all the teachers agreed that students should *talk* about their learning processes and most of them were putting this belief into practice. However, when it comes to handing over a greater degree of autonomy so that students can be more *self-directing* in their *actions*, relatively strong support for the in-principle idea was much less likely to be supported in practice. Both these items arguably link most strongly to the key competency of *managing self* and both align with the *learning-to-learn* principle of NZC. The difference could be that in the one case the teacher might maintain control of the pace and direction of conversations while in the other case they would need to accommodate a wide range of different students' working patterns and degrees of success. The pedagogical challenges for teachers are considerable but the dilemma here is that competencies are, by definition, strengthened and expanded *in action*. For students to put talk—including talk about self-regulation—into practice, the teacher must be willing to “let go” at least sometimes.

A similar pattern and challenge pertains for those learning experiences that align with the key competency of *participating and contributing*. For example, active in-class experiences (hands-

on, individual inquiries) are located near the bottom of the table because the value/practice gap is relatively small. In this case students could well be doing much the same thing at the same time, even if their actual participation varies somewhat. However, two items that might be described as having the potential to develop or strengthen students' *action competence* (where they develop knowledge, skills, attitudes and values to address real issues, and learning stretches beyond the classroom confines) have much larger value/practice gaps. Here activities are more likely to: take unpredictable directions; require students to be away from the classroom at times; draw on the expertise of other adults; and/or take different students in different directions. Again, there are pedagogical and practical issues for teachers. However, a second dimension of challenge is also implied: in fluid inquiry contexts teachers need to be comfortable with a degree of uncertainty and to be confident in modelling their own learning-to-learn competencies. Note that learning from taking risks is another item with a large value/practice gap.

Another item with a large value/practice gap is “learn teo reo and tikanga Māori”. The difference here is likely to be related to the differences in views and practices already reported. Notwithstanding the *Treaty of Waitangi* principle, teachers in higher decile schools, or in schools with fewer Māori students, are somewhat less likely to see doing this as important to implementation of NZC. It may be that teachers in these contexts feel they lack the knowledge and skills to do this appropriately, or they may not see the relevance for their students. This is a complex issue that we return to in Section 10.

Differences between the 2009 survey at secondary level and the 2010 primary-level survey

The value/practice gap reported above was also evident in secondary teachers' responses to the 2009 NZCER National Survey of Secondary Schools (see Hipkins, 2010). The average size of the gap was somewhat smaller in the primary teachers' responses (25 percentage points) than in the secondary teachers' responses (32 percentage points). There were also some interesting differences of emphasis between the two surveys. There are strong similarities between five of the activities listed in Figures 3 and 4 and items used in the 2009 secondary teacher survey. Note that the 2009 survey used a 5-point Likert scale that asked how highly teachers *valued* the activities (cf how *important* they thought they were on the 4-point primary scale). The scale for how often teachers estimated the activities occurred in their classrooms was, however, identical. Keeping these differences in mind, Table 7 compares the responses of the two teacher groups.

Table 7 **Primary (n = 970) and secondary teacher (n = 870) views on important/valued learning activities and their estimations of how often these occurred in their classrooms**

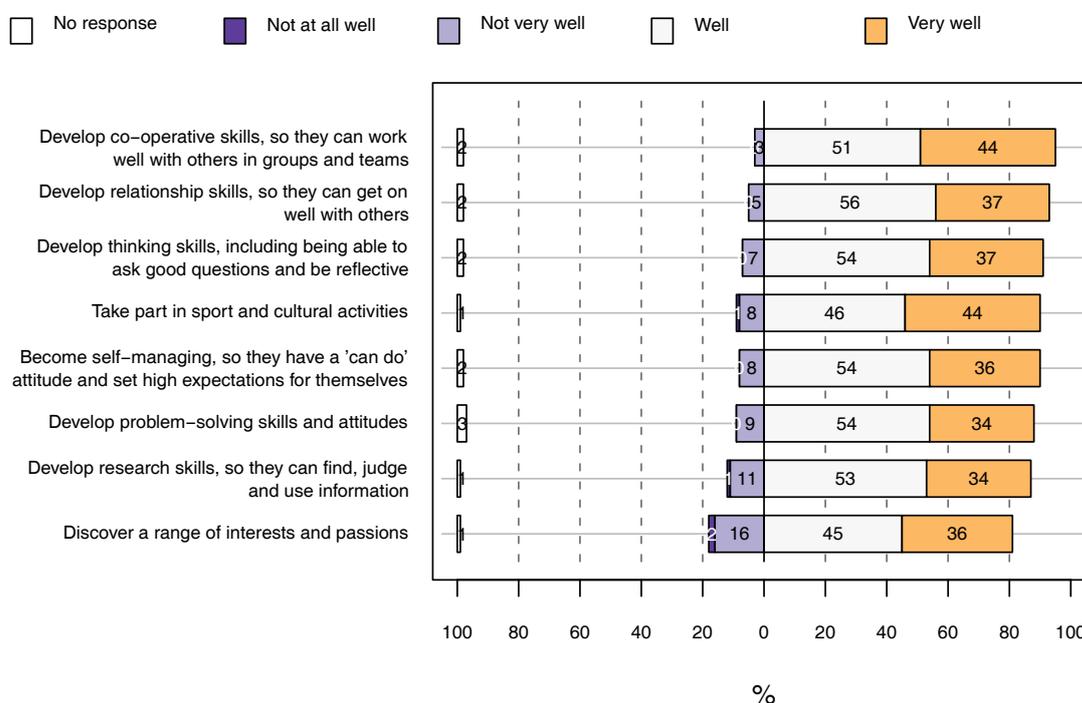
Description of specific activity type	Primary value %	Secondary value %	Primary occurrence %	Secondary occurrence %
Hands-on practical activities	99	93	83	72
Make connections with things in their life outside school (primary version = <i>make connections with things in their own culture or life outside school</i>)	99	96	84	72
Give students time to think and talk about how they are learning	98	87	87	49
Find out about and work with students' current understandings (primary version = <i>explore and challenge their current understandings</i>)	96	94	74	60
Discuss different ways of looking at things/different interpretations	95	86	73	54

Notice that primary teachers were more likely to support and say they enacted certain types of metacognitive activity. In all these cases the value/practice gap was lower for primary teachers: give students time to think and talk about how they are learning (11 percentage point gap for primary cf 36 percent gap for secondary); explore and challenge current understanding (22 percentage point gap for primary cf 34 percent gap for secondary); and discuss different ways of looking at things (22 percentage point gap for primary cf 32 percent gap for secondary). Greater emphasis does appear to have been given to learning-to-learn in primary classrooms, although we do need to keep in mind that the primary survey was conducted a year after the secondary one. It will be interesting to see if this pattern of support changes once the next secondary survey has been carried out in 2012.

Curriculum success through the parents' eyes

Parents were asked how well they thought the school had fostered a range of outcomes that have clear links to the key competencies. Figure 5 shows that, by and large, parents thought the school had done well. Again, items that signal changes in personal outcomes aligned with becoming the “confident connected lifelong learner” envisaged by NZC (e.g. developing independent research skills, growing self-awareness of personal interests and passions) are those where a more critical response has been made by some parents.

Figure 5 **Parents' views of how well a range of outcomes were achieved at school**
(n = 550)



Given the high levels of overall agreement, we could not expect to find much statistical evidence of differences in response patterns. However, Pasifika parents were more likely than those of any other ethnicity to say their child's research skills had not been well developed.

Concluding comment

There are indications in this section that support for the NZC message about supporting students to become lifelong learners (see Section 3) has translated into a focus on the value of metacognition and classroom discussions about acts of learning, more so in primary than in secondary schools. Almost all the primary teachers perceived the items that described this broad intent to be important or very important. "Think and talk about how they are learning" was the top-ranking item for both importance and self-reported frequency of classroom enactment. Being ready, willing and able take part in such conversations about acts of learning per se arguably entails the development and strengthening of a range of interrelated aspects of the key competencies, with a particular focus on *managing self* and the metacognitive dimensions of *thinking*. This pattern resonates with other research that has reported the establishment of strong links between the *learning-to-learn* NZC principle and the development of key competencies (Hipkins et al., 2011).

There was, however, a larger gap between what is valued and what is practised for those items such as "direct their own learning pace or content" that described affording greater autonomy in

making learning decisions to the students themselves. It is interesting that the value/practice gaps reported in this section with regard to specific aspects of teachers' classroom practice were mostly larger than the gaps between their perceptions of important aspects of NZC and associated school-wide changes reported in Section 3. To illustrate: there was a 19 percentage point gap between teachers' perceptions of importance and already/planning to give students a voice in curriculum planning and decisions about learning (Section 3). However, there was a 38 percent gap between the perception that it can be important to allow students to direct the pace and content of some learning and actually doing this, at least quite often, in the teachers' own classrooms (this section). Similarly, taking the idea of "citizenship" (one of the four future-focused themes) as a frame we could compare aspirations with students' specific opportunities to develop their competencies by taking the lead in challenging contexts. The value/practice gap between placing more emphasis on future-focused big picture issues (Section 3) was just 11 percent, whereas the value/practice gap for working with others on an investigation using local contexts was 33 percent (this section).

As in Section 3, there are indications that aspects of NZC related to the Treaty of Waitangi principle are not as highly valued or as often enacted in higher decile schools where there tend to be fewer Māori students. There are also indications that teachers' perceptions of how NZC should be implemented in their classrooms varied according to the age of the children they taught. Overall, however, there were somewhat fewer teacher- and school-related differences than we found for the NZC interpretation items discussed in Section 3.

The classroom is where aspirations are translated into actual student learning experiences so the contrast in the relative size of the value/practice gaps suggests some of the responses in Section 3 were aspirational in nature, and not necessarily a reliable indicator of how NZC has been put to work in changing the curriculum that students actually experience. Continuing on from the conclusion to Section 3, the evidence continues to point towards some interesting and worthwhile curriculum adaptations (especially in relation to learning to learn) but not necessarily to NZC being a trigger for more transformative changes in students' learning opportunities and experiences.

5. Pedagogy and assessment

Introduction

From the time compulsory education was introduced in New Zealand in 1870 there have been questions about accountability, including how curriculum outcomes should be assessed. However, New Zealand's first outcomes-focused curriculum, with an emphasis on the results of learning that can be demonstrated and documented, was not introduced until 1992 (Ministry of Education, 2007, p. 4). NZC is also an outcomes-focused curriculum. That implies that assessment considerations will be an important component of curriculum implementation. If outcomes can be specified, evidence that they have been successfully met can potentially be documented, discussed and acted on. Indeed, assessment approaches figure prominently in NZC (2007), albeit with a clear message about priorities:

The primary purpose of assessment is to improve students' learning and teachers' teaching as both student and teacher respond to the information that it provides. With this in mind, schools need to consider how they will gather, analyse, and use assessment information so that it is effective in meeting this purpose. (Ministry of Education, 2007, p. 39)

This message is reinforced by the most recent MOE position paper on assessment. Like NZC, there is a clear expectation in this position paper that the student and their learning needs will be located at the heart of teachers' assessment practice (Ministry of Education, 2010a).

As Section 4 outlined, the imperative to foster students' key competencies and, related to these, their learning-to-learn abilities, has contributed to a demand for students to be more actively involved in charting their own learning progress. For this to happen students need supported opportunities for more active involvement in assessment but teachers also need the knowledge and skills to work alongside and support students to understand what the results of their assessments mean for their future learning directions. Teachers' assessment and analysis skills—sometimes called their “assessment capability”—are important here (Absolum, Flockton, Hattie, Hipkins, & Reid, 2009). This capability needs to be combined with teachers' professional insights into each student's actual learning needs, and they need the confidence and flexibility to responsively vary the learning experiences they orchestrate.

Current evidence reinforces the value of teachers' use of assessment as an important component in student learning:

When used in formative ways, it is not surprising that assessment should be such a powerful component in professional development in terms of impacting on student outcomes. Formative assessment has been shown to have one of the strongest influences on student learning and, in a meta-analysis of influences on student achievement, Hattie has identified

that much of its power arises from the part it plays in providing feedback to enhance learning. (Timperley et al., 2007, p. 189)

This aspect of NZC implementation builds on existing professional learning programmes and resources in the area of assessment for learning (Cowie et al., 2009). Assessment challenges also highlight the importance of being immersed in a collegial professional learning culture where teachers can support each other to develop their assessment practice and where school leaders model and resource approaches to assessment that demonstrate critical and constructive use of formally generated assessment feedback on the success of teaching and learning programmes (Wylie, 2010).

Alongside this local school-specific need, in recent decades an increasing emphasis has been given to the collation of national system-level data about student performance. Prior to the development of NZC a series of projects was commissioned as part of a curriculum stocktake to prepare for the redevelopment of new curriculum. As might be expected, given that schools had been grappling with all the implications of an outcomes-based curriculum framework in the immediate preceding years, accountability was an issue highlighted by the stocktake. An international commentary commissioned as part of the curriculum stocktake noted that the New Zealand Curriculum Framework was:

... increasingly subject to pressures to demonstrate its effectiveness in terms of student learning outcomes. (Le Metais, 2002, p. 69)

Depending on how schools perceive the relationships between them, policies and processes put in place to be accountable for overall student achievement/outcomes patterns might be seen as being in tension with the NZC imperative to focus on assessment for learning and the success of each individual student, regardless of their actual starting place or specific needs. How these tensions are currently playing out in relation to the National Standards, introduced post-NZC, was the subject of an earlier report from the 2010 NZCER National Survey of Primary Schools (Wylie & Hodgen, 2010). That aspect of the survey analysis will not be repeated here. Instead, this section discusses the survey questions that explored teachers' reporting of their classroom assessment behaviour, principal leadership of school-wide assessment initiatives and teachers' perceptions of the opportunities they have for collegial learning that strengthens and extends their current assessment practices.

Teacher thinking about students' roles in assessment

The 2010 survey described a range of roles that students might take in developing their learning-to-learn competencies via involvement in assessment of their own learning progress. The items were based on a clear NZC message about what students should be doing:

Effective assessment ... involves students ... they discuss, clarify, and reflect on their goals, strategies, and progress with their teachers, their parents, and one another. This develops

students' capacity for self- and peer-assessment, which lead in turn to increased self-direction. (Ministry of Education, 2007, p. 40)

We wanted to know if teachers agreed or disagreed that students could take a range of specified roles in their class. Goal setting was linked to the foundation curriculum areas that are a focus for National Standards (reading, writing and mathematics) but also to science as an example of a “core” curriculum area outside the National standards initiative and to key competencies as a new and different type of potential curriculum outcome.

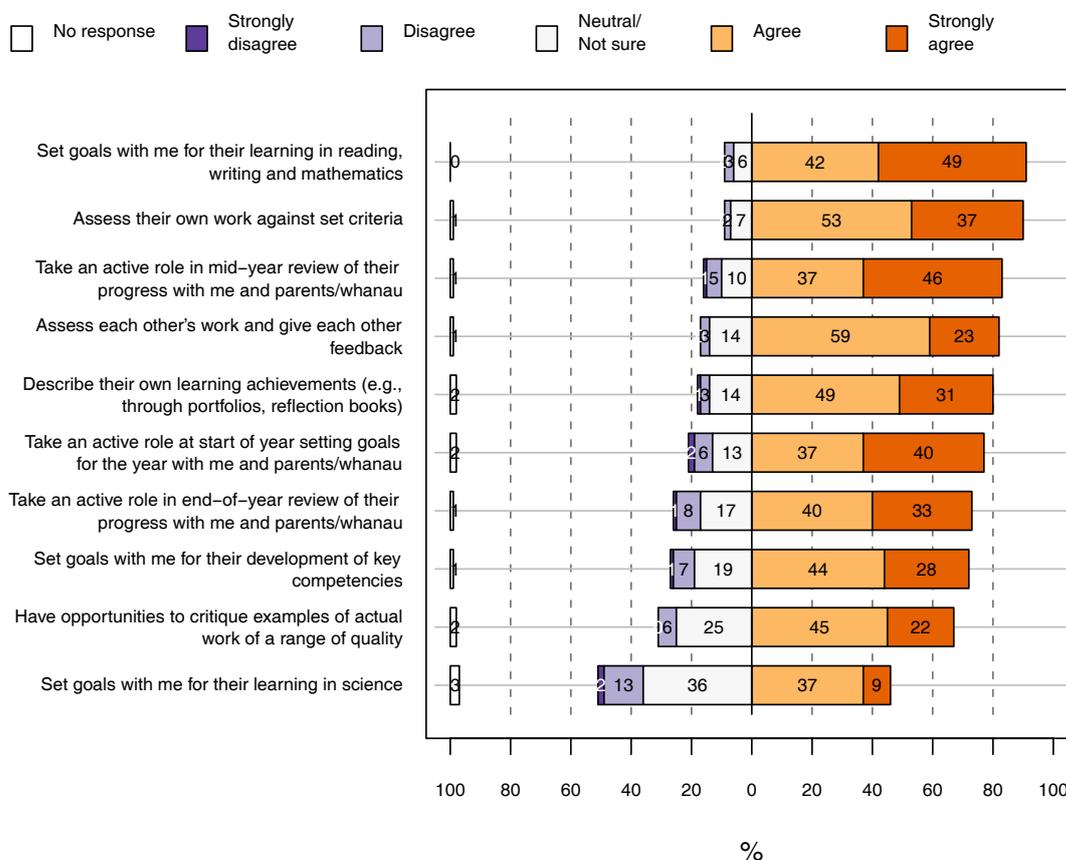
As Figure 6 shows, teachers do perceive that they are actively fostering a wide range of student assessment roles. Almost half of teachers *strongly* agreed that they supported students to help set goals for learning in reading, writing and mathematics, and most of the rest agreed that they did this. Setting goals together appeared to be part of the practice of almost all these teachers.

