

## ***Investigation into Professional Learning and Development***

### ***Principal Sabbatical Study Report, Term 3 2016 - Greig Mercer, Boulcott School***

Many primary school principals feel a bit like A.A. Milne's 'Winnie the Pooh' when approaching site based curriculum development.

*'Here is Edward Bear, coming downstairs now, bump, bump, bump, on the back of his head, behind Christopher Robin. It is, as far as he knows, the only way of coming downstairs, but sometimes he feels that there really is another way, if only he could stop bumping for a moment and think of it.'*

#### ***Purpose***

To investigate curriculum design and school development models and their implications for Boulcott School by:

- a) Researching the models of curriculum design and development in several schools, to determine the approach being taken in curriculum review (utilising a case study approach).
- b) Investigating the principles behind the Marzano research-based curriculum design framework, and the literature around the 'High Reliability Schools' model. Assessing whether the Marzano framework is a structure that is appropriate and useful in a New Zealand primary school context.
- c) Exploring curriculum review processes with the senior staff at Boulcott School during the 2017 academic year, including strategies for embedding curriculum change, based on evidence informed ideas of good practice, and if appropriate incorporating a Marzano styled framework.

#### ***Rationale***

Curriculum design concerns the formal and informal processes used to improve the knowledge and practice of teachers, with the purpose of improving student learning outcomes.

*'In the last decade of the 20<sup>th</sup> century, the picture of what constitutes an effective school became much clearer. Among elements such as a well-articulated curriculum and safe and orderly environment, the one factor that surfaced as the single most influential component of an effective school is the individual teachers within that school.'* (Marzano 2007 p1)

Educators know that what makes a difference in the learning journey of students in any classroom is quality teaching. Current research has confirmed the importance of effective teachers as the most important determinants in school and student success (ERO 2014, 2015a, 2015b; Goldhaber, Anthony, & Urban Inst., 2005; Alton-Lee, 2003, 2012; Marzano, 2000, 2003). ERO (2014 pg.1) highlights the need for schools to undertake deliberate actions to accelerate the learning progress of students. This involves trialling new approaches and innovatively responding to underachievement. It requires school leaders to enact coherent plans to improve achievement outcomes for diverse learners by providing a high quality rich curriculum that engages and challenges learners. Therefore, it would logically follow, that school leaders should focus on enhancing teaching quality in order to increase student achievement. The use of an appropriate instructional model is a way for a school to develop their teachers' collective capacity; implementing a curriculum that provides purpose, guidelines for day-to-day learning experiences and an evaluation of effectiveness. Marzano, Frontier, and Livingston (2011), believe it is important to establish a process that creates self-monitoring and reflective teachers. They believe that if schools equip their teachers with a common language and framework of best practices, made up of very

specific skill sets, the process has the potential to enhance teacher expertise and accelerate student achievement outcomes.

Each of New Zealand's 2400 school communities is tasked with the design of its own localised curriculum within the scope of the New Zealand Curriculum 2007; however the complexity of competing societal and educational expectations is increasingly challenging for school leaders (Broady cited in Alton-Lee 2003 pg.67). There is what Anthony Bryk (2015) describes as an enlarging 'chasm' with societal aspirations for what we want schools to accomplish, expanding at a much faster rate than what schools are able to currently deliver.

ERO's *'School Evaluation Indicators'* (2015c pg.11) publication quotes the 2014 work of Earl, who emphasizes the need for schools to reflect a deep understanding of the theory of change, use evidence in a cyclical process, and to develop evaluative capacity. Many of the current Governments' education priorities relate to cohesiveness, developing collective capacity, and the alignment of differing development areas which are occurring in schools (ERO 2015a pg.1, 2015b pg.6-8).

The question all school leaders and teachers ask themselves concerns which teaching-learning strategies best activate the individual student's learning (ERO 2015c pg.20). Reflecting on this question led me to Robert Marzano's *Classroom Instruction that Works* (Marzano, Pickering and Pollack 2001) which through a meta-analysis approach identified nine families of strategies that significantly increase student achievement. Over recent decades, schools and school leaders have examined the effective practices research synthesis of educationalists such as Hattie (2009, 2011) and Marzano (2007). Schools have tended to utilise such findings to select individual high effect factors, upon which to implement school and curriculum change. While these efforts are laudable, I now realise they represent a narrow approach. I believe effect factors need to be arranged in some way that progressively addresses more sophisticated levels of effectiveness, through which a school can work and grow its collective capacity to promote equity and excellence for all (ERO 2015c).

