

# Chapter 4: School effectiveness

## The school effectiveness movement

If we are willing to assert, as we have done in the last chapter, that schools and teachers can to some extent trump the effect of socioeconomic factors, then we need to be very clear what it is about a school that makes it a high-quality or effective one capable of doing this.<sup>1</sup> Readers will not be surprised to learn that there is a global industry based around identifying and answering this very question. It is, in a sense, the holy grail of education.

The effective schools movement arose in the US after the US Office of Education produced a paper written by one James Coleman. Coleman concluded, on the basis of his research, that public schools made little difference to student outcomes and that the important determinants of student success were family background and SES (Association of Effective Schools, 2013).

The appalled response from more optimistic researchers was to identify plenty of schools with students from poor and deprived backgrounds who were successful, thus immediately contradicting Coleman's basic thesis. The problem was that no one really understood

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<sup>1</sup> For the purposes of this chapter we will assume that the two terms, 'high quality' and 'effective', mean the same thing.

*why* some schools were more successful than others, even when they had identical mixes of poor and deprived students. What was it that these successful schools were doing that was so effective?

It was to answer this question that the effective school movement began and developed. The outcome of this work was often a list of descriptors or, using the original terminology, ‘correlates’, which were intended to describe the common characteristics of effective schools. In the 1980s, in response to Coleman’s original thesis, these descriptors or correlates were:

- a clear school mission
- high expectations for success
- effective instructional leadership
- frequent monitoring of student progress
- the opportunity to learn, and student time on task
- a safe and orderly environment
- strong home–school relations.

(Association of Effective Schools, 2013)

There are plenty of other descriptors, or correlates, of effective schools available in the literature, some very similar to the list above and some quite different, depending on the nature of the research done. There is no doubt that they provide school leaders, teachers, parents, the media and government officials with plenty of scope to initiate and drive school and national educational reforms.

### **Effective school research methodologies**

We should, however, be careful about accepting this sort of research at face value. To understand *why*, it is necessary to explain *how* the research is carried out in the first place. Researchers generally need to:

1. establish a set of quality criteria or proxies, which schools need to demonstrate to prove their effectiveness/high quality in the first place
2. identify and examine schools that can demonstrate they meet these criteria
3. identify the common key ‘working’ characteristics of these schools

4. produce a list/set of correlates that summarises the characteristics identified.

The initial selection of the criterion or proxy to be used (step 1 above) obviously needs to be based on some sort of data. These data most often—but not always—focus on some form of common standardised testing. High test scores are presumed to demonstrate that the school is effective and that students are learning. Test scores, in other words, are used as a proxy for quality. This approach may provide some useful information, particularly since test scores tend to remove elements of subjectivity in any judgements made by the researchers. However, using test scores alone as a measure of quality can be a very limited and misleading approach to take.

Other proxy data could just as easily be used to demonstrate effectiveness/quality. For example, high retention rates, or level of community support, or even high rates of entry to tertiary study might well be regarded as indicators of an effective/quality school. We should be clear: in order to find an effective school we need to decide on the criterion or proxy we are using as the measure of effectiveness/quality, and only then search for the correlates. Without the first, it is not possible to determine the second.

So, in the example above, schools with high test scores have been considered effective, and *then* the common characteristics or correlates (such as instructional leadership and clearly articulated mission/vision) of these schools have been documented. Put another way, researchers must start by looking for schools with high test scores, not schools that demonstrate the correlates.

The problem is that once researchers use a criterion such as high test scores (which is by far the most common) as a proxy for identifying effective/quality schools, the final list of correlates produced will logically and inevitably reflect this criterion/proxy. In other words, if the sole criterion used to establish whether a school is effective or not is high test scores, the final set of correlates will obviously identify the characteristics of the schools that deliver these high test scores.

There is nothing really wrong with this, and it is an entirely logical approach as far as it goes, but before we rush into school reform mode we need to be clear about a few things.

