# Curriculum Implementation Exploratory Studies

## Report to the Ministry of Education

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# Curriculum Implementation Exploratory Studies: Final Report

*Report prepared for Ministry of Education*

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# Table of Contents

# Table

# Appendix

# 1.   Introduction

Throughout the history of schooling in New Zealand the national curriculum has been revised at fairly regular intervals. Consequently, schools are periodically faced with having to accommodate to new curriculum. In between major changes other specifically-focused changes may arise; for example, the increased recent emphasis upon numeracy and literacy.

A new national curriculum represents a large undertaking for those responsible for schools and classroom teaching. The 2007 New Zealand Curriculum (Ministry of Education, 2007) is an example. It developed out of an earlier period of "rolling revision" from the 1950s to 1980s, where curriculum was revised subject-by-subject with a haphazard timeline. Change was largely led by Ministry of Education (MOE) curriculum personnel with close links to teacher unions and teachers. During the 1990s the form of revision changed. An overarching curriculum framework (Ministry of Education, 1993) outlined a design of achievement objectives organised into eight levels from Year 1 of schooling to Year 13. Content was designated through seven learning areas and a statement for each was written and promulgated through the 1990s.

By 2000 feedback from schools led the MOE to carry out a "stocktake", resulting in approval by the Minister of Education to undertake a phase of systematic revision from 2003. A draft New Zealand Curriculum was disseminated to schools and the community in 2006 and a final document ratified by the Government for publication in late 2007 and full implementation by 2010. Some components of the 1990s curriculum statements were retained with little change. They included the design of objectives and content for eight levels over 13 years of schooling. However some major changes also emerged from all this activity. They included:

- 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
- 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.

Notwithstanding the involvement of as many people as possible in the Curriculum Project, the MOE anticipated that the scope of these changes would be challenging for many teachers and schools. It was anticipated that considerable support would be needed as each school worked towards understanding how all the changes might come together in their school setting. Accordingly, the MOE explored ways of supporting schools with implementation of the new curriculum, including "teacher-only" days for concentrated time on change, and on-line resources to support the change process. Inevitably, some school leaders were ahead of others in adopting the curriculum innovations and adapting them to meet their school's specific needs. With the imperative for all schools to be engaged in the implementation process by 2010, the MOE determined that it would be helpful if the

successful experiences of schools that got underway with the process sooner rather than later be documented, analysed for common themes and used to help determine the most productive ways to support other schools. That was the aim of the research project reported here.

## The structure of this report

This final report provides an overview of the findings from the Curriculum Implementation Exploratory Studies (CIES) project. As described in the next section, the study was conducted in two rounds, with 15 schools participating in Round One and 20 schools in Round Two. The Round One cross-case analysis,[1] informed the focus for Round Two, with seven themes being identified from the case studies of the 20 schools involved in Round Two. In developing and reporting the themes we were cognisant of the need to represent the dynamic complexity of the change processes the schools were engaged in. The overarching implication of the cases is that there is no single starting point, nor pathway for curriculum implementation. The process is evolutionary and adaptive, contingent on the people involved, their history together and the cultural, material and structural context. Nevertheless, a number of themes were common across the schools in their general form. In this report, in order to extend on our Round One analysis, we not only tease out the key components of each of the seven common themes but also include examples and identify enablers, constraints and tensions.

The second section of this report summarises the research process including the interview protocols and the process used to distil the themes.

Sections 3–9 constitute the main project findings. These sections set out the seven themes that emerged from the analysis of the Round Two data. Evidence and ideas from Round One are included as appropriate. The themes discussed here are seen as key to understanding the implementation context as it evolves, and as helpful to the MOE for determining possible support for ongoing implementation. Although each theme is presented separately, in fact they overlap and interact with one another. For example, the approaches school leaders used to guide directions at their school, and to develop a professional learning culture, set the scene for the professional conversation and experimentation which occurred as teachers sought to understand and bring to life their vision for student learning and achievement. Likewise, the professional learning school leaders had engaged in provided a philosophical and practical foundation, which influenced the way they interpreted the curriculum and approached their work with teachers.

The final section provides a systems-complexity oriented synthesis of the themes and sets out the key messages for policy makers and school leaders. Next steps are proposed.

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[1]   A summary of the Round One cross case analysis is available at
http://nzcurriculum.tki.org.nz/digital-stories/case-studies/curriculum-implementation-case-studies'

# 2.   Research design

*The New Zealand Curriculum* (*NZC*) "sets the direction for learning for all students while at school" (Ministry of Education, 2007, p. 7). Rather than being prescriptive, each school is charged with interpreting and fleshing out its framework to best meet the identified learning needs of their student population, in consultation with their wider school community. The CIES project was designed with the intent of developing rich individual snapshots of the ways in which the participating schools went about giving effect to *NZC*, including descriptions of the specific contextual factors that supported and constrained their interpretation of the curriculum and the implementation strategies they used.

This report synthesises the findings from the individual case studies and identifies factors that support curriculum implementation in these early-adopter schools, with a view to supporting other schools in their journey.

## The school sample

Schools invited to take part in the first year of the study were identified in consultation with the MOE. Three Principals' Professional Learning Group (PPLG) clusters were targeted because they had been convened specifically to explore the implementation of *NZC*. Two primary school clusters were chosen, each well established but in different geographic areas and community contexts: one North Island cluster of four schools; one South Island cluster also of four schools. A newly established cluster of intermediate school principals was also nominated and three of the four schools accepted the invitation to take part.[2] The first-year sample was completed by inviting four different secondary schools in one geographic region to take part. Recruited following advice from local advisers and professional networks, all were reputed to be "early adopters" of *NZC*, but were going about implementation in quite different ways.

While such a small sample could never be considered representative of the diversity of New Zealand's schools, preliminary first-year findings pointed towards the desirability of expanding the sample in the second year to include some different school types. Accordingly, two area schools and three low-decile primary schools situated in larger urban areas joined the study in the second year.

Deep change takes time and it was quickly evident that schools would need more than one year to fully explore *NZC* and adopt the changes they determined to be appropriate. Before the project began, the intent had been to work with different schools in the second round, but the MOE agreed with the researchers' suggestion that the first-year schools continue in the study in the second year. All agreed to do so.

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[2]   For a variety of reasons, this PPLG cluster, which began much later than the primary school clusters, never really "gelled". The intermediate schools could not be considered "early adopters" in the same way the initial eight primary schools were.

# The fieldwork in the schools

The study comprised two rounds of data collection.

**Round One** was conducted in March–April 2008. The aim was to build a rich contextual picture of activity in the school relevant to the implementation of *NZC* (in the early adopter schools *NZC* fitted into an ongoing flow of school-based curriculum explorations rather than being the initial stimulus for change).

The research process was designed with the intent that individual school studies would incorporate multiple perspectives and provide evidence of the enacted changes. Each first-round visit included:

**Document collection**: School documentation collected included: vision statements and other relevant whole-school documents; examples of shared planning formats; and professional learning materials generated for or during teacher-only learning sessions.

**Interviews:** The principal and a sample of other curriculum leaders and teachers, all considered by the principal to be actively involved in curriculum implementation, were interviewed. Interviews were typically of 30 to 45 minutes' duration. Where possible the views of a member of the board of trustees (BOT) were also included. In one instance a researcher spoke to the Education Review Office (ERO) review team who were in the school at the same time. (In the second round some student focus group interviews were also carried out.)

**School walk-through:** While there were few opportunities to observe in classrooms in the first round, researchers typically toured the school with the principal, particularly the primary schools where student work displayed on the walls can be viewed and discussed. Some photographs were taken. Classroom observations were carried out where possible in the second round.

The five schools added to the sample were visited late in 2008. The fieldwork in these schools followed the same format as that conducted in March–April in the initial schools.

**Round Two** for the initial schools was conducted in two phases. The University of Waikato team conducted their school visits in December 2008; New Zealand Council for Educational Research (NZCER) conducted their visits early in 2009. Where practical, the same people were interviewed in Round Two, by the same research team. In some schools teachers who had been active in school implementation processes joined the study, as did one newly appointed principal. The principal who had moved on from this school also agreed to continue in the expanded study, to give a snapshot of what it might be like to begin again and lead a second school through the *NZC* change process.

# The research approach

A common format for generating descriptions of curriculum thinking and planning at the individual school level was developed by a process of negotiation of the detail of all fieldwork instruments between the six members of the core research team. This was done to maintain consistency in fieldwork (conducted by different researchers at different school sites) and to allow for cross-case comparisons.

Interviews were semistructured and covered the following themes:

**1. Vision**

Individual and collective understanding of the revised curriculum vision, values and so on. Perceptions of the extent of the alignment between the revised curriculum and school own goals and values, practices (distinctive character).

**2. Implementation processes and practices**

The processes and practices (organisational systems and structures, artefacts, forms of leadership exercised and by whom, people involved—internal and external) the school has used to promote the development of a common/shared understanding of, vision for and practices of curriculum implementation. The evaluation component of the study focused on the usefulness and impact of these processes.

**3. Changes**

Evidence and reports of changes in school organisation (for example, timetable, school-wide assessment practices); teachers' ways of working together; school and individual teacher documentation for teaching and learning including schemes, lesson plans; curriculum and professional development resourcing; and student assessment and reporting processes.

Indicative interview schedules are included as appendices.

The team who visited each school (typically a pair of researchers) wrote up their case studies based around a broadly agreed structure and headings. (For each round the teams at Waikato and NZCER met on at least two occasions to discuss and share key findings from the individual cases, and to develop a set of themes common to the case studies under discussion.) Draft case studies were returned to schools at the completion of each round. Once approved by the school, they were collated for presentation to the MOE.

## The cross-case analysis

The core team of three researchers from NZCER and three researchers from Waikato read the full dossier of individual case studies. While the themes that emerged from Round One informed the inquiry for Round Two, the researchers met to collectively renegotiate emergent themes across the full set of cases from both rounds. Their analysis was informed by team discussions and their reading of the literature on curriculum reform, curriculum implementation and 21st century/ transformative learning and schooling. Possible themes were identified and discussed, with the evidence supporting each theme being considered by the team.

The intent of this analysis was to distil common themes in schools' implementation journeys to date, and to identify context-specific affordances and constraints to giving effect to *NZC*. At the same time the team identified telling examples of curriculum interpretation and support that could be useful for other schools. Key findings were conveyed to MOE as soon as possible, so that they could inform ongoing policy and support decisions. Meetings of the *NZC* Advisory Group afforded an opportunity to triangulate emergent findings with the professional experiences of other group members and with the early insights from the more quantitative Monitoring Effective Curriculum Implementation (MECI) project that has been commissioned by the Ministry of Education.

# Key findings

The following seven sections detail themes identified from a cross-case analysis of the 20 school case studies conducted in Round Two. They also draw on ideas and evidence from the Round One cases. At the final meeting, the research team agreed on a summary of the key points for each theme (the 'what does it look like when it is working well' portion at the end of each section).

# 3.   Theme A: Start somewhere

## The curriculum did not arrive in a vacuum

The "early adopter" schools of the first round did not begin a process of curriculum change because a new national curriculum was developed. These schools had a record of ongoing curriculum development, albeit using exploration processes that varied from school to school. Consequently, the arrival of the 2006 draft curriculum simply prompted the leaders of these schools to investigate the new document and appraise its implications for their existing school programme. Some schools had experienced several years of pre-2006 curriculum reform because of the appointment of a new principal who saw the need to review the current school programme, with associated professional development and learning for teachers. Consequently, the *NZC* became part of an ongoing process of whole-school adjustment—a major change requiring a lot of work but not a whole new direction.

