

knowledge
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the leadership forum

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New Zealand Education Snapshot

With specific reference to the Yrs 1-13 Years

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One of my underlying themes is that NZ must become a flagship for the world in quality provision of Years 1-13 education as then we can attract our best and brightest to stay in NZ, we can use the quality of our schooling to attract skilled immigrants to NZ, we can attract NZers who leave to come back, and we can improve the quality of living for all NZers. Our greatest export image needs to be that quality schooling is provided in NZ, so that any goods you buy with NZ label are produced by the best, and that it is worth staying in NZ or bringing children to NZ for the very best childhood and preparation for living. It is a given that the level of education of the citizenry is related to most of the high quality attributes of society, although there is much evidence that the best predictor is not achievement per se, but the number of years engaged in schooling (Levin, 20xx) – we must therefore make our schools attractive, challenging, successful, and inviting places for our students.

My task is to provide a snapshot of the major issues, as I see them, relating to New Zealand Yrs 1-13 education, and to recommend the major debates that our leaders need to address.

A. The Status of NZ schools

We have close to 3000 schools, with an average roll of 150 students, and there are about 50,000 teachers in these schools. We spend 7.3% of GNP on education, which places us in the top of the OECD countries, although our 1% of GNP for research and development places us in the bottom of the same countries (UNESCO 1999, pp. II-490-513; III-6-17).

We have a declining roll projection in primary and an increasing roll in secondary for the next 10 years. In 2006, secondary rolls are expected to be about 8% higher than today and primary rolls 3% lower – with the obvious implications that a declining primary roll will impact on secondary rolls beyond 2006. When it is noted that Auckland has an increase in primary and secondary over the next 6 years, then the effects elsewhere in NZ are decline.

Over the past three years, the percentage of teacher vacancies has remained about 1% in primary, and increased from .7 to 1.1% in secondary, with the greatest areas of need in Maths, English and Physical Education. Of the three major sources of teacher supply, current teachers moving positions, teacher trainees, and returning teachers, the latter has been the largest source of new teachers each year. We need to investigate policies to get trained teachers back into the classroom. For example, it has been the case for some time, that recently trained teachers re-assess their career after 3-5 years, and many move overseas (the great NZ OE). The worrying trend is that fewer are returning to NZ. The attractiveness of other countries with greater salaries must be a lure to our brightest who quickly work out that leaving NZ is an effective way to reduce the burden of loans. We either have to make it financially attractive to keep our newer teachers, provide better career paths towards excellence in teaching, attract them back, or we need to look to countries with lower teacher salaries than ours and attract teachers from those countries. Which do we prefer?

Compared to other OECD countries, we have one of the highest indices of school psychological safety, among the lowest class sizes (25 vs. 31 on average), the highest levels of cooperative and competitive learning, slightly higher levels of homework (not that more time on homework makes much difference to achievement), among the highest levels of student perceptions of teacher support, highest teacher morale and teacher commitment to their schools, lowest levels of teacher shortages affecting learning, and NZ schools have higher quality school physical infrastructure and educational resources (PISA: The NZ Context, MoE, 2002). Our principals, however, spend the greatest amount of time in administration, and we have among the lowest percentage of secondary teachers who are qualified to teach in their subject area (only 51% of math teachers studied maths in their degree; 74% of science teachers).

With one exception, NZ is a psychologically safe place to be a school student.

B. A Problem within NZ Schools

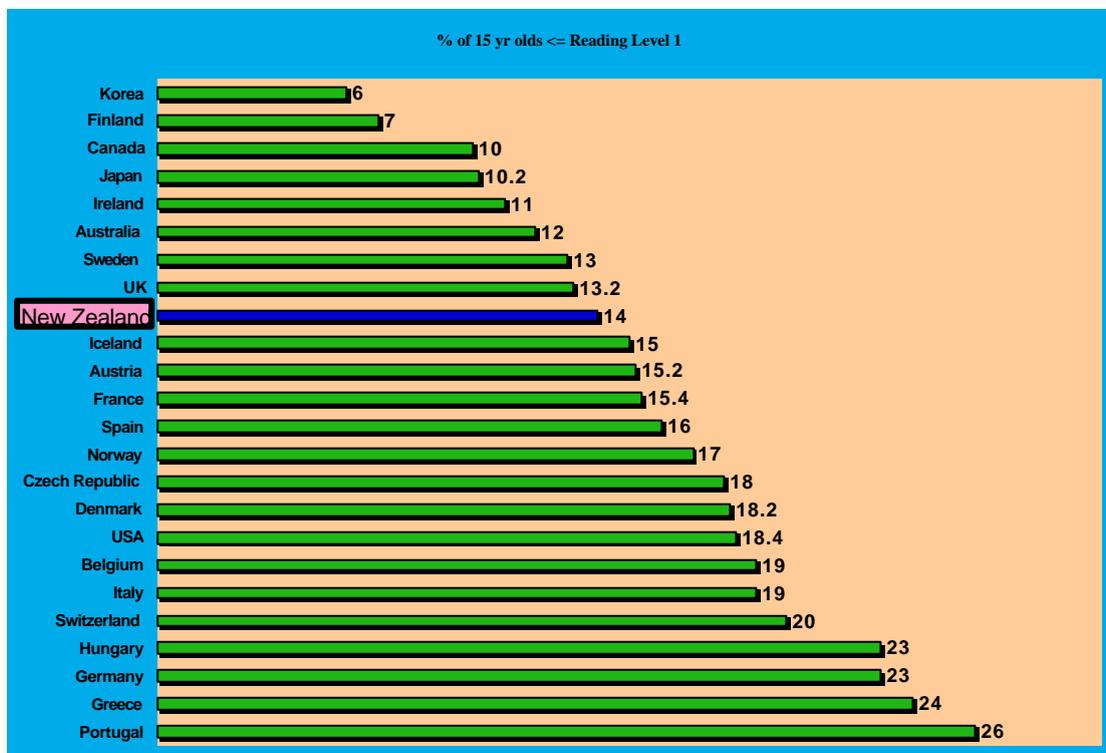
The exception is the achievement performance of the bottom 20% of our students.

