JENNIFER GORE

IMPROVING PEDAGOGY

The challenges of moving teachers toward higher levels of quality teaching

One of the greatest challenges facing education systems is ensuring high quality pedagogy in the interests of good outcomes for all students. There is plenty of evidence that teachers and teaching make a difference (Hill and Rowe, 1998; Rowe, 2003). There is also plenty of evidence that schools are not working as well as they could and should for either students or teachers. Prime examples here are the persistent achievement gap between students from different socio-economic and racial backgrounds (Rothstein, 2005; Teese and Polesel, 2003), the poor retention of teachers especially in their early years of entering the teaching workforce (Ingersoll, 2001; Ramsey, 2000; Strong and St John, 2005) and the low morale and disenchantment among teachers more generally (Huberman, 1995). The solution that is proposed to many of schools' challenges, across a wide range of political and educational contexts, is to improve teachers and teaching through teacher education programs and through professional development for practicing teachers.

The key question I address in this chapter is the question of *how* such improvement is to be achieved. Imploring schools and teacher education institutions to do better has rarely been out of public and educational discourse, and yet the dissatisfaction with schools and teachers remains. Many improvement efforts have been undertaken, and yet calls for improvement continue unabated as manifest for example in more than 20 reviews of teaching and teacher education in Australia over the past couple of decades. Few would argue with the notion that continuous improvement is an appropriate approach to education, indeed to any field – we can hardly claim to arrive at the endpoint, the final destination of educational reform or practice.

Given the history of failed improvement efforts resulting in minimal change however, a number of points seem clear about efforts to improve pedagogy. First, it is not enough to exhort teachers to do better or for teachers to simply want to do better. Most teachers don't *want* to perform poorly and possibly *would* do better if they knew how. Second, it is not enough to ask teachers to emulate their best colleagues. Such a watch-and-learn approach is akin to asking a budding golfer to watch Tiger Woods or Carrie Webb and learn from watching. Inspiration and motivation might increase but improvements require specific guidance and articulation of what makes a good teacher[1]. Third, and moreover, it is not enough to require that teachers "perform" against a set of (typically) broadly worded teaching standards. Many sets of standards for teachers simply lack the level of

J. Butcher, L. McDonald (Eds.), Making a Difference: Challenges for Teachers, Teaching, and Teacher Education, 15–32.

explicitness and detail about pedagogy that would make them directly useful in improving teaching.

In this chapter, I argue that if pedagogy is to improve significantly, teachers need a clear set of concepts as to what constitutes good practice with specific detail about what that practice looks like and that this set of concepts needs to be framed as a support for teacher development, not as a system for judging relative performance. The Quality Teaching model, developed by James Ladwig and myself[2], in association with the NSW Department of Education and Training, is presented here as an illustration of an approach to improving teaching with the potential to genuinely address questions of how to achieve the necessary professional learning to improve pedagogical practice. If this approach is to be useful to those in other contexts around the world, then it is critical that I both describe in some detail what the Quality Teaching model is and articulate the specific principles and mechanisms which I see as underpinning its impact on improving pedagogy. These two tasks are the focus of the remainder of this chapter.

THE QUALITY TEACHING INITIATIVE

The Quality Teaching model developed for New South Wales (Australia) public schools has its origins in the significant work of Fred Newmann and Associates (1996) on Authentic Pedagogy, as well as other elements of classroom and assessment practice that have been linked through empirical research to improved learning outcomes for students across the spectrum of social backgrounds. As a State-wide initiative for around 2200 public schools, Quality Teaching is a substantial systemic attempt at pedagogical reform. The initiative to improve teaching and student outcomes has two major components: a model of pedagogy with clearly identified principles to guide classroom and assessment practice, and; a set of resources designed to engage teachers in reflection and dialogue in the process of refining classroom and assessment practice. Each of these components of the initiative is explained in detail below. It should be noted that a longitudinal study is being conducted alongside the initiative in part designed to test the efficacy of the model. Early analyses provide positive indications of its potential to improve both the quality of pedagogy and the quality of student outcomes (see Amosa and Cooper, 2006; Gore and Ladwig, 2006; Gore, Williams and Ladwig, 2006; Griffiths, Gore and Ladwig, 2006).

Table 1. Dimensions and elements of the Quality Teaching model

Elements	Intellectual quality	Quality learning environment	Significance
	Deep knowledge	Explicit quality criteria	Background knowledge
	Deep understanding	Engagement	Cultural knowledge
	Problematic knowledge	High expectations	Knowledge integration
	Higher-order thinking	Social support	Inclusivity
	Metalanguage	Students' self-regulation	Connectedness
	Substantive communication	Student direction	Narrative

The Quality Teaching model

With its three dimensions of Intellectual Quality, Quality Learning Environment, and Significance, as shown in Table 1, the NSW Quality Teaching model is designed to ensure that in classrooms and in the tasks that students are required to complete, learning is deep and meaningful. Note that the model is designed to apply to all grade levels from Kindergarten to Year 12 and to all subject areas. It is also important to clarify that the model does not necessarily imply a teacher-directed or student-centred approach to learning. Indeed, we argue that teachers can increase the Intellectual Quality, Quality Learning Environment and Significance of teaching, no matter what their fundamental preferences for how they work with students. That is, the model applies in a classroom where the approach centres on students working quietly and independently at their desks, just as much as it applies in a busy, noisy, active inquiry-oriented classroom.