During 2015 I participated in a two day institute led by Tammy Hefleblower and Janelle Wells, where I was introduced to Marzano's 'Art and Science of Teaching' (2007) model. This provided a framework which I believed could 'overlay' and give structure to New Zealand primary schools developing their own localised site specific curriculum. I see the value of, and need for, a curriculum design framework, which aligns with current school development priorities and supports a school culture responsive to diverse learner needs.

I began this sabbatical research with the idea that Marzano's 'Art and Science of Teaching' (AsoT) could be a performance and development based framework that would support New Zealand primary schools to implement their localised curriculum; a framework that a school like Boulcott could structure its curriculum around. However as a result of my research, I now see that the 'Art and Science of Teaching' is more than a 'standalone' curriculum design tool, but rather should be considered as an integrated component within a broader school development improvement model as proposed by Marzano (2014) for High Reliability Schools.

## **Literature Review**

The OECD's (2012) report describes New Zealand as having one of the most devolved school systems in the world, having, *'its own distinctive model of evaluation and assessment characterised by a high level of trust in schools and school professionals.'* (Nusche, Laveault, MacBeth, Santiago OECD report 2012 pg.3).

The 1988 Tomorrow's Schools reform of education in New Zealand saw the governance of individual schools devolved to elected members from each school community. These Boards of Trustees were granted a wide range of responsibilities including, that together with school principals and staff, they would be *'in charge of developing and implementing the local curriculum.'* (OECD op cit. 2012 p8)

While the national New Zealand Curriculum (2007) document sets out key competencies and achievement objectives for each of the eight learning areas, it does not prescribe actual curriculum content. Schools are self-managing and have freedom and flexibility in designing their own teaching programmes to fit the learning needs of their local student population. The New Zealand Curriculum (NZC) *'sets the direction'* (op cit. 2007 pg.6) for the *'kinds of teaching approaches that have a positive impact on student learning'* (op cit. 2007 pg.34). The national curriculum document empowers each Board of Trustees, through the principal and staff, to exercise *'...the scope, flexibility and authority they need to design and shape their curriculum so that teaching and learning is meaningful and beneficial for their particular communities of students.'* (op cit. 2007 pg.37).

This 'localised' curriculum must be underpinned by, and consistent with, the eight specified principles; must be one in which the seven values are encouraged, modelled, and explored by students; and one that supports students to develop the five key competencies (op cit. 2007 pg.9-13). The Programme for International Student Assessment (PISA) endorses this type of approach stating that, *'most successful school systems granted greater autonomy to individual schools to design curricula and establish assessment policies.'* (PISA 2009 p15). The development of a site-specific curriculum requires a sound process, establishing both direction (rationalisation of learning goals, effective teaching and student engagement) and alignment with the NZC (vision, principles, values, key competencies and learning areas). This is especially so as schools are being asked to,

*'...cater to an increasingly diverse student population, with over half of the school aged population expected to identify with multiple and non-European ethnic heritages within the next five years. The New Zealand Curriculum states its commitment to strong equity principles, includes valuing cultural diversity and inclusion of all students in a non-sexist, non-racist and non-discriminatory way.'* (OECD op cit. 2012 pg.7)

As the OECD report indicates, while the performance of New Zealand students is significantly above international averages in assessment areas considered by the Programme for International Student Assessment (PISA 2009, 2012), there is a large dispersion of achievement scores, with Maori and Pasifika students over represented at the lower end of performance. The challenge for each school is to develop a quality local curriculum that works for all students and their learning needs; ensuring coherence, breadth and engagement. A curriculum model is needed that provides room for student voice and choice, and seeks to, *'activate educationally powerful connections, assist leadership conditions for continuous improvement, encourage productive inquiry and knowledge building to benefit diverse (all) learners'* (Alton-Lee 2012 pg.12), while remaining consistent with the important nationally prescribed principles.