Most teachers (90 percent) also agreed or strongly agreed that students in their class could assess their own work against set criteria. Students were only slightly less likely to be able to assess each other's work and give feedback (82 percent of teachers agreed or strongly agreed) or to take an active role in documenting the outcomes they perceived they had achieved, via portfolios or reflection books (80 percent). Around two-thirds of the teachers (67 percent) said they had given their students opportunities to critique actual work of a range of quality.

Note, however, that a quarter of the teachers gave a neutral/unsure response to the item about giving their students opportunities to critique actual work of variable quality. Perhaps these teachers were not clear about what would be entailed in doing this, or they might have found it hard to disagree with something they know to be important, even if they were not actually doing it.

There was even greater uncertainty about setting goals for learning in science and some uncertainty about goals related to key competencies and the role that students should take in end-of-year reporting to parents.

Figure 6 **Teachers' perceptions of students' assessment roles in their classroom**
(n = 970)



Differences related to school and teacher characteristics

In comparison to the patterns of differences for *learning* experiences that teachers value and enact (Section 4) we found fewer differences for these assessment-related items. There would seem to be less divergence in these teachers' assessment pedagogy than there is in aspects of their practice related to enacting aspects of NZC such as key competencies which were the focus of experiences described in Section 4. These assessment practices do have the potential to transform aspects of the learning that students experience so this is an important finding to highlight.

School-related differences

There were no decile-related differences in teachers' descriptions of the assessment roles students could take in their classrooms.

Teachers in schools with a Pasifika roll of 11 percent or more were *less likely* to agree that their students could assess their own work against set criteria or describe their own achievements.

As we might anticipate, given an expectation of increasing maturity with age, some activities appeared to be more common as the year level of the teachers' class increased. Older students were more likely to:

- assess their own work against set criteria
- take an active role in goal setting at the start of the year and in mid-year review of progress with teacher and parents/whānau
- assess each other's work and give feedback
- describe their own learning achievements
- have opportunities to critique examples of actual work of a range of quality.

Differences related to teacher characteristics

Deputy and assistant principals were more likely than classroom teachers to agree that students could carry out most of the described roles in their classroom.

Changes over time

Between the 2003 and the 2007 NZCER National Survey of Primary Schools we found some increases in assessment activities where students are expected to take a more active role in determining their own progress and next learning steps (Schagen & Hipkins, 2008). Direct comparisons to 2010 are not possible because the 2010 item set was updated to reflect ongoing development of ideas about students' involvement in assessment. Nevertheless, a comparison of similar items is worth doing given the emphasis placed on building the assessment capabilities of everyone (including students) in recent policy advice (Absolum et al., 2009) and MOE thinking (Ministry of Education, 2010a).

A comparison of similar items indicates that over the three years to 2010 there was a further and considerable increase in classroom activities that involve students in making and acting on decisions about their own learning progress. The following comparisons each begin with the earlier item and then show the related 2010 item. Notice that in each case the 2010 item is somewhat more explicit and exacting in its description, yet in every case a large increase is registered:

- Student self-assessments of learning are used (2003, 70 percent; 2007, 80 percent); students in my class assess their own work against set criteria (2010, 90 percent).
- Students are involved in individual goal setting (2003, 77 percent; 2007, 79 percent); students in my class set goals with me for their learning in reading, writing and mathematics (2010, 99 percent).
- Students peer review each other's work (2003, 49 percent; 2007, 63 percent); students in my class assess each other's work and give each other feedback (2010, 82 percent).

The introduction of National Standards has doubtless contributed to the large shifts in student involvement in goal setting in reading, writing and mathematics. As Figure 6 shows, goal setting in the other areas of the curriculum named (science, key competencies) is not as common as yet. Nevertheless, there appear to be sizeable and notable shifts in teachers' assessment practice, in an area where there has been considerable policy activity and support for professional learning.

Relationships between the teacher implementation factors

Again, factor analysis revealed a strong degree of coherence in the manner in which teachers responded to the items related to students' roles in assessment ($\alpha = .88$). If teachers implemented one active assessment role for students, they were likely to implement a range of others to the same extent. We called this factor *student role in assessment*.

How much did teachers' values concerning what is important for learning also influence their responses to this item set? As Table 8 shows, responses to the *student role in assessment* factor were moderately strongly correlated with their views of: what would be important for implementing NZC (the *NZC interpretation* factor); how important it would be to provide various sorts of learning experiences in their classroom (the *key competencies* factor); and how often students might have these sorts of competency-enhancing learning experiences in their classroom (the *student experiences* factor). The *moderately* strong correlation does suggest that a relationship exists between these sets of responses but it also seems likely that influences other than NZC were at work. These other influences are likely to relate to the concerted accountability focus on making better use of assessment processes and data to lift achievement, as outlined in the introduction to the section.

Table 8 **Correlations* between teacher factors for aspects of implementation of NZC**

Factor	Key competencies	Student experiences	NZC interpretation
Role in assessment	.47	.49	.47

* Measure used = Pearson's Correlation Coefficient (r)

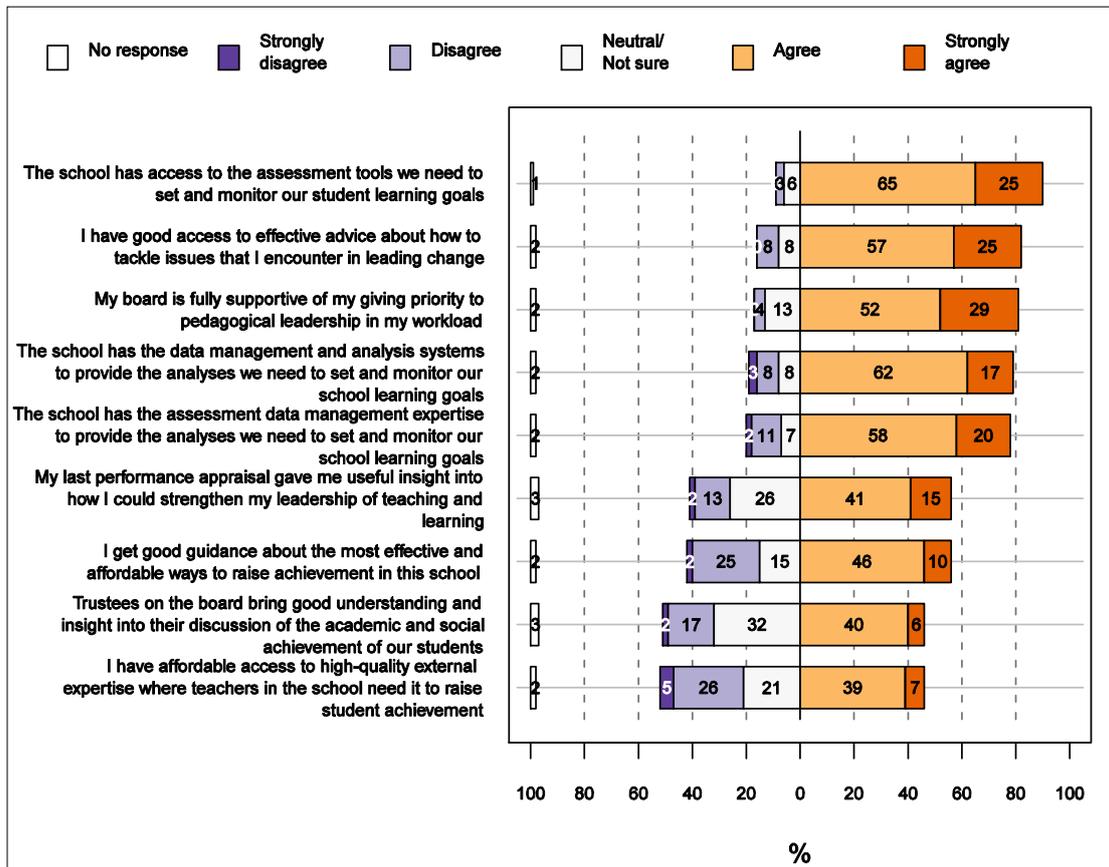
Principals' leadership of assessment practice and professional learning

While there is a divergence of views about the National Standards policies (see Wylie, 2010) the use of assessment data in teaching and learning generally is seen as very important by educators. In 2010, 82 percent of principals reported improved use of student achievement data as a major achievement over the last 3 years. However, as already noted, leadership for building the assessment capabilities of both teachers and students (and ideally parents who receive assessment feedback) is demanding (Absolum et al., 2009). Principals need access to high-quality advice and support as they continue to develop their own capabilities. One question in the principals' survey

addressed advice and support more generally and included a number of items specifically related to assessment.

As Figure 7 shows, principals felt they received good advice and support in some areas of assessment but not others. Most (90 percent) agreed or strongly agreed that their school had access to the assessment tools needed to set and monitor student learning goals and this was the top-ranking item overall. Seventy-nine percent agreed or strongly agreed that their school had the data management and analysis systems to provide the analyses they need to set and monitor their school learning goals. Notice, however, that access to good advice in the area of effective and affordable ways of *acting on* assessment feedback, in order to raise achievement, is more problematic. All three of the lower ranking items related to this area of advice and support. This did not appear to be primarily a case of lack of access to the financial resources needed: there were no differences by school decile.

Figure 7 **Principals' views of advice and support as they relate to assessment matters (n = 210)**



Which principals feel they needed better access to advice?

Principals of smaller schools and rural schools were significantly less positive in their view on whether they had affordable access to high-quality external expertise. Principals of larger schools

were more likely to be positive about their school having the data management and analysis systems to set, analyse and monitor school learning goals.

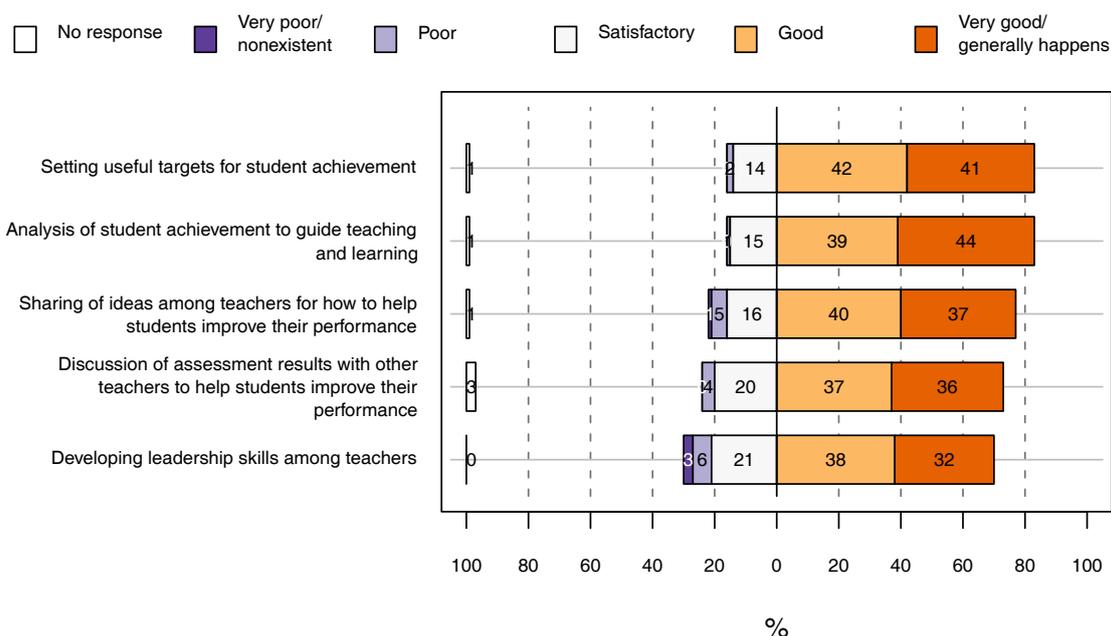
Principals of low-decile schools, rural schools and schools with higher numbers of Pasifika students were more likely to disagree that the board brought good understanding and insight into their discussion of academic and social achievement (decile and Pasifika enrolment are likely to be confounded here). Principals in schools with higher Māori rolls were less likely to agree that they got good guidance about the most effective and affordable ways to raise achievement in their schools.

Principals who reported lower morale were less likely to strongly/agree that: the school has the data management and analysis systems to provide analyses needed to set and monitor school learning goals; the school has affordable access to high-quality external expertise; the school gets good guidance to raise student achievement; and that the board brought good understanding and insight to their discussion of academic and social achievement.

Teacher support for developing their assessment practice

Seventy-one percent of teacher respondents reported increased student achievement as a major achievement in the last 3 years. These increases are likely to be partially linked to the longer term increases in certain types of classroom assessment practices, as already reported above. However, school-wide strengthening of practices related to systematic gathering of student achievement data, analysing this and acting on the findings is also likely to be a factor in the gains reported. Given some principals' concerns about their access to support to lift practice in this area (see above), how did the teachers feel things were going? One question on teachers' views of the school culture more generally included a number of items related to sharing ideas and expertise about lifting achievement and allowed us to explore levels of professional learning support. Figure 8 shows responses to these items.

Figure 8 **Teachers' views about achievement-focused sharing (n = 970)**



Almost all the teachers perceived the described practices to be at least satisfactory and a clear majority said that they were good or very good. This is a much stronger positive response than we found for the secondary teachers a year earlier (Hipkins, 2010; Wylie, 2011).

Around a quarter of the teachers were unsure or negative about the quality of school-wide achievement-focused sharing. As we have just seen, over half the principals perceived they did not have access to adequate external support for discussing achievement results with the intention of lifting student performance (see Figure 7 above). This is clearly perceived as an area of need for greater support.

The final item in the set does not directly reference assessment but is included because it correlates with the other items in the set. This makes sense because leading discussions about assessment practices and making more effective use of assessment data in the classroom is an area where strong leadership input from teachers who are senior or middle managers is likely to be expected and fostered in schools with a strong culture of achievement-focused sharing.

An item set about school *processes* (as opposed to school culture) is not fully documented in this report. However it included several items where the teachers' responses endorse the picture of active engagement with student achievement data:

- Most teachers (93 percent) agreed or strongly agreed that teachers in their school regularly identified struggling students and focused on improving their achievement.
- Three-quarters of them (75 percent) agreed or strongly agreed that groups of teachers analysed student achievement data to develop priorities.

Differences related to school and teacher characteristics

Teachers in deciles 1 and 2 schools were almost four times more likely to report student achievement as an issue than teachers in deciles 9 and 10. However, these *general* concerns about student achievement were not reflected in any of the specific items concerning the school’s assessment culture.

Teachers in schools where Pasifika students comprised more than 11 percent of the roll were likely to be less positive about setting useful targets for student achievement. They were also less positive about an item not included in Figure 8: sharing assessment resources between teachers. (Items describing a culture of sharing made up a separate factor—see Wylie (2011) for more details.) Interestingly, these Pasifika-related differences did not show up for decile, or for differences according to percentage of Māori students on the school roll.

Teachers with lower morale were less positive about all aspects of their school’s assessment culture listed in the survey. Compared to classroom teachers, assistant principals and deputy principals were more likely to say all these aspects of their school’s assessment culture were very good. The teachers’ class level also made a difference. Teachers of Years 0–1 were almost twice as likely as other teachers to rate as very good their school’s discussion of assessment to improve student performance and the sharing of ideas to improve student performance.

An achievement-focused sharing factor

The items in Figure 8 comprise a factor that we have called *achievement-focused sharing*. The coherence measure for this factor ($\alpha = .89$) suggests a high level of internal consistency in each teacher’s pattern of responses. If they perceived one of these aspects of school culture to be very good, they were likely to see most of them in that light.

Interestingly, this factor does not correlate strongly with the factors related to teachers’ understanding of NZC, or to their classroom pedagogy, as discussed in the earlier sections of the report. Table 9 shows that *achievement-focused sharing* does correlate with other factors related to school-wide culture, including teacher perceptions of the quality of the principal’s leadership. It also correlates quite strongly with teachers’ views about the professional learning opportunities they have experienced (to be discussed in Section 8).