 A few of the first round schools and most of the schools added to the study in the second year could not be described as "early adopters" in the same sense as those whose leaders were already critically exploring key aspects of school practice even before the draft *NZC* appeared. Reasons for this vary. Some of these schools had experienced more recent leadership changes. Indeed it was often the case that a new principal had been appointed with the explicit expectation that they would get curriculum change underway, and these leaders typically faced the exercise of building a professional learning culture amongst the staff either before or as part of the implementation processes. In one case the whole structure of the school was new, a consequence of the amalgamation of the town's former schools into one area school. Here a school culture had to be built "from scratch" but the principal, already an experienced school leader, intentionally addressed this challenge in ways that he knew would subsequently prove to be compatible with directions signalled in *NZC*. He made the strategic decision not to formally introduce *NZC* until some key foundational changes had been put in place. While he was personally aware of the alignments, he chose reasons for changing schooling in the 21st century as potentially the most effective entry point for engaging a hard-pressed staff who were dealing with many simultaneous changes. Comments made by the staff suggest this was indeed a highly effective entry point that helped "make a lot of sense" of the curriculum directions.

## Schools have many starting points, and many pathways

Across the sample schools generally, there was a view by leaders that the implementation of the new curriculum should be carried out as an urgent, but gradual, process that avoided doing too much at once, thus risking getting ahead of teachers' need to understand the curriculum document and its import for their own teaching. To this end, it was common for schools to link changes to major previous developments such as inquiry learning and teaching, formative assessment and planning with other schools.

In spite of the differing starting points and processes, certain similarities were also noted. Almost all the schools began their changes with a focus on the "front half" of the 2006 draft and/or the 2007 *NZC*. A common approach was to review the vision for the school and provide concentrated professional learning sessions such as teacher-

only days with a focus on promoting teachers' understanding of the front half of *NZC*. The processes used varied, and this focus could be on the revised aims and principles, the values or the key competencies. Against this strong trend, one school principal considered it would be more productive for teachers to begin by discussing the implications of the revised essence and learning area statements. This focus provided a pathway to curriculum implementation for this school.

At the time they were visited, one or two of the case study schools had not overtly begun "implementation" at all, yet this did not mean that the overall direction in which they were headed was incompatible with the goals and expectations of *NZC*. Recognising congruencies in these cases could be an important step in fostering readiness for implementation. For example, in one very diverse low-decile primary school the existing ethos of the school seemed to already "live" the intent of *NZC*. Drawing the attention of the new and inexperienced leadership team to these congruencies was an empowering outcome of their involvement in the research. In another intermediate school, where social challenges threatened to overwhelm the staff at times, the recognition that the existing literacy professional learning programme was aligned with the intent of *NZC* was an important step in enabling staff to begin to address implementation.

One of the case study schools was new—due to open the year following the interviews. In preparation for their first students, the principal, teachers and BOT had developed a school vision which had proved compatible with many of the principles contained within the *NZC*. Having articulated their vision, the BOT entered into a consultation process with the foundation staff and community to establish "what the community really held dear". The new curriculum has provided the impetus for a radical new approach to the design of learning programmes and the school's timetable. The foundational weekly timetable includes two 100-minute periods in each of five specialist subjects, two tutorials (one of 100 minutes and one of 50 minutes' duration), an entire day during which students work on impact projects, and a 50-minute slot for community development.

# What does this look like when it is working well?

## Implementation starts by taking account of the existing school context

Effective leaders read their school's readiness and capacity for change. They are aware of factors that are likely to influence the process, and take these into account when determining the implementation starting point. Getting started may include developing other capacities and addressing other issues prior to and/or alongside focusing on the *NZC*.

## Implementation makes links to the known

Teachers found linking the ideas in the curriculum to some form of existing practice or other recent professional learning helpful. The nature of this starting link varied between schools. Common examples were inquiry learning (typically linked to ICT professional development) and formative assessment (typically linked to AtoL,[3] literacy learning or numeracy professional development).

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[3]     Assess to Learn

## Start slowly

Schools recommended small steps that were bedded in and then built on. It is important that teachers do not feel overwhelmed by multiple concurrent changes.

## Start by exploring new aspects

Most schools began by exploring what they saw as the main changes in focus such as the key competencies, values and vision statement. This was engaging for most staff and helped them focus on the bigger curriculum picture.

# 4. Theme B: Understanding the curriculum and how to implement it

## How schools understand the intent of *NZC*

The widespread support for the curriculum reported in Round One was sustained into Round Two and endorsed by the additional schools in the study.

In 2008 we reported that teachers in our early adopter schools generally believed that *NZC* gives prominence to the challenge of preparing learners for the 21st century and for becoming confident, connected lifelong learners, with values and a range of transferable skills that could be important for a knowledge economy (Hipkins, Cowie, Boyd, & McGee, 2009). School leaders from the additional case study schools shared this awareness that today's students face a future we cannot necessarily predict. They are aware that students need to achieve both more traditional knowledge outcomes and other types of outcomes related to being an ongoing learner and knowing how to use knowledge, not just "get" it. This is seen as a clear difference between earlier national curriculum documents and *NZC*, and is typically characterised as in the following comments:

> Preparing kids to successfully enter a world that we do not know. (Curriculum leader, low-decile primary school)

> By the end of Year 13 [we will develop] students who are resilient, resourceful, creative, responsible, contributing to society … who have an understanding of different cultures … (Primary teacher, area school)

## Perceived freedom for school-based curriculum design

As in the first round of the research, teachers in the schools added to the study in the second year embraced the freedom, flexibility and permission they believed they had been given to design a curriculum to best meet the needs of their own student community and to put each student at the heart of their own learning:

> The old curriculum was prescriptive, had activities, supplied ideas and you knew what it looked like. However it focused on content. The new curriculum focuses on the child. (Teacher, low-decile primary school)

## A shift in focus from what to include how and why

In several schools, new thinking about the intent of the curriculum was characterised as moving the content focus from *what* to include the *how* and *why* of learning. In one area school this change was described as a "paradigm shift" in teachers' understanding and there was a related shift from teaching *contexts* to teaching for the development of *big ideas* and important *concepts*.

During the Round Two visit, several primary schools in one cluster described how they have begun to focus on the essence statements as they plan, rather than the detail of the achievement objectives. They plan in ways that

align these "big ideas" with their vision so that, in the words of one principal, they "pull out the important bits for us".

# A student-centred focus

A second, related, paradigm shift has led many schools and teachers to embrace greater student ownership of their learning. However, what this actually means can be interpreted in different ways:

- As noted in the earlier report, many schools are making greater use of inquiry learning and independent research. This is further discussed in the pedagogy section that follows.
- Some schools have adopted a more explicit focus on the teacher sharing learning intentions and encouraging personal goal setting, which is consistent with an assessment-for-learning focus. This appears to be particularly powerful where it is aligned with other professional learning; for example, via programmes to strengthen literacy or numeracy teaching.
- Some schools have encouraged greater student ownership by including students in consultation processes, and this is also further discussed shortly.

# Challenges, tensions and solutions

## Implementation is not a finite process

In the first round of the research there was a sense that schools were working to develop their understanding of the intent of *NZC* in the expectation that this process would reach some sort of conclusion, if not quickly. In the second round, school leaders said that as they moved to explore, for example, what constitutes effective pedagogy, they needed to go back and review their vision and goals because their understanding of the potential scope of these had evolved. Such insights had led to an acceptance that understanding and implementing the curriculum might involve an iterative adaptive process, in which deeper understanding of one aspect raised the need to probe more deeply into other aspects. The process was seen to be ongoing, and would definitely need to continue beyond the nominated year 2010.

## Gaining and maintaining a shared understanding can be challenging

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. In the newly merged area school, staff turnover was such that only about five of the original teachers remained in the school several years later. In this case the newly appointed principal worked towards substantive changes in teacher practice, aligned to the intent of *NZC*, and his strongly communicated expectations and actions *contributed to* staff turnover in the early stages of implementation. Staff changes were also an issue in small primary schools, where the loss of even one or two staff could be significant in this regard.

## Meshing the front and back ends is work in progress

During the second round of fieldwork, schools were still in the initial stages of exploring the linkages between the front and back end of the curriculum. Their explorations were building on from their perception of a shift in focus from what to include both why and how, as discussed above. Associated with this new focus, some teaches raised the challenge of how they might rationalise "content", given the need to make space for new types of curriculum goals such as the focus on learning to learn, or on development of the key competencies. The renewed emphasis on achieving national standards in literacy and numeracy (which happened after the fieldwork was completed) is likely to exacerbate the tensions that school leaders face when considering how to design a school curriculum that judiciously selects amongst the many achievement objectives across all eight learning areas. The nature and focus of the revised National Certificate of Educational Achievement (NCEA) achievement standards is also likely to be influential in shaping how secondary schools respond to this issue.

In 2008 we noted a concern that beginning teachers may not have enough existing curriculum knowledge to link *NZC* to the more detailed content of the curriculum documents that preceded it (Hipkins et. al, 2009). This concern was similarly expressed by some teachers in the second-round schools. They also requested greater guidance about the relative importance of different areas of content, preferably in the form of curriculum support documents.

## Balancing responding to student interests with covering the curriculum

Curriculum design that is responsive to students' perceived needs creates tensions concerning whether or not curriculum coverage will be achieved when teachers respond to students' interests rather than following a fully thought-out plan. Some schools have addressed this concern by experimenting with retrospective planning. For example, in one primary school this process resulted in the realisation that the focus of the just-completed inquiries had mainly been in the social science area. To address this imbalance, they planned to introduce topics related to the technology and science learning areas in the next learning cycle.

## Maintenance of coherent learning programmes can be a challenge

Teachers who said they valued increased flexibility to meet student needs nevertheless raised the question of the impact of such responsiveness on the coherence of students' learning experiences over the longer term, and subsequently on expected student understandings and outcomes. The realisation that different students/schools could experience a curriculum that differs considerably in its details is clearly challenging. Given the high mobility of New Zealand's students, there is also concern that differences between schools will be disruptive to making progress.

There was some indication that primary, intermediate and secondary schools were beginning to explore the issue of coherence across transitions from one level to the next. A secondary principal noted that although it had taken some time to establish a working relationship with contributing schools, the collaboration had confirmed the school is on a track that aligns with what is happening in the local primary schools. In one instance, all the schools in the town had come together to discuss student learning pathways from Years 1 to 13.

Provision of a coherent learning programme is one of the eight principles of *NZC*, although this link was not typically made during the fieldwork conversations. This is an area where ongoing discussion and support are likely to be needed.

## What constitutes an acceptable implementation process?

A number of school leaders were concerned whether their understanding of the curriculum, and subsequently their actions to implement it, would be seen to be "right", for example, when ERO visited. Secondary leaders were also concerned about making appropriate interpretations in relation to changes in the NCEA subject frameworks and achievement standards.

These concerns raise the question of what constitutes an acceptable range of responses to, and interpretations of, *NZC*. Coupled with this, teachers in the Round Two interviews were querying what learning, achievement and making progress can look like across the levels, which in turn informs how they might generate and report evidence of this. Carefully developed and annotated exemplars of an acceptable range and variety of implementation approaches could help dispel these anxieties, but endorsing them as falling within an acceptable range would need to be balanced against the risk that they would then become a sort of de facto curriculum.

## What does this look like when it is working well?

The process is working well when all the members of a school community have productive opportunities to explore the intent of *NZC*. Recognition that *NZC* is a tool to leverage change can be challenging but can also help schools move forward. For example, one principal noted that the curriculum document was a useful resource for changing "teacher and community mindsets". For him, the prominence given to these themes in a national framework bolstered his own authority to push for a fundamental rethinking of basic assumptions about the purposes of schooling and the nature of valued educational outcomes, and how these might be achieved.

When the process is working well, members of the school community share an appreciation that understanding the curriculum and its implementation is a nonlinear process with no end point. As they continue to explore the intent and implementation of the curriculum, they deepen their understanding and enhance previous implementation decisions and actions as they go. Put another way, schools adopt a constant improvement agenda. Ways leaders provided for this to happen are further discussed in subsequent themes.

Coherence and alignment are enhanced when clusters of schools within the same locality work together to discuss the intent of the curriculum and its implications for practice.

# 5. Theme C: School leaders as lead learners

The importance of the principal's strategic leadership of learning was arguably the strongest theme to emerge from both rounds of fieldwork and so the various dimensions of this theme are elaborated in considerable detail. While some of the matters raised have already been signalled in Theme B, the focus here is on implications for leading and sustaining change.

