

# Understanding the gender gap

Paul Baker



A four year study observed how 14 young chimps in Tanzania learnt, by observing their mothers, how to catch termites, using a thick stick as a tool. The mothers showed no gender preference in teaching. The daughters copied them closely while the sons “would quickly lose patience and play games”. On average, the females learnt the skill in 31 months; the males 58 months.

Adrienne Alton-Lee cautions about using the gender gap “as a kind of absolute measure of what matters” But, even in the Simian world, it’s the gender gap by which we have come to judge male achievement - and in the human world, it is changes in the gender gap, more than any other factor, that bring us here today.

## Summary of argument

- 1 The Level 1 gender gap is significant and has existed since 1993.
- 2 The Level 3 gap is larger than Level 1, larger than normally reported, and still growing.
- 3 The gender gap is subject based, and influenced by how we choose to construct subjects, teach and assess them.
- 4 The gap reflects and may contribute to changing gender patterns in tertiary education and employment.
- 5 The gap is not connected to race, class or rurality.
- 6 There is a crisis in the gender composition of the primary work force and a potential crisis at secondary level.
- 7 Boys’ schools or classes have particular advantages in meeting male needs.
- 8 Most co-ed schools are doing little to specifically target boys’ needs, but boys can thrive in co-ed schools that are well run.
- 9 There are no simple solutions, but there are complex, multi-layered solutions.
- 10 New Zealand’s institutional response to the gap has been one of denial, delay and trivialization.

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The gender gap starts in the womb. But we'll move quickly on, to the start of schooling, where entry testing shows girls much better prepared than boys.

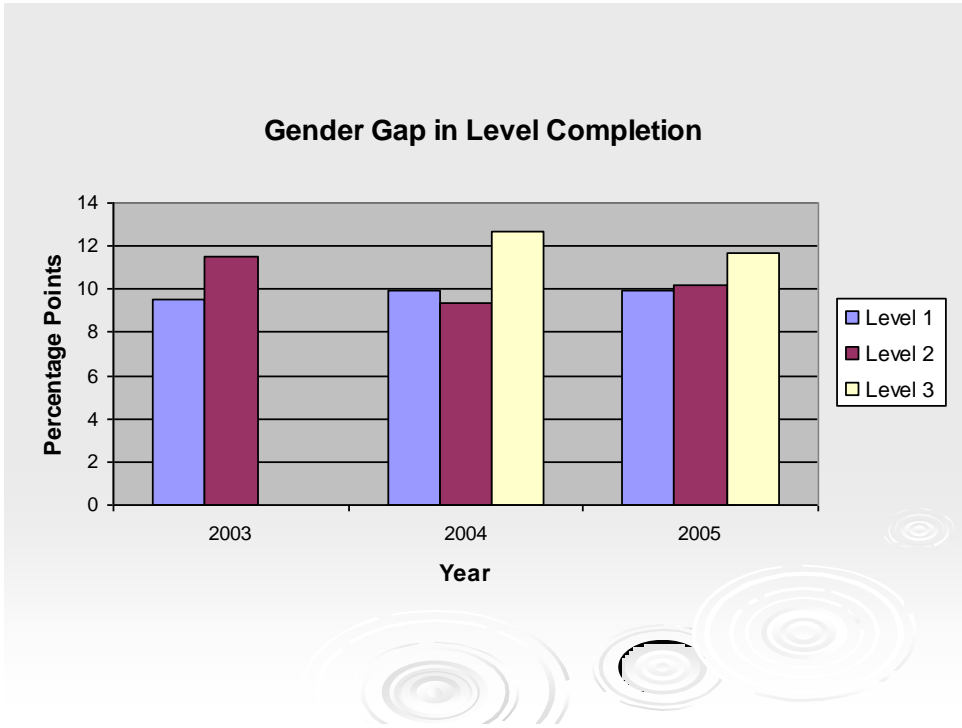
By years 4 and 5, testing finds

- No significant differences in most subjects, but
- Distinct gender preferences *within* subjects (i.e. physical science for boys, life science for girls).
- Female superiority in writing, speaking and reading.  
In two international tests New Zealand had the 4<sup>th</sup> and 2<sup>nd</sup> largest gender gaps in reading.
- In NEMP testing Year 4 girls performed better at 14% of tasks, and boys at 8%.

At Year 8, girls performed better at 22% of tasks and boys at 6%. The gender gap grew hugely in writing. With that exception, though, NEMP directors Terry Crooks and Lester Flockton don't consider the gap statistically significant. They call the moral panic about male achievement at primary level unwarranted.

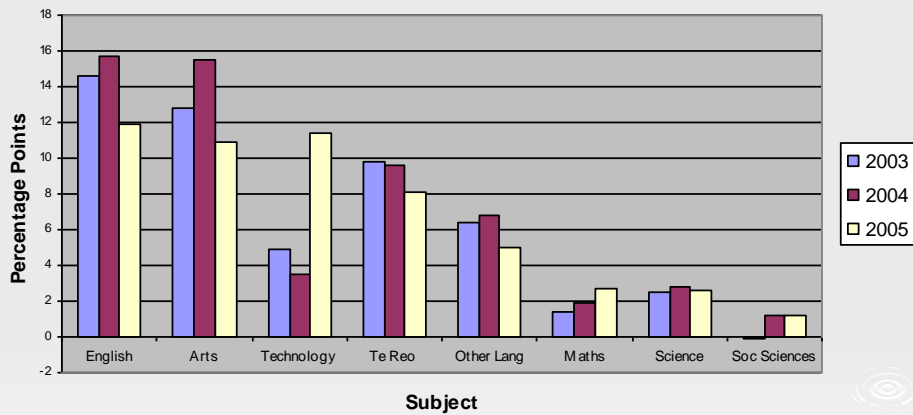
Testing still shows similar gender performance in Year 9 (Science and Maths) and even in Year 10, with boys ahead in Reading Comprehension, Reading Vocabulary and Mathematics.

It's from Year 11, and for high stakes external qualifications that require motivation and work ethic, that a substantial and comprehensive gender gap emerges, of around 10 percentage points. (Unless otherwise stated, gender gap means a gap favouring girls. It's usually expressed in percentage points; i.e. a female pass rate of 60% and male rate of 50% gives a gender gap of 10 percentage points).

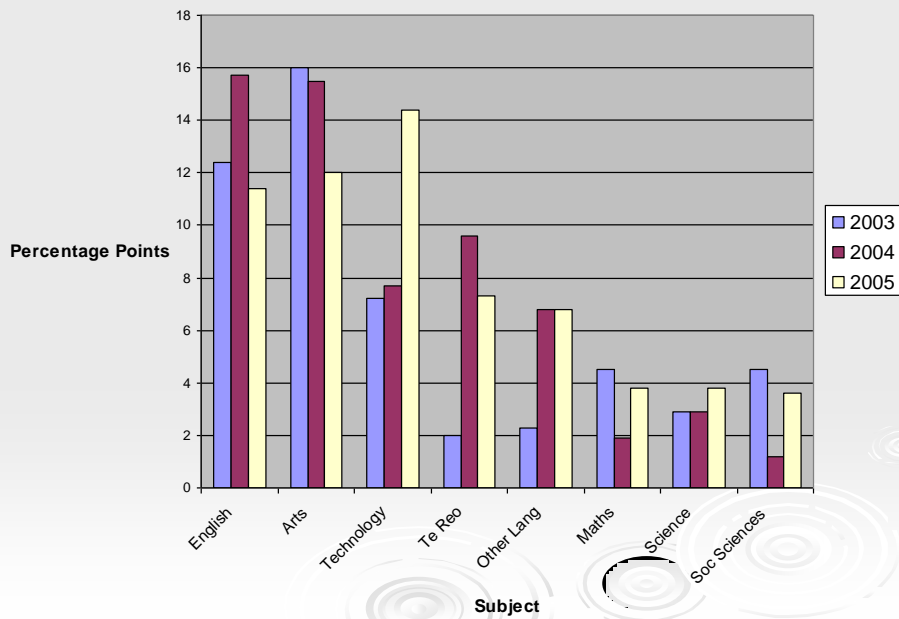


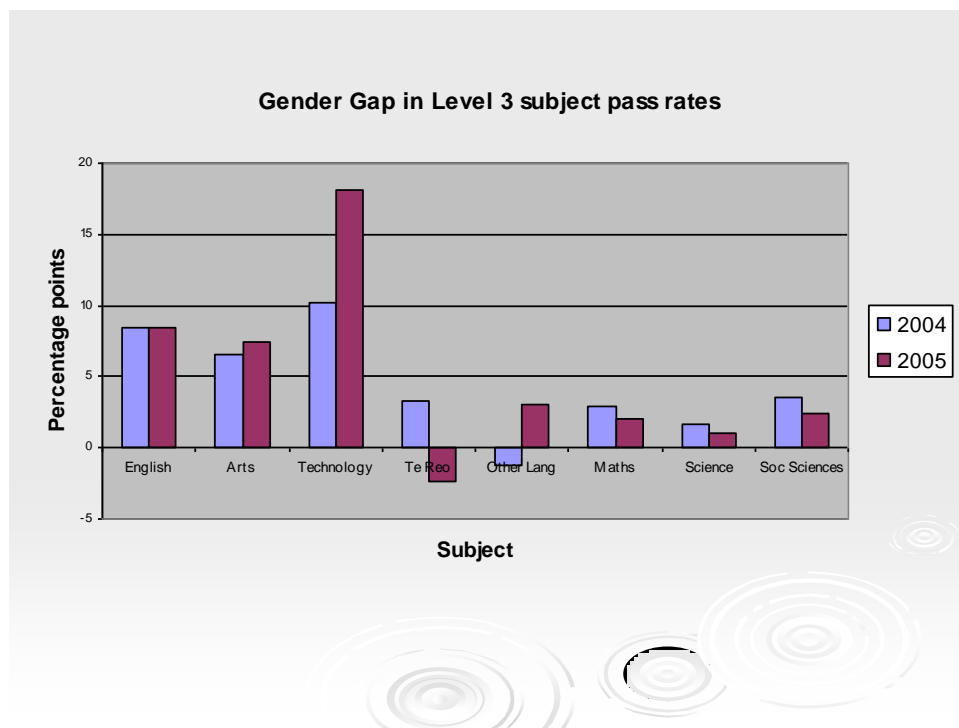
External achievement standard results show that the gap spans all subjects, but problematic only in Languages, English and Arts (where the gap is dropping a little) and Technology (where it is sharply rising):

### Gender Gap in Level 1 subject pass rates



### Gender Gap in Level 2 subject pass rates





At each level, Maths, Science, and Social Sciences had gaps of only 1-3%. They account for two thirds of external results. If they accounted for three thirds, we wouldn't be here now.

Their small gaps are significant only because these subjects once generally favoured males and thus statistically balanced the male deficiencies in other subjects.

The gender gap nevertheless spans all subjects and most standards. Of 296 external standards with over 200 entries, girls outperformed boys in 258, mainly in culture or performing arts, literacy, human biology, health, social issues, and in technology, where six standards, all with large and gender-balanced enrolments, had gender gaps ranging from 22 to 43 points.

Boys outperformed girls in 38 standards, mainly relating to economics, statistics or production.