In the following section, I outline each of the eighteen elements of the Quality Teaching model, with various illustrations to help clarify what is meant by each. This detail is particularly important given that the language and concepts available to educators are frequently under-developed, used loosely, and used with multiple, even conflicting, meaning. Simply listing the various dimensions and elements as depicted in Table 1 is inadequate in describing Quality Teaching or its potential for improving the quality of teaching. Note that detail of the empirical research that underpins the model is provided in Ladwig and King's Annotated Bibliography (NSWDET, 2003). My intent here is not to repeat or summarise that research, since that would be redundant. Rather, in what follows, I try to specify what is intended by each of elements in a way that will be meaningful to a diverse audience of teachers and teacher educators.

Intellectual Quality

The Intellectual Quality dimension of the model emphasises the quality of the ideas with which students are engaged. This dimension contains six elements: Deep Knowledge, Deep Understanding, Problematic Knowledge, Higher Order Thinking, Metalanguage, and Substantive Communication, each of which is explicated below.

Deep Knowledge The Deep Knowledge element requires that lessons and tasks are organised around key concepts and the relationships between concepts. Too often, we argue, students are confronted with or required to address disconnected fragments of information or to cover mountains of content without giving any attention to, or gaining any clarity about, the key ideas that they are learning or how those ideas relate to each other. History is taught for instance with lots of facts about people, places and events, but the students don't learn about how those fragments of information help to inform key concepts of history such as progress, identity and nationhood.

A lesson I observed prior to the Sydney Olympics in 2000 serves as a fuller example of the distinction between deep and shallow knowledge. While the example is quite lengthy it illustrates a number of issues relating the Quality Teaching and will be a consistent reference point in the discussion that follows. In this lesson, with a Year 6 class (aged about 12 years), the student teacher began the lesson by informing the students that they would be designing a marathon course, as part of the unit of work they were doing on the Olympics. She conducted a brief brainstorming session around the question 'what would we need to think about in designing a marathon course?' and obtained responses from the students that included 'crowd conditions,' 'traffic control,' 'drink stations,' 'toilet stops,' and 'running past sites of cultural significance.' The teacher had prepared large maps of the city of Newcastle, Australia, and 2.5cm lengths of string which she distributed after instructing students to form groups of two or three in which to work and to outline their marathon course in pencil in case they wanted to revise it. She also advised the students that they would be asked to come to the front of the class to share their map with their peers near the end of the lesson.

While this lesson structure would appear to have some merit, including its connection to the current community interest in the Olympics to be held about two hours south of Newcastle, a number of weaknesses soon became apparent. First, some students approached the teacher with their "completed" marathon course, saying "our course is 39kms long. Is that okay?" The teacher's affirmative reply, when a marathon course is actually 42.2kms, seemed to imply to the students that a product that was roughly equivalent to a marathon course was acceptable. Given the challenges for students embedded in the requirement to use a 2.5cm unit for measurement, this response seemed to undermine an emphasis on quality measurement and on the defining quality of a marathon course – its length. Second, most of the students had the marathon course running for up to 10km along Stockton Beach. There was no discussion later in the lesson about

appropriate running surfaces. Third, the marathon course produced by most groups of students ended at Nobbys Lighthouse in Newcastle, a well-known landmark and site of some cultural significance. However, like most lighthouses, Nobbys juts into the ocean on a narrow strip of land. If the finish line was at the lighthouse, as proposed by the students, chaos would likely result. There was no discussion about Nobbys either as a landmark or for how it would affect crowds, traffic, or the athletes. Finally, when students came to the front to 'share' their map with the class, the quality of presentation is captured in the following example: "We go past my Dad's house, over the Stockton Bridge, along Maitland Road and finish at Nobbys Lighthouse." The teacher thanked each group for their presentation but facilitated very little conversation about the way in which the groups had addressed some of the brainstormed ideas in their own marathon course design.

The lesson proceeded smoothly and happily. The students were engaged and interested. However, a critical question to be asked of this lesson is 'What did the students learn?' Accurate or complete measurement did not seem to be an issue. Careful design of a marathon course in relation to the brainstormed ideas, or any other key ideas or principles was not required. In short, the lesson was rather shallow with students going through the motions of designing a marathon course.

Deep Knowledge, as an element of Quality Teaching framework, draws teacher attention to what students are to learn – not in terms of a list of content or series of syllabus outcomes, each of which is likely to also be addressed, but in terms of two or three key concepts and their relationships. Hence, if a teacher is working with a class on "rainforests," the teacher would need to be very clear about the main ideas he or she wants the students to learn about rainforests. If a teacher is teaching students about calculating area and perimeter in mathematics, the teacher would need to clearly identify the key ideas students need to grasp in order to understand area, perimeter and their relationship. If a teacher is teaching the lay-up in basketball, he or she would need to make sure students understood the concept of the lay-up and its function in a game situation. And so on.