## Effective principals model being a leading learner

Across the cases, principals and other school leaders concurred that active, hands-on involvement is critical to successful and sustained curriculum innovation. They appreciated that their leadership had influenced teachers' willingness to make the necessary long-term personal commitment to their own professional learning and that it provided a catalyst for change in staff expectations of professional development. Teachers found enthusiastic modelling of a focus on personal professional learning was motivating:

> The motivation of the principal, her excitement and passion sparked up and influenced me. She has been instrumental in feeding the excitement. (Primary school teacher, higher decile school)

Principals made active use of new learning, critically evaluating what they read, or had been told, in light of their own beliefs and experiences of what would be of interest and value to their students and community. They used insights gained from their own learning to generate possibilities for action and to justify recommended changes. Teachers from across the cases expressed a sense of appreciation and pride that their principal was up to date with current thinking and trends.

## Leaders have strong support networks and connections for their own professional learning

Principals and other school leaders read widely (books, research papers and material on the Web) and attended a range of conferences and seminars. Most were active members of professional organisations (national and international) and local, regional and national principal/leadership networks that offered support and opportunities to debate ideas and issues with peers who were also in implementation leadership roles. Networks that were mentioned included MOE initiatives such as the First Time Principals Programme (FTPP) and the New Zealand Curriculum Principals' Group. They also included local principals' associations and forums such as local Literacy Professional Development and ICT professional development clusters. School leaders visited other schools to share, discuss and learn new ideas. They also sought out and accessed information from external experts. Some principals and school leaders were involved in, or had recently completed, further study. In two cases the BOT had supported study trips for the principal to visit schools in other countries where alternative models of curriculum design were considered.

# Effective principals work to develop distributed leadership

Although principal leadership is a necessary prerequisite for curriculum reform, distributed leadership is essential for sustained change. According to leadership researchers the task is too monumental for the principal alone (Elmore, 2000; Fullan, 2005), a point made succinctly by Southworth who contended "belief in the power of one is giving way to a belief in the power of everyone" (2005, p. 77). How are principals working to achieve this ideal?

In the case study schools the senior leadership team usually assumed collective responsibility for orchestrating high-level discussion to develop a shared understanding of vision, values and key competencies (or front end of the document). Whole-school discussions of effective pedagogy tended to be led by the senior leadership team but typically departments or syndicate leaders or groups/individuals with the relevant expertise and enthusiasm led curriculum implementation at the level of the classroom.

Strategic appointments from within and outside the school can help achieve the goal of distributing leadership. In some schools, the senior leadership team had an explicit focus on developing leadership capacity in the hope that sharing leadership responsibilities amongst a wide range of staff would give teachers more opportunity to play to their strengths, and ensure that teachers from different levels and interest areas had the opportunity to work together and build succession planning into the system. Where this approach had been adopted, staff valued the new challenges and professional growth this entailed and appreciated the way their interests and professional knowledge had been acknowledged.

*Example 1*: Rather than appoint a fourth deputy principal, one secondary school decided to enhance the leadership structure from within by appointing Lead Learning Coaches (LLC). These people hold cross-curricula portfolios which include Gifted and Talented Education, Māori, Pacific students, Literacy, Numeracy, Resource Teachers Learning Behaviour, Specialist Classroom Teacher and ATOL.

*Example 2*: In another school, strategic appointments included a deputy principal with curriculum responsibility, a learning dean and restructuring of other staff responsibilities to emphasise their roles as leaders of learning.

*Example 3:* The principal, with the support of the BOT, restructured the senior management team around the National Administration Guidelines (NAG). New senior management personnel, who are committed to the new directions the principal has set, have been appointed from outside the school. One deputy principal has delegated responsibility for curriculum (NAG 1) and supports the principal in her role as academic leader. Other new deputy principals also have expertise in curriculum and contribute to a team approach.

*Example 4:* A primary school, has established a small senior leadership team directly responsible for curriculum implementation, nominating teachers outside the core leadership team to lead the teams responsible for each learning area in the curriculum. These leaders present to the BOT on their specialist area.

*Example 5*: In one school, staff with relevant expertise were released to assist teachers to implement or trial practices. Wednesday morning professional development was led by different staff and constituted the main mechanism for curriculum development and the building of shared understandings. The principal met all teachers twice a term to review progress towards their goals and to give observational feedback.

*Example 6*: One primary school called on the skills of specialist teachers to build capacity across the staff. Once a week, specialist teachers model classes for subjects such as music and Te Reo, then leave teachers with strategies and ideas for them to further develop during the week.

# Leadership is distributed as widely as possible

In some schools *students* were involved in decision making and leadership roles. These included: peer mediation; a "buddy" programme where senior students help junior students with their reading; house leaders; students' responsibilities for looking after playground equipment or helping in the library; and the student council. The students from one school where the school council started two years ago felt that it was making a big difference to the school. Another school was expanding the range of ways students are able to take an active role in the school by increasing the leadership opportunities available to Year 8 students as well as students from other years. Rather than asking for volunteers, students now campaign for a place on the student council, and attend local student leadership days. All Year 8 students have buddies and are whānau or house group leaders, and the school is training Physical Activity Leaders (PALs) and student "teaching assistants". Teachers were also thinking about developing a student Envirogroup.

Less frequently, students' leadership extended to having some influence on determining directions for classroom learning. For example, in one school students said that each year they were asked what topics they would like to learn about during their inquiry the following year, and the whole-school inquiry focus was chosen from these ideas supplied by students. They also discussed various strategies and ideas their teachers used regularly in class to help them take more ownership of their own learning.

*Boards of trustees* have a prescribed leadership role in relation to the National Education Guidelines (NEGs) and National Administration Guidelines (NAGs). Across the schools in the study, trustees showed a high degree of commitment to the aims of the change processes being initiated by school professional leaders and support for teacher professional development (Hipkins et al., 2009). School leaders and teachers considered they were well supported by their BOT. Although the board representatives interviewed in Round One were clear that the task of curriculum implementation fell within the principal's role, a supportive BOT was an added catalyst for assisting change. As evident in the above examples, in some cases they had supported the restructuring of the school leadership team. They also played a pivotal role in mediating communication between the school and its community (see Theme F: Engaging the community).

Fullan (2001), writing in an American context, has argued that reform requires change at the level of the school/community, the district *and* the state. In the New Zealand context, *clusters* of schools such as those for the ICT professional development contracts operate as an entity which distributes leadership and supports change. Jones and Eick (2007) suggest that innovative schools often have a network of partnerships with organisations and groups in the wider community. One of the case study principals was emphatic that, in a small community, a town-wide approach to education is essential. In his view, all the schools, along with people and organisations in the wider community, have a collective responsibility for the quality of the education provided to the young people in their local community. He believes the collegial/collaborative relationships that are developing between educators in various schools across town are the most powerful strategy for making change happen. Collaboration at this level has the potential to address concerns around the potential impact of flexibility and freedom in the *NZC* on the coherence of students' learning.

## MOE policy decisions can also provide leadership support

Curriculum statements such as the *NZC* are one of the tools that policy makers have available to them to guide and lead change (Hannaway & Woodroffe, 2003). As has already been discussed (Theme Two above) there was general support for the direction of the *NZC*.

Capacity building through the provision of professional development and resources can be seen as another means of distributing leadership. Schools and teachers found the teacher-only days for discussing the document valuable and expressed a desire for more designated days. They were making use of MOE resources and accessing opportunities for professional development.

The case study schools were looking to the Ministry for further support and guidance but, perhaps because many of them were "early adopter" schools, they were not waiting for this. Rather, they were calling on past practices and their own resources to work through the implementation process. Nevertheless, school concerns about coherence in student opportunities to learn, and whether their implementation was within an acceptable range when judged by others, point to a leadership gap or opportunity for the Ministry.

## A vision for where the school is heading in relation to student learning and pedagogy

Principals and school leaders in both rounds expressed a strong commitment to enhancing the learning of their students. They emphasised the importance of a shared school vision and a process for putting this vision in place across the whole school community. As discussed above, by Round Two many principals had come to the realisation that the development of a school vision would always be "a work in progress". Principals highlighted the centrality of the relationship between the school vision for student learning and achievement and teacher pedagogical practices in support of this. They were clear that a school vision needed to be both shared and lived. In some schools, staff meetings and teacher appraisal processes had been changed to encourage the exploration of and reflection on new pedagogies. In some schools, principal commitment to this was such that they had taken steps to ensure that they spent time in classrooms. These principals were keen to experience the curriculum/vision in practice for themselves. In one school, for example, the principal visited classrooms as part of the overall school plan for targeted professional development support. In another school, the principal and deputy principals are conducting "learning walks" with an agreed focus and negotiated observational schedule. The principal collates the observations and reports them to team leaders who discuss both positives and areas for improvement in their next team meeting. The principal noted this was "a good, if trendy, way of distributing leadership". In yet another school, a secondary principal had elected to teach a class in 2009 so she could "get the feel" of what the school curriculum direction looked like in the classroom, which she saw as the key question for the school's implementation process.

## Strategic pacing and understanding change processes are important aspects of leadership

Principals were acutely aware that change takes time and of the need to be inclusive. They spoke of the need to manage teacher resistance to change: "There is a very human element to this [the implementation process]." They perceived a need to fit the pace of change with staff needs and both pacing and sequencing of change activities were carefully considered.

School leaders recommended that other schools begin the implementation process by taking small steps, celebrating the steps that were taken making sure that the contributions and efforts made by each and all of the staff at the school were valued. A number of school leaders discussed the challenge of driving change whilst

allowing time for teachers to contribute ideas and develop deep understanding, all the while allowing for the diversity of teacher responses and expertise. One school had addressed these tensions by trialling initiatives on a small scale before they are implemented more widely.

The key questions being asked by principals of themselves and of staff were, "What should the rate of change be?" and "How much change is too much change?" One principal explained, "The staff is my classroom" and "there will always be early adopters and those who are not". Teachers were appreciative of school leaders' careful management of the pace of change so that they did not feel overwhelmed.

Compared with the first round of data collection, there was growing understanding from school leaders that curriculum implementation involves an iterative adaptive cycle of trialling, reflection and the generation of new possibilities. This was summed up by the principal from a primary school:

> The best thing we did was not say 'We're finished' as different aspects of practice were reviewed. Staff now see constantly evolving approaches as a hallmark of educational practice. (Primary principal, South Island school)

A few principals speculated that leading their teachers to make substantive changes to their classroom practice may be more challenging, and their leadership would need to be ongoing:

> We're on a roll, so it's up to me to keep it going. That is going to be more difficult. (Primary principal, state integrated North Island school)

## Leaders are not afraid to take calculated risks and make changes

Leaders in the case study schools created a trusting environment that supported school-wide experimentation with new ideas and structures. It was acknowledged that taking risks and trialling ideas in the classroom would be important for teachers. During Round Two, participants were asked to reflect on what they had tried out and achieved since the Round One interviews. Their responses indicated that they had trialled and evaluated a number of initiatives, some of which had not played out as they had anticipated. They were comfortable discussing successes and initiatives that had been dropped or were being revised. For example, one initiative trialled involved promoting the reflective process of learning through the use of electronic portfolios. Issues with the Internet caused this project to be sidelined for 2009. By Round Two, teachers from a number of the case study schools discussed being more comfortable with changes and with not knowing how things might transpire. One teacher affirmed the commitment from the leadership team at her school:

> … to really unpack and be really honest about the difficult stuff. You aren't judged on that. (Primary school teacher, South Island school)

Expressing optimism for the future, one deputy principal noted that teachers were taking more risks in their teaching.

# Challenges, tensions and solutions

## Sustaining informal networks can be difficult

At the time of the first round of data collection (March 2008), the principals in three of the case study clusters were involved in the Principals' Professional Learning Group contract. The second round took place after the contract had finished and only one group continued to meet. The diversity in their goals and beliefs about best practice had contributed to the fragmentation of one group that no longer met, but this group had been established for a shorter time. The third cluster had also dissolved, even though it had seemingly been operating well. This does raise issues of the sustainability of such groups when external facilitation ceases.