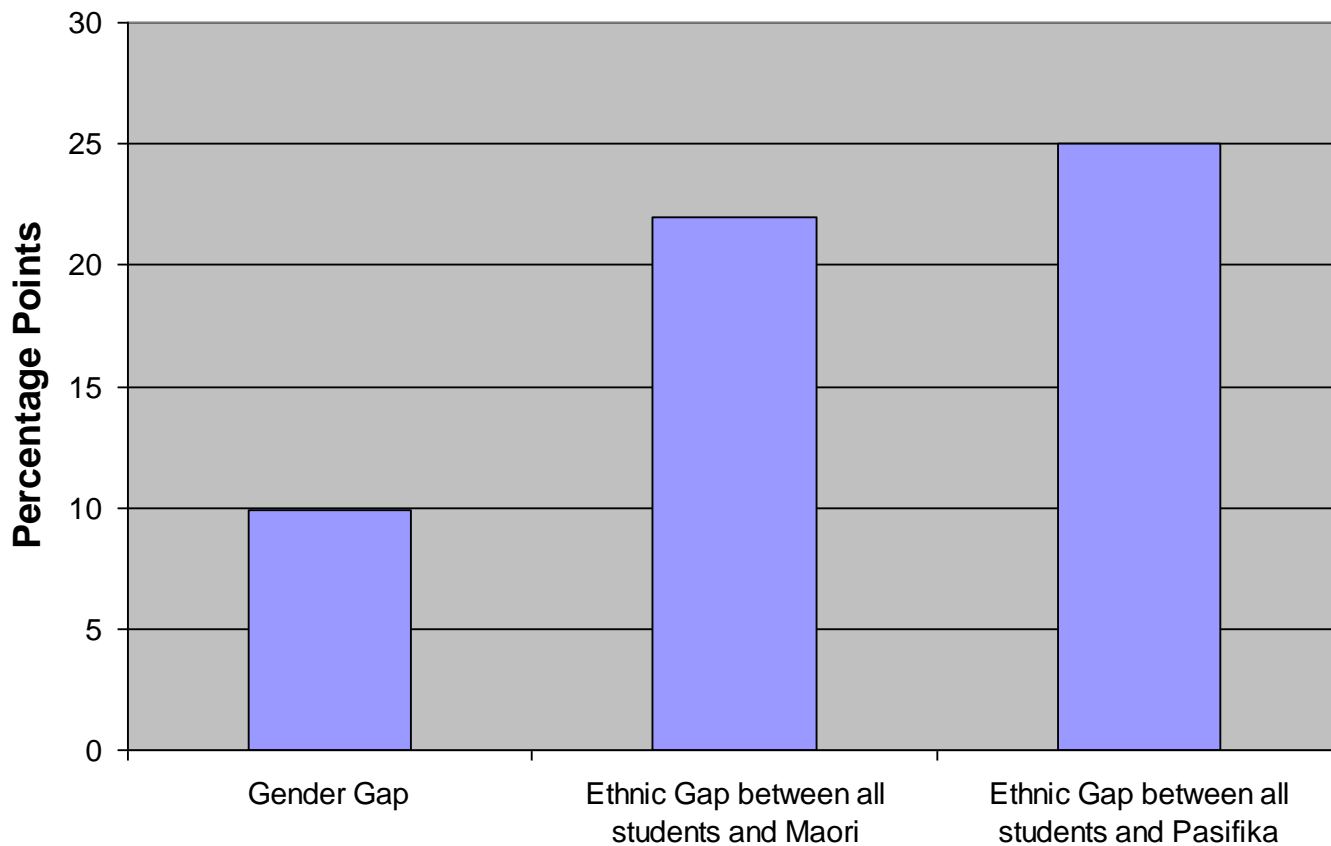
So we have a stable gender gap of around 10 percentage points, spread across all subjects and most standards, but significant only in some.

How serious is this?

If we express it in every day terms, it means that for every six girls who pass, only five boys do.

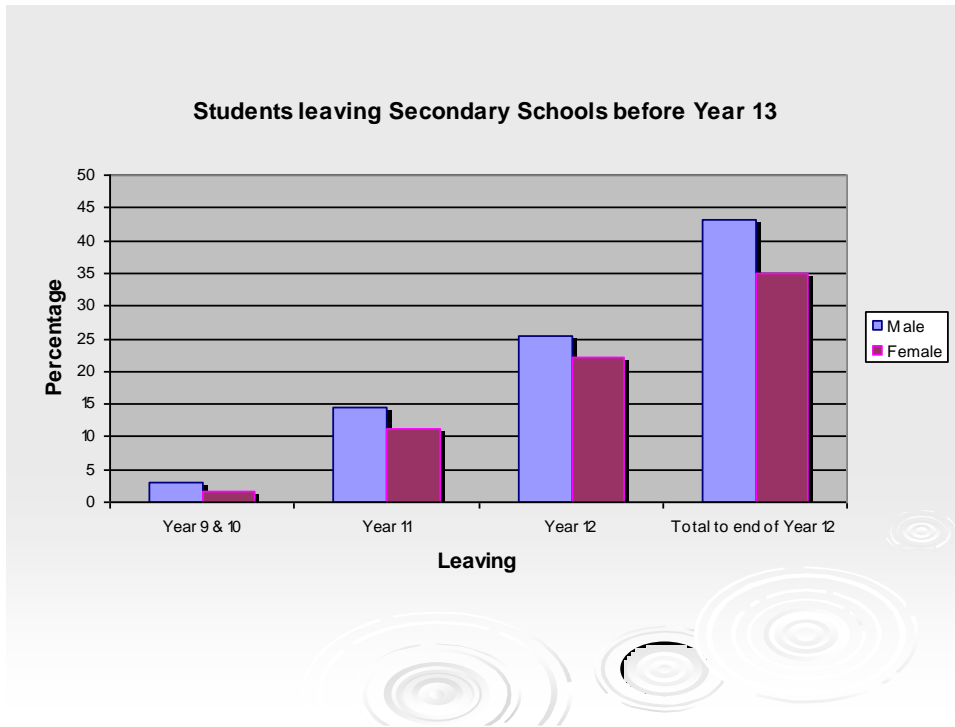
If we express it in comparative terms, it's much smaller than ethnic gaps of 22 and 25, while the socio-economic gap, between low and high deciles, is 30.

## Gender and Ethnic Gaps



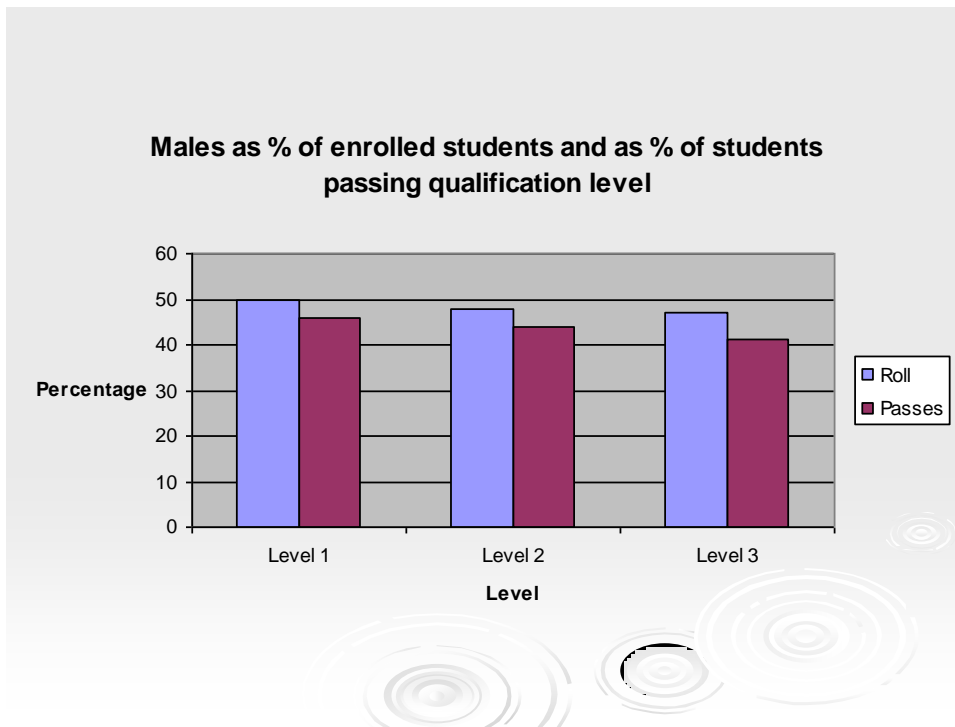
It seems that gender must take its place in the queue.

But wait. NCEA pass rates of each gender are the common basis for understanding the gender gap. It's that 10% that generates the headlines. No doubt these will be the figures that Steve Benson from the Ministry gives you tomorrow. But pass rates suppress the real gender gap. This is because they are the pass rates only of those still at school.



Boys have a lower retention rate than girls. By the end of Year 12, 43% of boys but only 35% of girls have left school.

When lower male achievement and retention rates are combined, the gender gap is much larger:



In 2005 males accounted for 48% of the Year 12 roll and only 44% of Level 2 passes. They accounted for 47% of the Year 13 roll and just 41% of Level 3 passes.

The real gender gap, not the publicly reported one, is very serious indeed.

At Excellence level the gap is even greater. In 2005 girls gained 75% more excellence passes at Level 1 and 57% more in Level 2, and 50% more Outstanding Scholarships.

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According to Shakespeare, the gender gap emerged a very long time ago:

*"The whining schoolboy  
with his satchel  
And shining morning face  
Creeps unwillingly to school"*

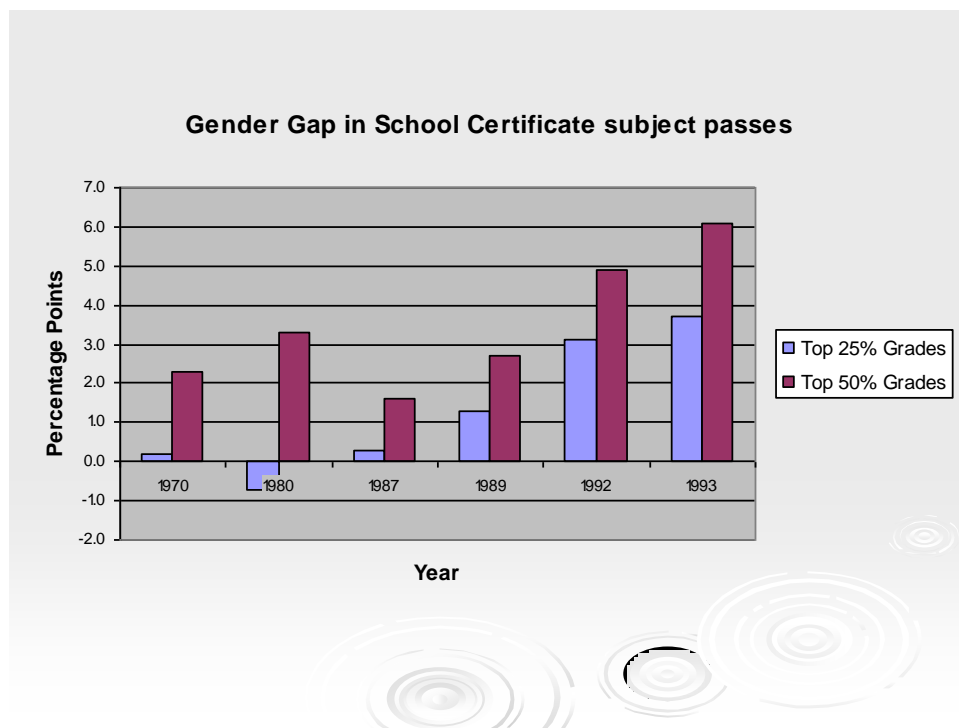
*(As You Like It, II, vii)*

Three centuries later a British Schools Inquiry agreed: "Girls come to you to learn; boys have to be driven". Male apologists in fact considered "healthy idleness" to be a defining quality of masculinity. A studious male might be regarded with suspicion - two educators wrote in 1913 "The boys' breezy attitude to life...successfully secures him from morbid concentration on the acquisition of knowledge". Like whites living under apartheid, what did it matter if males were poorly educated? The privileges of society were theirs by right.

Fast forward to my School Certificate year, 1970, the earliest year we have any qualifications data for.

These were the gender issues: in a nutshell, boys dominated the classroom and leadership positions, and harassed girls who were passive and not keen on Maths and Science, which limited their career opportunities.

(What no-one seemed to find problematic was that just ten girls throughout the country wanted or were allowed to take Mechanics, engineering, woodwork, workshop technology or agriculture and just eight boys had penetrated clothing and textiles, homecraft, and shorthand typing.)



This graph shows how today's gender gap emerged. In 1970 there was already a small gap, of 2.3. (Girls led in 12 subjects and boys in nine.)

Ten years later the gap had increased slightly to 3.3. (The subject ratio was unchanged.)