Deep Understanding The critical aspect of the element within the model known as Deep Understanding is that students are given opportunities to demonstrate their understanding of the main ideas and the relationship between ideas. This requires that teachers engage their students in activities that require them to apply knowledge or develop arguments or explain ideas. Asking for simple recall, filling blanks, completing word searches, or answering multiple choice tests, for example, provide students with limited opportunities to demonstrate understanding. All of these activities are likely to have a place in teaching, but unless students are asked to write or speak in full sentences or longer utterances, the teacher is unlikely to gauge whether they understand the concepts or skills being taught or whether they are simply mimicking or otherwise showing a superficial sense of what is required. They might, for instance, be able to produce the 'right' answer, but not understand why it is right or how they got it.

Problematic Knowledge This element of the model emphasises the social construction of knowledge and hence the fact that knowledge is open to question. Given students' expanding access to information with technological advances, their capacity to ask such questions as Whose perspective is represented here? How do we know this is true? and Where's the evidence? is critical to their handling of knowledge. Exploring the origins of knowledge and ways of thinking and considering multiple perspectives together with the assumptions that underpin those perspectives are all aspects of Problematic Knowledge. When teaching about the European settlement of Sydney, including the view that this point in history was an "invasion" of Australia's indigenous people is one example of treating knowledge as socially constructed. Addressing the Babylonian origins of our approach to measuring angles, or the changes over time in maps of the world, provide additional examples.

Higher Order Thinking During the past few decades of pedagogical reform, efforts have primarily focussed on improving student thinking. From de Bono's (1985) thinking hats, to Gardner's (1983) multiple intelligences and the re-emergence of Bloom's taxonomy (Anderson and Krathwohl, 2001), 'thinking' is popular in contemporary schools, at least in Australia. One feature of the Quality Teaching model is that it emphasises thinking *in relation to* important ideas or concepts. Higher-order thinking for its own sake is less productive than higher-order thinking in relation to key ideas. An example is useful here. Asking primary school children to generate a list of ten reasons why it would be good or bad (their choice) to have soft drinks coming from the school drinking fountains (rather than water) requires students to manipulate information and ideas, draw on any background knowledge they have, and think creatively. The thinking required by this exercise is higher order, however such an exercise is strengthened, in terms of student learning, if it forms part of a unit of work on nutrition or dental health. Similarly, asking kindergarten children to colour in a heart, add some glitter and write "Dear Mum, I love you, from [child's name]" on a card to be sent home for Mothers' Day is largely lower order, even for children in their first year at school. Modifying the task, with the addition of just one word, can increase the thinking level: "Dear Mum, I love you because . . ." requires students to think. Of course, it also changes the nature of the teaching as the teacher has to assist 20 or more children to complete a sentence they might not know how to write! Lower-order thinking has a place in teaching and learning, across subjects and year levels, but if students are only ever engaged in lower-order thinking, it is no wonder levels of engagement and student behaviour are of concern in many schools and classrooms.

Metalanguage This element encourages attention to language and how language functions as important aspects of developing student understanding. For example, when young children realise that 'to', 'too', and 'two' are three words that sound the same but are spelled differently with quite different meaning, they are addressing metalanguage or when a science teacher helps students to identify how to turn a question into a hypothesis, metalanguage – explaining how scientific

language functions – is likely to be employed. When a physical education teacher takes a moment to explain why a lay-up in basketball is so named, it can help the students to grasp the importance of jumping high to maximise height and lay the ball on the backboard. Similarly requiring students to assess how emotive language or evidence is used within a political speech requires an analysis of how language functions. It is worth noting that metalanguage applies to language in its visual and symbolic forms and not just written and spoken forms also.

Substantive Communication The key point of this element is to move away from the dominant pattern of classroom interaction, long recognised by linguists as Initiate, Respond, Evaluate (IRE), toward more sustained, substantive and reciprocal interactions. Rather than moving quickly through a series of questions, for example, this element encourages teachers to ask students to elaborate their responses; questions like "can you say more?" "why do you say that?" and "does anyone have a different view?" are examples of ways to produce more sustained communication. Ensuring that the communication centres on the substance of the lesson or task is also essential as is trying to ensure that it moves among and between teachers and students, rather than teachers being the only participants to provide extended responses. This element is not just pertinent in relation to classroom conversation but also applicable to writing and performance, whereby students are required to give subtle, detailed or qualified performances rather than truncated responses. There may well be a place in classrooms for word searches, multiple choice and fill the blank activities, just as there is for quick question and answer sessions. But it is when students have to show working in mathematics for example, or explain what they have done or found or thought in other areas, that teachers are able to gauge understanding. In these examples, it should be clear that elements of this dimension work together to support each other in the pursuit of intellectual quality.