## Managing the personal pressures of leadership

Some principals felt isolated and lacking support, even when they were networked and respected by their community. In part this may be because of the weight of staff and community expectations. A key benefit of membership of principal groups and networks was seen to be the opportunity to debate ideas and possible practices with fellow principals as critical friends who would challenge and extend their thinking. There was concern that this type of support should be put in place for new principals.

## Sustaining personal learning

The leaders who were interviewed valued meetings with other schools and they were happy to offer support and advice to schools still in the early stages of implementation. However, this created some tensions because their readiness to move more quickly meant that some of these encounters were less relevant for their own learning. Alongside this, school leaders were aware of the pressure for action and change and of the need to take time to "pull back and reflect" on what was being done.

## Doing the "right" thing

In some schools, small rural schools in particular, there was concern that principals had few opportunities to share and compare ideas and practices with other schools, and thus could not judge the extent or not of their progress towards implementation. As one rural principal commented, "It can be scary because how do we know if we are doing the right things?" This was of concern in relation to ERO expectations and more generally. A deputy principal from a low-decile urban school was emphatic that, in order to maintain an environment where teachers felt empowered to do what they think is required to meet the needs of their students, there must be a high-trust relationship with the Government.

## The need for coherence

As schools worked to explore and change the different aspects of the curriculum and their practice, ensuring coherence has emerged as a challenge for principals to manage:

> Coherence is a huge issue and we need to keep pulling the various aspects of our work together in a coherent and connected whole. (Secondary school principal)

A common theme (addressed more fully in Theme E: Changing pedagogy) is that alignment of school structures, and of different curriculum elements and components of practice, can simplify implementation for staff without

sacrificing complexity. It can help make changes seem manageable and purposeful. However, this does require schools leaders to have a deep understanding of both the big picture intent and the detail of the curriculum, and the strategic wisdom to lead and build on staff learning.

## What happens when a charismatic leader goes?

The research literature suggests that change and innovation are more likely to be sustained when a principal leaves if leadership is distributed and changes are embedded in school practices (Leithwood, Harris, & Hopkins, 2008). This was observed to be the case in one primary school where the principal changed over the course of the study. The new principal, with the support of remaining staff, has continued to pursue the same general goals and practices, albeit with a somewhat refocused orientation. Several other principals were actively thinking about continuity planning.

## Supporting leaders in other schools at the early stages of implementation

Teachers in some of the early adopter schools were well aware of the value and importance of their principal's leadership. They expressed sympathy and concern for colleagues in other schools who were less fortunate. This raises the challenge of how to support those principals who are less engaged, and also the question of how their staff might be supported if their principal continues not to engage with implementation, especially given the strategic thinking and personal learning that has emerged as being central to effective leadership of this change process. The Ministry might usefully continue/expand networking opportunities to those who are isolated/not engaged with clusters or not currently involved in principal training.

# What does this look like when it is working well?

The following comment about a professional learning opportunity sums up the complexity of the challenges faced by school leaders very eloquently:

> The conference gave me confirmation we are on the right track. I'm still not sure but confident we have done the thinking. I am excited by the consolidation and getting things humming in class. … I would have said our core business was learning. I now see the importance of 'deep support' to enable the learning to happen. What happens to the 10 to 20 percent of students that don't achieve or underachieve at any level is an ethical consideration. I've tried to keep my ear to the ground, tried not to move too fast. It is a process and I have learned not to beat myself up when things need to be slowed down or adjusted. That is the nature of it—the uncertainty. I wouldn't call myself a confident leader. I didn't have a concrete plan of what it would look like but we need to do something for kids. Not doing anything is no longer an option.

When the process is working well, school leaders are active and visible, leading learning in their school community. Effective principals work to strategically distribute leadership and to make use of the strengths of others in their school community. They initiate and sustain a strong focus on student learning and on developing a shared vision for how that learning will be achieved.

Effective leaders are strongly networked, with connections to various groups that provide professional and personal support. They are strategic in managing the pace of change and take cognisance of likely personal challenges for staff. They support risk taking by creating an environment of trust and ongoing collaborative dialogue about effective practice.

# 6.   Theme D: The processes of change

This theme focuses on the "how" of the strategic changes being achieved in the case study schools.

## School-wide professional learning related to *NZC*

According to *NZC*:

> Curriculum design and review is a continuous cyclic process. It involves making decisions about how to give effect to the national curriculum in ways that best address the particular needs, interests, and circumstances of the school's students and community. (Ministry of Education, 2007, p. 37)

In all the case study schools, principals were setting in place cyclic professional learning processes along the lines described in this statement. The aim was to assist the whole school to develop a deep understanding of the new curriculum so that they could move forward in a unified direction. As already noted, many schools had already been engaged in ongoing review prior to the arrival of *NZC*, and had processes in place for staff to work collaboratively to explore new ideas or practices. Unpacking of *NZC* tended to be incorporated into these existing processes. Other schools developed new forums or processes to explore *NZC*.

At many schools, staff professional learning was a high priority, and over time school leaders had been changing the way professional learning sessions were organised. They variously:

- refocused longer staff meetings so that they were centred around professional discussions rather than administration
- set aside regular time for professional learning after school
- refocused existing teams such as syndicates, or created new teams.

These spaces were all used for staff discussions about *NZC*, as were the teacher-only days allocated for this purpose.

At most schools, the leadership team was developing an ongoing in-house programme of professional learning relating to the curriculum. Some of the content was explicitly related to *NZC*, and some was about pedagogies and practices that were already in development at the school and which staff considered to be aligned with the intent of *NZC*. When developing exploration processes, the leadership team used their knowledge about managing change in their unique setting, and understandings they gained from other school leaders at local cluster sessions. Personal professional learning and resources such as the *Teacher Professional Learning and Development: Best Evidence Synthesis* (Timperley, Wilson, Barrar, & Fung, 2007) were also used.

Some school leaders designed their own activities to develop content understandings. They also used ideas from MOE sessions about *NZC* and the implementation pack, and resources such as background papers on the key competencies (see, for example, Hipkins, 2006) or information about 21st century learning. During the regular sessions, principals and the leadership team facilitated activities that would give teachers time to debate and consider the implications of the new curriculum and develop a shared sense of its intent, and a shared vision for a

way forward for their school. They also used these in-house processes to explore the newer aspects of the curriculum in more depth, such as the key competencies and values. The ultimate aim was for teachers to "own" the new directions being pursued and have a clear understanding of how the school could work together to achieve this.

Although much of this work was done in-house, many schools also drew on input from expert advisers. At a number of schools, key presenters or advisers were invited to share their ideas with staff, and sometimes the parent community, about why there was a need for change.

In general, the initial work of exploring *NZC* was done as a whole staff, especially at primary, intermediate and area schools. The processes used were not one-off but were iterative and therefore enabled staff to revisit areas and build understandings over time. One common approach was for staff to develop ideas together which were then summarised by the leadership team, after which staff added feedback.

Most of the primary schools in this study spent some time exploring how the curriculum fitted with the thinking underpinning their existing school vision and charter. Some updated these documents, others developed a new vision to reflect *NZC*. Although much of this work was done by staff, most schools also consulted with the BOT, and sought parent and student input. A number of schools in the primary sector incorporated the language from *NZC* into school vision statements, which often took the form of visual metaphors about learning. This was one way of "branding" the school and sending a clear message to the community about the important values, ideas and practices at the school. Many teachers and students referred to these images when describing key practices at their school.

Once school leaders gained a sense that a shared understanding of the school's response to *NZC* was emerging, they started to hand over responsibility to staff so that they could explore what the school vision might look like at syndicate, department or classroom level. School leaders gave teachers license to experiment in the classroom and teachers saw this as a validation of their professional judgement. Some schools developed teams which were tasked with developing different aspects of school practice, and these teams reported back to other staff and gained feedback. Other schools encouraged their lead teachers to trial new practices and ideas which were also shared with the whole staff.

In combination, the overall effect of these changes was to strengthen the professional learning culture at the schools and cement the idea of an "improvement infrastructure" at the whole-school level. This infrastructure then enabled staff to work together for ongoing developments. A number of school leaders reported that these processes were now well embedded in their school culture. They considered there would be no "end point" to their process of implementing the curriculum; rather, they were engaged in a process of continual improvement of school practices and deepening of their understanding of *NZC*.

## Processes for inquiring into classroom practice

As well as developing a vision for student learning at the whole-school level, many schools focused on continuous improvement around *NZC* at the classroom level. *NZC* offers a cyclical model of teaching as inquiry, stating that:

> Effective pedagogy requires that teachers inquire into the impact of their teaching on their students. (Ministry of Education, 2007, p. 35)

Over the two years of the fieldwork, the use of models of "teacher as inquirer" was starting to become more common in schools. At some schools these processes were more deprivatised than suggested in *NZC*, with teachers gaining feedback from the leadership team, their peers or professional development advisers. Teachers visited each other's classrooms to observe and share what was happening there. This proved to be a valuable aspect in fostering a professional learning community. At these schools, teachers were using a range of "reflective practitioner" models to trial ideas related to *NZC*. Many of the approaches schools were using had their origins in recent professional development contracts:

- literacy professional development which required teachers to design and improve a programme for a target student group
- the ICT professional development professional learning communities which required teachers to report back to their peers
- school-developed action research processes used modelling, observation and feedback
- some schools were also starting to use the Ariki "quality learning circles" model with teachers.

## Challenges, tensions and solutions

### Managing the diversity of teacher views

Although most schools were working to develop a shared understanding about the intent of *NZC* and how their school would respond, there are some inherent tensions in trying to reach consensus. Questions being asked included: "What does a shared understanding really look like in practice?" "Is this understanding really agreed on by all staff?" "How do we cater for diversity in views?" Many school leaders noted that teachers were at different places in terms of their understanding, or use, of new school approaches, but they said this was to be expected.

As they attempted to manage a change process at their school, a few principals had difficulty taking staff with them, and at a couple of schools the leadership team had a different view from other staff as to the extent of shared understanding about *NZC*. In general, most principals had experienced some tensions in trying to manage change at their school and described times when they had to go back to the drawing board and use their networks to assist them to rethink approaches.

### Confusion around "teaching as inquiry"

Understanding *teaching* as an inquiry process was one area of *NZC* that appeared to be causing confusion. Some staff interpreted this to be referring to the inquiry learning approaches they were already using with students. As the term "teacher as inquirer" started to be more commonly used, this misunderstanding was addressed. At other schools, this confusion was still evident. This suggests that the sector could benefit from clearer messages about this aspect of *NZC*.

### Deep change takes time

School leaders considered there was a need to be realistic about the time necessary for change. Some noted there needed to be an ongoing commitment by the MOE to funding teacher-only days. School leaders found these days to be a valuable resource and most also set aside extra time for ongoing exploration of *NZC*. They considered implementing the curriculum would be a long process that required ongoing support, resources and access to

advisers. A few staff commented that their, or other, schools had focused mostly on the "big picture" underpinning the curriculum, and they were now unclear about how to translate this into real change in the classroom. In exploring what *NZC* meant for the learning areas, many were looking for more concrete support such as models and exemplars that showed how to weave together the "front" and "back" sections of the *NZC*.

## What do these processes look like when they are working well?

Most schools used teacher-only days and set up extra in-house staff professional learning sessions to support staff to engage with the ideas in *NZC*. These sessions were ongoing to enable staff to build a shared view over time. The learning processes used were iterative and adaptive and allowed for ongoing refinement and improvement. The processes were also inclusive. In many cases, teachers, the BOT and students were involved. In some cases, all adult members of the school team, including caretakers and administration staff, were involved. This programme of professional learning sessions was common in the primary and the area schools we visited. These iterative processes were less firmly embedded in the intermediate and secondary sectors. For secondary school leaders, putting in place structures that allowed staff to work across departments was a relatively new undertaking, but one that showed considerable potential.

Effective professional learning processes supported teachers to work collaboratively, using approaches such as brainstorming and small-group work that assisted them to develop a shared understanding of the intent of *NZC*. The processes built trust, but also allowed for diversity as leaders recognised that not everyone would be at the same point of readiness. At their best, the processes created the conditions for transformative learning; that is, teachers were able to challenge and debate assumptions and come to new understandings. Processes that worked well deliberately drew on a diversity of views. Discussion groups crossed traditional boundaries with leaders encouraging groupings of staff who might not normally work together; for example, teachers from different departments in secondary schools. Similarly, school leaders drew on the understandings gained from sharing between schools and sourced further resources, expert advisers or professional development when necessary.