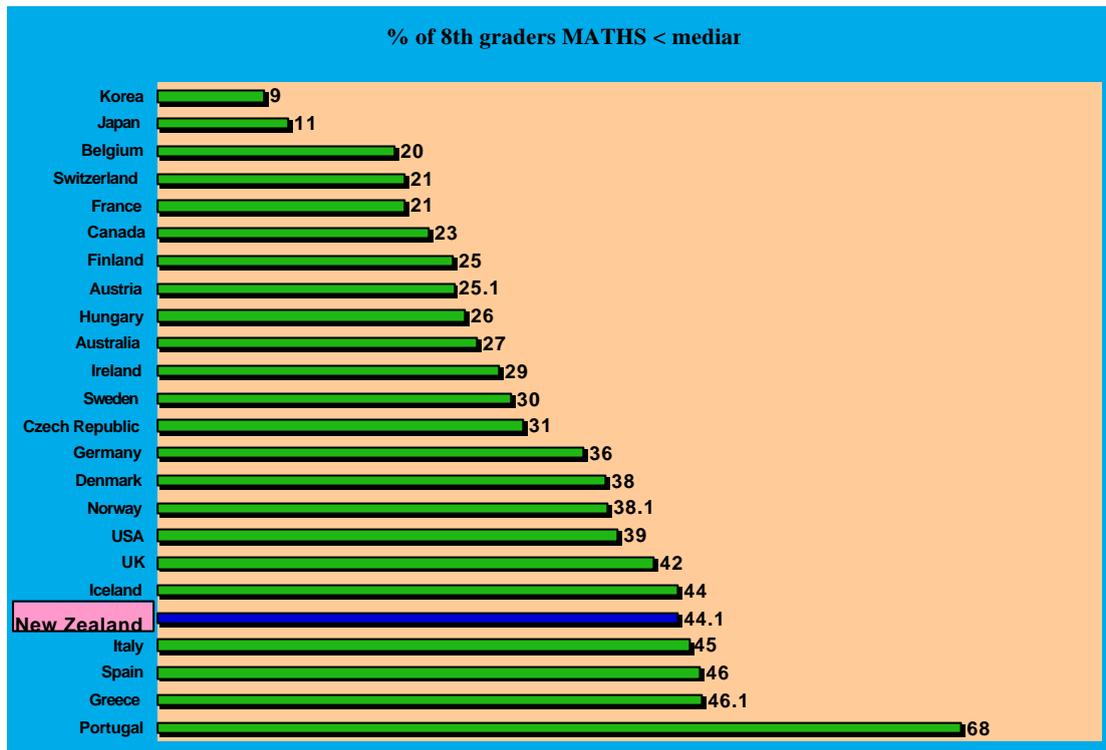
When we investigate the evidence of the successes and the problems of the NZ education system in comparison to many in the world we which to compete with, we see that the top 80% of our students are very competitive and performing at world class standards, while the bottom 20% are falling backwards – like no other country in the western world. We thus can consider the glass 80% full, or 20% empty.

Given that more and more of our successful young adults (the 80%) are becoming mobile in the world scene and leaving NZ, there is the prospect that the average ability of our workforce may decrease. More important, as the quality of living is related to educational involvement, thus we need to ensure that our education system is preparing students for a quality of living to which we aspire.

In the recent studies (Chamberlain & Caygill, 2002; Sturrock & May, 2002), NZ 15 year olds performed among the top three countries in reading, mathematic and scientific literacy. On this criterion, we are producing world-class students. We are also, however, producing the greatest disparity in achievement – not only is the gap between those who do and do not achieve among the greatest when compared to these same countries, we are one of the few Western countries where our bottom 20% are systematically falling behind.

We can honour in the excellence of our best students. For example, 86% of our students performed above the PISA reading literacy level 1, although we should be aiming to raise this percentage to the Korea performance (of 94%). The picture of our students in mathematics is not so healthy, as only 54% of 8th graders score above the 50% percentile of all OECD countries.