Quality Learning Environment

All of the elements in the Quality Learning Environment dimension are oriented at supporting student learning. A critical premise of the dimension is that it is not enough to simply support students, even to feed, clothe and otherwise care for them in contexts where such support is needed. A primary responsibility of schools, a responsibility shared with no other institution, is the intellectual development of its students. Hence the focus of this dimension is on aspects of pedagogy that support student learning. The elements that make up this dimension are Explicit Quality Criteria, Engagement, High Expectations, Social Support, Students' Self-Regulation, and Student Direction.

Explicit Quality Criteria Teachers, in general, are good at giving students instructions and directions, explaining what they have to do, how they have to do it, and how much time they have in which to complete a given task or activity. Less strong is the practice of giving students clear and precise information about

what counts as good work, or about how well they are to do a set activity. The marathon course lesson, introduced above, provides a useful example here. For instance, if the students had been instructed that, toward the end of the lesson, they would be asked to swap maps with another group to measure each other's marathon course, it is unlikely students would have approached the teacher to ask if 39km was enough. They would have known that 42.2km was the required distance and precise and careful measurement was a criterion for successful completion of the task. If the teacher had also stated that when students came to the front at the end of the lesson to share their marathon course design with the class, they were to explain how their group had addressed one of the brainstormed concepts, there might have been some focussed discussion about crowds and traffic or sites of cultural significance. As it was, the students were working without explicit quality criteria. Without clear criteria for what counts as good work, most of us either waste time and energy trying to determine what is expected of us, or we produce work that we think is likely to be acceptable, rather than producing our 'best,' or even 'good' work.

Clarifying explicit expectations of quality is not only important in helping students to produce good work, it is also critical in providing access for all students to what counts as quality. Students with the relevant cultural capital who are already succeeding at school are likely to be able to determine what is required much more readily than their peers unless quality criteria are provided through explication or example. As a result, this element within the model of Quality Teaching may be particularly critical in narrowing achievement gaps for those groups of students who have historically performed relatively poorly at school.

Engagement Seriously engaging students in challenging work is an ongoing struggle in many schools and classrooms. In the Quality Teaching model, this element is concerned with much more than passive or compliant classroom presence. Whether in the silence that accompanies real interest in what is happening in the classroom or in the noisy energy associated with collaborative inquiry or debate, this element is focussed on developing classrooms that are characterised by genuine engagement and interest in learning rather than an all-too-common 'going through the motions' by both teacher and students.

High Expectations Evidence abounds about the importance of high expectations in promoting student learning (e.g., Oakes, Gamoran & Page, 1992). Students' performance tends to rise, or sink, in relation to the demands placed on them. Within the Quality Teaching model, this element reminds teachers to avoid the kind of labelling of individuals and groups of students that means reduced expectations. Teachers who say "my kids can't do that" are sometimes surprised by what they can do when the expectations are increased and the necessary support is provided. As I recently watched a Year 2 class (ages 7 and 8) engage skilfully with the concepts of predators and camouflage as part of a unit of work on rainforests, I was reminded of the difference that high expectations can make. A recent observation of a science lesson in which a class of Year 9 girls (ages 14 and

15) was being introduced to magnetic forces serves as a counter-example. When the girls asked challenging questions of the teacher, she responded that their questions were "Year 11 questions" that they should write in the back of their science books for later reference. The Quality Teaching model works from the premise that all students can learn and can engage in challenging and stimulating work. High Expectations are critical to making this premise a reality.

Social Support This element draws attention to the quality of relationships within the classroom, recognising that learning is likely to be challenged if students feel threatened or ridiculed by the teacher or their peers. Moreover, in classrooms where it is 'un-cool' to be seen to be trying, learning will suffer. Social Support emphasises the need to create classroom environments that are supportive of learning, where students encourage and support each other in taking learning risks and where put-downs are not tolerated.

Students' Self-regulation This element emphasises the importance of minimising time spent in class on behavioural matters in order to maximise time spent on learning. In classrooms where an inordinate amount of time is spent on behaviour, student learning is likely to be compromised. Encouraging students to show initiative and autonomy in relation to their actions, such as getting on with something productive or at least not disturbing others when their own work is completed, is an example of the self-regulating behaviour encouraged in the Quality Teaching model.

Student direction While we are quick to emphasise teachers' responsibility for student learning and to clarify that this element is not intended to hand responsibility for learning over to students, giving students *some* control over their learning can be important in increasing their willingness to engage in learning activities. The premise here is that if students have some choice of topic within a task or some control over the pace at which they work, or the criteria by which they are to be assessed, they may be more likely to engage seriously with a given task.

Significance

The significance dimension draws attention to the importance of structuring learning experiences to increase their significance or meaning for students. If students can't see any reason for what they are studying, other than the compulsions of schooling, they may be less likely to engage, particularly if they are not already deeply engaged in school. The elements in this dimension are Background Knowledge, Cultural Knowledge, Knowledge Integration, Inclusivity, Connectedness, and Narrative.