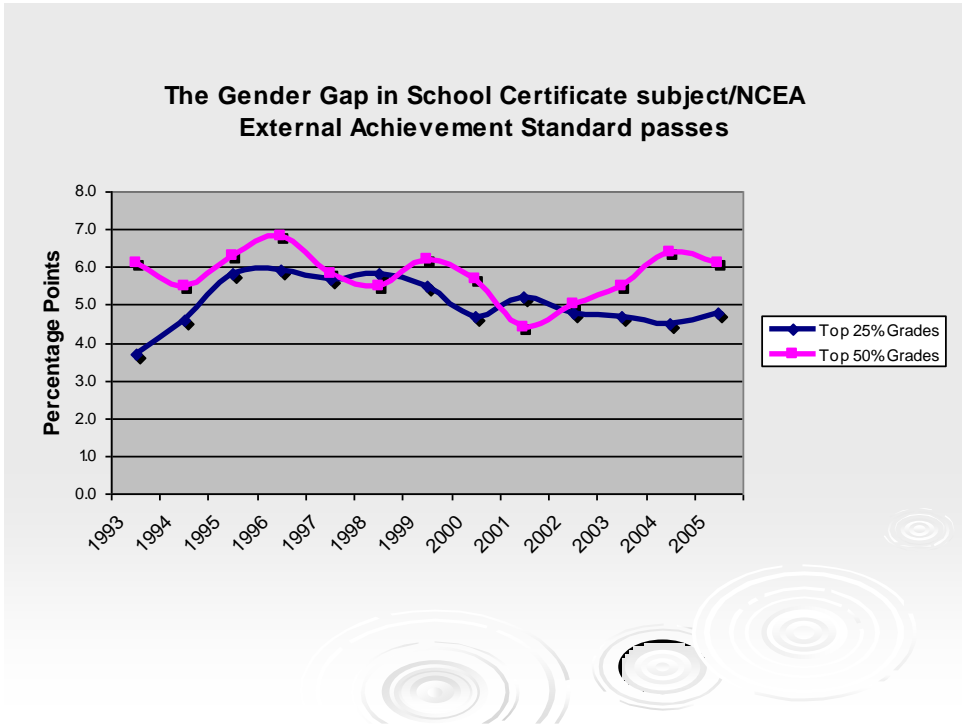
The next year I have figures for is 1987. Four School Certificate grades had become seven, so we're not making precise comparisons, which may explain why the gap has now dropped to 1.6. (Girls were ahead in 13 subjects, boys in 12).

In 1989 the gap is 2.7, perhaps evidence of an emerging trend.

Frustratingly, NZQA has no record of subject passes by gender for the crucial years of 1990 and 1991.

By 1992 seven School Certificate grades had become five, so again, direct comparisons are not possible. But for 'pass' grades the gender gap was now 4.9. In 1993 it was 6.1. (Boys were ahead in only four of 21 subjects).





The current gender gap was established in just a few years, and has been remarkably consistent since then.

It peaked in 1996 at 6.8, and then varied between 4.4 and 6.4.

The gap in top grades followed a similar pattern.

NCEA made little difference, especially to top grades. Individual subject pass rates across the two systems of School Certificate and NCEA also show remarkable consistency.

Why then was NCEA believed to have increased the gender gap?

Because School Certificate did not have an overall pass rate, and NCEA does, apples were compared with lemons. The reported jump was from a 5-6 point School Certificate gap (taken from all individual subject passes) to a 10 point NCEA gap (taken from overall level completion passes). Level completion is harder than passing one subject, girls work more consistently across subjects, and enter more papers, so the level completion gap will be greater than the subject completion gender gap.

Our current Level 1 gender gap, which some still consider news, was well established by 1993. All that's been changed since then is the method of reporting.

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Why, between 1990 and 1993, did a longstanding small gender gap suddenly become a large one?

Some clues may come from individual subject trends.

The gap increased in every subject except French. However:

It increased the least in subjects where boys traditionally did badly: Art, Languages, and particularly in English where there has, quite remarkably, been no movement at all from 1970 to the present.

In Maths the gender gap was 2 in 1970 and still 2 in 1990.

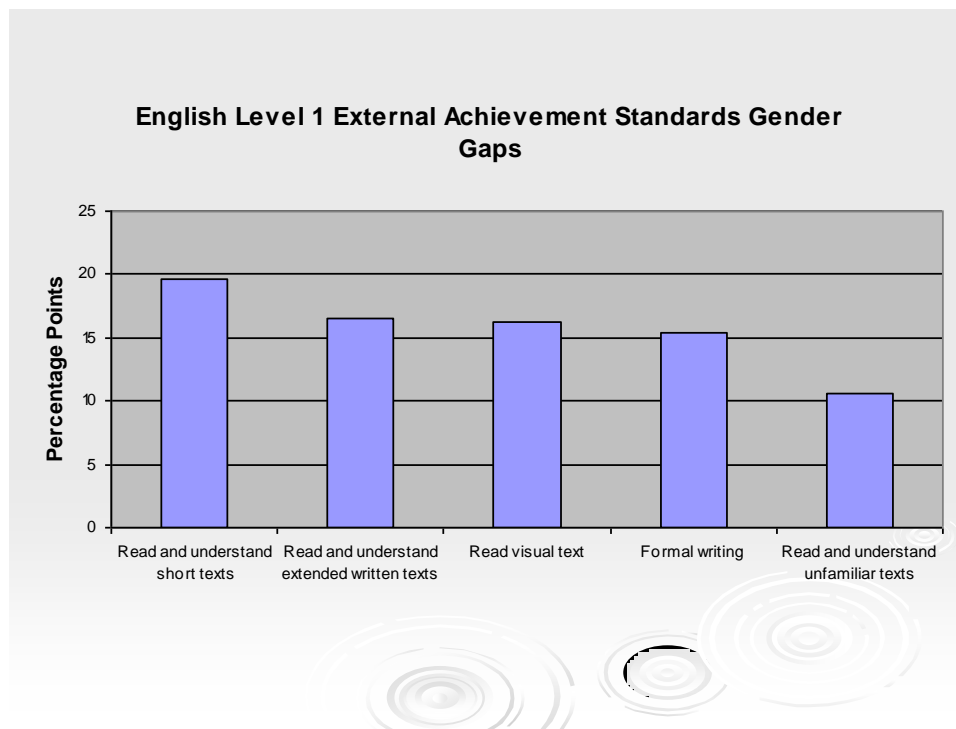
The swings were biggest in subjects where boys traditionally did well, notably Physics, Economics and Accounting. In these subjects presumably lay the greatest potential for female improvement, for teacher encouragement, and for efforts towards gender inclusivity.

The sudden ability of girls to do anything seems an insufficient explanation for such a dramatic change. But I've struggled to identify any other obvious factor.

Curriculum, pedagogy and assessment are the usual suspects. All underwent substantial girl-friendly changes in the 1990's, but with the exception of one subject adding internal assessment, all after 1993.

However, even if immediate changes to curriculum, pedagogy and assessment didn't create our current gender gap, long term changes since 1993 may well have maintained it. Let's examine them more closely.

Firstly, curriculum. Even within subjects, genders have preferences. Look for example at the varying gender gap for English level 1 achievement standards:



Therefore how we choose to construct subjects – what we put in and what we leave out – can have profound gender implications. For example:

In 1970

- The subject Science/Physics had a gap of 11, while the subject Physics had a gap of 6 favouring males.
- General Science had a gap of 6 while new Science Syllabus favoured boys by 8.

In 1980

- The Science gap was 2 but Alternative Science was 6.

- Four different Maths Internally Assessed Papers gave gender gaps ranging from 11 to boys, to 3 to girls.

New or growth subjects of the 1990's - Agriculture, Horticulture, Human Biology, Japanese – all favoured girls. So did the reconstruction of traditionally male technical subjects: in 1994 Tech Drawing became Graphics and the gap went from an average of .6 to males, to 10 to females. In 1998 Workshop Technology became Design Technology and the gap went from an average of 12, to 17.

By 2001 subject gender apartheid was dead and boys, the old whites, were suffering. 4,500 girls were taking technical subjects and outperforming boys. In equal number boys were taking Home Economics, Human Biology, and Text and Information Management, and being outperformed. When in 1998 Home Economics became Food and Nutrition, boys did even worse.

How we teach – pedagogy – is also not gender free. There has been a shift from closed, structured, information-dense learning activities, which boys did better at, to open-ended, experiential, reflective activities. Ian Lillico considers this an example of the “effeminized curriculum”.

Traditional subjects have become more literate. In subjects like Technology and Phys. Ed., many boys just want to “make things” or “do things”. They do not particularly want to plan, or write about their plan, or keep a log, or engage in post-modern deconstruction analysis.

Success in assessment now requires understanding and meticulously meeting complex written instructions. This clearly favours girls, because of their superior language and organizational skills, and ability to understand and deliver what others expect of them, which many teenage boys have never been too bothered about. This was nicely encapsulated in a recent article interviewing senior Palmerston North students on NCEA. One Anna Neld liked it as students now knew “exactly what they need to do”, while James Benn, speaking for the male team, called it a “bit of a pedantic system” where you could lose marks for small errors.

Here's an example of how assessment is not necessarily gender neutral. Before 1993, Bursary Agriculture favoured girls. In 1993 there was a new examining team. The gender gap abruptly reversed. In 1997 it abruptly reversed again.

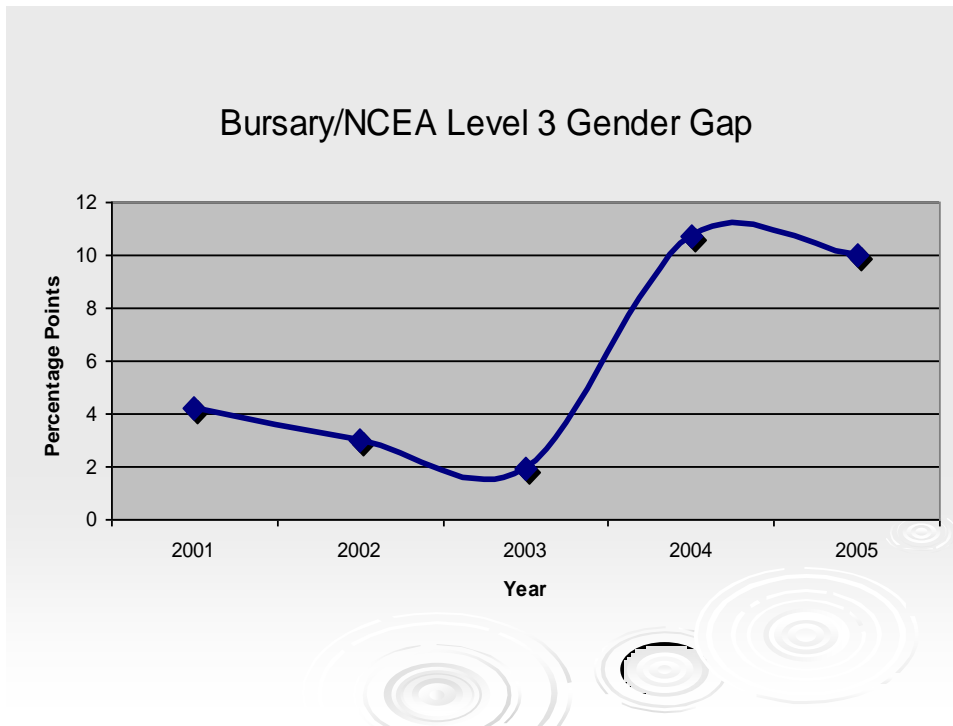
A more recent English example shows how assessment change can deliberately favour one gender. In 1999, when low male test scores became a political issue, the age 11 reading test was made more ‘boy-friendly’. It involved three short passages about spiders, and most marks were given for factual comprehension. Boys' reading scores leapt by 14 percentage points, just 6 points behind girls. There was further controversy in 2001 when the reading tests were “fact-filled, non-fiction text in magazine format, chopped into bite-sized chunks”. Boys' scores improved again.

I recently surveyed co-ed principals on a number of gender issues. Many aspects of curriculum, pedagogy and assessment that seem to benefit girls of course pre-date NCEA, but NCEA is now seen to represent the whole package. I asked whether NCEA favoured girls, or boys, or was neutral. Two thirds of respondents considered NCEA favours girls. One third considered it gender neutral. Not one principal considered that NCEA favours boys.