Table 9 **Correlations* between achievement-focused sharing and other factors**

Factor	Culture of support in school	Engaged by professional learning	Principal leadership	Community attitudes to school
Achievement-focused sharing	.77	.58	.55	.42

* Measure used = Pearson’s Correlation Coefficient (r)

Parent and trustee perspectives

Since the last primary national survey in 2007, reported concerns about student achievement have lowered for principals, teachers and trustees, but increased for parents—from 16 to 24 percent. Ten percent of parents who responded wanted more assessment; they were two times more likely to want more assessment if their youngest child was at Years 7 or 8 rather than Years 0–1. Pasifika and Asian parents were also significantly more likely to want more assessment.

Sixty-six percent of BOT respondents felt that the improved use of student achievement data was a major achievement over the last 3 years.

Concluding comment

This section adds to a picture of growing awareness over time of the importance of making effective use of assessment feedback. Comparing responses with the past two cycles of NZCER National Surveys of Primary Schools the trend to stronger support for aspects of classroom practice related to assessment is particularly evident. Nevertheless—and going against the positive action trends in the responses of the school professionals—this survey also found increased levels of awareness/concern about assessment in parental responses to the survey.

At the end of Sections 3 and 4 we commented on the tensions between valuing a more active role for students in their own learning/key competency development and enacting that via *teaching*, with the exception of introducing learning-to-learn conversations. It is interesting that this tension is not as evident in relation to involving the students in *assessment* of their learning. (The two top-ranking pedagogical practices in Figure 7 would both outrank the top pedagogical practice in Figure 4 if they were placed on one graph.) Changes in assessment do not necessarily imply changes in the focus of the “what” of learning and might well be used to strengthen traditional curriculum content rather than being a response to the newer elements of NZC as discussed in the report thus far. Classroom-based assessment actions correlate only moderately strongly with teachers’ views on NZC which does suggest that other influences are likely to have contributed to these substantial shifts in practice over time.

The contrast between the correlation patterns for in-class assessment practice and a whole-school focus on achievement-related conversations about assessment data is informative. Whole-school achievement-focused sharing correlates only very weakly with the NZC-related factors but does correlate moderately strongly with other aspects of shared school practice to be discussed in the following sections. Is assessment pedagogy more readily influenced by collegial learning and support than are other aspects of pedagogy? This doesn’t seem very plausible as an explanation. More likely, these differences in correlation patterns are evidence that a focus on continuing with NZC implementation has been supplanted by the imperative to address the different requirements of the National Standards initiative, introduced more recently. Exploratory studies have shown that some school leaders have worked hard to establish connections between the intent of NZC and the National Standards, and that the area where school leaders perceive that they most readily

come together is in greater involvement of students in the assessment of their learning. However, other school leaders see the National Standards as being in conflict with NZC and hence the need to address the standards as an unwelcome distraction from getting on with NZC implementation (Hipkins et al., 2011). We will return to this issue in Section 9, where barriers to curriculum implementation are in focus.

The area of assessment that concerned principals was getting sufficient funding to get good-quality external advice to support increased student achievement. This was even more of a concern for smaller schools and rural schools. With this aim of lifting achievement in mind it is notable that the learning of Pasifika students shows up as a difference in four different parts of the section:

- Students in schools with higher numbers of Pasifika students were less likely to be in classrooms where they were encouraged to assess their own work against specific criteria.
- Principals in schools with higher numbers of Pasifika students were less likely to be confident in the contributions that their BOT members bring to discussions of academic and social achievement.
- Teachers in schools with higher numbers of Pasifika students were less likely to say that the school professionals set useful targets for student achievement.
- Pasifika parents were more likely to want more assessment.

This pattern of differences points to the possibility that lower expectations might prevail in schools with higher numbers of Pasifika students. (Recall that parents of Pasifika students were also the least likely to think their research skills had been well developed at school—Section 4.) If this is so, then lower expectations are likely in turn to wash back in multiple ways that do not help teachers and students in these schools to successfully meet the challenges of lifting achievement. This is an issue that bears further investigation.

As with other aspects of implementation discussed in the earlier sections of the report, principals and teachers with lower morale were markedly less positive about the range of assessment items. This, too, is a recurring theme throughout the report, as it was in the 2009 NZCER National Survey of Secondary Schools (Hipkins, 2010).

6. Pedagogy and ICT

Introduction

The use of ICT as an important pedagogical tool has expanded exponentially in the last decade:

Good teaching that effectively integrates the use of information communication technology (ICT) into pedagogical practices to support student learning has become a focus for many New Zealand schools. (Fletcher & Brooks, 2006, p. 9)

Early ICT use mainly entailed finding information and reporting (word processing). This progressed to the use of ICT as a mode of communication and alternative ways of presenting ideas. Beyond these better ways of doing more traditional learning activities, ICT tools also have the pedagogical power to transform teaching and learning; for example, by sharing learning beyond the classroom walls and using “multi media authoring”. Despite this *potential*, current research commentaries note that, notwithstanding its now-common use in classrooms, ICT is less commonly used as a transformative pedagogical tool:

Although teachers in virtual classrooms are immersed in ICT, many simply use it for uploading and downloading information and teaching in the traditional way. (Lin & Bolstad, 2010, p. 2)

Gilbert argues that students ought to be learning through knowledge-building activities that foreground and develop creative and critical thinking, problem solving, communicating with others and making connection. While this can occur without the use of ICT, there are strong arguments that e-learning expands opportunities for students to learn in 21st century ways. (Lin & Bolstad, 2010, p. 3)

NZC is identified as a curriculum for the 21st century and the document states clearly ICTs should be used in ways that help transform, not just improve, students’ learning opportunities:

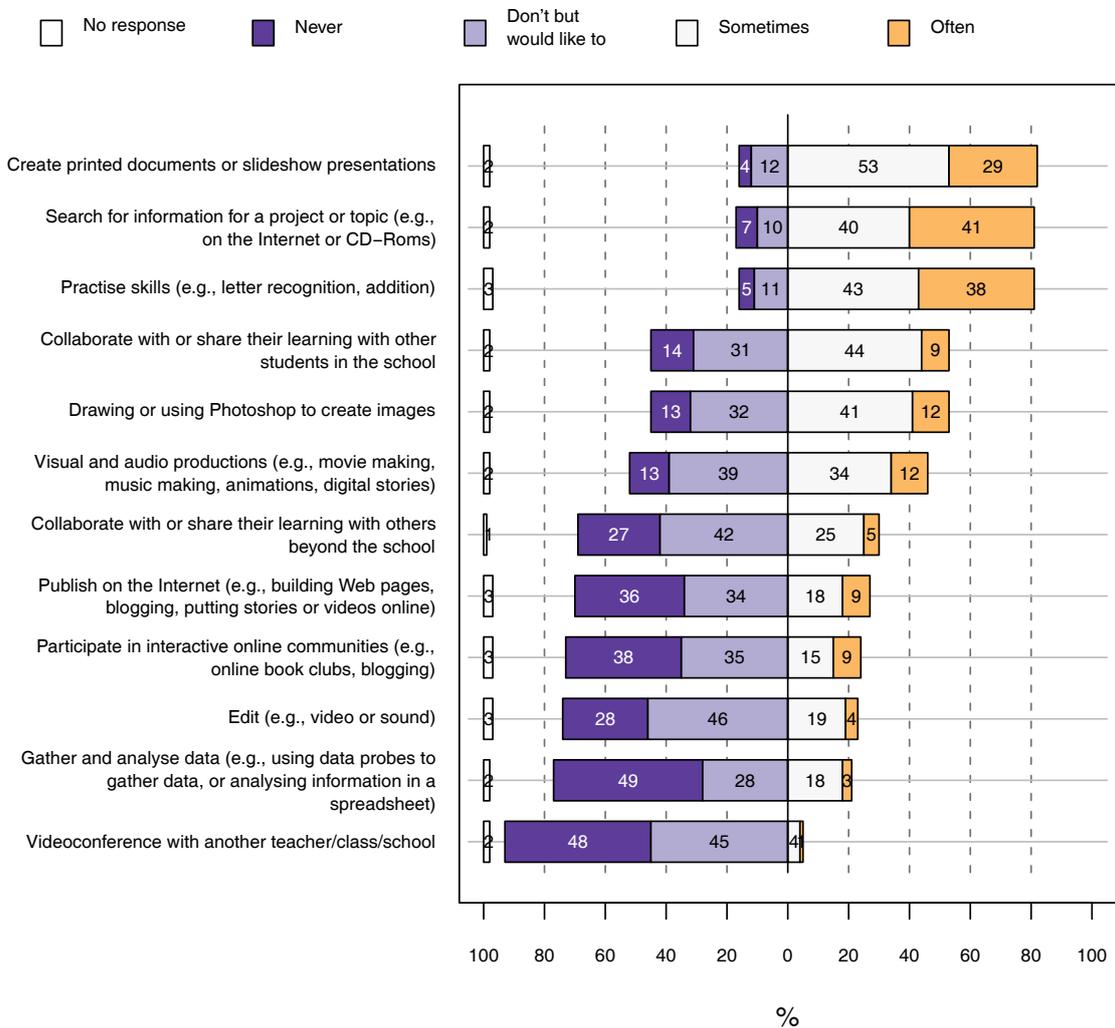
Schools should explore not only how ICT can supplement traditional ways of teaching but how it can open up new and different ways of learning. (Ministry of Education, 2007, p. 36)

With the known challenges in mind, two sets of questions probed teachers’ use of ICT. This first item set reported in this chapter addressed the uses to which teachers put ICT tools. The second item set asked for teachers’ responses to a wide range of statements about the use of ICT. This chapter outlines responses to these two question sets then explores how these responses align with other NZC-related parts of the survey. Principal and parent views on the use of ICT are also discussed.

How teachers use ICT for learning

As Figure 9 shows, traditional uses of ICT still appeared predominant in 2010. The three most widespread uses were: creating printed documents or creating slide shows (82 percent of teachers reporting this use often or sometimes); searching for information on the Internet (81 percent often or sometimes); and practising basic skills such as letter recognition and addition (81 percent often or sometimes). Fewer teachers reported using ICT to collaborate or share learning or for drawing or using Photoshop to create images (frequencies for both items were 53 percent often or sometimes). Fewer than 50 percent of the teachers reported sometimes or often doing any of the other listed activities.

Figure 9 **Teacher estimates of frequency of use of ICT for learning (n = 970)**



Notice that “Web 2.0” type activities, where students or teachers contribute in the Web’s public spaces, rather than simply reading or accessing resources posted by others, are located in the bottom half of the figure, with most teachers not yet using ICT tools for those purposes that have the potential to trigger more transformative changes in the ways students experience learning and

the new types of opportunities that open up for them. However, it is also important to note how many of the teachers who are not yet doing these things have chosen the option that indicates they *would like* to. Close to half the teachers chose this response for editing video or sound and videoconferencing with another teacher or class, and only somewhat lower numbers chose this response for all but the three most common uses. This is clearly an area where aspirations are not yet being translated into student learning experiences.

Who is doing what? Who would like to do more?

Cross-tabulations by demographic characteristics yielded a number of differences, mostly related to one group of school characteristics, but also some related to teacher characteristics.

Differences by decile, Māori or Pasifika enrolment

The greatest number of differences related to school decile and, alongside this, the confounded variables of Māori and Pasifika enrolment levels.

Eight of the 12 items showed a pattern where teachers in the lower decile schools were more likely to respond that they did not yet do what was described but would like to and teachers in the higher decile schools were more likely to say they did these things sometimes or often. This general pattern held for both basic activities (skills practice, creating printed documents or slideshows) and more innovative uses of ICT.

Cross-tabulations by the percentage of Māori students on the roll produced much the same pattern: the higher the percentage of Māori students the more likely teachers were to say they did not currently do these things but would like to. We also found this pattern in relation to Pasifika enrolment, but for only four of the less commonly enacted items (visual and audio productions, blogging, sharing with others beyond the school and publishing on the Internet).

There were no overall differences by school size or location.

Differences by teacher characteristics

In view of the differences reported in earlier sections it is worth noting that we found no differences related to teachers' morale.

There were some differences by role. Senior and middle leaders were somewhat more likely than subject or classroom teachers to say they sometimes or often: created printed documents and slideshows; used drawing or Photoshop packages; and searched for information on CD-ROMs or the Internet.

Male teachers were more likely to report using ICT tools for a number of different purposes. An exception to this general pattern was found for drawing or using Photoshop to create images. Female teachers were more likely to say they did this. Age differences were also evident. Older

teachers, and notably those over 40, were more likely to report never using ICT for learning purposes other than the most traditional three ranked at the top of Figure 9.

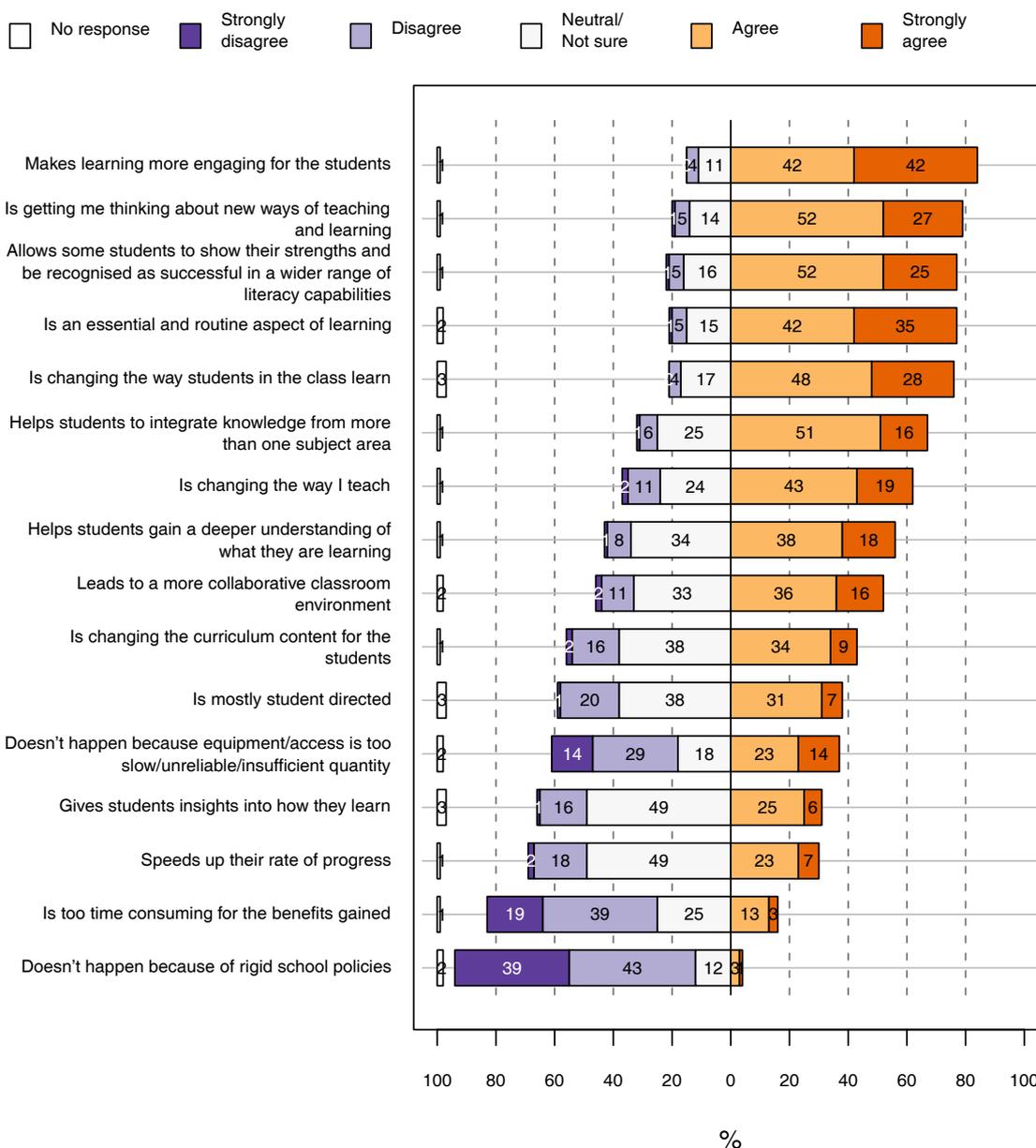
Teachers' views on the use of ICT for learning

We turn now to the second item set that probed teachers' opinions about the use of ICTs for learning. As the pattern of responses in Figure 10 shows, many teachers were positive about the use of ICT tools for learning. Most (84 percent) agreed or strongly agreed that ICT made learning more engaging for their students. Almost as many were of the view that ICT: was getting them thinking about new ways of teaching and learning (79 percent); allowed some students to show their strengths and be recognised as successful in a wider range of literacy capacities (77 percent); is now an essential and routine aspect of learning (77 percent); and is changing the way students in class learn (75 percent).

There was less support for the statements that ICT had changed curriculum content, sped up students' progress, was mostly student-directed or gave students insight into how they learnt. However, teachers did not necessarily disagree with these propositions: between a third and a half of the teachers indicated they did not know whether many of these benefits would accrue from using ICTs for learning. How would they, given the many ICT uses many teachers have yet to experience?