Background Knowledge In general, teachers are quite good at connecting student learning to prior school knowledge, with reference to what happened last lesson or last week, or even longer time periods like last year. In Quality Teaching, the

concern is also with connecting to students' out-of-school backgrounds, recognising the rich and diverse array of experiences students bring with them to school. Knowing one's students and seeking to get to know what interests and excites and shapes them, is part of the process of utilising background knowledge for productive student learning.

Cultural Knowledge No matter how homogeneous or heterogeneous the group of students in a class, the argument behind Cultural Knowledge is that student learning can benefit if the cultural knowledge of diverse social groups (in terms of race, ethnicity, social class, gender, disability, sexuality, language and religion) is recognised and valued. Examples here are the inclusion and valuing of the indigenous perspectives on historical and current events and the avoidance of providing students with access only to dominant cultural perspectives in addressing any topic where student learning might be enhanced through broader input and insights.

Knowledge Integration This element draws attention to the potential value for student learning of integrating aspects of their learning, both within and between topics and subject areas. Without connections between the many fragments of knowledge and the diverse range of activities students encounter in schools on a daily basis, their experience of school is likely to be less coherent. James Beane (1995) characterises students' experience of school as like a jigsaw puzzle without the picture on the lid. While there is no single picture that could be given, the point of this element is to try to help students to connect at least some of the pieces. This integration might be easier to achieve in primary schools rather than secondary schools, given that teachers are typically responsible across the range of subject areas. But even in secondary schools, the element points to the merit in having, for instance, all Year 9 teachers from every subject area, having at least some sense of what each other is teaching in a given school term, in order to be able to assist students with making connections. Even where integration between subject areas is hard to achieve, the element draws attention to the value of making connections between topics or ideas within a subject.

Inclusivity This element is directly concerned with the participation of the diverse groups of students in a class, and draws attention to whether the treatment of those diverse groups is even-handed. For instance, if there are boys and girls in a class, the expectation is that both boys and girls will be involved in class discussions, presentations, demonstrations, leadership roles and so on. If there are Indigenous and non-Indigenous students in the class, the expectation is that both groups of students are involved in the learning activities without either group excluded, or excluding itself, from class activities. The element therefore emphasises the need to find ways to involve all student groups and not to settle for the engagement of some or even most students when a sub-group is not engaged.

Connectedness This element is concerned with connecting students' learning experiences inside the classroom with something beyond the classroom. If we return to the marathon course lesson, on the surface one could argue that the teacher had attempted to connect to an important current event, the Sydney Olympics. However, connectedness was weakened in two major ways. First, in order to support learning, connections must be made between what students are learning and something beyond the classroom. When it is not clear what students are to learn, as in the marathon lesson, any connection with something beyond the classroom becomes less powerful in enhancing learning. Historically, many attempts to increase connectedness, often construed as 'relevance,' have provided students with experiences that might be of interest to them but in so doing have lost sight of the learning that is to come from those experiences (e.g., Black, 2002). Second, as the senior class in the primary school, the students in the observed lesson were running the school's athletics carnival the following week. A more connected task for those students would have been to design the athletics field for the school carnival, rather than spending time on the hypothetical marathon course.

One way to increase connectedness is to have an audience for student work beyond the immediate classroom. When students know their work will be displayed or exhibited or otherwise on show for parents, other community members, and even just other classes within the school, it can increase their commitment to producing good work. Another approach is to design tasks for students that are more real, or authentic. For instance, if they are engaging in a writing exercise that involves composing a letter to be sent to a family member, make it a letter they will actually send. If they are designing a recycling strategy, make it a recycling strategy that the school or class can adopt. In short, asking students to produce work for no other reason than that they are in school and the teacher said so, can meet with limited success. If students perceive some other reason for engaging in the work, it is likely to strengthen the engagement.

Narrative This element highlights the power of stories in enhancing learning. Whether it is the teacher telling stories or the students telling, reading or writing stories, or engaging with problems set within a narrative context, this element is focused on the use of narrative to enhance student learning. The point here is not the use of stories for their own sake. Most of us have experienced story-telling contexts which progress nowhere in terms of learning. The concern is with stories that enhance learning. As one example, my use of illustrations ("stories" of lessons) within this chapter, exemplifies how narrative can be used to enrich understanding and support learning.

Quality Teaching as Professional Development

The Quality Teaching model provides a clear and defensible set of concepts for improving pedagogy but, on its own, without an implementation plan or professional development strategy, its impact is likely to be limited. Even if teachers agree with the general intent of such a model, the structure of their work

and the culture of many schools are likely to produce inertia rather than change in response to what is seen primarily as a document. Hence, an aspect of the Quality Teaching initiative involves professional development materials designed to support teachers in developing their understanding of Quality Teaching through dialogue about classroom and assessment practices built around coding activities for each of the three dimensions and 18 elements of the Quality Teaching framework (see Appendix for a sample of the coding instrument).