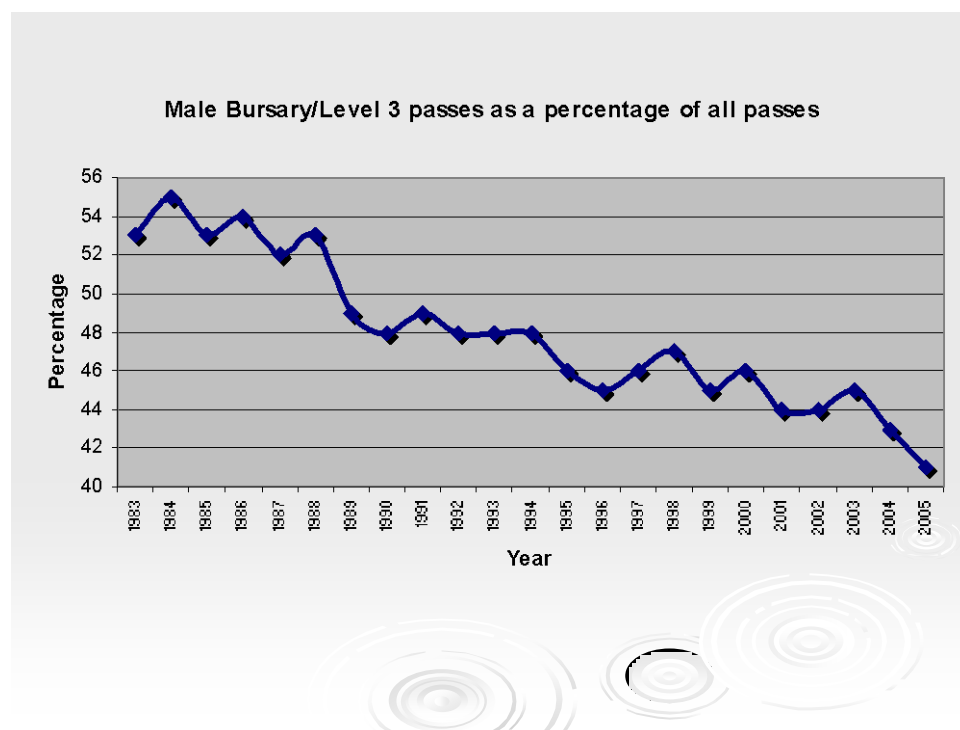
Changes to the way we construct, teach and assess subjects clearly did not cause the gender gap. But they are now contributing to it.

Few would argue that boys are more literate or innately creative than girls, and therefore some sort of gap in English and creative subjects is expected. But what if a subject such as Phys Ed or Technology attracts large numbers from both genders but girls consistently perform better? Does this simply mean that boys need to work harder. Or is it that the new construction of the subject realistically reflects the contemporary relevant tertiary or employment skills – and if these also leave boys at a disadvantage, tough. Or, acknowledging an element of both of these explanations, is the main problem that the subject is incorrectly constructed or assessed? A very thorough analysis of this issue is required, to ensure that boys are not being systemically disadvantaged.

The gender gap at Level 3 has a different dynamic and requires separate consideration. It's larger than the Level 1 gap, and growing.



A similar picture is shown by expressing the males who passed as a percentage of all passes. This figure has dropped from 55% in 1984 to 41% now.



NCEA doubled the gap because Level 3 was easier than Bursary. The number of males who gained it increased by 60% over the previous year's Bursars, but the female increase was 78%.

In 1992 females were ahead in 17 Bursary subjects and males in 8. By 2003 females were ahead in 22, and males in just three, all by under two points. Only in Accounting were males ahead throughout. No subject showed a dramatic gender reversal, nor were there any new or reconstituted subjects; just steady attrition.

The gender gap is growing at Level 3 because it is growing at tertiary level. As a proportion of University students aged 17 to 20 males have dropped in just five years from 46% to 42%. This appears to be the most dynamic trend of any gender gap, and it's quite international.

At all levels of Tertiary education women now account for the majority of enrolments.

- At certificate level women were 42.7% of enrolments in 1994 and 51.8% in 2004.
- They were 52.3% of Diploma enrolments in 1994 and 54.8% in 2004.
- They were 52.9% of Bachelor Degree enrolments in 1994 and 56.9% in 2004.
- They were 47.9% of Postgraduate enrolments in 1994 and 58.6% in 2004.
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The number of students of both gender taking Diploma courses has dropped in the last decade. Male Postgraduate enrolments have remained stable while female have increased by half. For certificate or Bachelor degrees enrolments by both gender have increased substantially, but by females, more so.

The trend is most dynamic at Bachelor's level. Between 2003 and 2004 female enrolments increased by 775 male by 162.

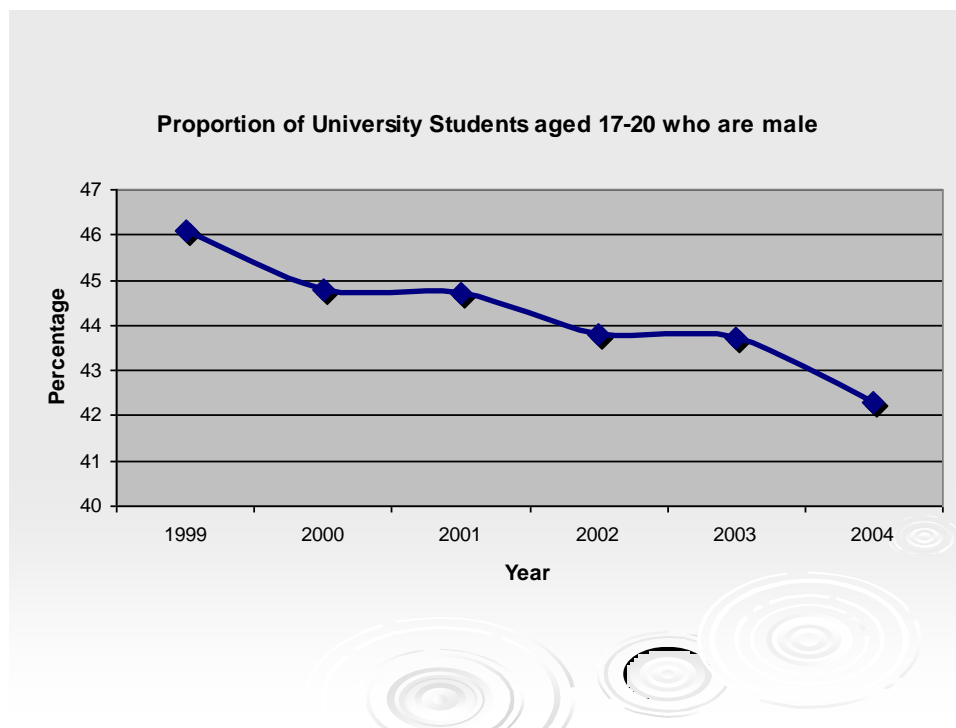
By 2004 there were 1.66 Tertiary enrolments from Maori women for every one from Maori men; and 1.45 from Pasifika women for every one from Pasifika men. Gender differences were smaller and more stable for European and Asian cohorts; the overall trend is being driven by the Polynesian tertiary gender gap.

Architecture, engineering, and agriculture had at least 50% more male enrolments than female, while for education, health and hospitality the ratios were reversed.

In late 2006 the dimensions and implications of this trend were analyzed for the first time, in a Victoria University Institute of Policy Studies article “The Gendered Tertiary Education Transition: When did it take place and what are some of the possible Policy implications”.

The article noted that, as in the U.S., “in New Zealand policy circles gender analysis focuses on female disadvantage” In the consequent absence of research on the Tertiary gender gap, explanations are reliant on theories, which currently include:

- Feminised schooling system
- More boys raised by mothers and lacking male role models
- New Tertiary courses aimed at women
- Boys develop more slowly
- Increase in marriage age
- Women brighter than men and no long discriminated against
- More effective birth control.
- Women see more gains than men from Tertiary education



The tertiary trend in turn reflects - and possibly causes - changes to employment patterns. Particularly in the current economic climate, where skilled tradespeople are well paid and sought after, males seem keener than females to start work, and in jobs that may require only Level 1 or 2. Women seem more prepared to continue studying, for jobs more likely to require tertiary qualifications. As we move from a productive to knowledge and service-based economy, employment opportunities for people who have good inter-personal relationships, responsiveness to client demand, and high levels of literacy and ICT proficiency are increasing in number and remuneration. Already the hourly wages of women in their 20's are higher than those of men. By comparison, the years 1987 and 2002 saw no increase in traditional male jobs and 11,000 fewer jobs in Manufacturing.

Careers specialist Heather Carpenter has identified crucial gender differences in career ambition and aspiration that may lay behind the emerging tertiary gender gap. She found girls to be more confident in their belief that they can, indeed, “do anything”, and more inclined to set high goals and work towards them. Boys appear more reluctant to set career goals and more influenced by the vocational example of men they know - “my uncle’s a plumber; I might do that”. In particular, girls, perhaps because of greater maturity, have more self-knowledge: a much clearer appreciation than boys have of what they like and what they are good at. Many boys seem happy just to “drift” into a job.

(Anecdotal evidence from local Oamaru employers is that many of them then strongly resist the extra training and commitment necessary to turn the job into a career).

Does the Tertiary gender gap matter? It’s not an identified concern of the Tertiary Education Commission. There are implications galore if women increasingly become professional and main breadwinner, and men, skilled worker and subsidiary breadwinner - but they are beyond the scope of this paper. What is clear is that if the gap at Level 3 continues to mirror the Tertiary gap, it will continue to grow.

American researchers Buchmann and DiPrete anticipate implications for the labour market, marriage and childrearing. The more educated and high earning women become the less likely they may be to either get married or have children.

Jane Gilbert has a quite different take on the implications of women dominating Tertiary education.

In *Catching the Knowledge Wave; The Knowledge Society and the future of education*, she describes a “paradigm shift” in our thinking about knowledge.

‘Old Knowledge’ derives from institutional learning. It is what we expect well-educated people to possess. It is divided into disciplines, organized into levels, and imparted – in chunks that are rarely related to each other - by experts. Students are assessed according to their individual memory and application of it

‘Old Knowledge’ is not necessarily shared and not necessarily of use in the work place.

‘New Knowledge’ places less emphasis on how much is learnt and more on how it is learnt and how it is shared. It is the basis for co-operative/collaborative action. It is cross-curricular and leads to innovation.

New Knowledge, more than capital, is the now key driver of economic growth. But girls, being more individualistic, self-motivated and compliant, are still attuned to ‘Old Knowledge’ This leads to success in formal education and increasing dominance in traditional professions such as medicine, accounting and law, where people operate individually and still require a large ‘Old Knowledge’ base.

But their success is illusory as doctors and lawyers are no longer the movers and shakers of society. Boys have realized that “the financial and IT sectors are now the real game in town....these sectors have played a key role in the development of what we now call the knowledge society. In these sectors, risk taking, innovation and breaking set behaviour is valued, as is the ability to develop just-in-time knowledge. Following rules and procedures slows a business down....’Old Knowledge’ has, to some extent, been feminised...new forms of knowledge are very definitely masculine.”

We need more research on the factors increasing the Tertiary Gender Gap and whether remedial policies are desirable or possible.

## MALES

### *At school*

87% Severe Behaviour Initiatives  
71% Stand Downs and Suspensions

### *Any time*

87% Youth Court crimes  
81% Traffic offences  
40 x Female imprisonment rate  
2x Female death by car crash rate

Highest male suicide rate of any industrialized country

The group most at risk in this period of employment transition is unqualified males. More young males than females have always left school early and unqualified. An Australian study showed push factors to be crucial - poor teachers and the gulf between school and the reality of their lives, revolving around work, cars and girls. Without innovative and largely vocational courses and effective pathways to secure employment such boys may be amongst the males who comprise the depressing and familiar statistics above. Unqualified males are also more vulnerable to unemployment: in the late 80's unskilled jobs were slashed and the male unemployment rate leapfrogged over the female. These figures are a reminder that the gender gap is about much more than academic achievement. People who express no interest in the gender gap because males still dominate society miss the point; under-educated and under-socialized males also dominate the dark sides of society, to their and everyone else's detriment.