Note that some items near the bottom of the ranking were negatively worded so disagreement constitutes a positive response; for example, that use of ICT for learning does not happen because of rigid school policies or is too time consuming for the benefits gained. Nor did the majority of teachers perceive equipment/access that is too slow/unreliable/low quality to be a hindrance, although this was an issue for just over a third of the teachers.

Figure 10 **Teachers' views on the use of ICT for learning (n = 970)**



Differences in response patterns

We again found a range of differences for this set of opinion-based items.

Differences related to the age of the students

Teachers in Years 0 and 1 were somewhat less likely to agree that ICT: is an essential and routine part of learning; makes learning more engaging for the students; is more strongly student directed; helps integrate knowledge from more than one subject area; or changes the way students learn. Teachers of younger students were also more likely to agree that ICT was too time consuming for

the benefits gained, and they were a little less positive about ICT getting them thinking about new ways to learn, and about ICT allowing some students to show their strengths and be recognised as successful in a wider range of literacy capabilities.

Differences related to decile or Māori enrolment

As we have already seen, some response patterns indicate that Māori enrolment and decile are confounded variables. Teachers in schools with a high Māori enrolment and those in low-decile schools were less likely to agree that ICT was changing the way they taught. This aligns with the responses above that indicate that teachers in these schools were more likely to not yet be using ICT in ways that they would like to.

Those in schools with a high Māori enrolment were also less likely to agree that ICT was: getting them to think of new ways of teaching and learning; creating a more collaborative classroom environment; or allowing some students to show their strengths and be recognised as successful in a wider range of literacy capabilities. Again, this pattern seems logical in view of the overall response pattern. If ICT is not yet changing teaching, then obviously these other *consequences* are unlikely to follow.

There could be an element of frustration behind these responses: teachers in low-decile schools were more likely to agree that the use of ICT for learning did not happen because of rigid school policies.

Other school-related differences

Teachers at the largest schools were more likely to report that ICT use was changing curriculum content for students.

Differences related to teachers' morale

Teachers with lower morale were more likely to agree that ICT learning does not happen because of rigid school policies, and to disagree that ICT was changing the way they taught. Interestingly, teachers with low morale were more likely to agree that the use of ICT for learning can:

- help students to integrate knowledge from more than one subject area
- speed up students' rates of progress
- allow some students to show their strengths and be recognised as successful in a wider range of literacy capabilities.

The contrast between these positive in-principle views and self-reported lack of action suggests a degree of frustration might actually be contributing to these teachers' low morale. With this possibility in mind it is interesting to note that elsewhere in the survey 32 percent of all the teachers selected adequacy of ICT equipment as a major issue facing the school: it was the fourth most common issue and teachers who strongly disagreed that their morale was good were more likely to choose it. There were, however, no decile differences in selecting this issue.

ICT factors

We found clear factors for the two item sets discussed in this section. The factor for the item set that asked teachers to identify the purposes for which their students used ICTs is called *ICT use* ($\alpha = .85$). The high Alpha value suggests that teachers who said they were often using ICT were likely to be doing so for a range of purposes. Similarly, teachers who said they were not currently doing something but would like to do so were likely to say this for a range of uses.

All the positively-worded opinion items made another factor that we called *ICT positive*. This factor has a very high Alpha value ($\alpha = .92$) which suggests a very strong degree of internal coherence in the way each teacher responded. There was also a level of coherence between responses to the negative items in this set (*ICT negative*; $\alpha = .66$). We would not expect this to be as strong a measure as *ICT positive* because there were only three items in the set and they addressed somewhat different issues: too time consuming for benefits gained; rigid school policies as a barrier; and access and equipment too slow or unreliable.

As we might expect there was a moderately strong association between the *ICT use* and *ICT positive* factors ($r = .53$). Influences can potentially run in both directions here. Recognition of the learning benefits of ICTs could spur some teachers to take professional learning risks and extend their pedagogical skills. On the other hand direct experience of using ICT in the classroom, however initiated and motivated, could well lead to greater recognition of the benefits.

Table 10 shows patterns of associations between the *ICT use* and *ICT positive* factors and the other factors discussed so far. None of the associations are particularly strong, with the most consistent relationship (i.e., similar for both ICT factors) showing up for conferring greater ownership of assessment to students. This makes sense if greater use of ICT in learning is expected to be similarly empowering. Given the nature of the factors where this weak-to-moderate correlation shows up, the common thread is more likely to relate to teachers' pedagogical beliefs and values than to the shared learning culture of the school.

Table 10 **Correlations* between two ICT factors and other factors**

Factor	NZC interpretation	Key competencies	Learning experiences	Student role in assessment	Achievement-focused sharing
ICT use	.17	.18	.24	.29	.08
ICT positive	.25	.31	.27	.32	.12

* Measure used = Pearson's Correlation Coefficient (r)

Changes over time

The range of potential ICT activities described has changed considerably since the 2003 survey. However, with some differences in the specifics of the wording, many activities addressed in 2007 (see Schagen & Hipkins, 2008) were repeated in 2010 so some comparisons can be made. Newer types of use such as blogging or participation in online communities cannot be compared

because these items were new in 2010. Keeping these limitations in mind, Table 11 shows the usage trends over time. As we might anticipate, early popular uses such as creating documents remained relatively stable over the 3 years between 2007 and 2010 while other uses that would have been at the cutting edge in 2007 were more common by 2010 (e.g., publishing on the Internet). However, student use of actual data sets remained static (or declined if the 2003 figure is to be believed—it is possible that back then some teachers did not fully apprehend what they said they were doing).

Table 11 **A comparison of primary teachers' use of ICT in 2003, 2007 and 2010**

Use of ICT for learning sometimes or often	2003 (n = 431) %	2007 (n = 912) %	2010 (n = 970) %
Creating printed documents etc.	44	86	82
Searching for information	43	74	81
Practise skills such as letter recognition		64	81
Share learning with others in the school		39	53
Visual and audio productions		27	46
Collaborate with or share their leaning with others beyond the school	19	39	30
Publishing on the Internet		15	27
Gathering and analysing data	30	20	21
Videoconferencing with another teacher/class/school		2	5

NB: Percentages add to more than 100 because multiple responses were possible.

There were also some frequency changes over time in relation to teachers' views about the use of ICT for learning:

- The percentage who agreed that ICT was too time consuming for the benefits gained stayed almost the same (16 percent in 2007 and 15 percent in 2010).
- Agreement that ICT learning doesn't happen because the equipment/access is too slow/unreliable/insufficient quality increased from 31 percent to 37 percent.
- Agreement that ICT is an essential and routine part of learning increased markedly, from 65 percent in 2007 to 77 percent in 2010.
- Agreement that students gain a deeper understanding of what they are learning increased somewhat from 51 percent in 2007 to 56 percent in 2010.

Given the increased and more routine use of ICT since 2007, the increase in dissatisfaction with access to reliable equipment and services is likely to be a consequence of higher expectations by 2010.

Principal and parent views on ICT

Principals were not asked an extensive range of questions about ICT use. They were asked about major issues facing their school, and adequacy of ICT equipment was one of the options in that question. Adequacy of ICT equipment was rated as a major issue by 49 percent of principals—the third most frequently rated issue. No decile, school size and type, student ethnicity or principal morale differences were found for those who selected this item.

Although principals and teachers were concerned about the adequacy of ICT at school, generally, parents did not appear concerned about this: only 7 percent of parents selected adequacy of ICT equipment as a major issue facing the school. Fourteen percent of parents did report that they would like their youngest child at school to be able to make more use of computers. Parents at schools with more than 11 percent Pasifika student population were significantly more likely to want more computer use.

Given survey length constraints, trustees were not questioned about ICT at school.

Concluding comment

The teacher responses in this section suggest that, as a matter of some urgency, attention needs to be paid to developing teachers' pedagogical skills in the use of ICTs to support the types of rich learning experiences intended if NZC really is to transform learning for the 21st century by “open[ing] up new and different ways of learning” (Ministry of Education, 2007, p. 36).

From 2007 to 2010, during a period of exponential change in the sophistication of ICTs available (complex uses combined with simple user-friendly and relatively low-cost technologies) there were only modest gains in practice. However, the relatively high level of in-principle support for ICT use is encouraging. Many teachers who did not currently use ICT for more than basic purposes said they would like to do so. And many of them responded positively, or at least reserved judgement, in relation to the opinion statements concerning ICT's *learning* benefits. The moment for supporting them to move forward with their ICT pedagogy seems opportune.

Previous sections have outlined a pattern of gaps between what teachers might aspire to do, or at least say they value in principle, and what they actually currently do. In this section there are some visible indications of barriers that might stand between intent and action. ICT access and support is clearly still an issue and is more likely to impact on teachers in lower decile schools. Differences in relation to what teachers are not yet doing but would like to do are also decile related: innovative ICT practice is currently least likely in schools with higher numbers of Māori and Pasifika students, where it could arguably confer the greatest learning gains.

However, poor access is unlikely to be the only barrier: the association between low teacher morale and self-reported lack of access bears further investigation. Is this really just a matter of frustration with school policies and resourcing, or is this frustration a symptom of a more complex malaise? This is not the only section of the report where low morale has been associated with lack

of a positive perspective on some aspect of NZC implementation. The 2009 secondary survey also found low morale to be an impediment to NZC implementation, both for teachers and principals (Hipkins, 2010). Note, however, that levels of morale were not associated with differences in actual use of ICT. Rather, the differences resided in attitudes and beliefs.

An analysis of one specific gap between aspiration and action suggests some other potential barriers that may need to be addressed. For example, 77 percent of teachers agreed or strongly agreed that ICT use can allow some students to show their strengths and be recognised as successful in a wider range of literacy capabilities. Research into the use of ICT to support literacy development shows that these benefits are likely to accrue when students have opportunities to use their emergent literacy skills to accomplish tasks that require modes other than pencil-and-paper and whose purposes are other than skill development for its own sake. Making and editing movies or producing radio programmes are examples of learning activities that demand multimodal literacy skills (McDowall, 2011). However, just 46 percent of the teachers said their students could make visual or audio productions at least sometimes, and just 25 percent said students might publish their work on the Internet. The gaps between aspiration and actual opportunity are large. McDowall suggests that some teachers will need reassurance that multimodal learning does not impede progress with basic literacy (this was enhanced in her case studies). However, practical know-how is also likely to be a barrier here.

7. NZC and professional leadership

Introduction

Both teachers and educational leaders have critical roles to play in the implementation of NZC. One of the areas where these different roles come together strongly is in the development of, and support for, effective pedagogy. Another is in leading innovation in routines and school-wide practices to which everyone contributes—the “how we do things here” that constitutes the so-called hidden curriculum of the school. This section addresses both aspects of school leadership of NZC implementation.

Exploratory studies have highlighted the pivotal role of the principal, both in their direct leadership of change, and in developing strong learning networks that allow others to develop their own leadership skills and lead in areas where they have strong expertise to share (Cowie et al., 2009; Hipkins et al., 2011). The role of educational leadership in supporting teachers’ pedagogical learning and therefore in supporting enhanced student outcomes has recently been documented in one of the BES projects. Leadership in this area was found to be associated with significant effect size differences in student outcomes (Robinson et al., 2009). Increasingly, the role of the school principal is being correlated with effective teaching and learning, effective assessment systems and good student outcomes:

Educational leadership is important. The big message ... is that the closer educational leaders get to the core business of teaching and learning, the more likely they are to have a positive impact on students. (Robinson et al., 2009, p. 47)

School leaders matter for school success. Numerous studies spanning the past three decades link high-quality leadership with positive school outcomes. (Hornig & Loeb, 2010, p. 66)

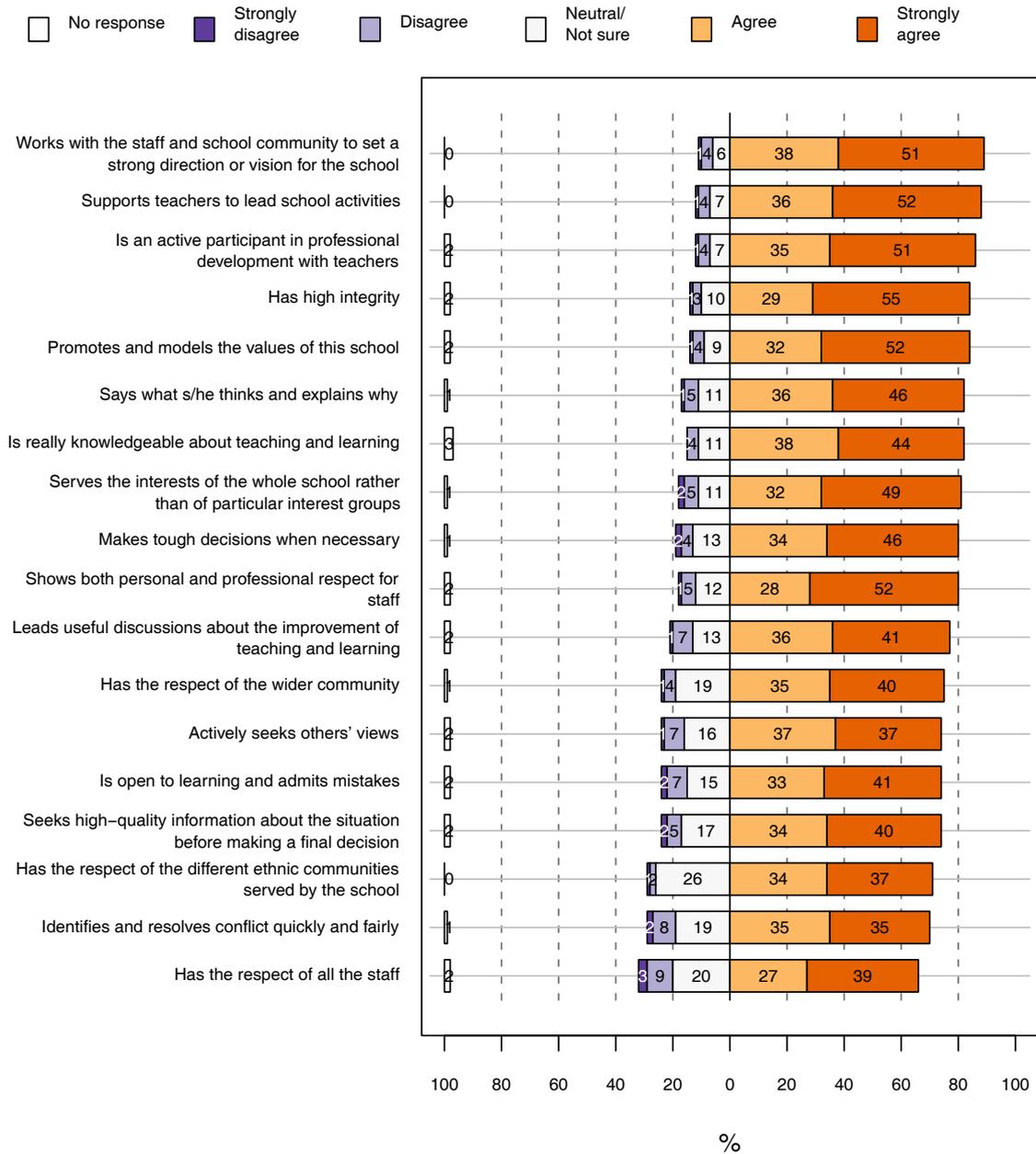
Teachers’ views of their principal’s leadership

Teachers were asked to rate their principal’s leadership on a number of dimensions. Three items in this question set specifically addressed each teacher’s view of their principal’s involvement in teaching and learning and a fourth implied a willingness to develop distributed leadership of learning. Teachers were asked to rate how strongly they agreed that their principal:

- is an active participant in professional development with teachers
- is really knowledgeable about teaching and learning
- leads useful discussions about the improvement of teaching and learning
- supports teachers to lead school activities (one of which is professional learning).

Figure 11 shows responses to these items in the context of the full set of responses to aspects of the principal’s leadership. Notice how little difference there is in the patterns of responses to these items.

Figure 11 **Teachers’ views of their principal’s leadership (n = 970)**



Most principals (86 percent) were seen as willing to share leadership. Note that the link to pedagogical learning is only implied here since activities that teachers lead would also include sports and so on. Of the three items that do describe specific aspects of pedagogical leadership, the most highly rated activity was the principal participating in teacher development. Many teachers (86 percent) agreed or strongly agreed that their principal did this. That the principal was

really knowledgeable about teaching and learning was ranked seventh (but 82 percent of respondents agreed that this was so). Lowest ranked of the three items was that the principal leads useful discussions about the *improvement* of teaching. A fifth of the teachers were neutral, unsure or disagreed with this statement. The somewhat larger negative or neutral response here accords with an aspect of discomfort some principals expressed: just 45 percent felt they had access to good-quality external expertise where there was a need to raise achievement (see Section 5).

Differences in teachers' experience of pedagogical leadership

As with all the other aspects of NZC implementation addressed so far, cross-tabulations revealed some patterns of differences in teachers' responses. Note that there are only a very small number of differences for these items, no doubt at least in part because this analysis involves just four items compared to the larger question sets reported in earlier sections.