However *'...there is evidence that primary schools still vary greatly in the way they choose to deliver the curriculum, assess student results and report to parents. While this may allow schools to respond and adapt quickly to local priorities, it also raises problems regarding fairness and consistency...'* (OECD op cit. 2012 pg.10)

Alton-Lee (BES 2003) found that there was more variability within, than between New Zealand schools, reporting that up to 59% of variance in student achievement was attributable to the differences between teachers and classes within an individual school (2003 pg.v). This finding is confirmed in the OECD report, which states that *'performance differences are most pronounced within, rather than between schools'* (op cit. 2012 pg.7), and in the research of Schmidt, Burroughs, Ziodo and Houang, who claim New Zealand's within-school inequality is amongst the highest found anywhere, and that it is strongly related to achievement disparities (work cited in ERO 2016 pg5). The nature of the NZC, with delegation of responsibility and enactment to the school, and then the classroom level, lends itself to 'diversity' of interpretation, under the guise of professional autonomy. Diversity of curriculum interpretation, without monitored consistency across a school, and without clear indicators of success, in turn gives individual teachers licence to be somewhat 'laissez-faire' in their teaching approach.

Also relevant is Schön's (1983, 1987) work which introduced the distinction between *"reflection-in-action"* (reflecting & changing our behaviour in midst of action); and *"reflection-on-action"* (looking back after the fact), suggesting that it is *reflection-in-action* which separates skilled practitioners from unskilled ones. Schön believes that it is the *"perception of something troubling or promising"* (op cit. 1983 p151) that leads to reflective practice and this initiates a professional experimentation and growth. Student achievement, teacher pedagogical skills and teacher reflective practice are all intertwined.

While establishing consistency and equity in educational provision is a challenging proposition in creating a site-specific curriculum, school leaders strongly value school self-management (OECD op cit. 2012 pg.9), and are proud of the teaching professions' contribution in the creation of a curriculum document which is enabling, future focused and encourages diversity. The Education Review Office national report (2014) into 'Raising Achievement in Primary Schools' identifies that,

*'Strategic and successful schools knew how to design and implement an improvement plan that enabled more students to achieve better results with less inequity across the school population. These coherent plans were 'living documents' and were adapted in response to outcomes. They included a clearly articulated reason for urgency and the need to improve outcomes for particular groups of students.... Teachers and leaders in these schools were energised by the experience of success. Teachers clearly knew how to make a difference and expected to do so. They knew how to connect with students. If something did not work they then trialled something else. Students knew what and how they learnt, and they knew their teachers were supporting them to succeed.'* (ERO 2014 pg.38)

It appears that schools require a certain level of scaffolding to help them develop a cohesive curriculum design plan and prioritise between competing demands. Just as students require teachers to scaffold new learning, and teachers require school leaders to scaffold their professional growth, so to do schools require an external scaffold to promote their organisational development.

It is professionally encouraging to see moves towards such scaffolding emerging with the first jointly produced support documents for schools developed by the Ministry of Education and Education Review Office, in the publication of 'Effective School Evaluation' (ERO 2015b). This document with its foundation in evidence based good practice sets the context for what matters most in schools, and provides guidance in undertaking effective internal evaluation decisions within a cultural context that emphasises the concepts of manaakitanga, whanaungatanga, ako and mahi tahi (ERO 2015b op cit. pg. 8; ERO op cit. 2015c pg.15-17). Such concepts are

exemplified within a twenty first century curriculum that has as its main goal the building of students' 'learning capacity'; to help them develop into lifelong, active, independent learners.

The Ministry of Education is also undertaking a series of initiatives focussed on system coherence and curriculum outcomes for students. The driver for this work is evidence based practice. A curriculum think tank has been established to 'reset' the curriculum, and involves working in trial schools examining effective pedagogies, the development of capacity over time, and research into curriculum assessment. The upcoming publication of learning progressions (taken from the PaCT exemplars<sup>1</sup>) will be, I believe, a valuable tool for schools reviewing their site based curriculum expectations. Such progressions can amplify what learning looks like, which is helpful to teaching by building the picture of what children need to show to demonstrate proficiency at different curriculum levels of the NZC. If this Ministry initiative is expanded across other curriculum areas, (following 'proof of concept' evaluation), then these learning progressions will provide an evidence based way of grounding school decision making about learner proficiency.