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A very thin antipodean research base suggests that under-achievement – in relation to other males or to females – is most prevalent amongst rural, working class and Maori males.

In preparing for this paper I almost immediately found strong evidence for this – the three pockets of most extreme male under-achievement in New Zealand, both in relation to other males and to girls in those areas, are all rural, low decile, and have a significant or majority Maori population.

I then analyzed rurality, ethnicity and class in more detail.

In 1999 ERO found that the gender gap was twice as big in small and rural schools as in large urban schools, and four times as large in area schools. ERO concluded that country boys were “disadvantaged”. (Of course it's a moot point whether lower performance automatically denotes “disadvantage”). ERO cited in particular the inability of many rural schools to provide a range of vocational subjects and experiences, a limitation deriving both from their small size and their isolation. Similar findings have come from Australia: the remoter the district, the greater the gender gap, and they should know.



These findings evoke the traditional stereotypes of rural boys aiming low and leaving school early for unskilled local jobs, and rural girls aiming high and leaving for town. I tested these in two ways, anecdotal and statistical.

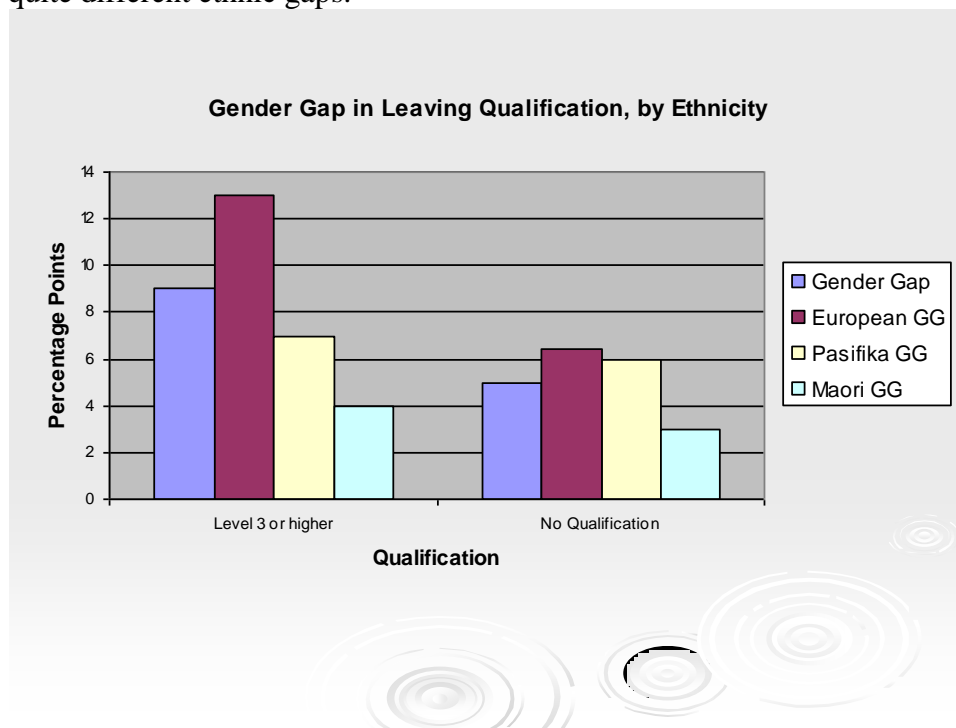
I spoke to eight rural schools. Their communities varied sufficiently in affluence, ethnicity, labour market and degree of isolation to defy easy generalization. In most, boys did leave earlier. One school had a senior school of 18 girls and 2 boys. There's still more work for men than women in the countryside, and many boys gravitate towards it for lack of visible alternatives. But some principals saw little difference between male and female ambition. Most said the key factor was not gender but parental expectation.

I then calculated the gender gap for schools with under 100 senior students, almost all of them rural. Smaller cohorts naturally produced greater variation but when averaged, the small school gender gap is similar to that of larger schools.

A more thorough investigation of varying types of rural community would undoubtedly find a more complex picture, and perhaps distinguish between the effects of isolation and of small size, but, as a generalization, ERO's conclusion that boys are poorly served by rural education, if it applied in 1999, no longer applies.

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The gender gaps we have been using have been for all New Zealand students. They in fact camouflage quite different ethnic gaps.



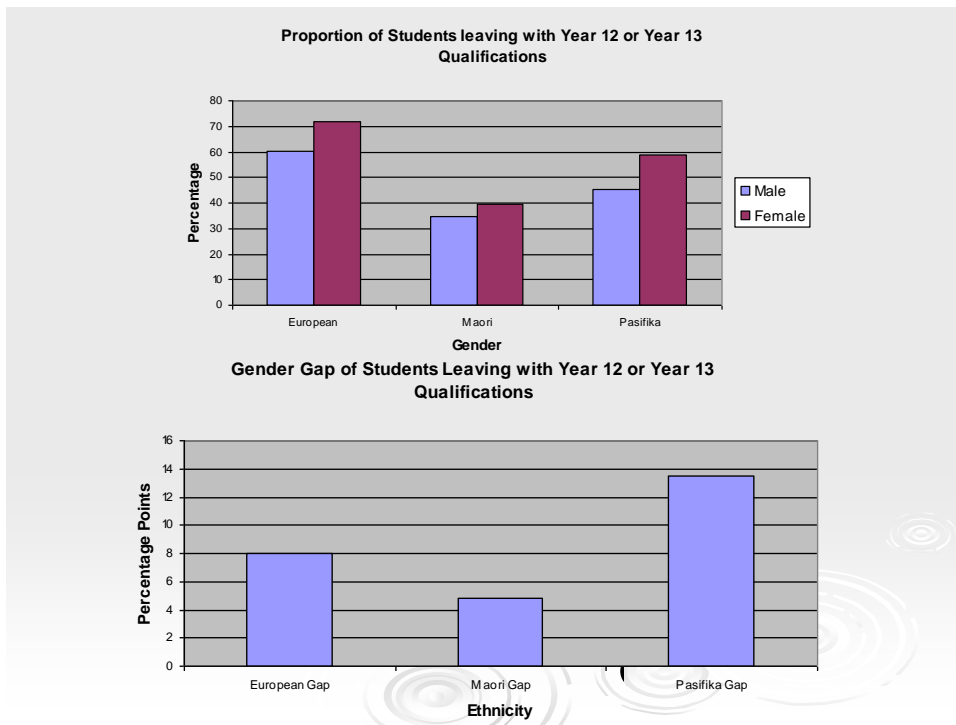
In each category shown, in fact, and in almost any indicator of educational achievement we might choose, the European gender gap is significantly greater than the Maori, while the Pasifika gap varies.

Far from contributing to the New Zealand gender gap, Maori diminish it.

We know, of course, that a smaller gender gap does not mean Maori boys are not of concern. Maori boys are generally the lowest achieving of the eight ethnic/gender groups in New Zealand.



The Maori gender gap is small simply because Maori girls under-achieve nearly at the level of Maori boys:

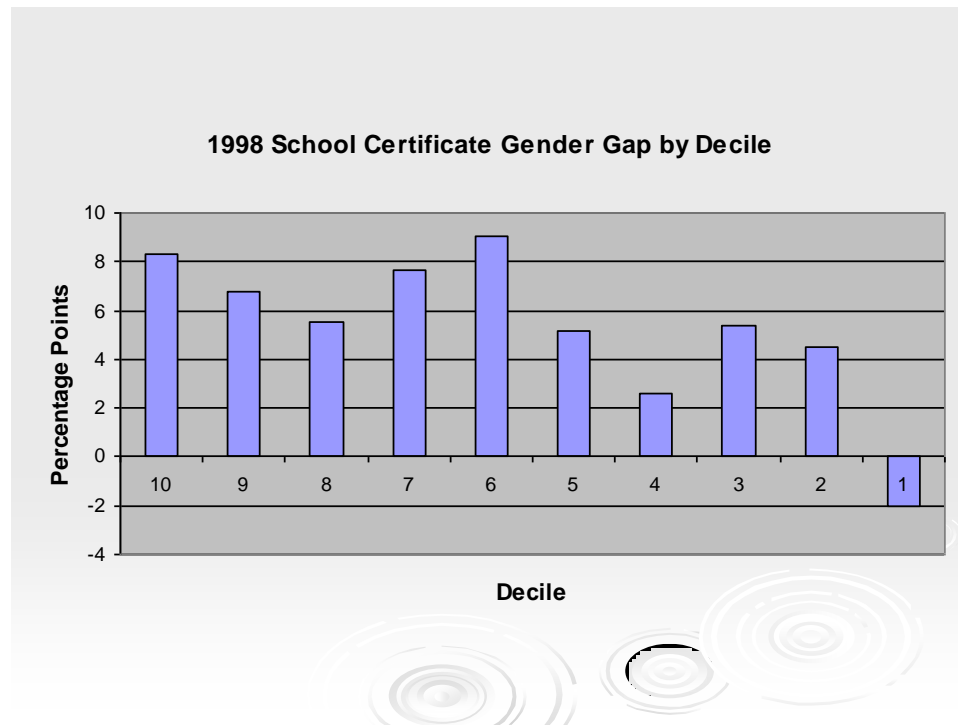


We use the gender gap as an indicator of overall male achievement because the achievement of females, the other half of the population, with broadly equal intelligence and opportunities, is the most obvious reference point.

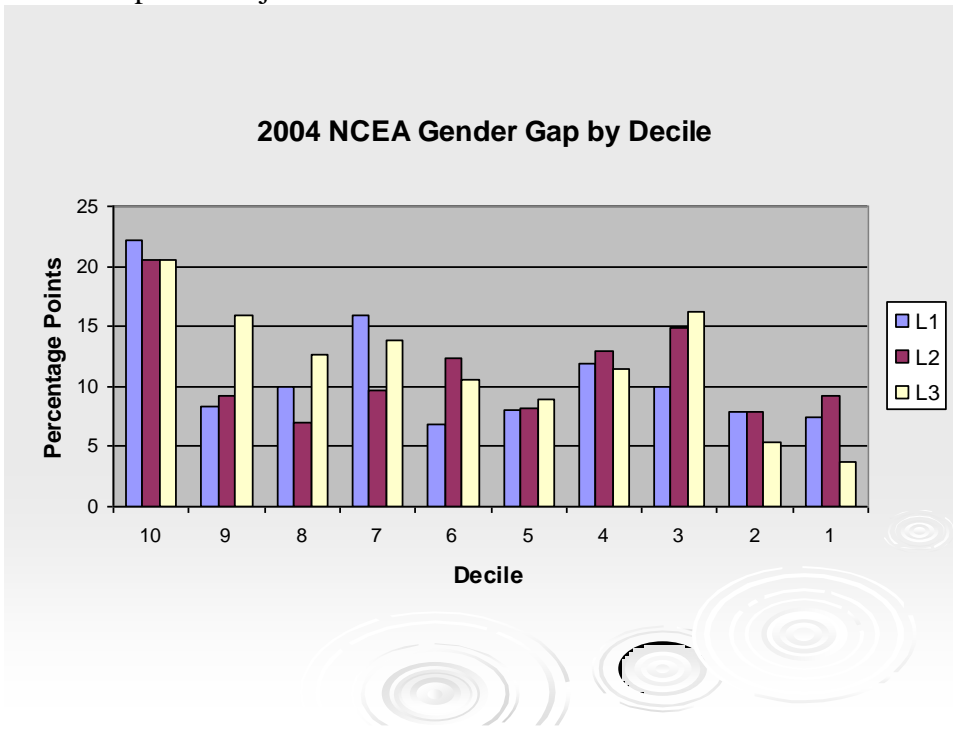
But for a minority group, the most valid reference point is the majority. The gender gap is a quite useless tool for understanding Maori male achievement. Maori boys need to be considered in the context of an ethnic gap, not a gender gap.

Research suggests that working class male culture also increases the gender gap. Another stereotype is conjured: of boys lost to a macho world of cars, sport and dare-devil or self-handicapping behaviour that often masks low self-esteem and a reluctance to take risks over anything other than speeding. The female working class culture is seen as less pervasive and damaging. For example Ruth Chapman asked in 2000 “why does low socio-economic status seems to affect boys more than girls”.