- The tests (if tests are the agreed criterion/proxy) that are fundamental to the entire process need to be carefully designed to compare school performance across the full range of SES homes, locations, gender and school types. Furthermore, they need to do this over a period of time to ensure the data are consistent.
- Large-scale testing for quality can have perverse effects. For example, schools may decide to focus their energy on ‘teaching to the test’. Teaching to the test may be fine if the test is broad and uses a range of assessment tools. However, if the test is narrow, or unduly focused on rote learning, it may have a negative impact on the quality of learning taking place and on the motivation of the students. Furthermore, such testing can drive out useful and worthwhile curriculum areas that are not tested—often in the arts and liberal studies.
- Simply establishing a relationship between high test scores and a set of correlates does not necessarily mean there is a causal link between the two:

It is not necessarily valid to argue that, just because, for instance, instructional leadership is correlated with high test scores, that one directly causes the other. It might be that principals who focus on instructional leadership also hire effective teachers. It might also be that the causal relationship works the other way around; for example, schools in which students are gaining high test results (for whatever reason) might also tend to require less of a principal’s time to be spent on administration relating to students’ welfare, leaving more time to engage in instructional leadership.<sup>2</sup>

There are other significant problems with research on effective schools. For example, as mentioned, what if researchers select a different criterion/proxy for quality? For instance, researchers might decide that the sole criterion/proxy for quality is the rate of entrance to tertiary study, not test scores. This might be an entirely reasonable indicator of quality for many schools because it might indirectly take account of not only test scores but also a range of other personal attributes and learning developed through the entire schooling system.

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<sup>2</sup> Dr Michael Johnston, Victoria University of Wellington, personal communication, November 2013.

If this were to be the sole criterion/proxy, it is possible that researchers will identify a different set of schools from those selected by the researchers who are concentrating solely on test results as the effectiveness/quality criterion. These selected schools, when examined, could easily exhibit a different set of correlates from those identified for the high test score schools. Researchers might therefore publish a different list of correlates to describe effective/quality schools. For example, for schools selected for effectiveness solely on the basis of a high rate of tertiary study criterion, one correlate might be a broad curriculum, offering multiple pathways to polytechnics and other tertiary training establishments. On the other hand, for schools selected for effectiveness solely on the basis of high test scores, the correlate might well be a narrower, more specialist curriculum.

What if researchers select high retention rates as the sole criterion/proxy for effectiveness/quality? Once again, they may identify another, different, set of schools, create a different set of correlates, and set principals, officials and consultants on a different path of school reform.

It should be noted that researchers could search for schools with multiple criteria/proxies. For example, they could search for schools that have high test scores *and* high rates of tertiary study *and* high retention rates, and then identify the common characteristics/correlates of these schools. It may well be that strong school leadership or vision/mission could appear on this list.

This multiple criteria approach is worthy of attention, but suffice to say that one difficulty with multiple criteria is that correlates are likely to become less useful and more complicated to write because some of the policy implications of the various criteria might be contradictory. For example *low* retention rates (often regarded as a negative) may well be a sign of *high* quality if a school is intent on developing strong links with tertiary institutions and placing students in work. Including both high retention rates *and* rates of entrance to tertiary study as key (multiple) criteria may therefore lead to erroneous conclusions about the schools in question.

## OECD PISA effectiveness judgements

It is useful to consider the OECD PISA data in the light of this discussion. The PISA report claims to describe what successful educational systems do. In other words, it describes the correlates. According to the OECD, successful schooling is demonstrated by those countries that score well in their tests. However, we must be clear that the effectiveness proxy the OECD uses as the key success effectiveness indicator is a written test administered once every 3 years. The characteristics of those countries that do well on these tests are examined, and their common characteristics distilled for the rest of the world to try to emulate.

We should be cautious: in any effectiveness research and reform process we need to be clear what criterion or proxy is being used as an indicator of effectiveness or quality. If it is a standardised test, is the test instrument technically reliable?<sup>3</sup> Will an emphasis on that one test have a longer-term perverse impact, such as future teaching to the test and a narrowing of the curriculum? If other proxies are being used, what are they and how reliable are they? And finally, whatever the criterion/proxy used, is it reasonable to expect there is a causal link, and not just a random relationship between the criterion and the correlate?

## The ERO perspective on quality

The New Zealand ERO criteria for quality appear at first to present a broader and more detailed approach to identifying quality. In its 2011 synthesis of its own reports over a 5-year period,<sup>4</sup> ERO concluded that quality schools are places where:

1. there is a focus on the learner
2. leadership is promoted in an inclusive culture
3. school decisions enhance effective teaching
4. the school engages with its community
5. policies and practices are implemented in a cycle of continuous improvement.

(Education Review Office, 2011, p. 2)

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<sup>3</sup> We have already noted that the methodologies used by the OECD for the PISA testing have been criticised for being technically *unreliable* (see p. 4).