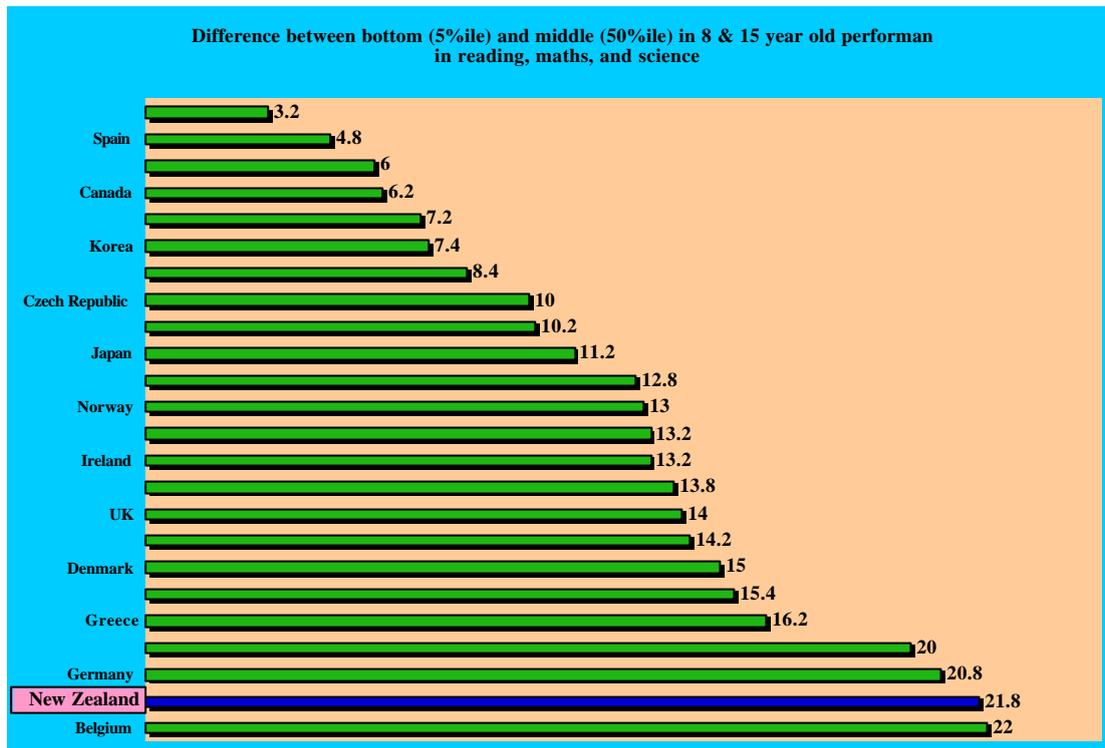




Of more import to the snapshot of NZ, however, is the size of gap between the lowest achieving students (at the 5%^{ile}) and those achieving at the middle (50%^{ile}). This is a measure of relative educational disadvantage (UNICEF, 2000). New Zealand appears one from the bottom – and this indicates that we are doing poorly in containing inequality as our lowest achieving students fall far behind the average NZ student. We have the widest gap in educational performance. This Figure reflects the success or failure of our country in preparing its bottom 20% of young people for life and work in the 21st century. Feel the width – ouch.

Using the information in these three Figures, if I were a parent of school age students I can markedly increase my children’s life chances by having them go to school in Korea, Japan, Finland, Austria, or if I can only speak English then I will move to Canada, Australia, the UK, Ireland or Sweden – especially if my child is in the bottom 20% of the achievement band.

We have an extreme degree of inequality in our education system – and to make matters worse, the surveys from the past 25 years have shown we are the only country where our bottom 20% is getting worse. These bottom 20% are the least mobile, and there is no doubt that more and more public resources will need to be directed to them when they leave school – in crime, unemployment, adult literacy, training programs, despair (e.g., suicide) and many other social problems.



The effects of the lowest performing 20% of students already is evident in the workplace:

- A third of our students leave school at or before the minimum leaving age with no school qualifications.
- A third of the unemployed have no school qualifications and of these one third are Maori and another 10% are Pacific Islanders.
- In a 1996 study 42% of a sample of working New Zealanders scored below the minimum literacy rate, meaning that they could not cope with the level of reading they encountered in the workplace (Laxon, 2001).

Our debates about schooling over the past 20 years have rarely made the difference and it is certainly is the case that the experience of schooling has not changed as a consequence of these debates. In the meantime students are receiving loud messages as a function of the debates we have chosen. Listen to the messages they are receiving:

- *You need to have more education to survive in this world* – then it follows that for those who see they are not going to succeed in this race might as well opt out earlier than we did.
- *You need to have more computer skills* – while computer related jobs are among the fastest in growth, the major need in numbers is in the retail business. These jobs require different skills sets, and we are currently promoting a message of smart, computers, technology, speed, when we need also to be promoting caring, adaptability, flexibility, interaction, smart, and addressing new challenges. Unlike

Australia where there are competency standards for many vocations and 90% of secondary schools offer vocational education and training, education for retail and business is absent in our schools.

- *You need to do maths and science* – whereas graduates in these disciplines are among the highest unemployed of University graduates
- *You need longer school days and school years to optimise achievement.* NZ already has close to the longest school day and school year of all OECD countries, so we may soon have the greatest proportion of physically present but psychologically absent students.
- *You need a decent high school education to get into University.* With the proliferation of places called “University” then this is transparently not true any more. If you have a pulse; some higher education institution will take you. Or if you have access to a wallet (yours, your folks, or the bank’s) you will get in. There are 140+ sites that offer teacher education and over 800 HEI’s in New Zealand. The necessity of pursuing an academic career through high school to get access to tertiary is becoming a mirage. A further consequence of the proliferation of places called “University” is that the traditional influence of Universities on secondary curricula has been reduced. There is an opportunity, however, for these senior scholars to have a major influence in the setting of the standards in the new NCEA – and they should be encouraged to do this so as to raise the standards and expectations of excellence.
- *You need to go to Year 13 to enhance your options at tertiary level.* With the increasing number of highly desired professions introducing their own entrance tests, then our brightest students must wonder why they do not go to University at the end of Year 12 – which will markedly change the cohort and nature of Year 13.
- *You need an education to get a job* – whereas students look to their older peers who were not involved in school and they have jobs (maybe not the ones they should aspire to, or ones we would want them to have, but they do pay money)
- *You need to get prepare for a vocation*– most of today’s adolescents will have multiple jobs in multiple sites, probably in multiple countries before they are 30.
- *Education is related to the Knowledge Economy* – the way education is related to the economic performance of a nation is not clear (as La Roque, 2003, has recently demonstrated) – we need to better understand this relationship. It is likely that “knowledge” is seen as “high achievement” in school subjects, whereas Knowledge needs to be configured as life long learning, being prepared to meet challenges, and flexibility or non entrenchment in thinking and problem solving – in achievement, working with others, adding value, and respect for self and others.