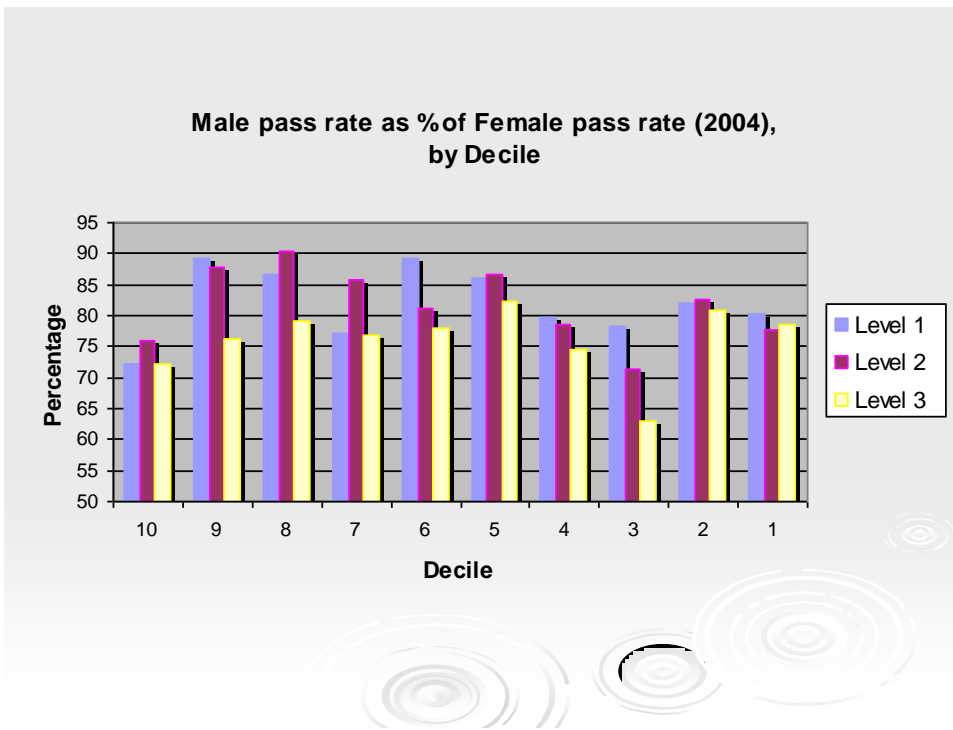
The answer is that, (according to qualification results) it doesn't. In 1998 School Certificate the gender gap was actually smaller in lower deciles:



The same pattern is just discernable for NCEA.



If we express the data differently, with the male pass rate as a percentage of the female pass rate, again, there's a slight trend for smaller gender gaps in lower deciles.



Possibly race is the complicating factor: the larger gender gap one might find in the lower deciles may be absent because most Maori and Pasifika students are in lower decile schools and their gaps are smaller.

For example, surveying lower decile schools, predominantly Polynesian South Auckland has an average gap of 9; predominantly Pakeha Christchurch averages 14.

Class may be a factor at other levels, however. A Christchurch survey found a larger working class gender gap amongst new entrants, while at University low and medium decile males comprise only 46% of first year students from their deciles, while high decile males comprise 49% of their cohort.

But it can not be concluded that at secondary level, class, race or rurality play either a major or a clear role in the gender gap. Further research might identify a much more complex picture.

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We're now entering highly contentious territory: teacher gender.

No researcher has found a direct connection between teacher gender and student achievement. Some have refuted a connection by observing that the gender gap is much greater at secondary level where there are more male teachers.

If there is a connection between teacher gender and male learning, it will be more complex and subtle than that. In 1998 Farquhar outlined some of the possibilities. Male teachers are more likely to motivate boys, cater for boys' interests, provide stable male figures for students who lack them at home, and role model masculinity. NZEI commissioned and endorsed a report that reached similar conclusions.

For many boys, only mum and a female teacher are involved in their education. The danger is of a subliminal equation of education with femininity that, as Steve Biddulph observes, leads to an anti-school sub-culture from at-risk boys who "hunger for male encouragement and example".

I've spoken recently to some primary teachers who are the only male teachers in their school. They have all related how certain boys constantly seek their attention. I've also observed troubled boys in my own school who seem instinctively averse to female authority and have become skilled exponents of "protest masculinity."

What does this say about the efficacy of female teachers for boys?

An interesting insight into teacher gender comes from former teacher Noelene Wright, now at Waikato University, describing her early experiences teaching schoolboys:

"When I began teaching in an all-boys' schools, most of my experiences and understanding of the world as female was alien to the...students and the male colleagues with whom I worked. We often talked past one another. I came to understand an enormous amount about how differently many boys seemed to learn, compared with what was natural for me. This resulted in considerable reflection on my part about the kinds of teaching and learning strategies which might match these boys' learning needs better....I found that, in contrast with the classes I had taught in an all girls' school, the boys took up much more room, were noisier, less articulate, more clumsy and less comfortable with tasks that required them to find their own solution".

Vicky McLennan, HOD English at St Andrews College, had similar culture shock entering a male classroom." Boys demand a lot of attention. Girls settle to work faster and help each other if they have difficulties. Boys seem to prefer to go it alone. They always have a dozen questions to ask before they start and it never occurs to them that the answer to someone else's question might also relate to them....I felt

ineffectual, robbed of my most effective teaching strategies. It was obvious that my classroom management techniques did not match their learning styles”.

As with Wright, reflection led to adaptation. “For teachers who have come to value quiet, order, neatness and submissive co-operation...boys inevitably suffer by comparison with girls. As teachers we have to be aware of this or we are in grave danger of selling our boys short”. McLennan now extols the many virtues of boys: “open and uncomplicated...loyal and affectionate, accepting and uncritical”.

How many teachers are capable of reaching an understanding, as those teachers did, of how the opposite gender learns?

We need more male teachers, but also more teachers - male or female – who by instinct or hard graft come to understand boys, and connect with maleness. Teachers who consider robust, collective masculinity as a force to be celebrated and positively channelled rather than a threat to be controlled. We need less of Teacher ‘A’, A for appropriate because that’s the sort of word this teacher uses all the time. Are you behaving appropriately, John? Was that an appropriate word to use, Stevie? ? I spend quite a bit of time observing teachers in other secondary schools. I’ve seen too many Teachers ‘A’s

“What’s something we’ve learned today” “That committees work together” “Good girl”. (This is a Year Ten class.)

“Who feels their work today was good” A girl who did nothing all period raised her hand. “Good girl”

“I’ll turn the music up when you guys are doing your work”

“It’s awesome you guys are listening”

“Can I actually ask you to do this in silence”.

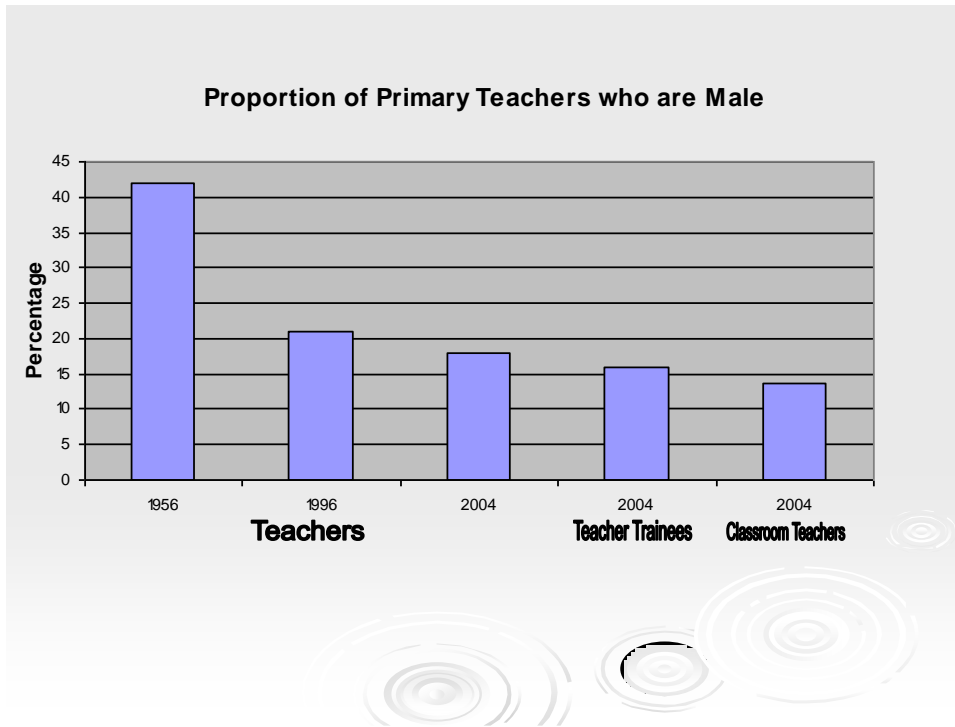
“You need to actually get this done”

Do you want to negotiate with me Wero

“That’s not OK”

“Manu. Do we need to conference? Do we need to conference on that”?

Teacher ‘A’ doesn’t teach, Teacher ‘A’ facilitates, which from my observation means moving around the room interrupting social chatter. Teacher ‘A’ is robotic, lacks empathy or humour, gives the class no personality to relate to and consequently has no rapport with them. Teacher ‘A’, whether male or female, is deadly for boys.



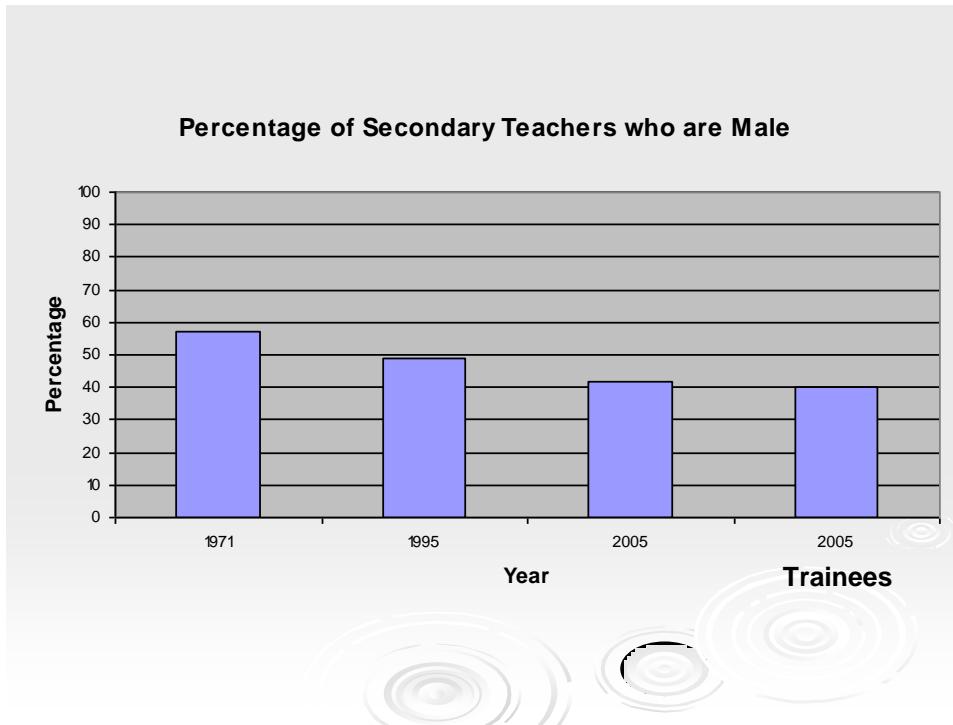
Males now comprise just 13.6% of classroom teachers, many in Intermediates. Many boys will never be taught by a man until they reach secondary school.

Trainee figures appear to be free-falling. Between 2001 and 2006 men at Christchurch slumped from 19% to 14%, at Dunedin from 26% to 22%, and at Massey from 19% to 15%. The lowest proportion to be found anywhere is here, Massey Albany campus, just 11%.