The materials that have been developed focus on sample videotaped lessons and assessment tasks that teachers can use as a common referent for their explorations of Quality Teaching. The videotaped lessons have been edited to extracts of around 15-20 minutes and cover a range of subject areas and the grade levels K-10. Teachers are encouraged to watch an extract, code it using the Quality Teaching instrument for coding Classroom Practice, and then discuss it with colleagues, comparing codes and exploring interpretations and implications. With experience and confidence the intent is that they will also apply the coding process to their own lessons and even conduct observations of each other, if they are able to transgress the common norms of classroom privacy and enter into the process in a trusting and supportive relationship. Similarly, sample assessment tasks (for grade levels 2-12) are provided for teachers to code and discuss with a view to deepening their understanding of the Quality Teaching model as it applies to the development of assessment and other learning tasks.

A crucial element of these materials is the inclusion of codes for each videotaped lesson extract and each assessment task that have been determined by a team including the designers of the Quality Teaching model, James Ladwig and myself. Teachers can use these codes to add to their own discussions. Importantly, they are not presented as the 'right' answers but as informed scores that teachers should attempt to understand but feel free to debate and even reject.

Decisions about the ways in which schools are to make use of these materials have been left to the schools, in recognition of significantly different local needs and priorities. While the Quality Teaching model forms a platform for a number of Department policies and processes, there is no requirement or compulsion for schools to engage with the model or the materials. In part, the absence of a mandate to engage with the Quality Teaching materials contributes to a perception of the initiative as a potential support for development of improved pedagogy rather than as a tool for rating or ranking teachers' performance. The NSW public education system has a highly centralised history with little funding or responsibility for professional learning being left to the schools, until recently. Quality Teaching is located within a new policy context with many decisions about implementation left to the individual school.

While this openness about how to proceed with Quality Teaching is genuine, there are a number of ways in which guidance is provided. For instance, each set of Quality Teaching resources (the introductory materials, the materials focussed on classroom practice, and the materials focussed on assessment practice –see <http://proflearn.janison.com/plldd/areas/qt/index.htm>) was accompanied by a document designed to provide ideas for school leaders and others in engaging with

Quality Teaching. Moreover, the processes of coding in relation to one's own or others' practice require the kind of deep engagement in pedagogy that is named in many frameworks for high quality professional development. Similarly, built into the suggestions for using the materials is a high level of collaboration among teachers that is also consistent with what is articulated in the professional development literature. These features of the Quality Teaching initiative were not accidental, but designed to set the conditions that would enable teachers to engage in powerful professional learning in relation to pedagogy.

THE QUALITY TEACHING MECHANISM

In this final section of the chapter, I outline what I see as the underlying features of the Quality Teaching initiative, while simultaneously emphasising what it is not. Lewis, Perry and Murata (2006) argue that "innovations often fail when educators focus only on the surface features of the innovation rather than the underlying mechanism that will enable it to work" (p. 5). The longitudinal research in which I am engaged with my colleagues at the University of Newcastle is designed to empirically test the efficacy of the NSW Quality Teaching model and its associated professional development, as it has been taken up locally by schools. It is premature to offer insights from that research about the mechanism that enables Quality Teaching to work. Instead, at this stage, I offer four speculative propositions about what underpins Quality Teaching in the hope that they might be useful as criteria against which to consider other attempts at pedagogical improvement. The four aspects of the Quality Teaching mechanism posited below are (1) a comprehensive conception of teaching, (2) a focus on curriculum decisions, (3) clear goals for and commitment to learning for all students, and (4) a supportive approach to teacher development.

Comprehensive approach to teaching

A key feature of the Quality Teaching model is that the three dimensions represent a comprehensive conceptualisation of teaching that is concerned simultaneously with the quality of ideas addressed and work that is produced, the quality of the classroom environment and relationships among participants, and the significance of the learning for the specific group of students with whom a teacher is working. Other approaches to teaching reform that focus only on, for example, the quality of thinking in classrooms or the relevance of the curriculum can perhaps more easily be marginalised by teachers as they, of necessity, are concerned with other matters. While the Quality Teaching framework does not directly address matters such as relationships with parents, or responding to policy changes, or playground duties or the paperwork involved in teaching, I think it can be argued that it does provide a comprehensive approach to the teaching-learning aspects of teachers' work. Too often these matters are given little time and attention as teachers' energies are diverted to the other important, yet more peripheral matters. Quality Teaching

gives due focus to what is increasingly being named as most important in improving student outcomes – the quality of teaching.

The comprehensive character of the model highlights the need to treat Quality Teaching as a whole. The three dimensions are presented as supporting each other. In this way, teachers' attention is drawn not only to particular elements of teaching but to the relations between elements, in a way that is more likely to build teachers' capacity to reconceptualise teaching. That is, Quality Teaching can become a guide to teaching practice, not just a guide to deepening the quality of thinking or making learning more meaningful. Its potential to change how teachers see their work is captured in the following statement from a teacher involved in our current research. Since using the Quality Teaching model to guide his practice, this experienced teacher said, "This is the first time since I started teaching that I am actually teaching, rather than just giving students work to do." Quality Teaching, in this way, becomes a comprehensive framework that can underpin teachers' work, whether they are trying to address issues in literacy, or Indigenous student education, or special education, rather than a partial technique that guides an aspect of their work and is something additional to their regular practice.