Carolyn English of CORE Education sees a certain disconnect between the vision which many schools espouse in their charter, and the actual delivered curriculum, which often doesn't support students to reach that vision. Schools, which are utilizing frameworks like Enviro-Schools or Health Promoting Schools, she believes, are better positioned to match their curriculum with their vision because of the developmental scaffolds such programmes offer. Carolyn promotes the idea of schools developing graduate profiles for their ideal student in the areas of life, work and citizenship, and from these agreed attributes establishing just what competencies should be developed in order to create such a graduate. Schools need to be constantly reviewing the big picture of what they are aiming to achieve, and explicit profiles are a useful alignment tool to reflect what a student should demonstrate as he/she moves through the educational levels within a school.

Marzano (2007) in 'The Art and Science of Teaching' presents an instructional framework of research-based strategies that impact on student learning and engagement. It provides an alternative scaffold for schools, pulling together research works, drawing on high probability strategies, and structuring them so that they are used in an effective context. Marzano contends that schools need to maximise the effects teachers have on student learning by focussing teacher efforts not only on learning high probability strategies, but on how and when to deliver them.

Marzano's instructional framework is divided into three 'Lesson Segments' (routine events, content, and enacted on the spot). The framework presents nine 'Design Questions' that challenge and encourage teachers to reflect deeply on their practice; and forty-one 'Elements', which are categories of classroom practice that we know from research, relate to student achievement (each of which is best employed in particular context).

Marzano encourages teachers to give and receive focussed feedback through cycles of teaching observation with lead teachers observing in classrooms, not in an evaluator capacity, but rather to instil collaboration, and develop reflective conversations leading to the establishment of growth goals. The process is designed to create self-monitoring and reflective teachers who focus on the development of specific skills that enhance effectiveness. Marzano (2011) believes that if schools equip teachers with a common language and a framework for best

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<sup>1</sup> PaCT – Progress and Consistent Tool MoE [pactinfo.education.govt.nz](http://pactinfo.education.govt.nz)

practices, made up of very specific skill sets, it has the potential to accelerate the development of teacher expertise, and thus reduce the disparity between the achievement levels of high and underachieving learners.

To facilitate this development process Marzano, Warrick, and Simms (2014) have introduced the concept of schools becoming high reliability organisations. Such schools take proactive steps to prevent failure and ensure success by monitoring the effectiveness of critical factors. School communities can rely on such schools to resolve mistakes quickly.

*'What distinguishes high reliability organisations is not the absence of errors but the ability to contain their effects so they do not escalate into significant failures'* (Bellamy, Crawford, Marshall & Coulter 2005 pg.385)

High Reliability Schools have several things in common, such as clear, shared values; understandable, and comprehensive data systems; a collaborative environment; flexibility; formalised operating procedures; a focus on best practice and expertise (over seniority); a rigorous teacher performance system and a clean, well-functioning learning environment. Marzano et al (2014) suggests that school leaders need to be able to measure success and determine what to work on, so present a series of surveys that are able to be analysed to determine strengths and weaknesses.

In implementing a high reliability perspective in schools, Marzano (et al. 2014) has established five levels of operation, and presents these as a hierarchy of factors.

Level 1 establishes a safe and collaborative culture in which to work for students and staff, and underpins all other levels. It deals with the day-to-day operation of the school. What are our rules? Do we follow them? How do we work together to make the school run optimally?

Marzano suggests that implementing a professional learning community (PLC) process is an ideal vehicle to change the dynamic of leadership within a school, increasing collaboration, distributing leadership, building teacher capacity, and focussing the interactions between principal and teachers (DuFour & Marzano 2011 pg.51).