<sup>4</sup> These were compiled using the results of 36 national evaluations and reports of good practice between 2007 and 2010.

ERO has identified schools that meet these criteria and has compiled a hefty report which tells us what characteristics these schools have. For example, in the case of the first criterion, in quality schools where there is a ‘focus on the learner’, we will find the following:

- the focus is school wide, on all students not just a few
- learners are engaged in their learning
- assessment information is carefully analysed and acted on
- assessment practice is effective
- decision making is evidence based
- curriculum implementation is well advanced
- programme and resource selection is effective
- learners are encouraged to take responsibility for their own learning
- progress and achievement are monitored
- results are communicated.

(Education Review Office, 2011, pp. 7–25)

Under *each* of these headings the reader is provided with good practice examples and advice. The report then goes on, in equal detail, to repeat the analysis for each of the other four indicators.

This is all useful material for a school. However, it is important that we understand that the initial five indicators for quality were broadly established *prior* to the research being carried out. In other words, ERO reviewers went looking for schools that, in *their view*, demonstrated the five indicators and *then* documented examples of good practice from the selected schools.

ERO accepts this in its report and frankly states that “these findings were the only possible outcomes given ERO’s focus and the questions asked” (p. 6). However, it goes on to suggest that the “evaluative” questions it asked in its research were broad enough to pick up other relevant indicators as appropriate. Presumably this means that its researchers remained open to the possibility of changing or adding to their initial list of quality indicators based on the data they collected in the research process.

The point is this: some potential alternative quality indicators did not appear on the ERO initial list, which other researchers might well have added. For example, some might argue that schools need strong

and principled leadership, *not* inclusive leadership, given the propensity of some schools and teachers to resist change, but this was never examined because it was not on the list of criteria to find “good practice schools”.

ERO might well argue that its initial selection of indicators was based on its own reviews of New Zealand schools over several years and the best international research: ERO is simply applying its findings. However, this still leaves various questions unanswered, such as on what basis was this international research done, and were ERO’s own previous reviews (which were used as the basis of the report) properly carried out and credible?

We are not given any information about the nature of the international research used in the report, but it is likely that a significant part of it was based on standardised test results. This is understandable given the problems of analysing, standardising and collating more subjective or complex data. However, if test scores are the prime proxy for these ERO conclusions about quality and effectiveness, we need at least to acknowledge the bias this places on the research finding. Standardised testing, as has already been suggested above, may or may not be the best way of establishing a universal quality indicator, or a proxy for quality.

If ERO is using its own previous reviews to identify effective schools, are the criteria used appropriate and credible, or is ERO simply summarising its own previous—possibly unreliable—findings? If, as seems the case, ERO selected its five indicators of quality on the basis of its own school reviews of New Zealand schools, along with international research, and if, as seems entirely possible, the international research was primarily focused on test results, ERO has provided us with what is effectively just another set of *correlates*. This represents much the same process as the other effective schools research we have looked at.

None of what has been said thus far should be taken to suggest that research on what makes a quality school is not worthwhile. It is, because it provides very helpful information about what might be termed ‘good practice’. Whatever the criteria established, the research provides us with information about schools that do it well. However, the point that should be clear by now is that identifying just what makes a high-quality school is not as easy as it sounds, and this is perhaps as it should be.

Schools are incredibly complex organisations involving a large number of variables, and are required to meet a wide and sometimes conflicting range of expectations from their communities. Agreeing what makes for quality depends on some initial subjective value judgements about what is important.

If we add to this the fact that *socioeconomic* characteristics of those attending the school have a far bigger impact on student outcomes than the school does, it becomes clear that research about quality schools (and the abundant advice about what makes for quality) needs to be used with care.

### **Using proven teaching strategies: a different perspective on quality**

Given that the concept of quality is slippery and that we need to be very clear about the criteria we are using, can we say anything useful about quality schools if we focus directly on the quality of *teaching* going on in the schools? If we can identify what good teaching involves, will this help us say something more about the quality of schools, and, perhaps more importantly, will it help us improve schooling?

Not surprisingly there are plenty of researchers who have come up with evidence-based prescriptions for quality teaching. The focus of this research is on examining the relationship between what teachers do in their classrooms and the learning taking place, rather than setting out to document the characteristics of effective/quality schools. The aim, using a variety of data—both test-based and more subjective and observational—is to help teachers understand what works in classrooms. In other words, this approach puts the magnifying glass on the classroom and tries to establish what good teachers do, rather than on the school as whole, or the schooling system.