The critical mass of men necessary to attract other men is long gone. The consequent perception of primary teaching as a female profession is an additional deterrent to male applicants. Penni Cushman says that the primary environment is so feminized that “it is little wonder that men choose not to teach”. They can feel uncomfortable and vulnerable in both the classroom and the staff room.

Studies have identified three other reasons for diminishing male primary applications: perceived low pay (even after pay parity was introduced); perceived low social status and what is called ‘the Peter Ellis Syndrome’ - men’s vulnerability to allegations of child abuse.

Christchurch College of Education says the reason for the drop is a steady decline in the number of good men applying. Males have a lower acceptance rate and then a lower retention rate than females. This may be partly a reaction to the “feminized” environment that Cushman also finds at Colleges of Education.



Secondary males are now vanishing at a faster rate than primary. This must be arrested before Secondary teaching is also seen as a female profession.

ERO and the National Party have both called for more male teachers. Mr Mallard said: “I am yet to find a parent who would prefer their child to be taught by an inferior male teacher rather than a better woman teacher” - to which we might reply: “We have yet to find an educationalist who has called for this”.

It’s not about lowering the threshold of male entry, but about attracting some of those outstanding young men who might once have been teachers but are now kayak instructors or youth workers or personal trainers or out of work actors. Boosting male numbers won’t be easy. Campaigns in Australia have failed. Auckland is the only Faculty or College of Education I’ve found with any strategies, grouped under a project tentatively called MATEs (Males into Teacher Education). Rotorua Boys’ High School is to be commended for offering two annual scholarships for ex-students who enter Teacher Education.

The debate about Primary males has quickly deteriorated into gender politics. There’s feminist resentment that the inadequacies of some fathers have caused male primary teachers to be valued over female primary teachers. Alton Lee described some arguments for more male teachers as “misogynist discourses that undervalue women teachers”. Murrays’ Bay Intermediate Principal Fay Mason says “It’s not the school’s job to provide fathers”. Keren Brooking complains about the “ongoing silence in society about the responsibilities of the fathers who have abandoned these boys, and instead blame for the single mothers and women teachers who are left to deal with the problem”. There’s also veiled criticism about the quality of male teachers. If there must be more men, some say, please not blokey blokes in walk shorts.

How well prepared are new trainees to teach boys? This question sent a number of institutions scurrying – for information or for cover. Unlike some Australian Universities – Newcastle in particular – no university offers a paper specifically or even partially on boys’ education, though Massey at Albany is planning one. Most Colleges of Education cover “Boys’ Ed.” in a few lectures, and a few have special courses or electives.



One Education Faculty has offered to host a symposium on males in teaching. It's hard to see how the Primary situation can be redeemed, but it's not too late for Secondary. We need more research on how important it is to have male teachers and how we can get them.

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The controversy barometer's still rising: school and class gender. What impact do they have on boys' achievement and the gender gap?

Here are more examples of teachers who understand boys:

Teacher A says: when's he's teaching a new song, he gives the girls some background but the boys just want to get into it.

Teacher B says: when teaching boys avoid any question that starts "How would you feel..."

Teacher C says: girls under-rate their abilities and boys over-rate. One gender needs encouragement and the other a reality check.

We could continue through several alphabets with examples of the need for differentiated practice. But in a co-ed environment how easily can this be done? .

In a single sex classroom, undiluted maleness may appear to intensify the challenge for a teacher, but it also simplifies the response.

There are 66 boys' high schools in New Zealand, attended by about a quarter of our teenage boys. Economist Brian Easton analyzed 2002 NCEA results and found that, after decile had been controlled for, those boys were still 9% ahead of boys in co-ed schools.

I found similar margins in 2005 NCEA results.

ERO and researchers in Canada, Australia and England have also found greater performance by single-sex boys, after socio-economic factors were controlled for. In fact I have encountered no study that shows the reverse.

Critics maintain that this (decile-controlled) single sex advantage derives not from any value added by boys' schools but because of the type of student they attract. If so, I doubt that this is the full explanation. For example, my own boys' school caters for all but Catholic boys in Oamaru, and hugely outperforms co-ed boys – and girls - of the same decile.

In 1999 ERO grudgingly conceded the superior academic performance of boys' schools, while simultaneously criticising their quality in pedagogy, curriculum, student safety, and catering for the needs of all boys. Goodness, how did they still do so well? The answer may lie in another ERO observation: boys do best where there is order, and focus on learning. These qualities remain leading characteristics of boys' schools.

There was some foundation to ERO's criticisms, which were being echoed in the community. Two 1990's research studies of student cultures in boys' schools found unattractive features. In the past decade many boys' schools have re-invented themselves. Their work ethic and competitive focus have been enhanced by strong programmes for student safety, promoting and valuing a vastly wider range of sporting and cultural activities, and masculinities.

If you're unconvinced, here's some evidence. In a co-ed school, activities ranging from choir to library to orchestra to social services are generally dominated by girls. The average co-ed choir has thirty girls and four blokes at the back. If you think I'm exaggerating, read some co-ed school magazines. In my survey of co-ed principals, nearly a half reported that leadership and service positions within the school (other than those allocated evenly on gender basis) were mainly taken by girls.

A Northland co-ed teacher told me about recent efforts to set up a boys' choir. "We've just had the first muster, about 12 guys, including a couple of respected senior Maori boys, a few musos, and some poor souls looking to fit in. We have a list of songs, a music teacher, a piano and a couple of interested male staff. By Deans' accounts, the boys in the junior and senior assemblies all greeted the news of the choir with something approaching disdain".

But, optimistically, he writes "one good performance will turn it around".

In boys' schools, by contrast, boys participate prodigiously, enthusiastically, and without denigration in anything that's going. Waitaki has six choirs involving 150 boys, 30 Librarians, 30 Dancers, 20 Theatresportsmen, umpteen musical groups, and each year we produce six or seven long and short plays, all in a small town decile 6 school of 550 boys. We're also very successful in sport.

It takes critics of boys' schools a while to get their heads around the fact that in boys' schools, boys are far less image or even gender conscious, and much freer to be themselves. This is a continual finding of research in many countries, and it extends even to subject choice, with far more boys doing 'girls subjects'. Australian research even found that boys in boys' schools were more confident in relationships with girls. That would be a revelation to men of my age, who are wont to blame any relational or sexual dysfunction on their single sex schooling. From my observation, as I drive down the main street of Oamaru after school, single sex boys today have no difficulty whatsoever in relating to girls.

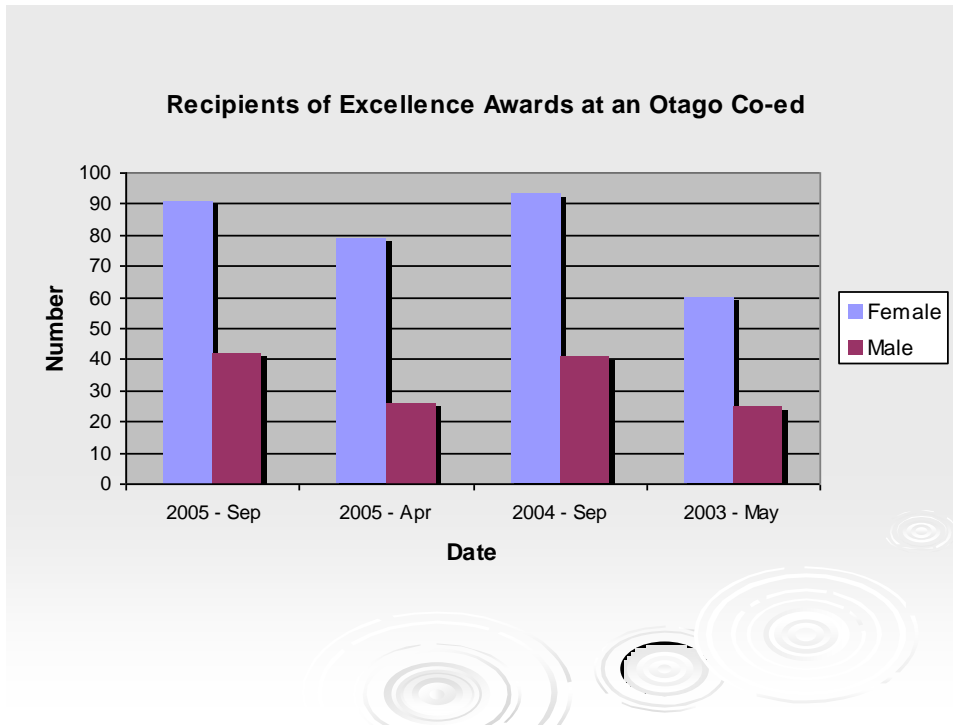
There's no better or more impartial observer of boys' schools than Celia Lashlie. She sent her son to one but never believed in it. More recently she spent three days in each of twenty boys' school's undertaking the Good Man project. Her attitudinal change is reflected in a chapter heading of her recent book: *The Wonderful World of Boys' Schools*.

Celia found that entering boys' schools was a case of 'welcome to the world of men', with a strong underlying message that to be male is to be okay. She found loyalty and hard work and belonging. She was stunned by the physicality of boys, and came to appreciate that "sport is something boys' schools both do exceedingly well and use very effectively in their management of students".

She realized the importance of clear boundaries – who's in charge, what do I have to do, what will happen if I don't. Most of all, she came to understand the role of tradition: "...the essence of maleness. It's about connection, about linkages to the past that show the pathways to the future and it's about excellence".

This former critic of boys' schools was mightily impressed with what she saw.

Received wisdom used to be that girls did better academically without the distraction of boys, but boys did worse without the superior example of girls.



The superior example of girls is certainly apparent in co-ed schools. Recently I've seen

- An Otago co-ed that holds regular excellence assemblies at which just 30% of the awards go to males.
- A South Canterbury High School which proudly displays its nine top NCEA Scholars in the front page of the local paper. Eight of them are girls.
- A South Auckland school with a dozen school leaders, only two of them male as “no other suitable boys could be found”.
- A Wellington co-ed in which in 2003, 19 of the top 20 achieving students in NCEA, and 27 of the top 30, were girls.

I could go on.

For every boy who is inspired by the superior example of girls, there are probably ten who find it off-putting. It can foster an insidious cop-out mentality in which boys withdraw from challenge for fear of humiliation, and label academic success and all its ingredients as ‘what girls do’.

The evidence suggests that teenage boys learn and develop best in a male environment

But where does that leave us? Should we be building or converting to single sex? There has not been a new state single sex school for half a century. National says students do better in single sex schools and it will build them if the community wants them, a policy unlikely to be tested.

The best of both worlds, says Michael Gurian, author of *Boys and Girls Learn Differently*, is single sex classes within co-ed schools. ERO and the British Ministry of Education have both recommended this. Two New Zealand boys schools that recently imported the superior example of girls, Mount Albert Grammar School and St Kentigern's College, now operate this “best of both worlds” in their junior classes, with reported success.

There's copious overseas research on single sex classes in co-ed schools. Their success ranged from transformational, to modest, to non-existent. One study found a deterioration in male behaviour. Contrary

to expectation, none found Lord of the Flies. The difficulty in learning from such examples is that they are all so deeply contextualized. When challenging boys are placed in well resourced environment with a tailor-made curriculum and a hand-picked teacher almost invariably their performance will improve – and this often has been the context of single sex classes. What change will occur for average boys with a normal curriculum and an average teacher?

The Ministry has no information on single sex classes and I've found no local academic study on them. I surveyed all New Zealand co-ed schools and found just twelve with 'boys only' classes. They generally provided under-achieving boys with male-friendly and often sports-orientated curriculum. For example in one school, for NCEA English Speech, boys provided a commentary for a rugby test. Some were home room classes, others operated in selected subjects, mainly English. The learning ethos was strict, competitive, structured and positive, with a strong pastoral emphasis. Some spectacular successes were reported.