The claims on which we currently base our secondary schooling, served a world that many of today’s adolescents do not wish to aspire to and is not real for so many of them (Steinberg, 1996). The problem of engagement will become the greatest problem to face our schools, and this is further underlined when it is recognised that non-engagement is a major adolescent malaise. Engagement is in the hands of excellent teachers and inspiring teaching.

C. The effects on Maori and PI students

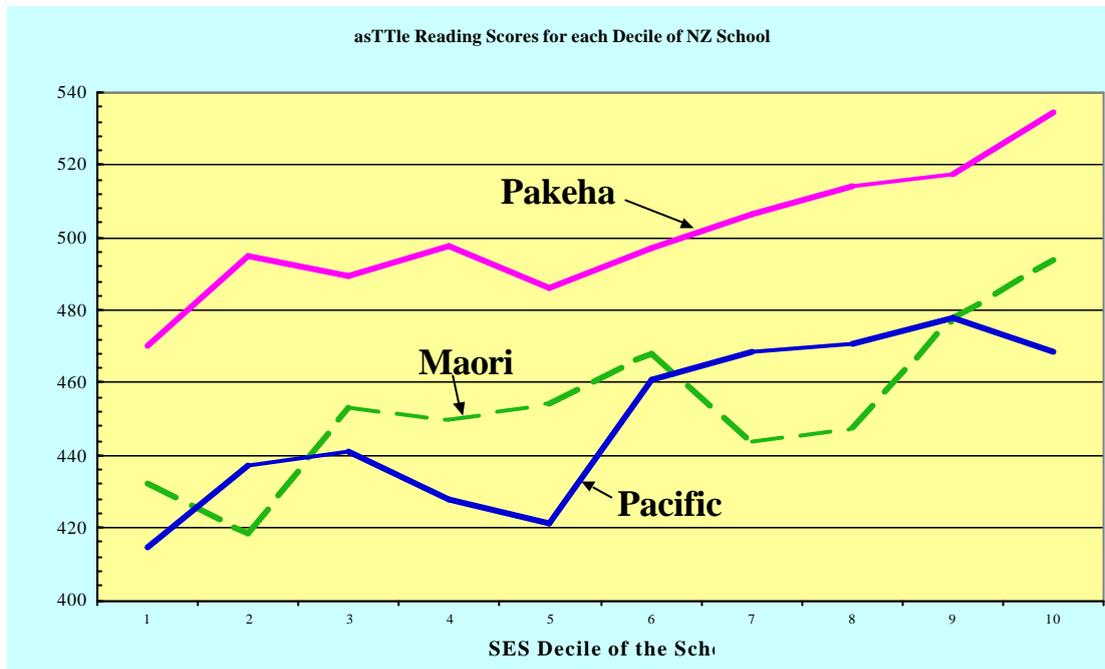
It is the case that so many of these students are Maori and Pacific Islanders, but that must never be interpreted that this is a Maori or PI problem. We need to invest in improving the chances for these students now, or we will need to spend more later to place more ambulances at the bottom of the cliff. Such social venture capital invested in that which makes the difference to all students, especially raising the performance of these lowest 20% is our best investment (e.g., the additional tax revenues derived from keeping more students in schools up to the tertiary years are 2.5 times greater than the costs to taxpayers to eliminate high school drop outs)

It is not a simple matter, however, of throwing more money at the problem – as we have been doing that for the past 15 years. The achievement levels, however, are going down for these 20%. The solution is not to make better or different schools, to give parents more choice in schools, or to shift students into different schools.

Let me illustrate the alternative solution by looking at Maori and PI achievement. If low socio economic status (however measured) were the problem then we would expect that Maori, PI, and Pakeha students who come from similar socio economic backgrounds would perform similarly.

Consider the results from our asTTle project on achievement (one of the largest data bases on the performance of NZ schools – www.asTTle.org.nz) relating reading achievement to the SES decile levels (indicator of socio economic status) of our schools. First, you would expect that the performance of reading would increase over the deciles of schools (where 1 = lowest SES background, and 10 = highest SES background) – and it does so increase. Second, if the difference between Maori and Pakeha students was primarily socio-economic background, then you would expect that the differences between Maori and Pakeha would be small in decile 1 schools (as both groups of children come from lower SES) and similarly small in decile 10 schools (as both groups come from higher lower SES), and both would have rising achievement levels. Indeed, you would expect the differences (commonly expressed as an effect-size) to be much smaller within deciles than across deciles.

The difference in reading from decile 1 to decile 10 can be expressed as an effect-size of .68, but the difference between Pakeha and Maori within deciles averages .55 (and .59 for Pacific) – illustrating that the difference is still there even when socio-economic background is held constant. The differences between Maori (and PI) and Pakeha are as great within a decile as they are between the highest and lowest decile! We are doing something, or probably NOT doing something, to Maori and Pacific children within our schools *across all decile levels* that is just not connecting with them. It is not socio-economic differences. Instead, the evidence is pointing more to the *relationships between teachers and Maori students* as the major issue – it is a matter of cultural relationships not socio-economic resources – as these differences occur at ALL levels of socio economic status (Bishop, 2002).



It is highly likely that we have not engaged Maori and Pacific students in schooling, not belonging to the school climate, and we have not encouraged them to gain a reputation as learners within our school system – regardless of socio economic background. (This is contrasted with the success of many of these Maori students in Maori language programs, as our asTTle results are starting to show.) Maybe we have known about this lack of engagement for a long time, but we have explained it away as something to do with home and the parents, and thrown more money at the schools. Instead, we need to strategically resolve who we are. It is *we* the teachers, and we need to ask how teachers can better “relate” to students from different cultures, and we all need to esteem culturally rich schools and not bewail the problem as something to do with Maori students – it is not the problem of the students. We need to help our teachers to more engage all students, we need to assist parents appreciate that their children can learn to high standards.