New Zealand is a leader in this sort of research, with some of the best work coming from the Ministry of Education. A fairly complex set of answers emerges clearly from the Ministry's Best Evidence Synthesis (BES) research programme. The characteristics of quality teaching are summarised below.

1. Quality teaching is focused on student achievement (including social outcomes) and facilitates high standards of student outcomes for heterogeneous groups of students.

2. Pedagogical practices enable classes and other learning groupings to work as caring, inclusive and cohesive learning communities.
3. Effective links are created between school and other cultural contexts in which students are socialised, to facilitate learning.
4. Quality teaching is responsive to student learning processes.
5. Opportunity to learn is effective and sufficient.
6. Multiple task contexts support learning cycles.
7. Curriculum goals, resources including ICT usage, task design, teaching and school practices are effectively aligned.
8. Pedagogy scaffolds and provides appropriate feedback on students' task engagement.
9. Pedagogy promotes learning orientations, student self-regulation, metacognitive strategies and thoughtful student discourse.
10. Teachers and students engage constructively in goal-oriented assessment.

(Alton-Lee, 2003, pp.67–68)

Marzano (Marzano, R., 2003, pp. 67–68) has identified nine key teaching strategies:

1. identifying similarities and differences
2. summarising and note taking
3. reinforcing effort and providing recognition
4. homework and practice
5. non-linguistic representations
6. co-operative learning
7. setting objectives and providing feedback
8. generating and testing hypotheses
9. cues, questions, and advance organisers.

There is no doubt that reference to the mountain of research about quality teaching and what works in classrooms, which we have barely touched on here, is vitally important. However, some teachers and researchers may have a nagging concern about what appears to be a rather *mechanistic* approach to what is an incredibly complex process.

The problem with research like this is that it implies that teaching is a purely scientific enterprise, and that a ‘tool box’ of teaching strategies can be constructed; all that is required is to train teachers to understand, and use, the tools in the box. The implication is that all teachers need do is apply these ‘proven’ strategies. If we can write these strategies down, and prove they work, all that is left is for teachers to implement them. Teachers can be treated as the *delivery* mechanism, rather than as the highly skilled practitioners they are.

Most teachers know that this toolbox/delivery approach is a nonsense. They know, from their experience, that teaching is essentially more of an art than a science, and is better characterised as a form of street (improvised) theatre. What works or does not work in a classroom (as in street theatre) is inextricably linked with the nuances of human interaction and the interplay between all the parties involved. The task of the teacher, the ‘director’, is to provide the spark to transform all these interactions into meaningful, deep, learning experiences for all those involved—even though every performance is likely to be different.

The great challenge for teachers, of course, is that the toolbox, if it exists at all, is very hard to use and is incredibly complex. As with street theatre, although there may be a rough plan, what actually happens will depend on the action of the moment.

### **Shifting the focus to the quality of the teacher**

It may be that we need to shift the focus again. We have already shifted from outcomes (such as test results) to inputs (quality of teaching). Another possible shift could be from quality of the teaching to the quality of the *teacher*. Quality teaching, I want to argue, is far more about a *state of mind* than a set of strategies in a toolbox. In other words, what is crucial is the teacher himself/herself and his/her personal dispositions, attitudes and assumptions.

This helps to explain why so many experienced teachers show signs of extreme cynicism when presented with the latest fad tool from researchers about what works in classrooms. They know perfectly well that the latest ‘silver bullet’, though it may well be interesting and worthy of attention, is certainly not the panacea that researchers and government officials sometimes suggest it is. They know perfectly well

that it is the quality and state of mind of the teacher that matter most. If that state of mind remains unchanged, no reform effort will succeed, regardless of what the research says and no matter how many new fancy strategies are produced by newly inspired principals and university professors.

Of course readers will be asking: What exactly is this state of mind teachers are meant to have? Surely if we could describe and define it, it could then become the silver bullet we are all seeking. It, too, could go into a newly designed and special tool box and be sent out with a covering note to all principals. If the argument proposed here is to be taken seriously, it is important to try to explain what the state of mind approach looks and feels like, even as we make it clear that it is far too complex to be the elusive silver bullet solution to the challenges of teaching.