Level 2 of High Reliability Schools focuses on effective teaching occurring in every classroom, with leaders ensuring that classroom teachers are using instructional strategies in a way that reaches all students, and are taking appropriate steps to improve professional competence when the goal is not being met. Developing and maintaining effective instruction in every classroom means keeping the variability of teacher quality within a school low. It involves creating a teacher performance system whose primary purpose is teacher development and growth, which specifically identifies classroom strategies and behaviours at a tightly specific 'granular level' (2014 pg.46). A comprehensive and detailed listing of instructional strategies makes sense in a context of teacher performance focussed on development, and in 'The Art and Science of Teaching' (2007) Marzano presents forty-one elements categorised according to the type of lesson segment in which they normally appear. The suggested focus enables teachers to identify elements from which to improve, and encourages individuals to chart development progress.

Level 3 introduces a guaranteed and viable curriculum. Guaranteed means the same curriculum is taught by all teachers so all students have an equal opportunity to learn it. Viable means the amount of content in the curriculum is appropriate to the amount of time teachers have available to teach it. The number of content statements should be kept to a minimum, should be clear and concrete, and should prompt learners to use higher order thinking skills. Individual teachers should not have the option to disregard or replace content designated as essential (Marzano op cit. 2014 pg.69).

Level 4 is based on 'standards referenced' reporting, similar to New Zealand's national standards, providing information on student achievement and progress. At any time, Marzano suggests that a leader of a level 4 high reliability school can identify individual students' strengths and weaknesses relative to specific topics in each subject area. To do so, schools need to develop proficiency scales for essential content and report the status and growth on student reports using the proficiency scales.

While at Level 5, students are able to move to the next level of content as soon as they demonstrate competence. Matriculation in such schools is not based on the amount of time spent in a course but rather demonstrated by mastery of content.

### **Case Study Schools**

I utilised a case study methodology in visiting six schools, conducting a 'semi structured interview' with each school principal. This qualitative research approach allowed me to follow up responses and discuss issues in depth with principals about their personal perspectives and strategies (Bell, 2009). I focussed on how each school developed their site-based curriculum; how they introduced change; how they involved their school communities, and how they sustained 'buy in' from staff for new curriculum practice.

Colleagues were extremely generous with their time and openness in answering questions about their schools' curriculum journey. The selected primary schools were co-educational state schools, all of which have experienced, well-respected principals. Each principal recognised that establishing a localised school curriculum involves 'making decisions about how to give effect to the national curriculum in ways that best address the particular needs, interests and circumstances' of their schools' students and community (NZC Update June 2010). They saw the need to keep revisiting the curriculum, asking themselves to what extent is curriculum meeting the intended achievement outcomes for all students. It was recognised that teachers needed to work collaboratively to determine conditions for learning that could strengthen the impact of the school's programmes and practices. I have grouped the principals' responses into three themes that evolved from analysis of the interviews.

The first theme to emerge was that there was no single way to review curriculum. Each school, while thoughtful and professionally considered, had a different approach and starting point in curriculum design. Leaders in all schools maintain a strong focus on student learning, and on developing a shared vision for how that learning would be achieved. Each school leader also recognised the need to revisit their localised school curriculum to enhance coherence and alignment (ERO 2015a pg.6) across their teaching teams, but time and competing demands limited engagement with this process.

For some case study schools, the localised curriculum had not been revisited since the 2007 NZC document was mandatorily implemented in 2010. Boulcott School's localised curriculum falls into this category. While it claims to be a 'living document', in reality only aspects have been updated and reviewed during my four years at the school. A comprehensive deconstruction of the NZC and subsequent reconstruction of a Boulcott School specific curriculum is overdue.

A number of schools I visited have adopted three-year review cycles, picking 'one area of curriculum to look at each year.' In effect, for these schools, curriculum review and change 'fell out of' the ongoing professional learning and development programmes that teachers were engaged with. Reviewing one part of the curriculum invariably led teachers to think about the other parts, so the 'why, how, and what of teaching and learning' were

all considered in relation to each other. Professional learning encouraged teachers to challenge and debate assumptions, develop new understandings, and build a shared view. However as one principal stated, this led to a 'piecemeal approach' to curriculum change, and another called it 'hodgepodge' as new instructional ideas being implemented in classrooms tended to precede any inclusion in the written localised curriculum – 'if they ever got actually included at all', as there were many ongoing development strands 'evolving at once'.