School leaders gave staff time to understand the big picture before they were asked to apply to their own syndicate, department or classroom. This allowed for both a collective view as well as teacher autonomy. They gave teachers license to experiment, and time to reflect and share their practice with others. The content of professional learning sessions assisted teachers to see the need for change (for example, by providing access to external providers or ideas about 21st century learning). Activities built on prior learning and explored how the curriculum linked with existing school practices such as a focus on inquiry learning or self-managing behaviours. Sessions focused on the school's big picture. Teachers were encouraged to consider what was important about learning at their school and what *NZC* meant for their school community (for example, by debating questions such as: What skills and knowledge do we want a school leaver to have? Does this fit with who we are at this school?) Activities encouraged staff to review existing school documents such as the school charter, vision or planning overviews to ascertain their alignment with *NZC*. Activities also focused on unpacking the newer areas of the curriculum such as the key competencies and values, and those focused on pedagogies were aligned with self-managing behaviours, formative assessment and inquiry or integrated curriculum approaches.

Effective processes for inquiring into classroom practice were based on knowledge about good practice or evidence gathered by teachers. These processes enabled teachers to use their professional judgement to experiment within a trusting environment, which supported ongoing refinement and improvement of practice. The

teachers were able to make changes to pedagogy or curriculum planning, get feedback on these changes and observe each other. In this way, conditions for transformative learning were potentially created—that is, teachers were able to challenge themselves and debate assumptions, and work through any dissonance they experienced. The nature of actual changes to pedagogy is outlined in the next theme.

# 7.   Theme E: Changing pedagogy

A clear theme of the second round of fieldwork was that the pedagogical advice provided as a new feature of *NZC* lies at the heart of the changes that need to be made. After the enthusiasm of their early explorations of the front end of the document, staff in early adopter schools increasingly turned to explorations of changes in pedagogy as a key means by which they could achieve the vision for their students they had so thoughtfully laid out. One primary school principal described this as living "the curriculum in practice rather than the curriculum on paper".

Given the centrality of pedagogical change to the ongoing implementation of *NZC*, this section includes an expanded discussion of examples of ways teachers can be supported to review and revise their practice, and illustrates the types of changes they are seeking to make.

## Principals' thinking about *NZC* involves thinking about pedagogy

Experienced principals in this study had the confidence to focus sharply on pedagogy as an important part of the implementation process. As with other aspects of implementation, effective school leaders were very strategic about the means they used to encourage pedagogical change. Different leaders adopted very different approaches, according to the perceived needs of their staff and the specificities of their school context.

*Example One:* One principal anticipated that traditional teaching views could generate resistance to the changes he sought, so he relied on the power of positive examples and results. In this school, volunteer teachers led the way. Teachers are highly likely to say they get their best ideas from their peers and effective principals exploit that confidence while building shared practice.

*Example Two:* A teacher audit was carried out early in the implementation process in one struggling school. Teachers were given very direct feedback about areas of their professional practice that needed to change. While many found this hard to deal with at first, the level of support provided to them to learn and change meant that those who stayed came to embrace the challenges and now enjoy being learners themselves.

*Example Three:* An experienced principal, whom we followed to a second school during the course of this study, also began implementation in her new school by focusing on pedagogy but her reasons were very different. In this high-decile "successful" school, she saw pedagogy as a potentially engaging entry point to implementation for a staff who might not otherwise be motivated to make changes to their existing, seemingly already effective, practice. She designed a democratic process to share and streamline the many different pedagogical strategies in use, eventually arriving at a manageable core of highly valued strategies, for which all staff developed a common language they could share with students.

*Example Four:* An experienced principal in a small primary school chose to focus on pedagogy after the school had collaboratively reviewed the school vision and begun unpacking the meaning of the key competencies for them and their students. The principal considered that what happened in the classroom between teachers and students lay at the heart of the implementation process. Her sequential focus allowed her to build on from

previous processes to develop staff confidence and staff and community understanding of the intent of the curriculum. It was her experience that parents and the community needed to understand and support changes in pedagogy, assessment and reporting for any change to have optimal impact.

## Teaching and teacher practice are pivotal in implementation

Several schools in the study have put considerable energy into developing shared ways of thinking and talking about the **act of learning** per se.

*Example One:* In one school, the focus on pedagogy has led to the development of a shared idea of "learning minutes". This idea, mentioned by all the teachers we interviewed, is used to urge students to concentrate on their learning in the moment, making the most of the opportunities with which they are being presented.

*Example Two:* In another school, the catch-phrase is "leading me to lead my learning" and the focus is on intentionality and striving to set and meet personal learning goals.

*Example Three:* One high-decile primary school has developed the idea of a "toolbox" of learning strategies. It is based on a synthesis of ideas from their ongoing explorations of inquiry learning, formative assessment and key competencies. The toolbox provides a shared language of learning across the school and students are encouraged to use this in the playground and outside of school as well as in class.

## A stronger emphasis on integrated and/or inquiry learning

In Round Two many of the primary teachers provided extended descriptions of the inquiry learning units they had designed and implemented. Usually the inquiry topics were a school-wide focus. They often incorporated an explicit focus on one or more key competency.

*Example One:* For a recent inquiry, primary students were able to choose from a selection of topics, each supported by a different teacher. Students observed that each teacher had a different approach, and they liked being able to choose a topic based on their interests as well as the teaching style they preferred. Students considered being able to manage their time gave them more chance to "go deeper", rather than just doing "on the top learning". They also commented that working with different peers assisted them to "gain self-confidence".

*Example Two:* In 2008, one primary school trialled the use of a year-long school-wide theme, "Sustainability", and developed three related inquiry units. Staff thought the year-long theme resulted in deeper learning for students, but did not find planning around the same theme very motivating. Junior teachers also found inquiry approaches needed to be adapted with younger students. For these reasons, in 2009 the school is shifting to a semester system with two inquiries based on a school-wide theme of "Diversity". Teachers considered this model would give them more flexibility to follow their passions as well as vary the length of the inquiry depending on students' needs and interests.

*Example Three:* A secondary school has experimented with an integrated approach to the curriculum over the past two years. This began with an experimental whole-school integrated curriculum unit at the end of the 2007 school year. The school evaluated this experience and ran a modified repeat of the experience in 2008. In 2007, all classes worked on the same integrated unit. In 2008, classes negotiated a topic from five options offered by staff.

The curriculum co-ordinator reported that "teachers were a lot more receptive this time around and had a lot more to contribute". All three of the learning area groups with whom we interacted provided examples of ways in which experimentation with integration is now taking hold more widely across the curriculum.

## Teaching as inquiry

As already noted, the idea of teaching as inquiry has been most strongly adopted in those schools where it is clearly aligned with the idea of action research and staff are expected to, and supported to, inquire into their own practice. This can happen in quite different ways as the following contrasting examples show:

*Example One:* One new senior secondary school has timetabled a regular slot for teachers to think together and share their ongoing professional inquiries every week. They are free to move around the various discussion groups and are encouraged to work as cross-curricular learning groups.

*Example Two:* In a quite different model, one primary school has adapted the idea of action research to develop a process of whole-school inquiry. Staff contribute to the current research question during collaborative conversations that take place in scheduled meeting times.

One primary principal commented that action research has in-built expectations of ownership and accountability. Unlike professional development workshops where teachers listen to good ideas, which they may or may not follow up, teaching as inquiry is more likely to lead to actual changes in practice.

## Aligning *NZC* and initiatives that include an inquiry component

As already noted, in many schools unpacking the *NZC* has led to/happened in parallel with a professional learning focus on teaching and learning through professional development contracts such as ICT professional development, literacy, numeracy and AtoL. A number of the case study schools are now drawing active links between greater use of formative assessment and the perceived *NZC* message that learning should become more "student-centred". In schools where a deeper understanding of the key competencies has been fostered by ongoing exploration of their potential, a strong link has also been made between formative assessment and the key competency *managing self*. Prior experience with an inquiry focus, fostered through membership of an ICT professional development contract, has leveraged teacher exploration of this aspect, as illustrated in the following example:

*Example One***:** In one "early adopter" primary school, staff took managing self as a school-wide focus for a whole year. As part of their explorations they created templates to show how students' abilities in goal setting, planning, taking action, reflecting and effective questioning might be expected to develop over time. This allowed them to develop a shared language for talking about these learning skills with students, and also a common understanding of what making progress in developing them might be expected to look like. They used these templates for formative assessment and reported achievement to parents using the descriptors rather than the levels.

## The use of student achievement data

Some schools are making use of student data to focus and inform discussion about teaching approaches. In all the case study schools there seemed to be a move towards a greater focus on formative assessment.

*Example One*: In one primary school with a focus on formative assessment (sharing learning intentions, feedback and feedforward) staff used National Education Monitoring Project (NEMP) tasks in writing and oral language to carry out a school-wide moderation of their teaching and learning practices.

*Example Two:* In one primary school the analysis of student data had identified spelling and the strategy stages in numeracy as a cause for concern. Staff had worked to refine and develop the school classroom programmes in these two areas through a process similar to that of action research. Teachers had talked in groups about what they wanted to achieve and how they might do this as part of a broader focus on effective pedagogy. Teachers had collected and analysed student data. The principal had videoed individual teacher classroom practice and each teacher had reflected on the video of their practice. Teaching and learning programmes had been revised on the basis of this work.

## Challenges, tensions and solutions

### Changing pedagogical practices to enact the curriculum requires support and time

After the initial stages of implementation, schools must turn their focus to translating their vision into practice. This may not be as immediately rewarding as the preceding exploration of big ideas and the general nature of change. Nevertheless teachers were deepening their understandings and practices through a process of trialling, analysis and refinement. A common thread in the school stories is coming to the realisation that implementation is unlikely to be unproblematic and linear—it takes time and requires ongoing change.

### The many interpretations of "inquiry"

As already noted, in both fieldwork rounds there was some ambiguity in teacher talk around the differences between inquiry learning and teaching as an inquiry process.

### What is the meaning of high expectations?

*High expectations* is a curriculum principle in the *NZC*. It was cited as part of general vision development by one leadership team but notwithstanding a commitment at this level, the curriculum leader of a low-decile primary school reflected on the challenge leaders face when some staff are not yet convinced that they personally can make a difference for their students, and where they remain unconvinced that the initiatives associated with the curriculum implementation are worth the hard work involved for them personally. Such teachers appear to be in the minority but this was by no means the only school where their presence was identified as an issue.

## What does this look like when it is working well?

A common strategy for developing understandings of desired shifts in pedagogy is to get teachers to think about themselves *as learners* so that they can reflect on their practice and ways it might need to change. For example, a

curriculum leader might teach something in a way that models good practice with the staff acting as the "class", after which they collectively unpack their experience as learners, and draw implications for their challenges when in the more usual teacher role. This strategy is seen as an effective way of having staff think about the impact of key competencies on teaching and learning for example.

In the first report for this project we commented that secondary teachers valued the opportunities the implementation of *NZC* presented for learning conversations in cross-curricular groupings (Hipkins et al., 2009). In cross-curricular groups the conversation tended to focus more on learning and pedagogy rather than the subject. Secondary school teachers reaffirmed the value of these conversations in Round Two.

Sustained exploration of any one aspect of pedagogy can lead to quite profound shifts in understanding. For example, in some primary schools where inquiry learning was adopted early in the implementation journey (Hipkins et al., 2009) there has been a move away from the prescriptive models that were first introduced. Typically a refined understanding of the intent and scope of the learning teachers are attempting to foster has led to *simpler* inquiry models, underpinned by a collective sense of the range of ways any one stage might be evidenced in practice. That is, teachers' shared and personal pedagogical content knowledge has grown over time and as a consequence of the sustained professional learning conversations about this aspect of practice.