D. Identifying what matters

There have been many studies over the past few years that have asked this question about wherein lies the variance (I have over 600,000 in my own database, Hattie, 1997). A major aim is to decompose the variance of the many influences to identify what proportion of achievement variance can be attributed to students, the curricula, policy, the principal, school climate, the teacher, the various teaching strategies, and the home. If we ignore the interaction effects, which are too often minor, then the major sources of variance are six-fold.

Students -- They account for about 50% of the variance of achievement. It is what students bring to the table that predicts achievement more than any other variable. The correlation between ability and achievement is high, so it is not surprising that bright students have steeper trajectories of learning than

their less bright peers. No matter how much we may like to “select” the best students into our schools, instead we must teach ALL students. We can add achievement value to students but as noted above; we are doing this disproportionately such that the bottom 20% is slipping behind their international peers.

Home -- This accounts for about 5-10% of the variance, as most variance is already accounted for in the student prior achievement effect.

Schools -- These account for about 5-10% of the variance. *Schools* barely make a difference to achievement. The discussion on the attributes of schools – the finances, the school size, the class size, the buildings are important as they must be there in some form for a school to exist, but that is about it. Given NZ schools are well resourced with more uniformity in the minimum standards than in most countries, it should be less surprising that in NZ the school effects are lower than in many other countries. Another way to note the effects of school is to consider two students of equal prior ability, and it almost does not matter which school they attend (although Nash, 2000 has shown that brighter students may perform higher in the lower decile schools at the School Certificate level).

Principals – Their influence is not directly on student learning but is more on the climate of the school. Principals who create a school with high student responsiveness and high expectations rather than bureaucratic control, who create a climate of psychological safety to learn, who have clear and high expectations, and who create a focus of teacher discussion on student learning can have a greater influence.

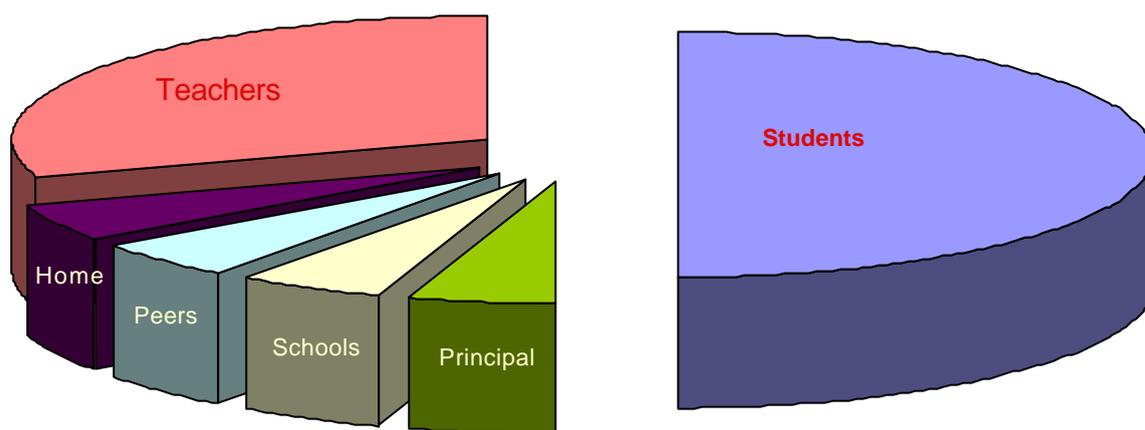
Peer effects – These account for about 5-10% of the variance. This reflects how we under-utilise peers as co-teachers in classrooms. Certainly peers can have a positive effect on learning, but the discussion too quickly moves to the negative powers such as the recent increase in discussion on bullying (which is too real), and on the manner students create reputations around almost anything other than pride in learning.

Teachers – They account for about 30% of the variance. It is what teachers know, do, and care about which is very powerful in this learning equation. And it is the one source of variance that can be enhanced with the greatest potential of success.

The following pie chart illustrates the relative influences of the above sources. When I review the initiatives of the Ministry of Education up to a couple of years ago, and when I review the policies in so many New Zealand schools, I note that the focus of debate has been more about the influences of the home, and the structures of schools. We have poured more money into school buildings, school structures, we hear so much about the value of reduced class sizes and new examinations and curricula, we ask parents to help

manage schools and thus ignore their major responsibility to help co-educate, and we highlight student problems as if students are the problem. That which makes the difference is clear – it is the person who gently closes the classroom door and performs the teaching act, the person who interprets or ignores the many policies, and the person who is alone with students during their 15,000 hours of schooling.

Percentage of Achievement Variance



E. It's the teachers not the schools !

I therefore suggest that we should focus on the greatest source of variance that can make the difference – the teacher and her or his teaching. We must work to support what I see as the new direction from the Ministry of Education to highlight teachers and teaching as the policy focus. We need to ensure that the influence of teachers is optimised to have powerful and sensationally positive effects on the learner. We need to direct attention at higher quality teaching, and have higher expectations about the challenges that teachers set for students - and these effects on achievement occur once the classroom door is closed and not by reorganising which or how many students are behind those doors, by promoting different topics for these teachers to teach, or by bringing in more sticks to ensure teachers are following some “teacher proof” policy.