Focus on curriculum decisions

Given the technocratic orientation to teaching practice that has framed decades of educational theory and research, the assumption made by some educators is that a model of pedagogy is primarily about specific teaching skills. Quality Teaching is much more a framework for focussing teachers' attention on what students are learning, how to achieve deep understanding, how to engage learners and so on. Central to the framework is an emphasis on intellectual quality which requires substantial attention to the ideas and the relationships between ideas that form the substance of student learning. The Quality Teaching model thus requires intellectual work from teachers in deciding what content is to be covered, what concepts are to be learned, what sorts of activities will support learning and so on. It focuses attention on the relationships between knowledge, practices and learners.

The materials developed to support teachers in Quality Teaching engage teachers in dialogue and collaborative planning in relation to curriculum, units of work, lessons and assessment materials. Good teaching is thus understood as being much more than the capacity to form productive relationships, manage students well, and engage them in learning. Quality Teaching defines good teaching as also being about important and meaningful ideas. A skilful classroom operator, whose classroom is happy and busy and appears to be working well, becomes more successful through a Quality Teaching lens when she or he produces high quality learning. In short, the ideas matter. Helping teachers to focus on ideas – on the substance of learning – through activities that demand curriculum decisions, is central to Quality Teaching.

Clear goals for and commitment to learning for all students

Also underpinning the Quality Teaching model is the premise that all students are capable of engaging in intellectually challenging work, a belief in students' capacity to learn and a belief in teachers' capacity to make a difference in student learning. A number of points are critical here. First, a firm belief in students' capacities to learn may be prerequisite to teachers being willing to even begin to engage seriously with Quality Teaching. That is, if teachers don't believe that their students are capable of learning, then they are unlikely to embrace a model of pedagogy designed to impact positively on student learning. Second, a clear conception of what constitutes student learning is also critical if Quality Teaching is to have an impact. If learning is understood as an outcome of simply being in school and progressing through the requirements of a syllabus, it is unsurprising that learning outcomes are low for some students. When learning is instead understood as gaining a deep understanding of important ideas that can be related to the students' own worlds and lives, there is much greater clarity to guide teachers' efforts. Third, the degree of specification about how learning is to be conceived that is conveyed through the Quality Teaching resources, with details of each element and dimension, can be understood as one of its strengths for the way in which it helps to clarify goals for student learning. Quality Teaching differs from some approaches to improving teaching in its broad conceptualisation of learning, a view that contributes to, but goes way beyond, student performance on tests.

The research base for Quality Teaching also demonstrates how an approach to teaching such as this can significantly improve outcomes for those students who have traditionally performed poorly in school (Lee, Smith, and Croninger, 1997). The commitments embedded in the model to intellectual quality and high expectations for all students may be critical in redirecting teachers' energies, particularly in poor and difficult schools, away from very real welfare and management concerns toward pedagogy for its potential to make a significant difference to their lives and life chances.

A supportive approach to teacher development

The Quality Teaching initiative is being employed by the NSW Department of Education and Training with the intent of supporting teacher development. A firm belief in teachers' own capacities underpins the Quality Teaching initiative and is, I believe, critical if Quality Teaching is to realise its potential. Just as students are labelled through the processes of schooling in ways that impact on their sense of themselves and their learning outcomes, it would seem that teachers internalise particular views of themselves that impact on how they teach and relate to their students. Just as the Quality Teaching model is premised on a view of all students as capable of learning, so is the Quality Teaching model premised on a view that all teachers are capable of delivering great lessons, constructing great units of work

and designing wonderful assessment tasks. Hence the emphasis in the Quality Teaching initiative is on quality *teaching* not quality *teachers.*

Moreover, in Quality Teaching, improvement is sought through an approach that respects and builds on what teachers already know and do. Part of the supportiveness of Quality Teaching as an initiative is that it is not presented as yet another innovation in which superficially doing something new is to be valued, a characteristic of too many school reform attempts. Rather, Quality Teaching takes "instructional *renovation* seriously—as a matter requiring sustained design, construction, and remodelling" (Cohen and Ball, 1999, p.13). The resources provided are intended to create opportunities for teachers to learn about and develop their knowledge, skills and dispositions by linking a focus on teaching with a focus on learners and on the ideas and materials with which they are engaged. The set of concepts and detailed language with which to describe teaching and learning provided by the Quality Teaching materials not only challenge teachers to reflect on and analyse their practice, but also provide tools with which to engage in detailed and specific dialogue about improving practice.

In this chapter I have focused on Quality Teaching as an example of the kind of pedagogical reform attempt that can meet the challenge of significantly improving practice. I have not included in the chapter any substantial critique of the model or of the broader initiative, although such critique is invited. In a field as complex as educational improvement, no approach is likely to respond to the full range of perspectives and arguments that circulate in the field. Quality Teaching is described and presented here in a substantial way because it would seem to have tremendous potential for improving pedagogy. Whether it 'works' to bring about serious pedagogical reform will require careful attention to implementation fidelity, to local manifestations of Quality Teaching, and to changes over a long period of time. The results of our longitudinal study, due to be completed in 2008, will form a chapter in the Quality Teaching story that I trust will be of interest to many readers. The challenges involved in moving teachers to higher levels of quality teaching are great. Few challenges are of greater importance in improving schooling for all students.