Similar comments can be made about the adoption of a focus on key competencies, particularly in relation to the vexed question of whether they should be assessed. Early stage explorations have frequently resulted in the creation of generic rubrics to be used for assessment purposes and for developing a shared language to be used when fostering key competency development in the classroom. In itself this collaborative process constitutes a valuable learning opportunity for staff but if they sustain the inquiry focus as the rubrics are enacted, their limitations soon become apparent. Deepening understanding of the key competencies eventually leads to rubrics being discarded. For example, in one primary school where key competencies, inquiry learning and formative assessment have all been aligned in ongoing explorations, staff came to realise the important role played by the *context* in demonstrations of competency. The generic rubrics they first developed were then seen to be meaningless and were discarded. This poses an interesting question about whether the learning process can be "short-cut" for later adopter schools. Does every professional learning group need to go through the process of making their own mistakes, or is it possible to lead a staff team more quickly around the known pitfalls that lie in wait? This is a question that those with expertise in supporting teachers' professional learning might want to take up and debate.

Some schools have adjusted their appraisal process to focus on the expectation of ongoing teacher exploration of their own classroom practice. This strengthens and informs teacher focus on pedagogy, especially where appraisers have the necessary knowledge and skills to support teachers to identify personal next learning steps.

Deliberate alignment between curriculum implementation practices and other wider school initiatives is another feature of ongoing implementation. For example, several primary schools in the same learning cluster have recently adopted restorative justice practices to deal with incidents both in class and in the playground. Teachers in this school have created links between these practices and the key competencies *relating to others* and *managing self*.

# 8.   Theme F: Engaging the community (including student voice)

*Community engagement* is one of the eight principles of *NZC*:

> The curriculum has meaning for students, connects with their wider lives, and engages the support of their families, whānau and communities. (Ministry of Education, 2007, p. 9)

The MOE Curriculum Online website links to an Australian site that outlines a five-way model of community engagement: inform; consult; involve; collaborate; and empower.[4] The evidence in this project is that most schools are operating predominantly at the inform level, with some schools operating at the consult level and two schools appear to be operating at involve and collaborate levels.

## An overview of community engagement activities

Many of the principals interviewed noted that they are trying to strengthen connections between the school and the community. One principal was popularising the term "it takes a community to raise a child". Most principals considered strengthening community connections was a major goal for the school, both flowing from the curriculum itself, and because this is a time of curriculum re-orientation.

Schools had different purposes for engaging with their community. One of the most common purposes was to involve the community in developing a shared vision and values for the school. This was a strong initial emphasis in many of the first round of case studies. Many schools appear to be focusing now on communicating changes in directions signalled in *NZC*. In particular, there is a focus on helping the school community to understand and value different forms of learning, knowledge and pedagogy. In Round Two, one school was placing a strong emphasis on trust and relationship building; the development of mechanisms for consulting iwi and whānau about school directions; and processes that support staff to be more connected with students' whānau.

Schools are also drawing community into the school to contribute to student learning through student-led reporting. However, parent and community input into the big picture of the school curriculum is not a strong focus/practice. Involving students in curriculum decisions, rather than the community, seems to be a feature of many of the case studies.

## Engagement strategies for informing and consulting with parents

Schools used a variety of strategies to consult with their communities. In some cases the BOT acted as a consultation group on the assumption that they could accurately represent community thinking and needs. Some

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[4]   The link for this site is http://www.charlessturt.sa.gov.au/site/page.cfm7u=97

principals indicated that they asked BOT members to report school changes and ideas in the community. Boards also provided advice and guidance on communication and consultation processes.

One of the most common methods of involving parents is parent meetings. In most cases these are primarily information-sharing evenings aimed at bringing parents up to speed with the reasons for curriculum change, the nature of the "new" curriculum and what the school is doing as the staff work to implement it. In some instances such meetings also provide an opportunity for the community to provide feedback on the directions being taken or to endorse what the school is doing. In a small number of cases parent meetings are closer to the ideals of more meaningful consultation:

*Example One:* In one primary school a parent meeting was run as a follow-up from a parent survey and provided a forum for a discussion of the findings and issues arising and for gaining parent views of what should happen next.

*Example Two:* A variation used by one area school is to run meetings with high-profile speakers for parents and the community, such as Mark Treadwell.

*Example Three:* Parent consultation in one primary school was part of a whole-school cultural event associated with a shared meal.

*Example Four*: One senior secondary school has established a parents' café, based on the collaborative dialogue model of "World Café" (Brown & Isaacs, 2005).

*Example Five:* One school has plans for a parent learning focus group, using processes similar to those for a student or staff leading learning group.

Surveys are a popular technique for consulting with the community. Some schools use surveys on a regular basis for gathering community ideas on a wide range of topics. In others schools surveys are used only occasionally for a specific purpose. Survey topics included: community priorities for student learning; reactions to ideas about values in a new proposed vision statement; ratings of the learning areas in terms of relative importance; commenting on what was being done well and what could be improved; and the importance of various forms of parental involvement in the school.

The school newsletter is another common way of cultivating a relationship between the school and the community. A number of principals indicated they are currently making more frequent use of newsletters to describe proposals and changes in greater depth. Open days, community displays, community-based inquiries and actions, school and class blogs and the school website are also relatively common platforms for community engagement and involvement. One principal mentioned using the local newspaper as a channel for providing information and ideas about curriculum change to the community.

Some principals mentioned playground consultation with parents, and one mentioned meeting parents through an after-school study programme.

## Extending the idea of community engagement

Two principals mentioned that town-wide or district-wide forums were important in their community engagement. In one case, the forum was hosted by the town's council and in the other there was a district-wide meeting of

BOTs. In each case the principals considered the forums were useful in collecting community-wide ideas and increasing co-operation between schools in curriculum matters.

## Involving parents in conversations about learning and achievement

In some instances, student-led conferences as a means for reporting to parents are showing potential as an effective low-key and low-resource way of encouraging parents to visit the school. A number of schools reported they are involving students and parents in three-way or four-way conferences (the teacher, the student, and one or two parents or caregivers). Some schools emphasised such conferences were increasingly student-led. A number of teachers were emailing parents to let them know what their children had achieved during the day. In one school, students develop a learning portfolio, which is available to parents at any time and sent home once a term. In another school, students have "boomerang books". Students write evaluations of their learning in these books once a week and then take these books home.

## Using a combination of processes

Schools tend to use the strategies outlined above in combination. The following extended example, illustrates the multifaceted approach one primary school is adopting to engage and connect with its community.

This school held an information session based around approaches to inquiry pedagogy, ICT tools, assessment and the fit of these with school values, vision and culture. This session also covered how parents could assist their child's learning at home. At "meet the teacher" sessions at the start of 2009, each syndicate team presented an overview to parents about the school's philosophy of learning and main focus areas. The school newsletter regularly includes information about the school practices. Regular reviews and surveys are sent home asking for parent input. The school is trialling different ways to showcase students' learning. In 2008 an open day was held in the local mall. During this day, students explained their work. The school is further developing three-way conferencing with parents in an effort to "bring home and school into partnership" and experimenting with using ICT to connect more regularly with parents. There is a principal, staff and school blog, as well as individual class blogs, to which students and parents can contribute. Teachers noted these blogs have multiple benefits. They are assisting teachers to make stronger connections to students' home life and the wider world, and give parents more information about students' learning and the strategies they are using.

## Student engagement and consultation

Students are being actively consulted prior to, or during, staff consideration of the curriculum and its implementation. A number of schools reported they have formed school councils or revitalised an existing school council. One school mentioned they had democratised their school council by getting students to campaign instead of being volunteers or appointees. Increasingly, councils appear to be listened to seriously as valid sources of input to school planning, including curriculum change.

Some schools have established a school student version of a leading learning group to provide a barometer of student opinion. Such groups appear to be operating in a manner akin to the way schools are using a staff working group, or the BOT as a community sounding board, to come up with ideas and initiatives. Consequently, this type

of process appears to provide relatively strong student input into school planning. Often this type of consultation has been related to vision and values. In a variation of this approach, some schools have appointed student reporters, a student media group or student researchers to identify and document student opinion, issues and needs and report these to the staff, the wider school community and/or the community.

Student surveys have been used by a number of schools to access student ideas and opinions on goal setting, changes proposed (e.g., timetable changes), what they want to learn about (themes or topics they wish to study). For example, one primary school surveyed students at the end of the year about what they had enjoyed during the year and the topics they would like to pursue the next year.

In addition to the more formal school-wide instances detailed above those interviewed provided examples of increased staff efforts to listen to, act on and/or pass on student ideas at classroom level. Examples mentioned were consulting students through brainstorming (as opposed to surveys), writing a class charter and consulting students about what topics and inquiries they wished to pursue. Teachers in several primary and intermediate schools described how they negotiated the focus of class inquiries with the class. In some cases teachers mentioned allowing choice from a range of teacher-provided options or their negotiating contexts and emphases with students within an overarching framework such as school or curriculum requirements. Teachers often reported they were "letting students do more of the work"; for example, by using inquiry approaches to provide more space for student choice and development of independent research skills.

# Challenges, tensions and solutions

## Community engagement is demanding

A focus on parent involvement is not new and most schools realise that sophisticated community consultation is demanding and time consuming. As noted above, schools may have to try to use a variety of approaches and even then they may fail to engage all their community.

One challenge they face is that some members of their community may not want to be consulted. They may not appreciate the value and potential benefit of consultation. Schools may need to work through a number of strategies before finding those that work with their community. Nevertheless, some schools do appear to be able to develop genuine "involvement" and "working together" consultation.

Some schools appear to have a negative view of the willingness of parents and community to be involved in consultation. Nevertheless, a number of schools have seen large increases in community involvement when they have consulted early and meaningfully. On the other hand, a number of schools appear to be doing a lot of work internally before consulting their community and/or seeking support. This may be counter productive in gaining community involvement.

## How to involve students in a meaningful and not tokenistic way

Some schools were beginning to question the extent to which they were allowing students to make substantive decisions about or choices within the curriculum. These schools noted this was challenging but they were committed to engaging with students in this way.

## Finding a balance between engagement and consultation

Some schools may be focusing on strategies for community engagement at the expense of achieving a higher level of consultation. Schools may well need help in getting the balance right and clarifying the difference between engagement and consultation.

# What does this look like when it is working well?

The process is working well when schools are exploring a range of ways to connect with parents, including face-to-face meetings and new technologies. They are making use of levers to connect with parents and encourage them to visit the school. Linking these to learning can be a powerful incentive—as in student-led conferences for reporting to parents.

A few schools have asked the community to "co-construct" a new curriculum in partnership with the school. In these cases, schools have surveyed community ideas and held community meetings before they have acted and used these ideas as part of their in-school work on the curriculum. In one case, the school has also involved staff, students and the community in a deliberate shift away from traditional practices toward inclusive and democratic approaches that build partnerships.

When students are actively involved in the consultation process, they can also help engage their families—for example, by telling parents about the school vision, or being the go-between by interviewing their families (with appropriate support) and reporting back the results.

# 9.   Theme G: Aligning structures and supports

The final theme reports on how the various implementation activities already outlined are being drawn together in day-to-day practice within existing, and in some cases changing, school structures. Some of these matters have already been introduced in earlier sections. Drawing them all together here illustrates how far-reaching and profound the changes associated with the implementation of *NZC* can become once schools have embarked on the journey.

## Planning for implementation

In the second phase of data collection it seemed that most schools were adapting their planning documentation to align it better with the intent of the new curriculum. Many schools (both primary and secondary) were experimenting with planning formats that included principles, values and/or key competencies as well as the learning areas. In one primary school there was a reported shift away from planning which emphasises topics and content towards planning which also emphasises concepts and processes. In one of the intermediates, a two-year programme was being planned around the four future-focused themes in the curriculum. Many schools were beginning to look at using the essence statements of the learning areas to base planning around. At one primary school the principal had modelled this approach with one learning area at a staff meeting and then encouraged staff to plan the other learning areas in a similar way. Many schools spoke of adapting old unit plans to fit the new curriculum and some said they were relying on the greater detail provided in the previous curriculum documents to flesh out what to teach.