Decile and Pasifika enrolment differences

Teachers in deciles 9 and 10 schools were more likely to agree or strongly agree that their principal participated in professional development with the teachers and those in schools with low numbers of Pasifika students were more likely to disagree that their principal did this. These patterns are doubtless related: lower decile schools tend to have higher numbers of Pasifika students on the roll.

Differences related to school type/age of students

Teachers of older students (Years 7–8) were somewhat more likely to disagree that their principal participated in professional development with the teachers. This trend was marked for teachers in intermediate schools; nine times as many primary teachers strongly agreed that their principal participated in professional development compared to teachers in intermediate schools. Principals in primary schools were also much more likely to receive high ratings for their ability to lead useful discussions about teaching and learning.

Teacher-related differences

Teachers with high morale were much more likely to give high ratings to their principal's pedagogical leadership: this pattern applied to all the statements discussed above.

A principal leadership factor

There was very high consistency between a teacher's responses to the individual items in the principal leadership question. If they gave the principal a strong rating in one aspect of leadership, they were likely to do so in most. We called this factor *principal leadership* ($\alpha = .90$).

We checked for a relationship between the *principal leadership* factor and the various NZC factors discussed in the earlier sections. Note that of the two ICT factors, only *ICT positive* has been included since this showed stronger (but still relatively weak) links to the other NZC factors. As Table 12 shows, the relationship between principal leadership and aspects related to teachers’ pedagogical values (*key competencies, student learning experiences, student role in assessment, ICT positive*) is weak at best. It is only slightly stronger in relation to the interpretation of what it is important to do to implement the intent of NZC (*NZC interpretation*) which no doubt reflects the principal’s role in leading (or delegating leadership of) whole-school conversations about NZC.

Table 12 **Correlations* between principal leadership and other NZC-related factors**

Factor	NZC interpretation	Key competencies	Learning experiences	Student role in assessment	ICT positive
Principal leadership	.20	.03	.11	.16	.12

*Measure used = Pearson’s Correlation Coefficient (*r*)

Given this pattern of weak correlations with individual classroom practice, what else might account for the impact that other studies have demonstrated principal leadership to have on student achievement?

Table 13 shows that principal leadership is moderately strongly correlated with teachers’ attitudes to their professional learning, their work together in exploring and responding to student achievement data (Section 5) and to their view of the quality of the school’s processes that support teachers in their work. Note that the survey items that made up the *school processes* factor described aspects of peer observation, appraisal systems, staff meetings, induction support and so on. This aspect of the survey has been discussed by Wylie (2011) and will not be a focus in this report.

Table 13 **Correlations* between principal leadership and other school culture factors**

Factor	Achievement-focused sharing	School processes	Engaged by professional learning
Principal leadership	.55	.64	.54

* Measure used = Pearson’s Correlation Coefficient (*r*)

These positive correlations point to the importance of the principal in fostering a school-wide culture of professional learning and engagement with the central challenge and responsibility of each teacher’s work—getting the very best out of each and every student’s learning potential.

Leading school-wide change

As well as leading changes in teaching and learning, principals can show pedagogical leadership when they lead the way in aligning the “front-end” messages of NZC with other school-wide

initiatives that relate to student wellbeing and responsibilities. Again, this aspect of leadership has been highlighted in exploratory case studies of NZC implementation. In particular, opportunities to develop students' key competencies and their values have been linked to ways they are encouraged to participate and build leadership skills in a wide range of aspects of school life (Hipkins & Boyd, 2011).

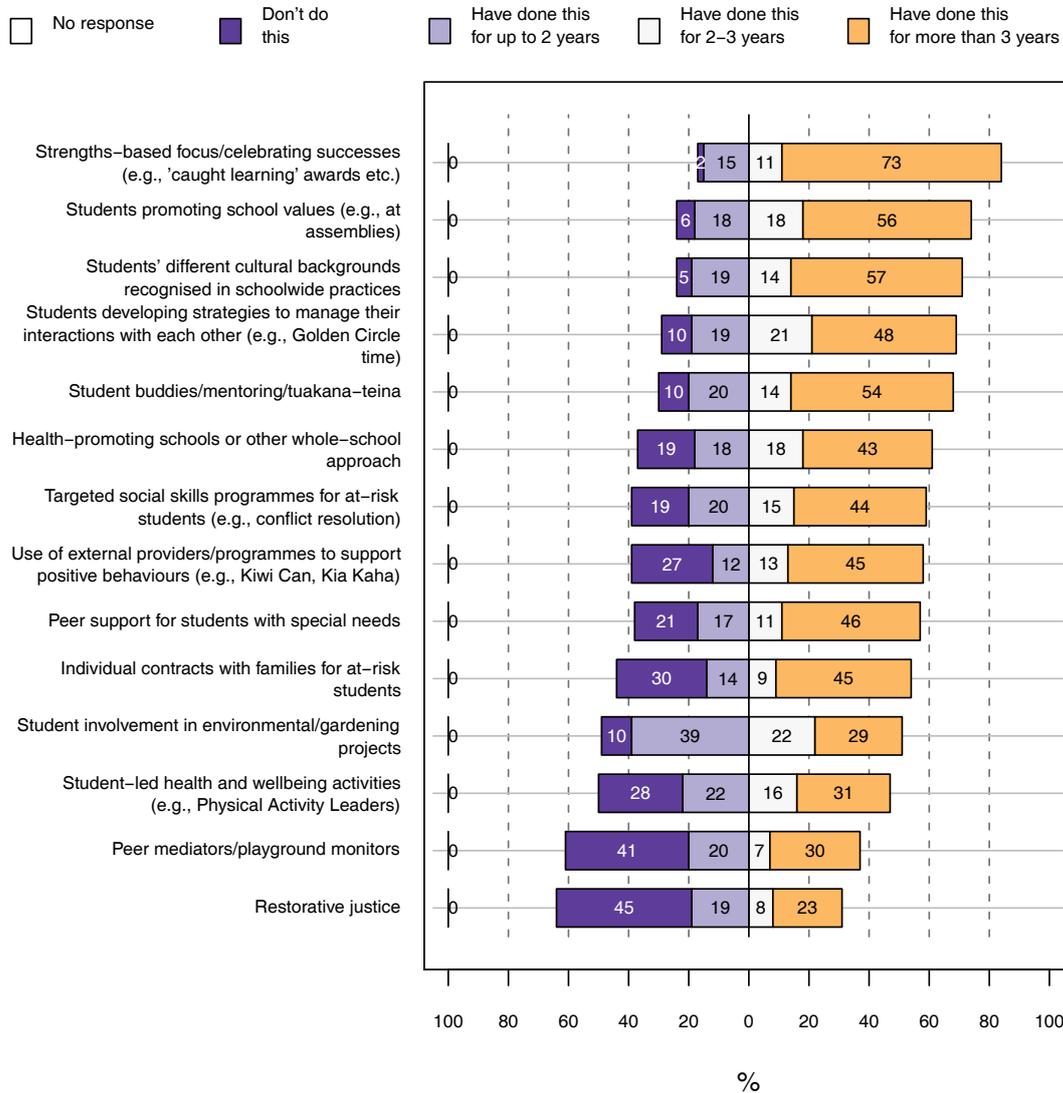
The principals' survey included a question about initiatives that are likely to have an impact on the wider school climate and values (i.e., the so-called "hidden curriculum" of the school). From a list of 14 possible initiatives they were asked to indicate *which of the following your school currently has, and how long it has been running in your school*. The items were chosen to highlight various dimensions of student wellbeing and active participation in the life of the school. Figure 12 shows the results.

Of most interest in the context of NZC implementation are the indications of *recent* changes (in the last 3 years). For example, 73 percent of these principals said they had used strengths-based approaches to celebrating success for more than 3 years. Of the remaining principals, all but a very few had adopted such practices more recently. The prevalence and emphasis given to developing a school-wide strengths-based culture was a clear theme in the curriculum implementation case studies in early adopter schools (Hipkins et al., 2011) so this is an encouraging trend. The pattern is similar for the next four ranked items, all of which could be readily linked to the "front-end" messages of NZC.

Adding the two middle columns together reveals the biggest shifts in practice *over the implementation period*. The top-ranking items now become: student involvement in environmental or gardening projects (a 61 percentage point shift over the 3 years to 2010); students developing strategies to manage their interactions with each other (40 percent); and student-led health and wellbeing activities (38 percent). All of these practices have the potential to foster key competency development, and indeed in some of the early adopter schools such links were made explicit very early on in the implementation process (Cowie et al., 2009).

When we compare these responses with those in Section 4 one seeming contradiction emerges. Working on a project or activity that would make a difference in their class/local community environment was bottom-ranked for teacher reported classroom practice: just 39 percent of the teachers said their students would have this type of learning experience quite often or most of the time. Yet only 10 percent of principals said their school had no involvement in gardening or environmental projects and 61 percent said their school had introduced such initiatives during the NZC implementation period. The seeming contradiction doubtless resides in where and when such learning opportunities arise. It may be that only some teachers in a school get their students involved in this type of learning during class time. It seems likely that, for many students, such opportunities, where they exist, are extra-curricular and students take part in break times, or before or after school.

Figure 12 **Wider school initiatives to support student wellbeing and responsibilities**
(n = 210 principals)



Although restorative justice initiatives are the bottom-ranking item, this change in approaches to managing discipline issues has also been linked to NZC and key competency development by some early adopter schools (Hipkins & Boyd, 2011).

While it is not possible to claim that recent shifts in wider school initiatives have been directly prompted by NZC, what we can say is that these changes do appear to be in accord with its intent, thus increasing the degree of coherence between the school's hidden and intended curriculum (assuming of course that they are enacted as intended). The lower ranked items have the potential to be adopted in schools where they are not yet happening, so drawing school leaders' attention to ways they can be linked to NZC could be a useful thing to do.

Which schools have yet to adopt these initiatives?

Cross-tabulations revealed only a small number of differences, some of them doubtless cases where variables were conflated.

The largest number of differences related to school location. There was a clear trend for urban schools to have longer established initiatives in four areas: recognition of students' cultural backgrounds in school-wide practices; use of peer mediators in the playground; peer support for students with special needs; and individual contracts with families of at-risk students. Rural schools, and in the case of cultural recognition and peer mediation, small schools, were more likely not to have these programmes at all, or to have adopted them in the last 2 years.

Schools where Pasifika students comprise more than 11 percent of the roll were somewhat more likely to have recently introduced the practice of students promoting school values. In schools with lower numbers of Pasifika students this was more likely to be either a longer established practice, or not done at all. There were no differences by Māori enrolment or by decile.

There were no differences in association with the principal's morale.

Concluding comment

This section shows that, on the whole, principal leadership is positively regarded by New Zealand's primary and intermediate teachers. The graph that shows their responses to a series of leadership statements is markedly skewed to the positive end of the opinion continuum. The size of the "neutral/not sure" responses is also worth noting because these point to a certain level of invisibility for some aspects of principal leadership. The negative responses, small in number though they may be, point to the need for ongoing support for some principals to improve their leadership of their schools.

It is noteworthy that the relationship between principal leadership and a culture of professional learning is stronger than the relationship between leadership and each teacher's individual classroom practice. No doubt there is a deeply personal dimension to the way each teacher develops their pedagogical style. Furthermore, their underpinning values are likely to drive what teachers do in ways they may not recognise unless they are supported to make the tacit explicit. The evidence in the report so far points to a stronger alignment between effective leadership support and foundational aspects of learning (i.e., those assessed by tools that allow trends in and across schools to be documented and accounted for; those highlighted by National Standards). Indications of a link between leadership and changes to teaching and learning prompted key competencies, e-learning pedagogies, or greater involvement of students in assessing their own learning are not as readily apparent in the data discussed here.

8. Curriculum professional development

Introduction

Section 2 noted the critical role of professional development when new curricula are released. The emphasis on pedagogy in the preceding sections of this report reflects clear NZC messages about the role of pedagogy within the framework structure. It is *part of* the curriculum, not just a means of delivering it.

The Effective Pedagogy section of NZC summarises research that shows that students learn best when teachers: create a supportive learning environment; encourage reflective thought and action; enhance the relevance of new learning; facilitate shared learning; make connections to prior learning and experiences; provide sufficient opportunities to learn; and inquire into the teaching–learning relationship (Ministry of Education, 2007, p. 34). During their own professional development, teachers are in the learner role and these criteria should also be relevant to their learning experiences.

Over the past decade there has been a strong interest in the relationship between professional development and student outcomes. MOE’s recent BES publication in the area of teacher professional learning and development (Timperley et al., 2007) examines the relationship between professional learning and the resulting impact on student outcomes. This synthesis yields a great deal of information about the types of professional development that do lead to improved student outcomes, and about the critical roles teachers play in students’ learning. The questions about professional learning in the national survey are predicated on this body of work.

Timperley et al. (2007, p. xxvii) describe a range of effective *contexts* for promoting professional development opportunities that impact positively on student outcomes. They are: extended time for opportunities to learn (necessary but not sufficient); external expertise (also typically necessary but not sufficient); teacher engagement in learning is more important than whether the opportunity was voluntary or compulsory; prevailing discourses are challenged; the planned learning is consistent with wider trends in policy and research; and the school leadership is active in the professional development (Robinson et al., 2009; Timperley et al., 2007).

The *content* for professional development is considered critical:

... without content on which to base deeper understandings and extend teaching skills there is no foundation for change. Content included discipline knowledge and the interrelationship between such fundamentals as new curricula, pedagogy, and assessment information. (Timperley et al., 2007, p.xxxi)

Cultures of enquiry have become critical in professional development programmes and schooling improvement work over this last decade (for example, Annan, 2010; Timperley et al., 2007;

Wylie, 2009), with an increasing emphasis on whole-school inquiry/collaborative learning (Hipkins, 2010; Hipkins et al., 2011).

The professional learning teachers had undertaken

Given these known impact factors, what sorts of professional learning had the teachers undertaken? One item set asked teachers to indicate which of a wide range of professional learning/development initiatives, contexts or situations they had taken part in during the last 3 years. If they had taken part they were asked to indicate the impact of the learning on their practice. Figure 13 shows the results.

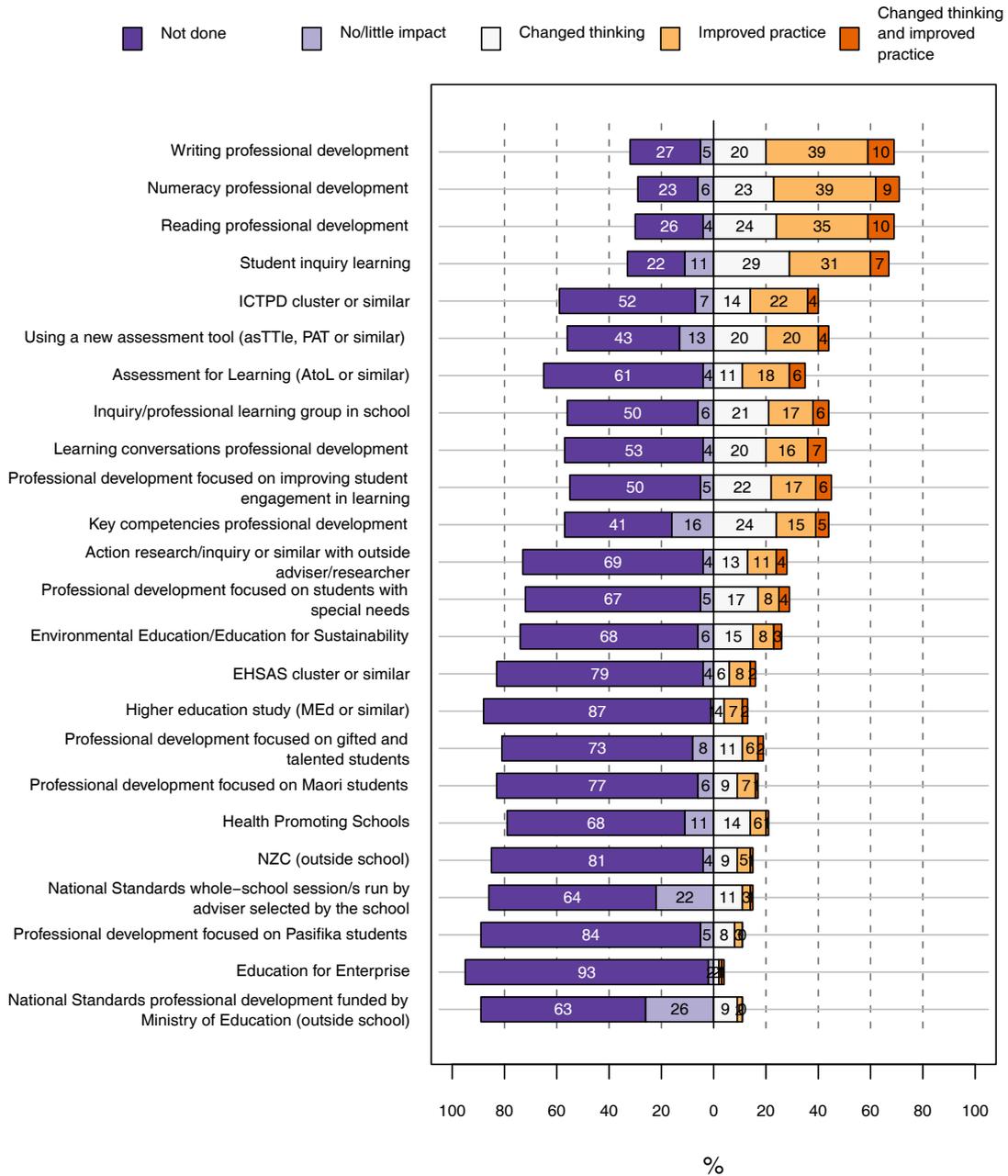
The content focus of professional learning

In terms of *content*, the three most commonly experienced professional learning contexts are all related to subjects under scrutiny in the National Standards initiative (77 percent took part in numeracy programmes; and 73 percent in writing and in reading). Very few of the participating teachers said learning in these three areas had not impacted on their practice. By contrast, professional learning about the National Standards themselves was reported by a larger number of teachers who took part to have “little or no impact” (previously reported in Wylie, 2010).