Primarily because our attention has been on improving “schools” we have for too long told parents that all was well in school, and that their child is performing close to his or her level of expectation. For example, from our study of reports from 150+ schools in NZ, 98% of students are performing well, putting in energy, and a pleasure to teach (Peddie & Hattie, 1998)! We need more honesty in communicating exactly how students are performing – *what they do and don't know, what they can and can't do* – and then parents can appreciate how their children are performing although (appropriately) this

will place more focus on what their teachers are expecting, achieving, and doing for all children.

We need to re-focus our schooling towards teachers and teaching – or in the Vision of the new Teachers’ Council (Kouvelis, 2002).

Excellence in Learning through Excellence in Teaching

We need to engage in some sharp and meaningful debates about teachers and teaching, as only then will our education system demonstrably change to meet the needs of our growing society.

F. Three directions for enhancing teachers and teaching

I suggest that there are three major directions that we should debate and evolve policies if NZ education system is to prosper and be change agents for ALL our students.

1. We need to fairly and dependably recognise excellence in teaching, and use these excellent teachers to lead the improvement of teaching.

The current system promotes teachers by experience and then offers “management units” as an incentive to take more senior roles. We need, however, a promotion that is based more on excellence and experience, and that ensures that the highest paid person in any school is the experienced expert teacher – not the experienced teacher who also manages. It is worth noting that there are many experienced excellent teachers who are taking pay cuts (giving up the management units) to go back to the classroom. They should not be so penalised for being excellent.

We can recognise excellence in teaching and teachers (as evidenced for example by the NBPTS model, www.nbpts.org). We need to introduce such a model into New Zealand, whereby teachers volunteer to *sit a series of fair and defensible assessments* that can identify excellence, and then we need to esteem and value these teachers. Such a model leads to the best professional development, invites others to move towards excellence, demonstrates to parents and taxpayers that there are excellent teachers in our system, and provides a set of goal posts for all teachers to aspire to. We need to re-professionalise the career structure for teachers. The National Board has succeeded because teachers run it, it is based on a professional development model, is voluntary, and is based on fair, credible and defensible assessments.

I have offered the challenge to a group of 10-15 New Zealand teachers in one curriculum area to work with us to sit the US system, and if these teachers proclaim its excellence then we have a catalyst for developing such a model here. So far, I have no takers, possibly because of the \$NZ6000 entry fee?

A similar model based on high and rigorous standards could be implemented for Principals of our schools, and Robinson and Bennison (2003) have so outlined a model for NZ schools.

2. We need to accelerate the transition from educational practice as a craft to educational practice that is evidence-based.

During the first half of the 20th century medical practice gradually changed from a craft oriented activity (where treatment decisions were based upon the opinion and personal experience of the practitioner) to a clinical science (where treatment decisions came to be made on the basis of scientific evidence regarding the effectiveness of possible treatment options). The key features of this transition were (a) an explosive development in scientific research into how best to treat the various types of trauma and illness and (b) an accelerating adoption by medical practitioners of evidence-based medical practice (Le Fanu, 1999). This transition to evidence-based practice has yet to occur in education. Educational research remains largely prescientific and educational practice remains a craft. This is despite there being millions of studies that move education beyond craft and opinion.

If doctors lost their base of medical knowledge, most of them would have to stop working. They would have no idea how to treat anything other than common ailments. ... If teachers were suddenly to lose the body of knowledge on which most base their teaching, however, their work would be virtually unaffected. Schools would continue to operate pretty much as they do now (Borg & Gall, 1989, p 4).

Many of those who work outside of education find it hard to believe, after a century of scientific and technological progress:

- That educators still make most of their practice decisions on the basis of personal belief and personal experience (e.g. Ravitch, 1998).
- That teachers still judge their teaching effectiveness in terms of the degree of pupil engagement in classroom activities, and teacher satisfaction that they are doing a good job and not in terms of what each child is actually learning.
- That the primary aim of teacher education is to reproduce rather than to improve existing teaching practice.
- That decisions about the adoption of new teaching programs and procedures are hardly ever made on the basis of scientific evidence about their effectiveness (Grossen, 1996) and that, even where such evidence exists, it is routinely ignored (Carnine, 2001); and
- That most educational research remains prescientific in the sense that it fails to produce results, which are either reproducible or generalisable.

No wonder it is hard to raise the achievement of all young New Zealanders. Instead, we must accelerate the transition from educational practice as a craft to educational practice

that is evidence-based. Evidence based teaching integrates the best available evidence about optimal teaching methods and processes that enhance student learning. This evidence can be either from the extensive literature now readily available, from using dependable measures and observations in the classroom of student performance, by subjecting the results of teaching to scrutiny by others, and by setting benchmarks of acceptable and excellent teaching. To use evidence-based teaching, teachers need critical appraisal skills (e.g., finding, evaluating, summarizing, and using research results in the literature and in the classroom), a high level of reasoning and critical thinking, a willingness for uncertainty and thus keenness to seek new teaching alternatives, a heightened sense of efficacy to improve, an awareness of variability in learning/teaching situations, a keenness for seeking the teaching strategies that have the most efficacy, effectiveness and efficiency, and reflective decision making.

3. We need to redefine the purpose for schooling

There needs to be a lively debate about the post-internet, 21st Century NZ schooling that we desire. Our schools still look like industrial age egg crates, with 25 students listening to an adult (80% of all instructional time is spent in listening, Yair, 2000), and parents judge the success of schools by the amount of home work, number of facilities (especially whether computers are turned on or off), and quality of equipment.

We need a major debate in NZ about the purpose of our education system.