In many schools, planning was being done at a school, syndicate or department level but then individual teachers had the freedom to adapt the basic plan to suit the needs of the students in their classes. This flexibility seemed to be a key element in new ways of planning. Some of the primary and intermediate schools were experimenting with "retrospective planning". This was seen as particularly helpful where schools were operating an inquiry-based programme to ensure that adequate coverage was being given to all learning areas. One school was planning inquiries that stretched over holiday breaks so that different aspects of their programmes were beginning and finishing at different times, rather than all at the same time. Another primary school described how one unit of work had been so successful that they had extended it into the next term, and foregone the unit of work they had planned for that term.

Most school leaders saw the new planning templates as working drafts. They were there to be reviewed, adapted and revisited based on what teachers learnt as they tried them out. Some principals felt that by experimenting with new ways of planning teachers were consolidating their understandings of what was different about the new curriculum. By contrast, others cautioned, though, that moving too quickly to documenting what was being done could encourage a superficial understanding of the new curriculum.

# Planning and processes for reporting

Some schools had put time and energy into developing "progressions" in learning they expected from students. In these schools, the progressions were being used for reporting to parents.

Most schools in the study reported changes in how they went about reporting to parents. As already noted there seemed to be a move toward more student involvement in reporting to parents. Student-led conferences and portfolios of work were in many instances replacing traditional parent-teacher interviews and formal reports. Although in the first round of interviews many schools were beginning to think about assessing key competencies, in the second phase many of these schools seemed to be questioning whether this was a worthwhile activity.

# Changing the timetable and other structures

The secondary schools in the study were experimenting with changes to the timetable. One school had introduced a 10-day timetable where every subject had at least one 100-minute session each fortnight. This shift to a longer teaching spell has significant pedagogical implications, challenging some more traditional teaching methods. One teacher remarked that although having a double spell next to a lunch hour provided enough time to take students outside the school, the paperwork associated with Education Outside the Classroom (EOTC) policies was often still a disincentive to do this.

An area school had recently moved to 1.5-hour periods as an incentive to encourage teachers to be well planned and change their practice. Again, the longer periods are giving teachers more time to engage in deeper discussions with students about their learning, set group work, and take students on off-site visits.

Two of the secondary schools were experimenting with vertical age-range "mentoring" groups and also grouping students across age groups for enrichment.

Some schools were thinking about new ways of organising physical spaces to better accommodate new pedagogical approaches. Some were also concerned about the provision of adequate ICT facilities to support newer approaches to learning and teaching.

# Changing appraisal processes

In many schools, aspects of the new curriculum and its implementation were being linked to teacher appraisals:

*Example One:* In one school, the conceptualisation of what effective pedagogy would look like, feel like and sound like in classrooms was developed by the teachers. This had then become a reference point for the principal's classroom appraisal visits and for formative feedback from the principal to teachers.

*Example Two:* At another school the key competencies were underpinning the teacher performance agreements for all staff. Each component of the performance agreement had been matched to the relevant key competencies.

*Example Three*: One area school has recently shifted from the established peer appraisal system to a more challenging "staff review" process led by the curriculum leaders. Staff are observed teaching and given candid feedback, framed by the pedagogical expectations of the *NZC*. Next learning steps for their professional growth are identified and then resourced as appropriate.

*Example Four***:** In another area school a peer support system has recently been established. Each teacher has been assigned an "accountability partner" with whom they engage in reflective discussions.

*Example Five***:** In one primary school the principal has trained other senior leaders to carry out "learning walks" that give them a snapshot of practice across the school. Teachers collectively develop the observation criteria for any one session so there are no surprises. The principal noted that, after the initial apprehension, the teachers have come to appreciate the informative nature of this appraisal strategy.

## Aligning internal and external structures

Many schools spoke of the benefits of developing collaborative relationships both within and between schools in the area. Often Extending High Standards clusters were the catalyst for staff in an area to work more closely together. Many staff, particularly in smaller schools, spoke of the benefits of being able to talk with teachers in other schools who were working at similar levels to themselves. Principals also seemed to find the sharing of ideas and professional learning with other principals particularly useful. The developing relationships between primary, intermediate and secondary schools in some areas also facilitated consistency and better use of assessment data as students moved between schools. Some principals saw competition between schools in an area as unhelpful for meeting the needs of the whole community.

## Challenges, tensions and solutions

Schools felt there was value in taking time to unpack appropriate structures and ways of working with *NZC* in depth, despite the added workload for staff. Some schools felt there was a need for MOE-funded external expertise so that good practice could be shared more widely and to avoid reinventing the wheel.

Many schools in the study had initially experimented with assessing key competencies and had since begun to question whether this was a worthwhile endeavour. Similarly, many schools were rethinking their approaches to inquiry-based learning and questioning what was most sustainable and effective for their students. One school worried that if they were not seen to be "doing inquiry-based learning" they would be considered to not be implementing the curriculum.

Some schools were coming up with innovative ways of supporting staff to deal with the increased workload associated with the implementation of the new curriculum. At one secondary school the BOT had funded ground supervisors to free staff up from interval and lunchtime duties. At one secondary school, each department was provided with a day for planning and writing new schemes during exam time.

At many schools there was a high turnover of staff and it was necessary to put time into "catching new staff up". There was also concern that the openness of the new curriculum did not provide sufficient support for less-experienced teachers.

## What does this look like when it is working well?

Schools that seemed well advanced in implementing the new curriculum displayed many of the following characteristics:

- Planning is dynamic, fluid and driven by student needs, interests and the local community. It takes account of wider school processes and structures, not just classroom programmes.
- The school/department has developed broad overarching policies and plans to "set in place" what is valued in the school. Teaching, learning and assessment plans are generated from these to meet the needs of different classes/students.
- Other aspects of practice and policy are aligned with the overall direction signalled by implementation decisions. For example appraisal foci and practices are aligned with intended changes in teaching and learning.
- School processes and structures are evolving and aligned to support both students and teachers to build their learning capacity. The emphasis is on personalised learning programmes for students. For example, inquiries that encourage students to do things with knowledge, alongside members of the local community, are enabled by making longer learning periods available.

# 10. Where to from here?

Table 1 on the next two pages re-presents the detail of the key themes from Section 3 in a different and more succinct format: It removes the duplication that was inevitable where the same idea or issue was teased out from different perspectives, as in the previous seven sections, and focuses on the bare bones of the analysis.

- Column One is a very brief summary of key learnings from the research.
- Column Two summarises the issues and tensions associated with each key finding.
- Column Three draws from the examples of effective practice we documented to suggest short-term ideas for addressing the tensions and issues raised.

The key findings support work elsewhere that suggests change takes time and involves a process of iterative adaptation and innovation at multiple levels. Schools and teachers, individually and collectively, need to appreciate the deep meaning and practical implications of the *NZC* and to appreciate and exploit the enablers and constraints in their specific school and community context. Where schools recognised the alignment between the intent of *NZC* and their previous work on their school vision, together with the focus of any professional development contracts in which they had been engaged, they were able to leverage the knowledge already gained to support their work with curriculum implementation. These schools were able to draw and continue to build on their internal capacity and resilience to cope with uncertainty and complexity and to generate and evaluate pathways for implementation.

These successful schools could be seen as having developed or strengthened their *improvement infrastructure* as they went about implementing *NZC*. Engelbart (1992) proposed that organisations should aspire to creating three basic levels of infrastructure: a core capability infrastructure (this is, what is needed to enable people to do the core work of the organisation); an infrastructure that enables the *improvement of core work*; and an infrastructure that enables the ongoing *improvement of the improvement* processes. Engelbart asserts that the third level is ultimately the most important to organisational effectiveness because it involves "getting better at getting better" (Gonzales, 1998). In the case study schools, the second level of an improvement infrastructure accords with a focus on leadership, professional learning and a focus on aligning structures. The third level accords with the distribution of leadership, the development of a learning community, a focus on teacher as inquirer/reflective practitioner and student and community active engagement in the curriculum decision making.

Table 1          ***Moving forward from the CIES studies***

| CIES finding | Challenge/issue/tension | Short-term solution |
| --- | --- | --- |
| It's important to just start somewhere (no one "right" way to go about it) | Stability of staff<br><br>Prioritising this within particular school context—balancing initiatives and imperatives | Involve school leaders in forums where they share strategies and outcomes<br><br>Support them to see alignment and overlaps between different initiatives (e.g., AToL)—link change to the known |
| Staff need to develop a shared understanding | Developing and sustaining shared understanding needs quality time for working together<br><br>Staff turnover | See process of professional learning |
| Leadership is key | Fostering culture comfortable with change and ongoing professional learning, modelling personal learning<br><br>Developing structures that support rather than work against change<br><br>Balancing push and pull in managing people<br><br>Issues of personal professional learning and support—burnout | Strategic use of existing resources/interests/concerns<br><br>Distributing leadership within the school<br><br>Personal networking<br><br>Support from BOT<br><br>Creating time to learn, reflect, customise new learning, generate new possibilities |
| Change is a complex, slow and iterative process that requires deep professional learning | Developing culture of professional learning across whole staff<br><br>Fostering culture comfortable with change—accepting that won't necessarily get things right first time<br><br>Developing and sustaining a shared understanding and vision for *NZC* implementation<br><br>Reluctant/resistant teachers<br><br>Staff turnover | Distributing leadership to distribute ownership, build capacity and increase access to immediate/specific support<br><br>Providing time for discussion and reflection—structures<br><br>Building critical mass<br><br>Not setting ideas/structures in concrete—being willing to revisit<br><br>Aligning appraisal processes with improvement infrastructure |

| CIES finding | Challenge/issue/tension | Short-term solution |
|---|---|---|
| Changing pedagogy is central to giving effect to *NZC* | Developing deep understanding of the meaning and implication of the *NZC* (key competencies, principles, school-based curriculum design, links between key competencies and learning areas etc.) | Support for culture of professional learning focused on learning about teaching and enhancing student learning |
| | Learning about, using and refining own understanding of teaching as inquiry, inquiry learning | Guided critical exploration of the meaning of learning and achievement within *NZC* frame |
| | Generation and use of quality student data | Alignment of implementation with other professional development initiatives that focus on student learning and achievement |
| | Developing community understanding of implications of *NZC* for pedagogy and student learning | Support for experimentation and risk taking |
| | | Culture that focuses on learning from trial and error rather than on making mistakes |
| | | BOT and community support for new initiatives |
| Structures can support or constrain change | Developing structures to provide for teacher professional learning time | Providing forum for disseminating good ideas/examples |
| | Developing structures that take advantage of *NZC* flexibility (e.g., timetables, leadership groups—staff and students, reporting practices etc.) | Trial of new ideas across school leader community |
| Engaging the community is still a vexed issue | Engaging full range of community members | Working with BOT/working with whole staff—clarification of purposes |
| | Consultation as telling vs. seeking and using input of parents/whānau (not tokenistic) | "Student voice" initiatives |
| | Use of range of different sources of expertise to support students' learning | Trying a variety of approaches |
| | | Linking consultation in with other events |
| Perceptions of mixed messages generate concern and work against sustaining change impetus | Concerns about being "on track" or "right" when reviewed by ERO | More particular guidance about scope of what counts as implementation by MOE |
| | Potential implications of other initiatives—NCEA, standards—are an emerging concern | |
| | "We already do that" (superficial readings of curriculum intent) but also the reverse—not seeing connections between aspects of current practice and *NZC* | |

# Supporting ongoing complex change

The picture painted in this report is one of a profound series of inter-related changes, with many associated challenges for schools. Nevertheless, most of the case study schools are starting to have more of the characteristics of 21st century learning (e.g., processes that are iterative, acceptance that there is no clear end point to implementation, a focus on developing people's skills and competencies, ongoing change). Also important is the recognition that implementation will involve taking risks. The culture of the school needs to support these by focusing on exploration rather than outcomes alone. There is a need to balance accountability with complex emergence processes in which outcomes are not certain.