The content of some learning programmes put pedagogy itself in the spotlight. For example, 78 percent of the teachers had learnt about student inquiry learning. Inquiry learning has been widely adopted in primary schools as a means of balancing curriculum breadth with the imperative to focus on building basic skills in literacy and numeracy and also as a means of encouraging learning-to-learn competencies (Hipkins et al., 2011) and 93 percent of the teachers said they thought this would be an important aspect of NZC implementation (Section 3). However, compared with the literacy and numeracy learning, somewhat more teachers (16 percent of those who had undertaken such learning) felt that there had been no impact on their practice.

More than half the teachers had learnt about the key competencies. However, a quarter of those who had undertaken such learning said it had little or no impact on their practice. Half the teachers had taken part in professional learning with a focus on student engagement, which also implies changes in pedagogy, and nearly half in ICT cluster learning. Just over 10 percent of those who had undertaken such learning said there had been no impact on practice.

Figure 13 **Professional learning/development initiatives in which teachers took part between 2007–10 (n = 970)**



NZC places students at the centre of their learning and one of the eight principles conveys a clear message about high expectations for *all* students. Despite the widely acknowledged need to address lower achievement and likely underperformance by some Māori, Pasifika and students with special learning needs, professional development focused on such students was a much less common focus than actual curriculum areas such as literacy and numeracy, or the programmes with a pedagogical focus discussed in the previous paragraph (special needs students, 34 percent; gifted and talented students, 27 percent; Māori students, 23 percent; Pasifika students, 16 percent).

Care needs to be taken in view of the small numbers completing these programmes: nevertheless it is noteworthy that somewhat greater percentages of the groups who completed professional learning related to Māori, Pasifika and gifted and talented students reported no impact on practice (between 26 and 31 percent of those teachers who said they had undertaken this learning).

The contexts for professional learning

Recall that 79 percent of the teachers thought it would be important to organise staff into learning teams to explore aspects of NZC and 69 percent said they were already doing so or the school had plans for this to happen (Section 3). Half the teachers reported experiencing in-school approaches designed to build a culture of professional inquiry. Of all those who had participated in this learning, about 12 percent reported little or no impact on their practice. Thirty-one percent of teachers reported working with an outside researcher/adviser, with a similar proportion of those who had done so reporting the professional development to have had little or no impact.

Commentators who focus on the professional learning and change needed to lift professional practice at a systems level emphasise the important role played by networking and sharing ideas (see, for example, Fullan, 2010). In view of this, it is interesting that relatively few teachers took part in learning clusters with a focus on student achievement Extending High Standards [EHSAS] clusters. Learning about ICT in cluster settings was more common, although only half the teachers reported doing this. Just 34 percent of teachers said they had opportunities to observe the work of teachers in other schools where they were interested in this (see Figure 14 below).

Differences in patterns of responses

Teachers in lower decile schools were more likely to report attending professional development focused on Māori students. There were no clear trends, however, about the level of impact reported across deciles.

There was a trend for teachers with low morale to report little or no impact for a range of professional development activities.

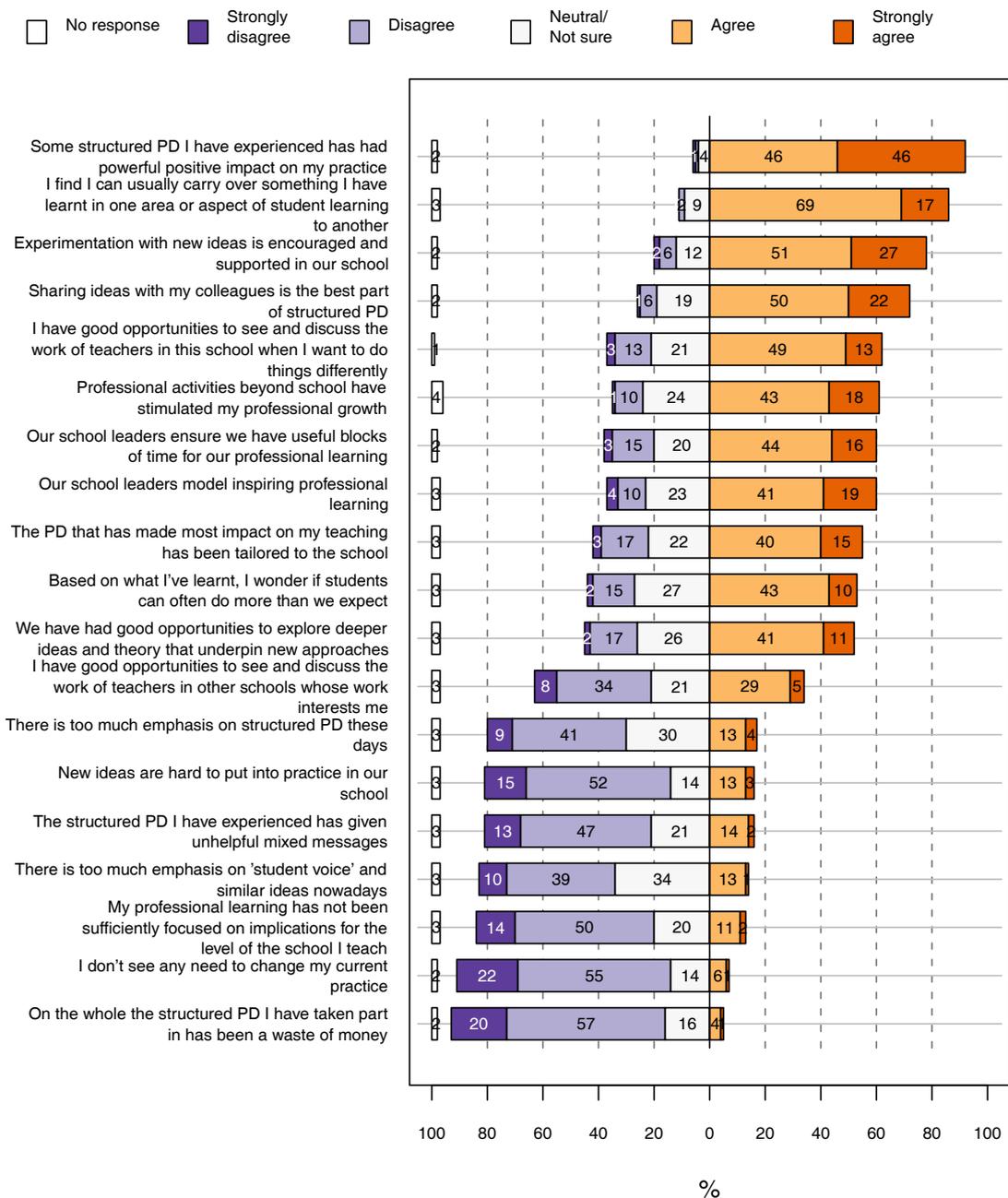
Perceptions of the value of professional learning

The variation in teachers' responses to the impact of their professional learning is not surprising. Different individuals experience the same or similar learning experiences in different ways, depending on the prior understandings, beliefs and experiences they bring to the situation. The survey also included one set of items designed to probe the attitudes and beliefs teachers bring to their professional learning. Figure 14 shows the items and results.

Most of these primary teachers do perceive that structured professional learning has an impact on practice (92 percent agreed or strongly agreed) and disagree that it is a waste of time (just

5 percent agreed with this statement). In this, and most other items, they were more positive than secondary teachers responding to a very similar set: 20 percent of the secondary teachers saw structured professional learning as a waste of time while 74 percent said it had impacted on practice (Hipkins, 2010). The differences might in part rest on the subject focus that many secondary teachers bring to their professional learning: 37 percent of the 2009 secondary teachers said that this learning had not been sufficiently focused on their subject. By contrast, just 13 percent of 2010 primary teachers said their learning had not been sufficiently focused on the level of the school where they teach.

Figure 14 **Teachers' perceptions of the practicalities and value of their professional learning (n = 970)**



Primary teachers were also more positive than their secondary colleagues that the school leaders modelled inspiring professional learning (60 percent cf 43 percent) and that professional activities beyond the school had stimulated their professional growth (61 percent cf 47 percent). Again, primary school leaders are more likely to be able to model teaching and learning perceived to be of direct relevance to all the teachers. Their secondary colleagues will themselves have a background in one or at most several of the curriculum learning areas and could not be expected to model subject-specific learning in all areas of the curriculum.

There was more accord between the two groups about the value to be had in *sharing ideas* with colleagues during structured professional learning. Three-quarters (77 percent) of primary teachers said this and it was the top-ranking item for secondary teachers in the 2009 survey (80 percent). However, opportunities to *see and discuss* the work of other teachers if they want to do things differently are not yet widely enjoyed in either sector (primary, 62 percent; secondary, 51 percent). Opportunities to watch teachers in other schools at work are even more limited (primary, 34 percent; secondary, 27 percent).

Interestingly, secondary teachers were more likely to agree that their professional learning had led them to wonder if students could do more than was expected of them (primary, 53 percent; secondary, 63 percent). However, and perhaps contrarily, secondary teachers were also more likely to agree that there is too much emphasis on student voice and similar ideas nowadays (primary, 14 percent; secondary, 26 percent).

What differences underpin response patterns?

Cross-tabulations revealed a large number of differences for this item set. There seemed to be something about these somewhat idiosyncratic *opinion* statements that surfaced a range of differences that were not as evident for matters of fact, or even priorities.

Teacher attributes

The largest number of differences for a single set of cross-tabulations relate to teachers' morale and to their role in the school. This makes sense since learning is such a personal and effortful activity and pushes teachers to take risks as they put new ideas into practice.

Teachers with higher morale were more likely to agree with almost every positively worded item. Teachers with lower morale were more likely to agree with almost every negatively worded item. Just three of the items did not fit this general pattern: there was no overall difference in associations for the statements that structured professional learning is a waste of time, or that sharing ideas with colleagues is the best part of structured professional learning. There was a trend for teachers with lower morale to be more likely to agree that they did not see any need to change their current practice.

Differences by role clearly related to differences in the work that school leaders and classroom teachers do. Senior school leaders, and in some cases middle leaders, were more likely than classroom teachers to say that the school's leaders: modelled inspiring professional learning; ensured there were useful blocks of time for professional learning; provided good opportunities to explore deeper ideas and theory; and allowed opportunities to see teachers in other schools and in their own school at work. These teachers with management roles were also more likely to say that professional learning tailored to the school had had most impact on their practice and that they wondered if students could sometimes do more than is expected of them. Senior leaders were also more likely to *strongly* agree that: structured professional development had had a powerful impact on their practice; that experimentation is encouraged and supported in the school; professional activities beyond the school had stimulated their professional growth; and that they could usually carry something they had learnt from one aspect of student learning to another. They were also more likely to disagree that structured professional learning had resulted in mixed messages, or that structured professional development is a waste of time.

School-related differences

Teachers in primary schools were more likely to agree that: experimentation with new ideas is encouraged and supported; they have good opportunities to explore deeper ideas and theory underpinning new approaches; they have good opportunities to see and discuss the work of teachers in other schools that interests them and in their own when they want to do things differently; the school leaders model inspiring professional learning; and their own professional activities beyond the school had stimulated their professional growth. Intermediate teachers, by contrast, were more likely to agree that there is too much emphasis on structured professional learning nowadays.

Teachers in rural schools were more likely to agree that their professional learning gave unhelpful mixed messages while those in urban schools were more likely to agree that the school's leaders modelled inspiring professional learning and that the professional learning with the most impact had been tailored to the school.

Differences by Māori or Pasifika enrolment

The higher the percentage of Māori students on the roll, the more likely teachers were to agree that new ideas were hard to put into practice in the school.

Teachers in schools with low numbers of Pasifika students were more likely to agree that their school leaders ensure they have useful blocks of learning time and to disagree that good ideas are hard to put into practice in their school. Teachers in decile 9 or decile 10 schools were also more likely to say they were given useful blocks of learning time (these schools tend to have lower numbers of Pasifika students enrolled).

Differences by age of students taught

Teachers of Years 7 or 8 students were more likely to agree that new ideas were hard to put into practice in the school and that there is too much emphasis on student voice and similar ideas nowadays. They were also more likely to disagree that: experimentation with new ideas is encouraged and supported in the school; they had good opportunities to explore ideas and theory underpinning new approaches; or to see and discuss interesting work being done by teachers in other schools.

Two professional learning factors

Teachers' responses to this large item set divided into two factors. Individuals who made a positive response to one positively worded item tended to view most such items positively. These items made a factor we called *engaged by professional learning* ($\alpha = .81$). The negatively worded items made another factor that we called *professional learning unhelpful* ($\alpha = .67$). Notice that there was a somewhat lower level of coherence in responses to these negative items (the Alpha value for the factor is lower). This is understandable because they covered a wider range of aspects of learning including: the potential for mixed messages; irrelevant or hard to enact ideas; not perceiving a need for change; and perhaps an element of coercion (too much emphasis on structured professional learning).

As we might expect, there was a moderately strong inverse (negative) association between these two factors ($r = -.42$). Teachers who were predominantly positive did not tend to agree with the negatively worded statements and vice versa. As Table 14 shows, the pattern of associations between the *engaged by learning* factor and other factors that relate to the school's professional learning culture bears a close resemblance to the associations already reported for the *principal leadership* factor. A climate of well-supported professional inquiry is moderately strongly associated with being engaged by professional learning in an individual capacity.

Table 14 **Correlations* between the two professional learning factors and other "school learning climate" factors**

Factor	Principal leadership	Achievement-focused sharing	School processes
Engaged by professional learning	.54	.58	.66
Professional learning unhelpful	-.30	-.31	-.33

* Measure used = Pearson's Correlation Coefficient (r)

By contrast with the *engaged by professional learning* associations, the associations with the *professional learning unhelpful* factor are not quite as strong and show an inverse relationship because one set of scales was positively worded and the other set negatively worded. Influences other than the learning culture of the school appear to have played a great part here. Table 15

shows a similar pattern with regard to associations between this professional learning factor and some of the NZC-related factors discussed earlier in the report.

Table 15 **Correlations* between the two professional learning factors and other NZC-related factors**

Factor	NZC-related changes	Key competencies	Student role in assessment
Engaged by professional learning	.23	.10	.20
Professional learning unhelpful	-.31	-.24	-.24

* Measure used = Pearson's Correlation Coefficient (*r*)

For those teachers who were engaged by their professional learning, factors related to the school learning culture showed stronger associations than did the pedagogical factors more focused on individual practice. These responses doubtless reflect the views of teachers who are engaged and learning together. However, changes in addition to those at the heart of school-wide learning might not necessarily be taking place in the more personal aspects of classroom practice.

Where teachers were not engaged by their professional learning the relative size of the associations was much the same for both types of factors (i.e., collaborative learning culture and in-class personal views and practices).

It would seem that creating a strong learning culture cannot be expected to be the “silver bullet” that solves all the challenges of getting teachers engaged in ongoing professional learning and change, but nor is their disenchantment with professional learning necessarily related to a particular stance on pedagogical practice. This relationship bears further investigation, especially given indications that it is associated with morale.

Concluding comment

The introduction to this section made reference to the important role of content if teachers' professional learning is to impact positively on student outcomes (Timperley et al., 2007). With this in mind, it is interesting that literacy and numeracy aspects of the curriculum, and associated assessment practices and tools, were such a predominant focus for the professional learning reported in 2010. The only other common content area was student inquiry learning, which schools are using to achieve a balance between the need for depth in the core curriculum and breadth across the learning areas (Hipkins et al., 2011). These types of content are likely to contribute to improved practice where teaching and learning are adapted to take account of NZC but there is not necessarily any imperative here to transform the nature of students' learning opportunities and experiences, by focusing on the how and why as well as on the what of the curriculum.