It was widely acknowledged amongst case study schools that the localised curriculum should align with school charter and annual plans. This was a recognised but not necessarily realised aspect of their curriculum.

One school undertook curriculum review from a school community values orientation, threading community endorsed values and a strategic plan together, while acknowledging these were not 'perfectly aligned.'

A second school had a pending ERO external review as a 'timely catalyst' to revise whether teachers were using the localised curriculum and if not, why not.

Another school was approaching review by examining twenty-first century curriculum and new pedagogies, scaffolding development around leading educational thinkers and the key competencies. This was recognised as 'cherry picking' but the meshing of current educational ideas was thought important for both staff and school community development.

None of the Wellington primary schools I visited utilise a structured curriculum framework, however Albany Junior High in Auckland is following a High Reliability Schools path, instituting surveys to ensure opinions between teacher, student and parent groups were aligned and in agreement about the school's needs and direction. Albany seeks to focus teachers on less curriculum content, and to be more specific about collegially prioritised elements. The school has had each learning area faculty break down curriculum content to establish the priority elements for students learning at each curriculum level, and has identified standards to assess proficiency against these. An effective teaching model is being employed to ensure a consistency in teachers' instructional approaches. Each faculty has also identified essential subject specific vocabulary and is teaching these words and phrases to students in systematic ways. Albany employ an 'unobtrusive' approach to assessment which is designed to encourage, rather than halt learning, by presenting examples and products for students to learn from. This approach is seen as more than a response to analysis of variance, rather as a way of making learning visible for students and parents.

Mountain Creek State School in Queensland, Australia, is using Marzano's design questions to focus teacher reflection and growth using a sophisticated Professional Learning Community (PLC) structure of horizontal and vertical collegial teams. State education authorities in Queensland mandated that schools there adopt an instructional framework to provide support for their site-based development in the areas of social/emotional wellbeing, community engagement and pedagogy. Mountain Creek chose to adopt Marzano's Art and Science of Teaching (ASoT) as its framework. Mountain Creek used ASoT to develop with staff what makes an effective lesson (e.g. hook, demonstrate, together, independent, review) in the context of a particular curriculum area. Importantly a shared instructional language is also being unpacked via the design questions, so that all teachers use a consistent subject specific technical vocabulary with students across the school. Janelle Wells, Director of the Marzano Institute in Australia, confirms that introducing a Marzano instructional framework within a particular curriculum development area context is best practice. Schools can otherwise fall into the trap of either focusing on too narrow a range of strategies, or assuming high yield strategies must be used, and will work in every class. ASoT is a performance and development based framework for teachers and is not designed as an



evaluation tool. Mountain Creek State School use Richard & Rebecca DuFour's key questions as the base of their PLC approach. These questions:

- 1) *What is it we expect our students to learn?*
- 2) *How will we know they have learnt it?*
- 3) *How will we successfully respond when some students do not learn it?*
- 4) *How will we successfully respond when some students already know it?*

These questions are supplemented by two additional Marzano devised questions,

- 5) *How will we increase our instructional competence?* (teacher development emphasis)
- 6) *How will we co-ordinate our efforts as a school?* (leadership emphasis)

At Mountain Creek, professional learning communities are seen as an effective vehicle for establishing a safe collaborative culture, and encouraging what principal Rob Van den Heuvel calls PDK – 'practicing and deepening knowledge'. They hold few full staff meetings, PLC teams meet instead, and the PLC structure is seen as a way for the principal to more effectively influence the work of his teachers (Marzano et al. 2016 pg.12-13), than by attempting to directly influence the work of each individual.

The second theme to emerge from case study schools analysis was that schools built their curriculum from current professional initiatives. At the heart of school curriculum were teachers' decisions based on evidence about student learning and effective practice. Curriculum design and review was seen as a natural part of the cyclical school development process. The priorities for student learning – 'What knowledge and skills do we need?' and 'What actions should we take to improve student outcomes?' are the questions which drive schools.