## Teaching as inquiry

The teacher as inquiry model appears in *The New Zealand Curriculum* (Ministry of Education, 2007). The core of the model is that really effective teachers need to have a state of mind<sup>5</sup> that constantly asks questions about the effectiveness of what they are doing in the classroom, that seeks honest answers to these questions, and then is willing to change practice accordingly. In order to be able to do this, teachers need to be honest, willing to accept they might get things wrong, and, most importantly, be able to constantly monitor their performance and success, based on the impact of their teaching on their students.

The inquiry model depicts three phases of inquiry

Using the inquiry model, teachers would start with a *focusing inquiry* and ask themselves what they know about the students in front of them and where the evidence is to support any conclusions they come to. Only by understanding students' starting point regarding any learning can teachers determine what is important to focus on.

Given the data and evidence from the focusing inquiry, teachers would then move into the *teaching inquiry* by identifying and trying teaching strategies that are likely to work, based on their own understandings and the research evidence available. As the teaching and

5 The phrase "state of mind" is not used in the official explanations of the model.

learning progresses, teachers will constantly be checking to see whether the strategies are working and are achieving the intended outcomes. If they are not, teachers will be reviewing and re-evaluating their teaching inquiry and going through the cycle again (Ministry of Education, 2007a).

There is nothing in this cycle that suggests that one teaching strategy is identified as being better than another. Putting students into groups is not necessarily better than lecturing them; self-reporting grades is not necessarily better than teacher marking and ICT is not necessarily better than using a textbook. In my years observing teachers as a principal I can certainly recall many teachers who lectured, used textbooks heavily, and focussed on rote learning, who were regarded by their students and their colleagues as very good, even great teachers.<sup>6</sup> Having said this, it is obviously important that “inquiring” teachers be aware of the research available and use it wisely. The aim will be to constantly and honestly evaluate and respond, rather than simply deliver.

There is perhaps one caveat here: although the inquiry model does require teachers to be open, honest and fallible (this is what is meant by the phrase ‘state of mind’), it does perhaps lack a broad philosophical/moral framework. For example, what would happen if a teacher has developed stereotypes about certain students in his/her class? The teacher may assume that particular students or groups of students are simply not capable of achieving anything significant because of their family background or culture. Applying the teaching as inquiry model for such a ‘deficit thinking’ teacher is unlikely to produce quality teaching and learning, because the teacher’s expectations could easily cloud and impede their inquiry process.

It is clear that the teaching as inquiry model will only be successful if teachers do possess a higher moral purpose about the possibilities for what they can do. They will need to believe that all students *can* achieve, and will strive at all times to make this happen. The inquiry model in the hands of a teacher with no sense of purpose or *passion*, who believes that schools make little difference, is unlikely to be any use at all.

John Hattie, in his book *Visible Learning* (Hattie, 2012), appears to

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<sup>6</sup> Not all of these methods would necessarily feature very prominently in a toolbox produced by the worthy researchers we have referred to earlier in this chapter!

endorse and build on the teacher as inquiry model, but also adds some passion and moral purpose. Hattie tells teachers they need to develop the following “mind frames”:

- a. *Teachers need to believe that their fundamental task is to evaluate the effect of their teaching on students' learning and achievement.* According to Hattie, this mind frame is about the need for teachers to be constantly evaluating the impact of their teaching by seeking feedback from the students, checking assessment data, and then making changes to the teaching approaches being used, as necessary. Does the teacher know what is working, and how well it is working? Where is the evidence to confirm, or perhaps refute, these judgements? What does the teacher do about it? This is probably a pretty good summary of the teaching as inquiry model we have already discussed above.
- b. *Teachers believe that success and failure in student learning is about what they as teachers did or did not do; teachers are change agents.* Hattie's argument is that teachers need to believe they can and do make a difference. There is no place for deficit thinking or blaming students for matters that are most probably out of their control.
- c. *Teachers want to talk more about learning than teaching.* Hattie implores his readers to move from debates about teaching strategies to a focus on learning: How do people learn? How do we know students have learnt something? According to Hattie:
 