NOTES

[1] My thanks to Dr Maxwell Smith for this specific example.

[2] James Ladwig is the chief architect of the Quality Teaching model. My own involvement has centred on the detailed articulation of the model in the Quality Teaching support materials.

REFERENCES

Amosa, W., & Cooper, S. (2006). *Schools matter, teachers matter: Exploring the links between teachers' work, school context, and quality teaching.* Paper presented at the American Educational Research Association Annual Meeting. San Francisco.

Anderson, L. & Krathwohl, D. (2001). *A taxonomy for learning, teaching and assessing: A revision of Bloom's taxonomy of educational objectives.* New York: Longman.

Beane, J.A. (April, 1995). Curriculum integration and the disciplines of knowledge. *Phi Delta Kappan*, 616–622.

Black, S. (2002). Stretching students' minds: Effective teaching is about what students will learn – not just what they'll do. *Inform,* May, 30-33.

Cohen D.K., & Ball, D.L. (1999). *Instruction, capacity, and improvement.* Consortium for Policy Research in Education University of Pennsylvania Graduate School of Education.

De Bono, E. (1985). *Six thinking hats.* London: Penguin Books.

Gardner, H. (1985). *Frames of mind: The theory of multiple intelligences.* New York: Basic Books.

Gore, J. M., & Ladwig, J. G. (2006). *Does professional development have any impact on pedagogy?* Paper presented at the American Educational Research Association Annual Meeting. San Francisco.

Gore, J. M., Williams, C., & Ladwig, J. G. (2006). Pedagogy and teacher induction: A critical moment in professional development. Paper presented at the American Educational Research Association Annual Meeting. San Francisco.

Griffiths, T., Gore, J. M., & Ladwig, J. G. (2006). *Conceptions of pedagogy: Teacher understanding as a critical factor in professional learning and pedagogical practice.* Paper presented at the American Educational Research Association Annual Meeting. San Francisco.

Hill, P.W. & Rowe, K.J. (1998). Modelling student progress in studies of educational effectiveness. *School Effectiveness and School Improvement, 9*(3), 310-333.

Huberman, M. (1995). Professional careers and professional development: Some intersections. In T.R. Guskey and M. Huberman, (Eds). *Professional development in education: New paradigms & Practices*, pp. 193-224. New York: Teachers College Press.

Ingersoll, R.M. (2001). A different approach to solving the teacher shortage problem (Teaching Quality Policy Brief No. 3). Seattle: University of Washington. Centre for the Study of Teaching and Policy. Retrieved October, 2001, from <http://depts.washington.edu/ctpmail>.

Lee, V.E., Smith, J. & Croninger, R. (1997). How high school organization influences the equitable distribution of learning in mathematics and science. *Sociology of Education, 70*(April), 128-150.

Lewis, C., Perry, R., & Murata, A. (2006). How should research contribute to instructional improvement? The case of lesson study. *Educational Researcher, 35*(3), 3-14.

Newmann, F. & Associates. (1996). *Authentic achievement: Restructuring schools for intellectual quality.* Jossey-Bass: San Francisco.

NSW DET (2003). *Quality teaching in NSW Public Schools: An annotated bibliography.* Professional Support and Curriculum Directorate, NSW Department of Education and Training. Available online: <http://www.curriculumsupport.nsw.edu.au/qualityteaching/docs/QualityTeachEPSColor.pdf>

Oakes, J., Gamoran.A., & Page, R.N. (1992). Curriculum differentiation: Opportunities, outcomes and meanings. In P.W. Jackson (Ed.) *Handbook of research on curriculum*, pp. 570-608. New York: Macmillan.

Ramsey, G. (2000). *Quality matters. Revitalising teaching: Critical times, critical choices. Report of the Review of Teacher Education.* Sydney: NSW Department of Education and Training.

Rothstein, R. (2005). *Class and schools: Using social, economic and education reform to close the black-white gap.* Washington, D.C.: Economic Policy Institute.

Rowe, K. (2003). The importance of teacher quality as a key determinant of students' experiences and outcomes of schooling, A context and discussion paper prepared on behalf of the Interim Committee for the NSW Institute of Teachers. Retrieved 8 August, 2005, from <http://nswteachers.nsw.edu.au/library/Rowe.html>.

Strong, M. and St. John, L. (2005). A study of teacher retention. The effects of mentoring on beginning teachers. New Teacher Center, Santa Cruz. Unpublished paper.

Teese, R., & Polesel, J. (2003). *Undemocratic schooling: Equity and equality in mass secondary education in Australia.* Melbourne, VIC: Melbourne University Press.

Jennifer Gore
The University of Newcastle, Australia