One principal emphasised the importance of 'bringing your people on board' and found it important to allow teachers time to understand the ideas that inform the NZC and current school curriculum. He believed 'It helps if you build on what is already happening in the school, for example, professional development learning.'

Teachers were being encouraged to think of themselves as learners, and to inquire into the impact of their teaching on students because, 'the most powerful outcomes arose when teachers accepted that their practice was not optimising student learning opportunities' (Timperley et al. 2007 pg. xlvi). A difficulty also alluded to by one principal was,

*'the problem of over-assimilation means that new information is sometimes perceived as congruent ('I already do this') when it is actually quite dissonant. As a result teachers' new practice resembles the new learning only on the surface: in reality, little changes.'* (Timperley et al. 2007 pg. xli)

The importance of establishing and building relationships and collegial trust, was emphasised by several principals as precursors to engaging in effective pedagogy informed discussions about current practice. All schools visited expected teachers to be utilising a 'Teaching as Inquiry' (NZC 2007 pg.35) process for adapting and refining their teaching practice within the school context in order to meet the needs of all students.

Described as a 'cyclical process that goes on moment by moment (as teaching takes place) day by day and over the longer term' (NZC p35). Teaching as Inquiry is more than just individual teacher reflection, but is part of school improvement initiatives. It is a process that is systematic and deliberate, involving problem posing and

problem solving, action and collaboration. It represents a bottom up curriculum process with teacher inquiry leading to classroom practice change, and teams of teachers examining common themes across classes.

*'Schools with highly adaptive capacity develop the adaptive capacity of their teachers as they help them construct and reconstruct their environments through cycles of inquiry and knowledge-building to meet student needs better.'* (Timperley 2011 pg.165)

Case study schools saw 'teaching as inquiry' as central to their teachers' practice, as teachers cannot just deliver a curriculum, but need to build their professional knowledge by inquiring into both their content knowledge and pedagogical knowledge. It can be problematic however if teachers work in isolation and are expected to independently determine what students need to learn next, and how to teach those aspects effectively. As Elmore 2004 (cited in Timperley & Parr 2010 pg.81) notes 'one of the strongest social norms in schools is that everyone is expected to pretend they are equally effective in what they do.'

It is frustrating for a teacher having identified a problem, 'if you don't know how to improve your teaching, then inquiring 10 more times doesn't help you come up with a more effective teaching practice.' (Timperley & Parr op cit. pg.163)

The third theme to emerge was that leading effective curriculum design and development is difficult. The process is complex and school leaders don't necessarily know what works. One principal spoke of the difficulty of balancing student agency and interest led learning, with the accountability demands of National Standard requirements. Another school spoke about the loss of 'intellectual property' with experienced teacher turnover, and the need for an up to date 'effective practice handbook' to assist in the induction of new teachers.

Case study schools acknowledge the need to 'recognise and engage' with their school communities. The needs and interests of students and the local community, including whānau and iwi, influence the direction of any curriculum change, however principals thought that the community needed to also appreciate that curriculum review is a non-linear process with no definitive end point. As one case study principal noted 'the curriculum is always changing, it needs to be actively learner focussed.' Case study schools tended to feedback the words their community 'wanted to hear... like innovation, enterprise and creativity' wherever possible in communications about the school's direction. One school held provocatively titled parent evenings, such as 'The Importance of Failing' to challenge parents thinking and stimulate robust debate. Leaders felt they needed to regulate the amount of change they try to introduce, for as Timperley and Parr (op cit. pg.31) recognise, an effective organisation has a balance of routine with innovation, and avoids stagnation or overwhelming teachers with change.

## **Conclusion and Implications for Boulcott School**

The schools and school leaders I visited are all utilising good practices. They are knowledgeable and educationally up to date; they are driving change that they believe is best for the children they serve. Leaders are trying to do the 'right thing' by current research, and implement a 21st century curriculum which challenges and engages students, has clarity and is manageable for teachers to deliver.

A tremendous amount of professional learning and development is being undertaken nationally and internationally focussing on what teachers need to do, but less guidance appears to be provided to ensure that

interpretations of that PLD is being enacted in consistent ways. Mechanisms are lacking to prove we are being successful across the breadth of the curriculum, not just within the narrow focus of national standards.