Teachers need to be adaptive learning experts, to know multiple ways of teaching and learning, to be able to coach and model different ways of learning, and to be the 'best error detectors in the business'. (p. 163)
- d. *Teachers see assessment as feedback about their impact.* Teachers not only give feedback to students, but receive feedback about their impact from student assessment. Teachers need to seek and use this feedback as an integral part of their job.
- e. *Teachers engage in dialogue, not monologue.* Hattie wants teachers to be prepared to enter dialogues with their students,
 

to listen to their questions, their ideas, their struggles, their strategies of learning, their successes, their interactions with peers, their outputs and their views about teaching ... This is

about finding the right balance between teacher talk and more rich interaction with learners. (p. 163)

- f. *Teachers enjoy the challenge and never retreat to 'doing their best'.* Teachers need to focus on ensuring that the challenges that students face engage their interest. If students can see what is expected and what the success criteria are, they are more likely to meet the challenges and, by implication, do *better* than their best.
- g. *Teachers believe that their role is to develop positive relationships in classrooms.* This is not just about developing a warm and friendly classroom atmosphere. It is more about ensuring a classroom climate that encourages students to ask questions, take risks, and express their concerns about not understanding something that has been taught.
- h. *Teachers inform all about the language of learning.* Teachers need to ensure that parents understand the language of education and the classroom so that they can be equally involved in the education of their children:

Parents who understand the importance of deliberate practice, concentration, the difference between surface and deep knowing, and the nature of the learning intentions and success criteria are much more likely to work with their children and their teachers more effectively. (p. 165)

Hattie's mind frames, as briefly described above, and the teaching as inquiry model, as outlined earlier, bring us to an interesting conclusion in our discussion about quality. Quality teaching is about possessing a state of mind, and that state of mind is something we can describe. Combining this state of mind approach with what research tells us about quality teaching could well deliver results. We will return to this issue in Part 4.

## Concluding comments

Given the importance of good schools and good teachers, this chapter has shown that defining good quality is not as easy as it might first appear. There are a number of important points we can summarise here.

- Any approach that lists the characteristics/correlates of effective

schools will produce information based on the initial criterion chosen as a proxy for quality/effectiveness. For example, test results might be such a proxy, but retention rates may be another equally valid one. It is important to note that whatever the criterion/proxy chosen, if the measurement is based on large-scale standardised tests, there are almost always perverse and unintended impacts on learning. We need to be careful, therefore, when we are debating the quality of a school to ensure we know what we are measuring. It is possible to have multiple proxies, which can result in the broadening of characteristics/correlates. This approach is certainly worth investigating further, but it, too, may have problems, relating to consistency.

- Another way of looking at quality is to look at the input side rather than the output side. Rather than focus on test scores, it might be useful to look at the *quality of teaching* going on in schools. This approach avoids the need to choose proxies, and probably reduces the need to run large-scale tests. It is important to select successful teaching strategies based on evidence from a range of sources, not just test scores.
- There are plenty of data and research, both qualitative and quantitative, about the teaching strategies that work well and thus contribute to quality teaching. These data are informative and useful. However, such tool box approaches to quality can become quite prescriptive. Teaching is not about tool boxes and fool-proof strategies that can be wheeled out and applied, in the process turning teachers into a 'delivery mechanism'. Teaching is not a science: it is more an art, akin to improvised street theatre.
- Therefore, the question of what contributes to quality teaching is better focused on the *quality of the teacher*. Quality teachers need to have an inquiry approach to teaching and a particular set of mind frames.

It is important that the current research base about quality teaching and effective schools is not abandoned. This research base is large and valuable. What is being suggested here is that it is only part of the picture. Without quality *teachers* who possess the personal, moral and philosophical framework necessary to ensure that all students are given an oppor-

tunity to maximise their potential, it is difficult to imagine success.

Current approaches to educational reform to improve quality/effectiveness, and many reform efforts since the 1980s, as we will see in the next chapter, derive from the tool box approach: the focus has been more on the quality of teaching, or the quality of the school, or the quality of the assessment or administration, rather than the quality of the teacher. Arguably, as a result, much of this reform has failed to address the key issue of educational disparities and underachievement in New Zealand secondary schools. There is a need now to focus more of our reform efforts on the mind frame approach to the quality *of teachers*, because this approach is more likely to have lasting and deep impacts.

There is another fundamental question that arises out of this argument: If we accept that it is a mind frame we are looking for, what do educationalists, school leaders, politicians and government officials need to do to produce, support and nurture it? This critical question will be addressed in Part 4 of this book. But before we do this, we need to examine how we in New Zealand attempt to *measure* quality in schooling.