Professional learning programmes that might be predicted to entail critical and unsettling encounters with potentially transformative ideas were not nearly as common. For example, fewer

teachers engaged in professional learning where the needs of specific groups of students provided the content, and where the learning outcomes might be focused on changing long-established practice in ways that might better enhance the learning opportunities of each and every child as an individual. Earlier sections have already questioned the seeming absence of a focus on the Treaty of Waitangi principle in some schools: Is this at least partly because current professional learning imperatives are directing attention elsewhere?

Similarly, fewer teachers took part in programmes that might be seen as creating stronger school/community links, with associated opportunities to strengthen key competencies in different contexts. Such programmes (e.g., Environmental Education, Education for Enterprise) do have the *potential* to transform pedagogy (see, for example, Bolstad, Roberts, & McDowall, 2010; Sterling, 2001). They have strong links to the *future focus* principle of NZC in addition to their potential to develop key competencies and values. Similar comments could be made about health promotion as a professional learning focus (Boyd, 2009). All these programmes have an emphasis on creating a transformed school-wide climate for fostering students' action competencies: they entail co-ordinated changes in pedagogy at *both* school-wide/collegial and in-class/individual teacher levels. It is impossible to know if we might have seen stronger links developed between these types of programmes and school-based curriculum development that proactively addresses front-end messages of NZC—if such professional learning had been more widely available and accessed—but this certainly seems possible.

Self-reports that change has occurred do not provide insights into the actual character of such change. It could be a minor tweak (and in some cases that could be sufficient to have a large and relatively immediate impact) or it could be major and take considerable time, or even several iterations, to bed in. This is a limitation of the data presented in this section: case studies are more likely to identify such differences. However, the recent policy work on creating frameworks of indicators for effective professional learning could provide us with interesting new survey questions in 2013.

One thing is clear: almost all the responding teachers did take their professional learning obligations seriously and they did say they had drawn on their learning experiences to make changes in their practice. What we are seeing here does not suggest an unhelpful assimilation of NZC into traditional practice. Teachers *are* engaged with the need for ongoing change. However—to the extent that we can tell from these data—current professional learning priorities would seem to predict that change is more likely to have been adaptive than to have transformed teaching and learning opportunities and experiences.

9. Barriers to change

Introduction

Previous national surveys have directly asked both principals and teachers to identify barriers to curriculum change from a provided list. There has been an element of “well they would say that” evident in the response patterns. The twin constraints of time and money are typically top of the barriers list. Nevertheless there have been some interesting changes in perceptions over time (see, for example, Hipkins, 2010). On balance, however, pressure of space meant that we did not include this item set in the 2010 survey round and the evidence presented next is more indirect.

This section draws together suggestions of barriers to curriculum change already discussed in the preceding sections and presents some new data about the challenges that principals and teachers perceive for their work. There is no doubt that the wider school climate, including perceptions of issues and challenges, helps shape the curriculum and can detract from its potential to transform teaching and learning. This is the context in which this section looks at some of the wider concerns of schools and relates those concerns to implementation of NZC.

National Standards as barriers to NZC change?

At the system level, attention to policy alignment is key to considering how conditions enable and promote implementation. As practitioners in school grapple with multiple policies and programme initiatives, the coherence between these is critical. There is a need to examine the extent to which requirements beyond the curriculum ... align with the direction set out in the New Zealand Curriculum. (Sinnema, 2011, p. 8)

Notwithstanding positive efforts to align NZC and National Standards (Section 5), implementation of the latter was ranked in second to top spot as a major issue facing the school, by principals, teachers and trustees alike (see Table 17 below). Section 5 has already noted the potential for National Standards to draw attention away from NZC unless principals are able to creatively link their differing imperatives. One item set in the principals’ survey asked explicitly this. The results are shown in Table 16 on the following page.

Just under half the principals were giving priority to creating alignments between the two sets of policies. Clearly there have been some impacts on professional learning and support (notably the change of focus in the advisory support schools can access) but only a third of the principals agreed that National Standards had forced them to cut back their work on NZC implementation and just 11 percent said they had put NZC implementation work on hold altogether.

A smaller group had managed to see a silver lining in the new policy: 11 percent of the principals noted that National Standards implementation had helped them integrate different learning areas. This could reflect the emphasis that MOE-provided support materials have placed in developing literacy and numeracy in a wide range of curriculum contexts, not just as stand-alone skills development. A wider range of these support materials has appeared since the 2010 survey so this will be an interesting development to revisit in 2013 when the primary school surveys are next conducted.

Table 16 **Principal views on the impact of National Standards on NZC implementation**

School experience	Principals agree (<i>n</i> = 210) %
We are giving priority to aligning the National Standards with our existing NZC developmental work	41
It is difficult to access advisory support for the development of other aspects of NZC	34
We have cut back some of our other NZC work	34
No effect because we are giving priority to NZC developmental work, not the National Standards	25
Working on the National Standards has helped our NZC developmental work in reading, writing and mathematics	23
Too soon to tell/not sure	15
We have put our NZC developmental work on hold this year [2010]	14
Working on the National Standards has helped integration across curriculum areas	11

Principals in schools with higher numbers of Pasifika students were more likely to say National Standards had not had any impact on their curriculum work as they were giving priority to NZC. Principals with high morale, and principals of rural schools, were more likely to say they were giving priority to aligning National Standards with existing NZC developmental work. There was a trend for principals with low morale to be more likely to say they had needed to cut back on NZC work to address National Standards. Principals of rural/small schools were more likely to say that working on National Standards had helped integration across curriculum areas.

We checked for any pattern of differences in responses to these items depending on where principals were positioned for the *NZC interpretation* factor (Section 3) but found none. It does not appear that how principals perceive the implementation demands of NZC itself was a main influence in determining how they answered this set of items.

Marshalling resources for change

Previous surveys have asked principals about barriers to whole-school change, with curriculum change included as one of the options to be considered. Funding tops the list: 39 percent saw this as a barrier in 2007 and 37 percent said it was a barrier in 2003 (Schagen & Hipkins, 2008, p. 88). Funding did not loom as large for teachers however. When considering barriers to making changes in the curriculum they taught, the most commonly nominated resource was time (60 percent said this in 2007; 51 percent in 2003). A large-scale evaluation of progress with implementing NZC has also identified time as the top-rating barrier to change (Sinnema, 2011).

When asked in 2010 about “major issues facing the school”, funding topped the list for all four groups of respondents, although the numbers who said this dropped somewhat from 2007. There was no significant variation across deciles in this concern. Table 17 shows these responses in relation to all the other issues that were identified. Note that the various concerns have been ranked on the principals’ responses.

Table 17 **Major issues facing the school in 2010 (2007 % in brackets)**

Nature of issue	Principals (n = 210)	Teachers (n = 970)	Trustees (n = 257)	Parents (n = 550)
Funding	70 (82)	58 (60)	65 (71)	46 (53)
National Standards	65 (NA)	52 (NA)	52 (NA)	18 (NA)
ICT	49 (38)	32 (31)	NA	7 (7)
Assessment workload	39 (36)	48 (43)	18 (24)	12 (NA)
New curriculum	38 (42)	13 (25)	16 (16)	7 (9)
Keeping good teachers	38 (12)	13 (14)	24 (13)	31 (32)
Staffing levels	36 (30)	13 (18)	12 (16)	8 (18)
Good quality PD for staff	36 (NA)	20 (NA)	10 (NA)	11 (NA)
Student achievement	35 (40)	24 (28)	25 (33)	24 (16)
Assessment driving the curriculum	34 (32)	27 (21)	6 (12)	5 (7)
Attracting good teachers	24 (24)	13 (12)	10 (12)	16 (14)
Parent and community support	16 (12)	17 (18)	24 (25)	15 (25)
Quality of teaching	15 (24)	10 (12)	7 (12)	13 (NA)
BOT quality	14 (13)	5 (5)	NA (6)	3 (7)
Student behaviour	13 (18)	20 (29)	8 (14)	18 (21)

Funding must cover a range of activities, of which curriculum implementation is only one. However, there have already been indications in the survey of ways funding might impact on schools’ ability to make the sorts of changes considered by NZC. Note that ICT is the third-ranking issue for principals and also looms comparatively large for teachers. This is a resource

intensive area of curriculum innovation and Section 6 has already documented a range of decile-related issues for ICT pedagogy.

Access to professional learning, both to extend ICT skills, and for supporting other types of pedagogical innovation, is also dependent on access to funds unless it is fully resourced and developed within the school. Even where learning is resourced in-house, funding needs to be found to free up the time of leaders of change.

Getting and keeping good teachers

The perceived flexibility to best meet the needs of a school's own student community does come at a price. Given the drive for a shared understanding of the school's vision and ways of enacting it, staff turnover emerged as an issue for some schools. For example, one of the low-decile primary schools (new to the study in the second year) needed to work hard to build a stable staff community before they could even begin to think about curriculum implementation. With a new leader, and after a number of years of turmoil and instability, this conducive climate for change took several years of hard work to achieve. (Cowie et al., 2009, p. 15)

As the above quote from recent exploratory studies illustrates, a school's ability to attract and retain good staff impacts on how well they are able to implement a programme of professional learning related to NZC and sustain the culture of shared insights and agreed ways of working that the professional learning aims to foster. Staff morale, staff quality and staff turnover can impact greatly on this. Note that after the basic resourcing issues (time and money) several items related to getting, retaining and the ongoing professional development of good teachers were seen as issues by at least a third of the principals. The level of concern was not as high for the other three groups: doubtless this reflects the responsibility principals feel for this key aspect of school leadership.

Teachers, principals and BOT members in low-decile schools were more likely than those in higher decile schools to report that attracting good teachers was an issue. Teachers in low-decile schools were also more likely to see keeping good teachers as an issue. Principals in lower decile schools were twice as likely as teachers and BOT members to report concerns about the quality of teaching. Similar patterns were associated with having higher numbers of Māori or Pasifika students on the school's roll (these variables are confounded with decile).

Things teachers and principals would like to change about their work

This report has documented a range of associations between morale levels and aspects of NZC implementation. In the light of these patterns, another indirect way of considering barriers to curriculum change is to look at those aspects of their work with which school professionals are dissatisfied. Table 18 reports the higher ranking aspects identified by teachers and Table 19 the

higher ranking aspects identified by principals. (Frequencies over 40 percent are included: there was quite a gap between these items and those rated as an issue by around a third of each group or fewer. Note that the two groups responded to somewhat different item lists, given their differing roles but some items are common to both groups.)

The issue of time is central to the majority of the teacher concerns listed in Table 18: time to focus, plan, reflect, share ideas, develop and try out resources, and time to work more closely with students as individuals (which would arguably also be gained by reducing class size).

Table 18 **Things teachers would like to change about their work**

Aspect of practice	Teacher (<i>n</i> = 970) %
Reduce administration/paperwork	70
More time to work with individual students	63
More support staff	57
Reduce class sizes	57
More funding/resources for classrooms	52
More time to reflect, plan, share ideas	47
Reduce number of initiatives at any one time	45
More noncontact time for preparation	45
More noncontact time to work with other teachers	45

The responses of deputy and associate principals trended differently from classroom teachers and middle management in relation to what they would change. The senior leaders were a little more sanguine about: reducing administration and paperwork; reducing class sizes; accessing more resources for students to use; and having more noncontact time for preparation. This difference could reflect the greater amount of noncontact time they can already access, although other responsibilities doubtless take up most of that. It could also be that opportunities to step back and see the bigger picture help them to prioritise.

As Table 19 shows, time is also an issue for principals, and it is this sense of being able to step back, take stock and focus on learning that really matters that tops their list of desired changes.

Table 19 **Things principals would like to change about their work**

Aspect of practice	Principal (<i>n</i> = 210) %
More time to reflect/read/be innovative	73
More time to focus on educational leadership	66
Reduce administration/paperwork	64
More balanced life	54
Reduce property development and management demands	47
Greater administrative staff support	45
Reduce workload	44
Reduce external agencies' demands and expectations	43

Principals of low-decile schools were more likely to say they needed more time to focus on educational leadership. Principals with low morale were more likely to say they wanted to reduce their workload in general and administration/paperwork in particular. They were also more likely to want time to reflect, read and be innovative.

Is poor student behaviour a barrier to change?

In the 2007 survey, just 12 percent of primary and intermediate teachers said poor student behaviour was a barrier to curriculum change. The figure has been consistently higher in secondary schools: around a quarter of the teachers said poor student behaviour was a barrier in each of the last three surveys (2003, 2006, 2009). In the 2009 secondary survey, we also commented on the association between selecting this particular barrier and being rated at the low (more negative) end of every one of the NZC-related factors discussed, including one factor that was not significantly associated with any other barrier at all:

It is interesting that this [poor student behaviour] was the only instance of the *NZC changes* factor being associated with a specific barrier. Since this factor concerns changes teachers *thought* NZC might entail (as opposed to changes they valued or had actually tried to make) it might be that poor student behaviour impedes some teachers from even contemplating changes. Conversely, it might be that students behave badly in response to experiencing a limited range of teaching practices. (Hipkins, 2010, p. 96)

Was there any indirect evidence that poor student behaviour might have impeded some of the NZC changes discussed in the earlier sections of this report? Although not chosen as frequently as the changes listed in Table 18, 35 percent of the teachers did say they would like more support for students with behavioural problems and 22 percent said improved students behaviour was a change they would like to see happen. Teachers in low-decile schools, and in schools with higher numbers of Pasifika or Māori students, were much more likely to nominate both these changes

than teachers in high-decile schools. Recall also that the higher the percentage of Māori students on the roll, the more likely teachers were to agree that new ideas were hard to put into practice in the school (Section 8). It does seem that teachers in the low-decile, more diverse schools face more challenges for making pedagogical changes than do their peers in high-decile schools.

Concluding comment

This section has investigated indirect evidence of barriers to curriculum change. As in past surveys, the twin issues of time and funding predominate, with recruiting and retaining quality teachers also seen as an issue; more so in low-decile schools.

While the introduction of National Standards has diverted some energy and momentum away from NZC, just over 40 percent of the principals were looking to create alignments so that their NZC work could continue.

Earlier sections of the report have documented value/practice gaps that imply ongoing pedagogical challenges to be addressed. Issues related to the interpretation and enactment of some NZC principles have also been raised. These issues and challenges point to the need for NZC implementation to be ongoing: the task is not a finite one that can be achieved with one concerted push. Furthermore, developing more transformative changes in curriculum, as signalled by NZC features such as the key competencies, values and principles, requires ongoing iterative change over time (for an explicit discussion of this challenge, see Cowie, Hipkins, Keown, & Boyd, 2011). Ongoing resourcing and support is at issue here, so that existing barriers might be diminished rather than seeming to loom larger as time goes on.

10. A curriculum for all students?

Introduction

In this section we return to a recurring challenge in the data presented: there are a number of indications of differences in ways schools' equity obligations are being understood and enacted. NZC gives a clear message that the implemented curriculum must meet the needs of *all* students:

The New Zealand Curriculum applies to all English-medium schools ... and to all students in these schools, irrespective of their gender, sexuality, ethnicity, belief, ability or disability, social or cultural background, or geographical location. (Ministry of Education, 2007, p. 6)

The *Treaty of Waitangi*, *cultural diversity* and *inclusion* principles of NZC all address aspects of equity. These principles are expected to underpin all school decision making:

The curriculum acknowledges the principles of the Treaty of Waitangi and the bicultural foundations of Aotearoa New Zealand. All students have the opportunity to acquire knowledge of te reo Māori me ōna tikanga.

The curriculum reflects New Zealand's cultural diversity and values the histories and traditions of all its peoples.

The curriculum is non-sexist, non-racist, and non-discriminatory; it ensures that students' identities, languages, abilities, and talents are recognised and affirmed and that their learning needs are addressed. (Ministry of Education, 2007, p. 9)

Students are encouraged to value “**diversity** as found in our different languages, cultures and heritages” and “**equity** through fairness and social justice” (Ministry of Education, 2007, p. 10, emphasis added). Addressing the various challenges implied by these principles and values is an important aspect of implementation.

This focus on diversity in NZC, the introduction of National Standards and recently revised approaches to the provision of professional development and learning for teachers all convey an intent to transform teaching and learning for groups traditionally underserved by the education system. Ongoing policy work since NZC was developed has focused on ways to address underachievement, which is more common for Māori and Pasifika students than for others. Current MOE strategies are clear in their intent to accelerate learning for Māori and Pasifika students and students with special needs. For example, *Ka Hikitia* articulates achievement-related goals for Māori learners:

Ka Hikitia means to ‘step up’, to ‘lift up’, to ‘lengthen one’s stride’. In the context of Ka Hikitia – Managing for Success it means stepping up the performance of the education system to ensure Māori are enjoying education success as Māori (Ministry of Education, 2009 p 11)

Similarly, the *Pasifika Education Plan* articulates achievement goals for Pasifika learners:

While New Zealand’s education system measures up well internationally, Pasifika students need to be achieving better outcomes. Lifting Pasifika educational achievement is a priority. This is vital to enhancing the overall reputation of our education system as well as improving our country’s productivity and economy (Ministry of Education, 2008, Foreword).