- We used to value the student – recall the famous Peter Fraser dictum that “every person, whatever his level of academic ability, whether he be rich or poor,” is entitled to “a free education of the kind for which he is best fitted”. Yes, they get the “free education”, but it is not altogether working for all.
- We have more recently valued the school and its potential to absorb parents into the running and financing of the education system, partly in the name of the Treasury belief about the distribution of private and public benefits of school. As Fiske and Ladd (2000) have documented, among others, our experiment with self-governing schools whereby the cream is supposed to rise and attract, where parents are invested in running schools, and where schools have had the greater opportunity to choose students has not reduced but increased disparity.

We NO longer have a purpose for schools – tending to dump more and more on them such that teachers are becoming “all things” thus reducing their effectiveness. It is time that we re-defined the PURPOSE OF SCHOOLING. Right now, there is NO purpose, so everything goes. This is a debate we must have to provide a focus, and I suggest that

- We need to create a purpose whereby we value the teacher and teaching as the major change agent:

The purpose of Years 1-13 schooling in NZ is to provide the best possible education to all students by promoting the best teachers and teaching so that they work to provide opportunities for all students leading to an engagement in, and success from the challenge of learning, a respect for others in our societies, and a commitment to building NZ as a worthwhile place in which to live and prosper.

This purpose focuses on those who make the difference, empowers an agenda to provide opportunities for all (and not necessarily the same opportunities), and aims to enhance not only achievement but the processes of life long learning, respect, and a commitment to our nations future, which we wish our children to build and be part of.

It means a focus on the key features that make a difference – the teachers and their teaching and I note that many of the factors noted in Michael Scriven’s presentation also are in the hands of excellent teachers. This purpose provides a focus beyond the one-shot debates we have been having in NZ. Away with the single focus on NCEA, school choice, middle schools – all which are but part of the larger picture of what makes the difference – a focus on great teachers and excellent teaching.

Conclusions

During the next decade, there will be a major shift in education policy towards competing on the *world stage*. Given that our students, when graduating from school, will work in this world arena, then world-class standards are important. Moreover, as our teachers become more mobile and certainly are attractive to overseas school systems, we need to monitor the world status of NZ schools to ensure we are ahead and hope therefore to attract the excellent teachers to stay and be part of the world’s best. We then can attract others to join in our foremost education system.

We need technologies of practice, a shared commitment to that which truly works in teaching. Without it, we allow self-determination about what is effective teaching, and this is too variable. More important, if there is an absence of shared teaching excellence, then it is highly likely (as we are currently witnessing) that the void will be filled by personal views– such as views that it is the home, the student that set the boundaries on what is attainable. The necessity is to de-privatise teaching, and to ensure that “we” all share the teaching of students.

As we learn more about those countries that are “world-class” we find that teachers in those countries receive the “technologies” of their profession through instructional theory courses, a commitment that effort rather than family or intelligence is the basis of learning, and that all children can learn – none will be left behind (Reynolds, 2002). In countries like Taiwan, the Netherlands, Hong Kong – countries where the home influences are minimised and not permitted as excuses for not teaching successfully – the role of the education system is to foster success independent of the students’ backgrounds. A tough ask for New Zealand school personnel, which has been badgered about the importance of the family, and where school management is based on parental

ownership and control. We must reverse this trend and create the dialogue about excellent teaching and accomplished teachers; and create the dialogue of effective practice making a difference to educational outcomes.

Given the enormous power parents already have over schooling in NZ, it is vital that they do not continue to provide the schooling they wished they had received. Instead, we need teachers to engage students in bold new curricula that prepare them for critical thinking and persuasive argument, that prepares them for the proficiency to set and meet challenges most of which are very ill-structured. We need a curriculum that includes a loyalty to our cultures, so that when so many of our most able go overseas to use the fruits of their NZ education, they have the seeds to encourage them to return to our inviting and exciting cultures, to raise their children in NZ schools, and to give back our investment in their excellence.

Last November, our Vice Chancellor sponsored a series of lectures on Strategic Directions in NZ Education, and the 300+ participants heard from Professor Brian Caldwell (University of Melbourne) about a new framework for public education in the next decade, from Dr Gary Galluzzo (Executive Vice president of the National Board for Professional Teaching Standards, USA) on strategic directions for excellence in teaching in NZ schools, and from me on strategic directions for research. Most important, however, the participants workshopped a plan for strategic directions in NZ education and I attach their directions as a starting point for furthering the debate about the purpose of schooling, the identification of excellence in teaching, and the enhancement of achievement for all NZ students.

NZ has been the world leader in quality of living (when we were children) and is the best in America's Cup yachting. There is only one winner, and we need to be it in the education of our Yrs 1-13 students. At the moment countries like Finland, Singapore, and Korea have this accolade, and we are but second or third in reading, middle in maths and science, and near the bottom for those in the greatest need (the lower performing students). A major role for a Knowledge Wave Conference of Leaders is for you to LEAD and set a strategic direction for Years 1-13 schooling in NZ, and for this debate to be powerful in its impact. We need to work with teachers and schools to help them improve, and not bash them with negative evidence. We need to demonstrate that we can retain our critic and conscious role while helping our teachers become world class.

VICE CHANCELLOR'S LECTURE SERIES (October 2002)

MAJOR STRATEGIC DIRECTIONS FOR NZ EDUCATIONAL RESEARCH SUMMARY OF SUGGESTIONS

(Full report available by emailing j.hattie@auckland.ac.nz)

Excellent teachers/Excellent teaching is central

The 300 participants were divided into 14 workshops, and for two hours debated, outlined, and discussed the major Strategic Directions for NZ schools. The major issues related to the future of excellent teachers and teaching. There was much support for the exploration of the NBPTS model in NZ, and a major issue was to clarify the “purposes” of schooling.