It is also important that leaders and teachers are supported so as not to feel overwhelmed by the process, especially in those schools that have been tardy in beginning their implementation journey. Drawing a distinction between complex and complicated change could be helpful for thinking about next support steps in the light of progress already made. Complicated systems typically come to be understood by analysing all their components and working out cause and effect relations between them. *NZC* has a range of new dimensions to consider, so school leaders who start out viewing implementation as complicated could easily feel overwhelmed. By contrast, complex systems are considered as wholes. When seeking to understand them, attention is given to the dynamic interactions and relationships between the parts and participants (Sumara & Davis, 1996). Given appropriately supportive conditions, thought and purpose *emerge* as a complex system adapts and self-organises. The principle of self-organisation allows that the implementation process cannot be time bound and that there is no one right way to proceed. From a complex-systems point of view, simply starting *somewhere* is sufficient provided that the school continues to engage with the various new dimensions over a period of time. The leaders of the early adopter schools seemed to know this intuitively. Later adopters may need to be supported to have confidence that such a dynamic and seemingly "loose" change process can work very powerfully.

Of course simply getting started does not guarantee that ensuing change will be adaptive in desirable ways. Davis (2004) says that the likelihood of effective learning *emerging* within any learning system can be maximised when there is sufficient *diversity* of ideas for joint exploration, but the exploration is also grounded in sufficient *redundancy*—that is, there exists sufficient common ground within which to meaningfully interact with the diversity of ideas presented. We found a high level of support for the intent and directions of the *NZC* across the case study schools. The curriculum broadly aligns with the priorities and goals schools have already been considering. This, potentially, provides the common ground ("redundancy") on which to build a platform of support for the later-starting schools, if these schools are encouraged to explore the links and synergies found by early adopter schools to be of greatest significance. The other side of the coin is that they need access to a diversity of ideas, so that they can select approaches that suit their contexts. Again, these are already available in a range of resources that leaders of early adopter schools have accessed and continue to use. However this very diversity itself presents a challenge where leaders are unsure if they will be sanctioned if they do not get the implementation process "right".

This suggests some more secure boundaries around the available diversity of ideas and approaches are needed. Indeed complex-systems thinking suggests that new learning needs to be framed within a structure of "liberating constraints" which provide enough organisation to orient participants' actions while allowing "sufficient openness for expression of the varieties of experience, ability and interest represented in any social grouping" (Davis, 2004, p.169). How might this rather abstract idea inform the MOE's work? One suggestion is that at least some of the wide range of school implementation experiences documented in places such as the Curriculum Online be turned

into exemplars by the addition of succinct informed commentary that reassures later-starting schools and helps them to see how taking the highlighted approach might evolve over time to encompass aspects well beyond the starting point. The various school journeys documented in this project could allow us to write such predictive commentaries relatively quickly for other similar contexts, in consultation with the schools that own each story.

## Moving the whole system forward

Another challenge for policy makers and schools is to explore how the known challenges outlined in this report and others yet to emerge, might play out in the longer term as schools continue the process of dynamic innovation and transformation. Which of these factors and which particular implementation practices will prove pivotal in the longer term in sustaining the momentum of change whilst at the same time deepening implementation? This question could be a focus for the recently announced next round of implementation exploratory studies.

Longer term it could also be helpful to consider a series of *levels of action* within an *improvement infrastructure*. Such an infrastructure involves two dimensions: the whole-system dimension within which specific actions are embedded; and the school/individual teacher dimension in which personal understanding and practices bring the curriculum to life in classrooms for students. School leaders were acting to drive implementation at a number of nested levels that collectively crossed these two dimensions: in the classroom (with active teacher and student involvement); across the staff and BOT of their school; and in their wider community. They were also clear that government policy and initiatives were influential and that mixed messages have the potential to undermine and weaken commitment and willingness to explore and experiment with the local solutions promoted in the curriculum.

There are multiple points at which curriculum policy and practice intersect and interact with other aspects of education. For example: assessment policy; governance and review policies; professional learning initiatives; support and advice provision; and resourcing, uptake and impact of new technologies. The recently introduced National Standards for Years 1–8 represent a significant new policy initiative that is also very likely to impact on implementation, in ways we cannot yet predict. Although the standards are not directly linked to *NZC*, it will be important that schools find ways to accommodate the two initiatives in their enacted curriculum, and that the relationship between them is correctly understood and addressed. The policies should ideally reinforce each other rather than competing. The same can be said of high-stakes standards-based NCEA assessment policy in the senior secondary school. Ways in which this accommodation could be achieved are outlined in recent policy advice to the MOE, *Directions for Assessment in New Zealand* (Absolum, Flockton, Hattie, Hipkins, & Reid, 2009). Appropriate research will be needed to monitor and understand the early impacts of the standards, so that adjustments and/or new support can be provided as necessary.

# References

Absolum, M., Flockton, L., Hattie, J., Hipkins, R., & Reid, I. (2009). *Directions for assessment in New Zealand*. Wellington: Ministry of Education.

Brown, J. & Isaacs, D. (2005). World Cafe: *Shaping Our Futures through Conversations That Matter.* Berrett-Koehler Publ Inc.

Davis, B. (2004). *Inventions of teaching: A genealogy*. Mahwah, NJ: Lawrence Erlbaum Associates.

Elmore, R. (2000). *Building a new structure for school leadership*. The Albert Shanker Institute.

Engelbart, D. (1992). Toward high-performance organizations: A strategic role for groupware. The Bootstrap Institute. Available at:www.bootstrap.org

Fullan, M. (2001). Leading in a culture of change. San Francisco: Jossey-Bass.

Fullan, M. (2005). *Leadership and sustainability: System thinkers in action*. Thousand Oaks, CA: Corwin Press.

Gonzalez, J. S. (1998.) *The 21st century intranet*. Centreveille, VA: Prentice Hall.

Hannaway, J., & Woodroffe, N. (2003). Policy instruments in education. *Review of Research in Education*, 27, 1–24.

Hipkins, R. (2006). *Background to the key competencies*. Wellington: Ministry of Education. Available at: http://www.tki.org.nz/r/nzcurriculum/pdfs/nature-of-k-round-paper.pdf

Hipkins, R., Cowie, B., Boyd, S., & McGee, C. (2009). *Themes from the curriculum implementation case studies*. Wellington: Ministry of Education. Available at: http://nzcurriculum.tki.org.nz/Implementation-project-overview/Implementation-exploratory-studies-updates

Jones, M. & Eick, C. (2007) Implementing inquiry kit curriculum: Obstacles, adaptations, and practical knowledge development in two middle school science teachers. *Science Education*

91(3), 492–513.

Leithwood, K., Harris, A., & Hopkins, D. (2008). *Seven strong claims about successful school*. Nottinhgam: *National College for School Leadership.*

Ministry of Education. (1993). *The New Zealand curriculum framework*. Wellington: Learning Media.

Ministry of Education. (2007). *The New Zealand curriculum*. Wellington: Learning Media.

Southworth, G. (2005). Learning-centred leadership. In B. Davies (Ed.), *The essentials of school leadership* (pp. 75–92). London: Paul Chapman.

Sumara, D. J., & Davis, B. (1996). Enactivist theory and community learning: Toward a complexified understanding of action research. *Educational Action Research, 5*(3), 403–422.

Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). Teacher professional learning and development: Best evidence synthesis iteration (BES). Wellington: Ministry of Education.

# Appendix A: Indicative Interview Schedule (first year)

**NZCER/WMIER Curriculum Implementation Exploratory Studies**

**School Leader interview (for Principal/DP/AP/Leader of curriculum team)**

**(March 2008)**

## Scene setting: The current situation

1. When did your school start to look at, and think about, the new curriculum, and why did your school become involved at this time?

2. At your school, who is leading the implementation of the new curriculum?

3. Could you give me a brief summary of the sorts of things your school has done so far as you explore the new curriculum.

   *E.g., Has any professional learning been organised?:*

   - *Schoolwide professional learning?*
   - *Individual or informal professional learning?*
   - *External PD?*
   - *Use of professional readings or other support materials (e.g., from TKI)?*

   *E.g., Have you made any changes to school planning?:*

   - *Approaches to learning or assessment?*
   - *Approaches to curriculum planning?*
   - *Timetabling or lesson structure?*
   - *School documents (e.g., charter or vision)?*
   - *Staff roles?*
   - *Community consultation and/or reporting to parents?*
   - *Allocation of resources?*
   - *Other?*

## Professional learning

4. What importance is placed on staff learning (such as PD) at your school?

5. What processes and supports are in place to help teachers think about their professional practice?

## Personal views about intent/potential impact new curriculum

6. Looking at the big picture, what do you see as the main purpose of a national curriculum?

7a. What do you think government policy on education is trying to achieve by this new curriculum?

7b. What do you see as the main differences between the old and new curriculum?

7c. From your perspective what are the new things you needed, or will need, time to explore?

8a. How does the new curriculum fit with current directions at your school?

8b. The national curriculum document says schools 'have considerable flexibility when determining the detail of their school curriculum' *(p.37)*. What do you think flexibility means for your school?

8c. Could you give some practical examples that show how this flexibility has operated in your school?

## School vision

9a. Thinking about learning, what is it that this school really values and how is this reflected in your vision and school practice?

9b. Who contributed to your school's vision, and how was it developed?

9c. Ideally, how often do you think a school vision should be revisited?

## How is it going? Overall evaluation

10. So far, which of your PD experiences and/or MOE materials and resources around the curriculum implementation have been the most useful and why?

11. Do you need additional support or resources for implementing the curriculum? If yes, what would help and why?

12. Thinking forward, what changes is your school thinking of making as you implement the new curriculum?

    *E.g., School planning*
    *E.g., Professional learning*

13. Given your experiences so far, what advice would you give other schools and the MOE about how to approach exploring and implementing the new curriculum?

14. Overall, how are you feeling about the implementation process so far?

# Appendix B:   Indicative Interview Schedule (second year)

The following are the questions asked of school leaders in the second round of fieldwork. Similar questions, adjusted for context, were asked of teachers.

### Curriculum Implementation Exploratory Studies Project Round Two: Principal/Curriculum Leader Interview

We are looking forward to talking with you again about your experiences of working with the *New Zealand Curriculum*. The following questions will form the basis of our discussion.

Curriculum exploration and professional learning

1) Last time we visited schools in Term 1 of 2008, most had been exploring the "front end" of the curriculum (e.g., ideas of 21st-century learner, the vision, values, and key competencies). Since then, has your school done any further exploration of the curriculum?

   a. Is the "front end" still a focus?

   b. Have you started to work with the Learning Area statements? How is this happening? If not, is there any reason for this?

   c. How do you make connections between the "front end" and the learning areas? Has this created any new opportunities or tensions?

2) Since we last visited, what opportunities have you had to explore and debate ideas about curriculum and teaching practice with others? Has this led to any changes in your thinking and beliefs, or created any new opportunities or tensions?

3) a. In the last round we noticed a lot of emphasis on the development of professional learning communities (e.g., with other educators, teachers, staff, students, or school communities). Have you been doing things to foster this at your school? How valuable do you think this is?

   b. Some staff also talked about "reflective practitioner" or "teacher as inquirer" approaches being used at their school. Have you been doing things to foster this at your school? How valuable do you think this is?

## Refocusing and school change

4) Since our last visit, has your school's exploration of the curriculum (along with other changes such as recent professional development) lead to any refocusing or changes to school practices?

5) One thing we noticed in the first round was a lot of schools are placing an emphasis on inquiry and/or integrated learning. Please tell us what been happening at your school? What are the opportunities and tensions of this?

6) Another thing we noticed last time is that many staff suggested their school needed more processes for consulting with students and parents about curriculum approaches. Have there been any changes to your school's approach?

## Summary and next steps

7) a. Thinking back over the changes your school has been making, what are the most useful processes or strategies that are assisting you to manage change? Is anything hindering you in making changes?

   b. Thinking back over these changes, have you had to refocus or change direction at any point, or is there any thing you would have done differently? Given these experiences, what advice would you give to other schools?

8) Looking to the future where do you see the school going in the next year? What are the opportunities and challenges for you?

9) At this stage in your school's exploration of the new curriculum, do you feel that you have adequate resources and support? If not, what is needed?

10) Looking at your school case study, what stood out to you?