Principals appear to be approaching curriculum design and review from many different angles, and while it can be argued that this flexibility fits with local needs, it also means it is difficult to see where and how all the curriculum elements integrate together. This 'ad hoc' approach to development seems rather like working on disjoint jigsaw pieces, with only some pieces interlocking with one another.

I question how well primary schools unpack the NZC and ensure through their localised curriculum what is actually being taught to students. There appears a level of disconnect between the philosophically sound strategic intent of the national curriculum, and the needs of individual schools for guidance in localised curriculum design. I see that rather than a mandated curriculum framework, what primary schools need, is a bridge between the aspirational nature of the curriculum, and the operational realities of school management. An overarching structure providing purpose, clarity and direction, would ensure that interpretation of the curriculum is not loosely delegated to individual teachers. Such a structure would balance professional trust with reliability assurance for school communities and external evaluation audits. I believe it would be extremely worthwhile to see ERO and the Ministry of Education co-operating (as they have done in jointly publishing Effective School Evaluation 2015) to produce a 'good practice guide' to assist schools in the designing of their localised curriculum. Marzano's High Reliability Schools model actually offers schools a developmental schema and a practical degree of specification that while not fully bridging the gulf, does present a support structure which I believe could be useful for New Zealand schools.

My purpose in undertaking this sabbatical was to investigate and develop an evidence based curriculum design framework for Boulcott School. Like every school in New Zealand, Boulcott's Board of Trustees is charged with designing and reviewing its localised curriculum so that it is both consistent with the New Zealand Curriculum and suited to the needs and aspirations of the school, its students and community. Boulcott has undertaken strategic and charter review processes, and like case study schools, is overdue for redevelopment of its localised curriculum.

I believe we are doing some sound development work at Boulcott but our next imperative step is to find a way of pulling the elements together more cohesively. Boulcott needs to build on recent growth initiatives and include some 'High Reliability School' structures alongside current developments. Classroom teachers need to understand how initiatives such as establishing PLC structures; clear expectations for teaching as inquiry processes, and an evidence informed self-review structure dovetail with High Reliability Levels 1 and 2; and that any changes we undertake will be growing and refining established practice, rather than incorporating something additional to workloads.

Boulcott School is attracting greater numbers of diverse learners. The establishment of professional learning groups, who work co-operatively, drawing on the collective professional wisdom of teams of teachers, has produced individual success stories in the achievements of targeted learners. However, I believe Boulcott needs some form of comprehensive structure or curriculum guide which supportst our full school population. An overarching curriculum/learning design structure would make next steps clear and align classroom practices with learner needs. Such a structure would integrate the different aspects of the school development programme (appraisal, professional learning, teacher inquiry and National Standard judgements), in a way that makes sense for teachers, and provides clarity for the direction of school development.

At Boulcott next year I intend to work with my leadership team and teaching colleagues to collaboratively examine three aspects from Marzano's High Reliability work, establishing:

- 1) Just what is the essential content for each level of the curriculum we expect Boulcott learners to master? The Ministry of Education's online publication of learning progressions in reading, writing and maths should assist greatly in supporting this work.
- 2) What vocabulary will each child need to have been exposed to/directly taught, to truly access the curriculum at that curriculum level?
- 3) What will proficiency in this essential content at each curriculum level look like? How will we assess it?

As Boulcott initiates a review journey in 2017 we will engage with parents, whānau and iwi to ensure that the curriculum content we identify as 'essential' correctly reflects the collective values of the community at large. I wish Boulcott to be a school that parents can rely on for providing a safe, caring learning environment that delivers a responsive curriculum and continually raises achievement standards. The curriculum that evolves will need to be explicit and visible to teachers, students and parents. It needs to be comprehensive and cohesive in design; delivering consistency for students, while remaining flexible enough to incorporate new initiatives. If, over the next few years, such a curriculum at Boulcott School evolves, one that incorporates the evaluation of the effectiveness of provisions for all students, then this sabbatical research project will have achieved its objectives.

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