The more recent Success for All policy extends this focus to all students with its vision to “create a fully inclusive education system of confident schools, confident children and confident parents” (Ministry of Education, 2010b).

The 2010 NZCER National Survey of Primary and Intermediate Schools asked a range of questions pertinent to supporting educational outcomes for diverse learners as just outlined. This section brings together data from those questions, and revisits some of the findings already reported in earlier sections, to provide a commentary on the status of NZC implementation in relation to the Ministry’s strategies for Māori learners, Pasifika learners and learners with special education needs. Were there signs in 2010 of the potential of NZC to *transform* teaching and learning in ways that specifically address the learning needs of Māori students, Pasifika students and students with special education needs?

Do some students fall between the cracks?

The bottom-line message in NZC is that each and every student’s learning needs should be addressed, regardless of their starting points and the experiences and attributes they bring to their learning. If this aspect of NZC is being equitably addressed, we would expect to see a strong level of confidence that students cannot “fall through the cracks” (by this phrase we mean that their learning needs are underserved because their progress is not adequately monitored and/or supported). Teachers were asked about this. However, just half of them (exactly 50 percent) agreed or strongly agreed that *no student falls between the cracks*, 27 percent were unsure and 21 percent disagreed. There were interesting differences between teachers who agreed and those who disagreed or were unsure:

- Teachers with low morale were much more likely to disagree (i.e., they thought some students could fall through the cracks).
- Those in schools with a Pasifika student roll higher than 11 percent were more likely to be unsure or disagree with this statement.
- In schools with high Māori enrolment (over 30 percent of roll), teachers were more likely to disagree.
- Teachers of Years 7 and 8 students were much more likely than Years 0–1 teachers to disagree that no student fell between the cracks.
- Teachers in large schools were about three times as likely to disagree as teachers in the smallest schools.

- Teachers in deciles 1 and 2 schools were twice as likely to disagree as teachers in deciles 9 and 10 schools.

As the above summary of recent policy work highlights, the learning needs of many Māori and Pasifika students are a specific concern for schools to proactively address. Yet the schools with higher numbers of those students are those where we see relatively more teachers saying that some students do fall through the cracks, or not being sure if this happens. It might be that teachers in these schools are more sensitised to this issue and therefore more aware of shortcomings in their school's practice. (The flip side of this could be a level of complacency in schools where achievement is not perceived to be a problem.) Or it could be that schools with higher numbers of Māori and Pasifika students really are struggling to enact this aspect of NZC in meaningful ways. As outlined next, other evidence points to this being the case, at least in low-decile schools.

More than a third of the principals (37 percent) and 19 percent of teachers thought that Māori student achievement was a major issue facing their school over the next 3 years. This percentage rose to 40 percent of principals and 43 percent of teachers in low-decile schools. The proportion of principals reporting this as a concern was higher in schools with a higher percentage of Māori students on the school roll (a variable which is conflated with decile).

Compared to concerns about Māori students, a smaller number of principals (9 percent) and teachers (11 percent) thought that Pasifika student achievement was a major issue facing their school over the next 3 years. However, this concern was again more marked in low-decile schools: 30 percent of teachers and 36 percent of principals in low-decile schools indicated that Pasifika student achievement was a major issue facing their school. A greater level of concern was evident from teachers in intermediate schools when compared to primary schools.

Two-thirds (67 percent) of principals felt that Māori achievement staying the same or improving over the last 3 years was a major achievement for their school. Similarly, 34 percent of principals felt having Pasifika achievement stay the same or improve was a major achievement at their school. We cannot report trend data here because earlier surveys did not differentiate between the achievement of different student groups in the lists of potential issues to which principals and teachers responded.

Creating an inclusive school

One clear message in the NZC principles and values outlined above is that the school community must be proactive in addressing the diverse cultural backgrounds of the students who attend. There were some encouraging signs of success in reaching out to make contact with different cultural groups within the schools' communities but also clear indications of areas of need, particularly from the perspective of some parents:

- Seventy-one percent of teachers agreed or strongly agreed that the principal had the respect of the school's different ethnic groups. However, 25 percent were unsure and 2 percent disagreed. (This was the third lowest ranked attribute of principals.) Teachers with low morale were more likely to disagree and there was a trend for teachers in schools with a Pasifika student roll of more than 11 percent to also disagree. There were no significant decile differences for this statement.
- Seventy percent of parents agreed or strongly agreed that the school recognised and respected the cultural identity of their child. However, 26 percent of parents were not sure and 2 percent disagreed. (Note that we do not know how well the achieved parent sample represented the actual cultural composition of each school's roll so it is not possible to allow for bias in the sample.)
- Thirteen percent of parents wanted *more focus on children's cultures and experiences* in learning programmes. Pasifika and Māori parents were much more likely than Pākehā parents to want this. More than a quarter of parents in schools with a Māori student roll between 16–30 percent wanted more focus on this area. Interestingly there were no significant decile differences here.
- Twenty-two percent of parents selected *how students' cultural identity is supported* as an area where they wanted to have more say but felt they could not. Pasifika parents were nearly twice as likely as all other parents to say this. Asian parents were almost three times more likely than other groups to be unsure.
- Just 4 percent of trustees thought *responding to cultural diversity* was an issue for their school. Trustees were much more likely to report this as a major issue in schools where the Pasifika student enrolment was 11 percent or above. There were, however, no significant differences according to Māori enrolment and this was not identified as a major issue by any trustees in high-decile schools.

Opportunities to gain knowledge of te reo and tikanga

Creating a school climate that embraces the cultural diversity of its students is necessary but not sufficient to address the NZC principles outlined above. The principles also apply to the actual learning content of the curriculum. For example, the Treaty of Waitangi principle is specific in stating that “all students should have the opportunity to acquire knowledge of te reo Māori me ōna tikanga” (Ministry of Education, 2007, p. 9).

The teacher and principal responses documented in Section 3 suggest that this type of opportunity was not formally available to many students in 2010. Such learning was rated less important than a whole range of other aspects of NZC implementation and conducting a review of opportunities to learn te reo and tikanga was seen as *not* important to NZC implementation by 15 percent of the teachers and 16 percent of the principals. Eighteen percent of teachers and 12 percent of principals reported that their school did not have plans to review te reo and tikanga as part of their work on NZC.

There was also a marked gap between the numbers of teachers who thought such opportunities were important and the reported frequencies for actual teaching and learning: 19 percent of the teachers felt that learning te reo and tikanga was not important and almost half (48 percent) reported this opportunity was available to their own students only sometimes or almost never (Section 3).

Again, the differences in response patterns point to ongoing implementation challenges:

- The lower the number of Māori students on the roll, the less likely teachers were to rate learning of te reo and tikanga as important. Compared with teachers in schools with the highest numbers of Māori students (i.e., more than 30 percent), those in schools with between 16–29 percent Māori students were twice as likely, and those in schools with a Māori roll of less than 8 percent were three times as likely, to rate this as not really important.
- The same pattern held for principals: the lower the number of Māori students on the roll, the less likely they were to rate learning of te reo and tikanga as important.
- Compared to teachers in deciles 1 and 2 schools, those in deciles 9 and 10 schools were four times more likely to rate learning te reo and tikanga as not really important.
- Teachers in Years 3–6 were almost twice as likely to rate learning te reo and tikanga as not important as teachers at Years 0–1, or in Years 7–8.
- Teachers with low morale were more likely to say it would not be important to review opportunities for students to learn te reo and tikanga.

The differences in responses suggest that learning te reo and tikanga is not seen as relevant by some principals and teachers in schools where there are fewer Māori students. Any such perception of irrelevance would be concerning for several reasons. First, there are some Māori students in almost *every* school (and in any case we see the pattern in schools where their numbers are quite high). Second, such responses appear to miss the imperative to build the bicultural knowledge of *all* students: this is not just a matter of Māori access but of fostering a learning climate where Māori students can prosper and enjoy success *as Māori* (Ministry of Education, 2009). Just one bottom line here would be that Māori culture is familiar and respected by students' peers and teachers alike, and is a living, vibrant part of every school's culture.

Seeking curriculum input from the Māori community

There is a tendency to emphasize the educators' role in *informing*, more so than *consulting* parents/communities, and even less emphasis on *collaborating* in teaching and learning matters. (Sinnema, 2011, p. 4, emphasis in original)

Ten percent of all the parents said they had attended an information session about NZC, so even at the level of *informing* parents, direct contact was not common. Only 2 percent had taken part in consultations about the school's direction with NZC implementation. However, 14 percent had taken part in a session focused on how to better support their child's learning. This is the overall context within which specific engagement with the Māori community must be placed.

Teachers and principals were asked about the importance of, and actions relating to, seeking more Māori community input into the school curriculum. If the provision of learning opportunities in te reo and tikanga is not seen as important, then we might predict that seeking input from the Māori community could similarly be seen as irrelevant, especially given that consultation and collaboration (as opposed to informing parents) have proved to be challenging aspects of NZC implementation in general (Hipkins et al., 2011; Sinnema, 2011).

Frequencies for views about the importance of consulting with Māori parents/communities were very similar to those held in relation to learning te reo and tikanga:

- Twenty percent of teachers felt that seeking Māori input was not important. Teachers in deciles 5–10 schools were much more likely to think this.
- Nineteen percent of teachers reported no school plans to seek more Māori input into the school curriculum. Those is schools with the lowest numbers of Māori students, and in deciles 5–10 schools were significantly more likely to have no plans to do this.
- Thirteen percent of principals felt it was not important to seek Māori community input into the curriculum. There were no statistical differences across school decile/composition or school roll in relation to these views here.
- Fewer principals (8 percent) reported no plans to seek more Māori community input into the school curriculum.

Other relevant parent and trustee views

Parents responded to a range of options about school activities they could have been involved in: 14 percent reported attending a school karakia or pōwhiri and Māori and Pasifika parents were almost three times as likely as other parents to have done this. Parental attendance at karakia and pōwhiri was also four times more likely in deciles 1–6 schools as in deciles 7–10 schools.

Fourteen percent of trustees reported consulting the community on the provision of te reo and tikanga. There were no roll/decile differences regarding consultation in this area. Only 5 percent of trustees reported consulting local iwi about educational priorities. Given the small numbers involved we do not report any statistical differences according to school characteristics here.

Including students with special education needs

Access to appropriate support is important for building inclusive approaches in schools. Principals were asked about timely and appropriate advice from a range of agencies including MOE Group Special Education (GSE) and the RTL¹ support teachers. Around 30 percent disagreed or strongly disagreed that they got timely support from GSE, and a further 14 percent were neutral or unsure about this. Principals at schools with higher Māori student rolls were more likely to

¹ Resource Teachers of Learning and Behaviour.

disagree that advice was timely/appropriate. There were no other differences according to school characteristics. Overall, principals were more positive about access to the RTLB service: just 15 percent disagreed or strongly disagreed that they got timely and appropriate support, and 8 percent of principals were neutral. There were no differences according to school characteristics to this response. Since the 2010 national survey, there have been changes to special education strategies (Success for All 2010), and changes to the RTLB management of clusters (implemented in 2012). Subsequent national surveys will be one mechanism for assessing teacher and principal views of support in these two areas.

When teachers were asked what they would like to change about their work, 38 percent said they wanted better provision for students with special needs. Primary teachers were more likely than intermediate teachers to want this change but there were no other differences according to school roll, decile size or location of the school, or the morale of the teacher.

Interestingly, the teachers were much less likely to see including students with special needs as a major issue facing the school: just 9 percent nominated this issue. Subject specialist teachers, teachers in deciles 7 and 8 schools and in schools where the Pasifika roll was greater than 11 percent were more likely to report this as an issue for their school. On the whole, it would seem that the challenges of working with special needs students are more likely to be directly related to teachers' own work at the classroom level than to whole-school challenges of inclusion more generally.

Mirroring the teacher survey, 13 percent of principals saw including students with special education needs as an issue facing their school. However, 65 percent of principals reported that a major achievement in the last 3 years was retaining or building a school culture that is inclusive of special needs. This is clearly an area of "work in progress".

Addressing challenges for professional learning

Section 8 reported that professional development took place less frequently in the area of Māori or Pasifika student achievement than in core areas such as literacy and numeracy. Furthermore, changes in practice were relatively less likely to happen after professional development in these areas. The higher the Māori student roll in a school, the more likely teachers were to report that new ideas were hard to put into practice. The picture was only somewhat better with respect to enhancing the teaching of students with special education needs. Forty-one percent of teachers received professional development in this area and they generally felt this learning to be effective.

NZC and high-level strategies have been in place to improve outcomes for all learners. The data were collected in 2010; in 2011 a new professional development and learning provision model for teachers/schools began, and in 2012 this model was extended. The professional development model is intended to reflect the high-level strategies outlined in *Ka Hikitia*, the *Pasifika Education Plan*, and in *Success for All*. It will be interesting to track the professional development

opportunities and the impact of those opportunities on teachers' work with students from the target groups.

Concluding comment

This section collated data from across the previous sections to investigate evidence related to the enactment of the NZC principles concerning *cultural diversity*, *Treaty of Waitangi* and *inclusion*. Collating this evidence across the various aspects of implementation points to systemic challenges in how these three principles were understood and being enacted in 2010. For higher decile schools there are indications that these principles were yet to be fully embraced, let alone put into living, breathing school-wide practice. For the lowest decile schools there were indications of struggle and challenge in meeting obligations of which schools were well aware. This is an aspect of implementation where we might hope to see progress in the next survey of primary and intermediate schools in 2013, given that it has been an explicit policy focus for MOE since the 2010 survey.

11. NZC in primary and intermediate schools: Assimilation, adaptation or transformation?

The survey responses discussed in this report were gathered in mid-2010. The timing was serendipitous because this was the year when NZC implementation was expected to have been completed. However, other recent evaluative (Education Review Office, 2011; Sinnema, 2011) and exploratory (Hipkins et al., 2011) research suggests that implementation is still a work in progress, and that expecting it to be fully completed by 2010 was not realistic given the complexity and the scope of the changes and challenges entailed in refocusing teaching and learning to meet the demands of the 21st century.

The national survey data collected in 2010 suggest that principals and teachers across all schools, and teachers of all learners, have broadly embraced the *intent* of NZC. Generally there are few differences in levels of confidence and engagement with NZC according to school characteristics. Across the sector NZC is—in the words of another research team—“cherished but [is] challenging” (Sinnema, 2011, p. 2). The responses of both principals and teachers discussed in the previous sections do not suggest that NZC has been simply assimilated into previous curriculum directions. But neither do the data suggest that widespread transformative change in the learning opportunities that all students experience has taken place, at least as yet. The overall picture is one of active exploration and adaptation: in 2010, NZC implementation was still very much a “work in progress”.

Encouragingly, we did find some evidence of major shifts in pedagogy between 2007 and 2010: most notably in the area of assessment beliefs and practices. The intensive focus on professional learning and the resourcing of change in this area has no doubt played an important part in this shift: from high-level strategies and national professional development programmes to building an in-school culture of achievement-focused analysis, this has been an area of effortful learning and change. However, the introduction of National Standards as the most recent assessment policy initiative has generated some mixed signals and appears to have diverted attention and energy away from implementation in many schools. If we are to leverage the potential for more transformative shifts in assessment practice, then as a matter of some urgency school leaders need to be convinced that these policies can be productively aligned.

Other aspects of NZC still await the same level of system-wide resourcing, or have yet to see such efforts translate into change at the school or classroom level. For example, one of the key purposes of NZC is that it is a curriculum for all students and here we repeat the quote used at the beginning of this section of the report:

The New Zealand Curriculum applies to all English-medium schools ... and to all students in these schools, irrespective of their gender, sexuality, ethnicity, belief, ability or disability, social or cultural background, or geographical location. (Ministry of Education, 2007, p. 6)

Section 10 collated evidence from across all the previous sections to demonstrate that the transformative potential of NZC is less well embedded when it comes to the *Treaty of Waitangi*, *cultural diversity* and *inclusion* principles of NZC. When we look at teachers' beliefs and practices in schools with high Māori and high Pasifika enrolment (particularly the latter) we see significant differences in some areas with high potential to reflect the sorts of transformations in students' learning opportunities and experiences that are signalled by NZC. Areas with the potential for such change include e-learning, student involvement in self-assessment and changes in classroom practice that put an emphasis on future-focused learning. In the low-decile schools we also see differences in teacher and principal reports of issues such as managing student behaviour and retention of good staff. Issues such as these can cut across any intent to implement NZC in more transformative ways and need to be carefully addressed so that change feels supported and not undermining in situations that are already professionally challenging.

In summary, then, there are still challenges but there is also evidence of encouraging pedagogical shifts, especially in assessment-for-learning practices, since NZC was introduced. Implementation does need to be treated as ongoing if the potential of NZC to open up meaningful and engaging learning for all students is ultimately to be achieved. In 2010 it was very much a work in progress. However, the widespread positive regard for the intent of NZC, and the strong professional learning culture in the primary and intermediate schools, together provide a solid platform for ongoing change and professional growth, provided that attention is not prematurely diverted in other directions.

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