1. Standards for teachers.

- What are community expectations of national standards for practising teachers?
- Establish more effective monitoring and assessment procedures for performance standards for practising teachers. Present system ineffective.
- Establish NBPTS model for NZ conditions so that there are multiple pathways to recognise excellence in teaching. (Unanimous agreement).
- Establish entry and exit standards for teacher education and rate quality of graduates from plethora of providers.
- We need high standards for teachers

2. What are best teaching practices?

- Welcomed the need for evidence based teaching
- What is the most effective way to communicate best practice to teachers in an on-going way (e.g., via television, on the web, video)
- What is the effectiveness of ICT on learning/ media on children's learning – in particular children who are under performing, reluctant learners, gifted children.

3. How to attract/retain great teachers

- How can we build a profession that is valued, has excellent conditions of work, uses paraprofessionals to do the non-professional clerical work that teachers spend hours on, has sabbaticals, meets professional standards at different points rather than automatically progressing through a salary scale?
- Recruitment and retention of the best minds is a worldwide problem. Teaching is an international profession – teachers are mobile, especially at the secondary level; how do we keep the best?
- What are the expectations of people who might consider teaching as a career? How can we match expectations with reality?
- What keeps teachers teaching?
- How to raise the mana, and quality of teaching profession?

4. Professional development

- Teacher professional dialogues are important. More PD needs to focus on teaching learning
- Time out for content study or attach to teacher education courses (needs to be supported by principals and BOT) e.g., Woolf Fisher, PPTA study awards, ex-teacher attached to school and department to work with them act as critical friend/collaborative practice, part time in University/ or business.

5. What is a NZ classroom

- What really does happen in a NZ classroom?
- What effect do “transient” students (moving schools) have on the tail?
- What is the effect of decile rankings when schools may have an “average” decile of all students, but individual students may vary greatly? Major problem with how deciles are used by parents and teachers inappropriately as a measure of quality.
- Debate about the rate of increasing bureaucracy on the role of teachers in the classroom
- Are there any demonstrated links between student learning and centralised/decentralised funding systems?

6. Partnerships

- How can schools and communities develop a working partnership that validates good quality teaching?
- How can a working partnership be developed between researchers and the chalk face?
- Need a debate between education, business etc. to develop some shared view of the value(s) of NZ cultures that should be fostered through education in NZ

7. Curriculum issues.

- How do schools simplify an overcrowded curriculum?
- With increasing emphasis on subject content knowledge, how do schools teach an integrated curriculum without losing depth of content?
- How can we link primary /secondary/ intermediate schools to get better transitions/ knowledge transfer for students?

8. What is the purpose of education?

- What is the purpose of education – education or investment?
- Clarify the role of schools (bi-partisan approach)
- How can we determine values of community, the social values and worth of education?

9. How do we address the ‘tail’?

- What are the nations without the big tail doing that is different from us?
- What are the factors that are increasing the disparity?
- Present emphasis on Maori appreciated, but schools are struggling to cope with other groups too. How can schools better provide for the needs of the other sub-groups such as Korean students, refugee groups, etc.?
- We would like to see the teacher effectiveness work completed in low decile schools, also applied to higher decile schools

10. Effects of qualifications

- What will be the effect of senior secondary qualifications that do not give access/eligibility for support for all pupils? – potentially very divisive
- NCEA – how is going to affect boys’ views of this process?
- What is the impact of NCEA on student learning and teacher workload
- What longitudinal achievement data should schools collect?

References

- Carnine, D. (2001). *Why Education Experts Resist Effective Practices (And What It Would Take To Make Education More Like Medicine)*. ERIC Document ED442804
- Chamberlain, M. & Caygill, R. (2002). *The school and classroom context for Year 9 students' mathematics and science achievement*. Ministry of Education, Wellington, NZ.
- Fiske, E.B., & Ladd, H.F. (2000). When schools compete: A cautionary tale. Washington DC: Brookings Institution Press.
- Grossen, B. (1996). Making Research Serve the Profession. *American Educator*. 20(3), p7-8, 22-27.
- Hattie, J.A. (1997). *Influences on achievement*. www.arts.auckland.ac.nz/edu/staff/jhattie
- Kouvelis, M. (2002, December). *Teaching in the 21st Century*. Presentation at Graduation Ceremony, Auckland College of Education.
- La Roque, N. (2003). *Who should pay? Tuition fees and tertiary education financing in New Zealand*. Wellington, Education Forum.
- Nash, R. (2000). School performance and access to tertiary education: The within-class selection model. *New Zealand Journal of Educational Studies*, 35 (), 179-192.
- Peddie, R., & Hattie, J.A. (2000). *Evaluation of the assessment for Assessment for Better Learning Professional Development Programs (ABel)*. (Report #703). Ministry of Education, Wellington.
- Robinson, V.M.J., & Bennison, B. (2003). *Professional standards for school principals: A vision for New Zealand*. Unpublished manuscript, School of Education, UoA.
- Steinberg, L. (1996). *Beyond the classroom: Why school reform has failed and what parents need to do*. New York: Touchstone.
- Sturrock, F., & Maym S. (2002). *PISA: The NZ Context, MoE, 2002. The reading, mathematical and scientific literacy of 15 year olds: Results from the Programme for International Student Assessment*. Ministry of Education, Wellington, NZ.
- UNESCO (1999) *1999 Statistical Yearbook*. UNESCO, Paris.
- UNICEF (2000, November). A league table of educational disadvantage in rich nations. *Innocenti Report Card, 4*, 1-36.
- Yair, G. (2000). Educational battlefields in America: The tug-of-war over students' engagement with instruction. *Sociology of Education*, 73, 247-269.