And what do the boys feel about it? Some comments from boys in Australian 'boys only' classes:

"It makes me feel I can express myself freely"

"I am paying more attention in class"

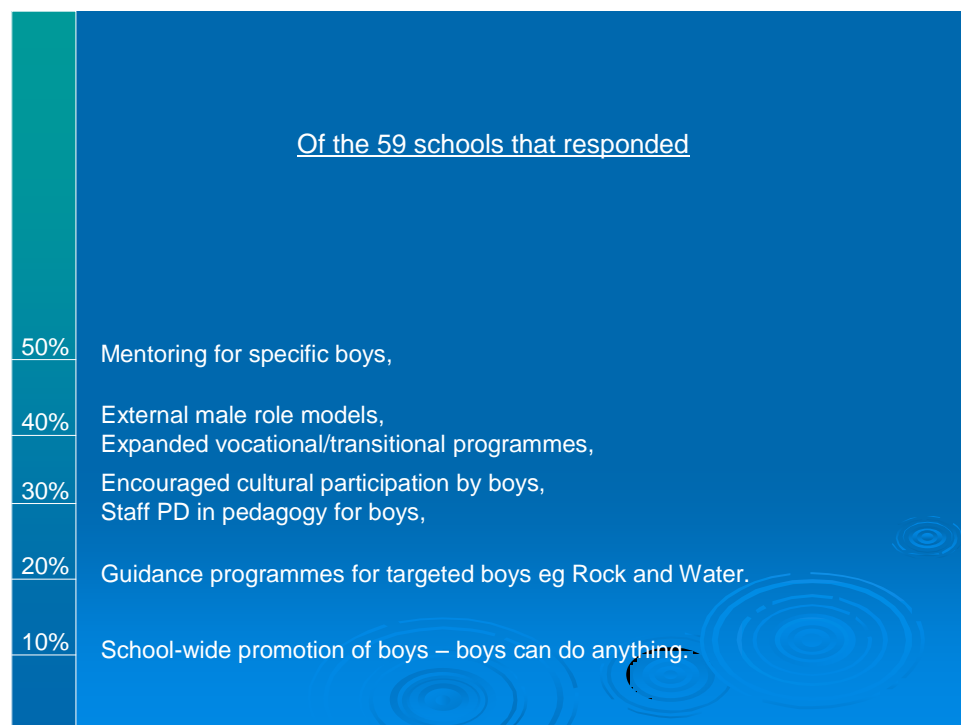
"I could talk about stuff without being embarrassed"

"I don't feel intimidated in English by girls any more"

A comprehensive study of 'boys only' classes in New Zealand now needs to be undertaken.

Beyond 'boys only' classes, how can co-ed schools promote the education and welfare of boys?

This process must be akin to walking on eggshells. I surveyed co-ed schools to see what they currently do for boys:



Almost half cited nothing special or specific for boys. One principal stated "We struggle with this. We know it's a problem but are a bit bankrupt of ideas".

Interestingly, a third of the schools which reported similar gender results have gaps of over 8 percentage points, which raises doubts as to either their level of statistical analysis or their gender gap acceptability threshold.

Just a handful of co-ed schools appear to be showing initiative and leadership in boys' education. Kaitaia College has a staff Boys' Initiative Group, formed after the 2004 Massey Conference. Rangitoto College, has 45 staff volunteers in a project entitled 'Building Exceptional Young Men'. Subcommittees focus on teaching and learning, literacy, relationships, community and leadership. Darfield High School has a motivational programme for boys called FLAMES – Fostering Learning and Motivation in Education Through Sport.

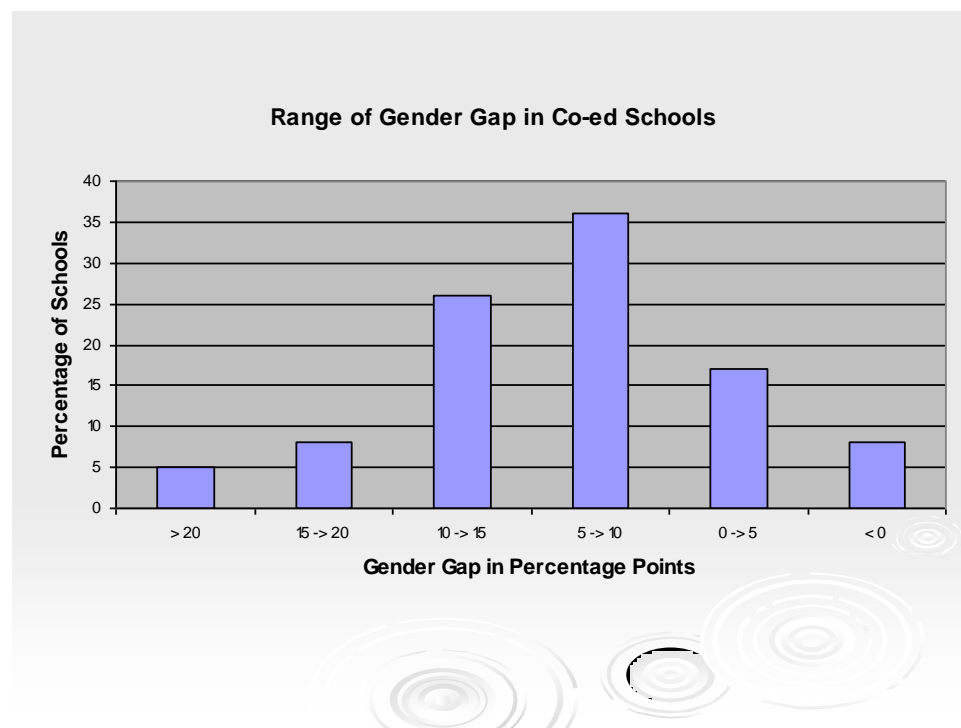
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The responses of co-ed schools to boys' needs require more thorough investigation. The apparently huge diversity of responses led to my next research question:

What difference can a co-ed school make to male achievement?

PISA 2000 Reading Literacy statistics show New Zealand with the largest within-school variance of any country and one of the smallest between-school variances. That our schools are of reasonably similar quality, and not a major variable on learning, has quickly become received wisdom. John Hattie writes "Schools barely make a difference to achievement" and cites a raft of studies in support.

Our progress at Waitaki has encouraged me in the belief that schools can make a difference.



I found that 5% of schools have a gender gap over 20 percentage points. The highest gap is 27. 49% have gaps over the national average of 10 and 85% have gaps over 5, which might be considered the threshold for concern.

8% of schools manage to achieve overall gaps favouring boys.

I also compared male pass rates in co-ed schools, decile by decile. In most deciles the range is huge: 30-40 percentage points. The highest range is at Decile 6, where the best performing school passes 76% of its boys; the worst performing just 22%.

I found two low decile Waikato schools and one low decile Northland school, predominantly Maori, with significant gender gaps favouring boys.

I then found eight low decile Northland schools, predominantly or significantly Maori, all with large gender gaps favouring girls, four over 20 points.

Either the school/community characteristics are not as similar as they appear on paper, or a prima facie case exists that schools do make a difference.

I set out to identify the co-ed schools where boys are achieving well, so we can learn from their examples of best practice.

I was guided by two earlier attempts at this process.

In 1999 ERO identified the ten co-ed schools with the highest male achievement in relation to girls, and the ten with the worst, and analyzed the characteristics of each category.

ERO found that schools where boys did well had positive relationships, good attitudes to work, high behavioural standards, mutual trust and respect, excellent initiatives for Maori learning, peer tutoring or mentoring early intervention strategies for “at risk” students.

Schools where boys did poorly had “a culture of non-achievement for boys”, equity policies that seemed to apply to girls only, low student motivation and interest, and poor behaviour and discipline, even in top Decile schools.

Unfortunately, ERO’s methodology, by its own admission, was flawed. It identified schools purely by their gender gap, not allowing that a gap might favour boys not because boys were doing well but because girls were doing badly.

A British 2000 study with the same purpose confronted another methodological problem. It found 199 state co-ed schools where average GCSE results for boys exceeded those of girls. It then was perturbed to find that only four of those schools had similar results in the preceding two years. Had the study identified successful schools or just successful cohorts?

Revising their criteria they looked for the 50 schools where boys did best in relation to girls over three years. They then confronted ERO’s problem: the schools they found were mainly schools not where boys did well but where girls, often from minority cultures, did poorly.

To avoid these problems I used the following methodology. For each decile, I ranked all co-ed schools with senior rolls of over 100, in four ways:

- By boys’ average Level 1-3 qualification pass rates compared to boys’ national pass rates for that decile
- By boys’ average levels 1-3 qualification pass rates, compared to the girls’ pass rates in that school (school gender gap)

- By boys' average Level 1-3 Achievement Standard pass rates compared to boys' national pass rates for that decile
- By boys' average levels 1-3 Achievement Standard pass rates compared to the girls' pass rates in that school (school gender gap).

Being close to the top of all four lists would indicate that boys in that school are doing well.

I was watchful for schools where boys had a good achievement standard pass rate only because few of them entered, and careful not to penalize schools where the reverse occurred.

The test of my methodology was that it enabled me to eliminate the one co-ed school in New Zealand where boys outperform girls at each NCEA level (where both genders in fact performed at a very low level).

My investigation found 14 schools where boys perform particularly well and 24 schools where they do badly.

The schools defy easy categorization. In each group they vary in size, location and ethnicity. The only significant feature is that of the 14 top schools, two thirds have a roll that is 60% or more male, and of the 24 bottom schools only a third do. Logically, schools where boys do well are more likely to attract and retain boys.

I then read ERO reports of all the schools. Here I DID find strong shared characteristics of what I will call 'boy friendly' and 'boy unfriendly' schools.

Of the 14 boy friendly schools, 13 had very positive ERO reports. They were clearly good schools.

I asked these schools why they thought their boys did well. Significantly, none had programmes specifically for boys. But all had an intense focus on continual improvement, on teaching and learning, on strong pastoral and disciplinary systems and on positivity. Most knew their boys were profiting hugely from these.

I was immensely impressed with what I read and heard; there's outstanding work going on in some of our co-ed schools.

For example, of the 'boy-friendly' schools, Kamo High School has an innovative Junior Students Programme and a comprehensive student support centre. Trident High School in Whakatane has carefully crafted its curricular and co-curricular programme to meet the needs of its Decile 4, 40% Maori roll. Takapuna Grammar School has a strong emphasis on pedagogy and achievement.

A Thames Valley school says "several years ago we had a real culture of "it's nerdish to achieve" academically, especially for boys. For example, when giving out academic awards in assembly, students would not come forward to receive awards. It was seen as a mark of shame". Through relentless positivity and promotion of achievement in all areas the school managed to turn this culture around. Now, the Principal writes, "It will be refreshing when we have a dux who is a girl".

To the 24 'boy-unfriendly' schools.

NCEA results indicate the extent of their problems. For example in a Hawkes Bay school males comprised 32% of the roll, in itself a suggestion of failure, 20% of external entries, and even fewer passes. In a Manawatu school females accounted for two thirds of external entries and gender gaps favouring females

were 15 percentage points in Science, 24 in Arts, 29 in English and 30 in Language. In a Decile 10 Auckland school, subject gaps included 18 in English, and 19 in Social Sciences and in Language.

Eight of these schools had poor ERO reports and eight very poor – they were in serious and sustained trouble, with regular ERO supplementary reports. Three had statutory managers.

My conclusion: when schools, whatever the decile, function well, gender gaps are smaller; when schools, whatever the decile, do badly, the gap grows and when they are haemorrhaging it is huge.

Boys are less intrinsically motivated and disciplined than girls. They need more extrinsic motivators and controls. When those motivators and controls are absent, boys are like the canary in the coal mine – the first to respond.

Now to a flaw in my rationale. Using only statistics I can not prove that schools alone make a difference because I can not differentiate between school, school composition and school community. Some schools will have a composition or community that has a direct bearing on their achievement level but is not reflected in their decile. For example one boy-unfriendly school suffers a distinct lack of good male role modelling as it is in a prison town and many boys shifted there, with their mums or their dad's partners, to be closer to imprisoned dad. Another school suffers from what the principal describes as an endemic, drug based, tall poppy syndrome amongst Maori in the district, and a tendency for Pakeha boys, but not girls, to gravitate towards their Maori peers. I've been humbled by the handicaps that some ostensibly boy-unfriendly schools grapple with, though I doubt that all do, certainly not the Decile 10 Auckland school.

Community factors may also be a factor for some 'boy-friendly' schools. One lost academic girls to another school; another lost non-academic boys to Polytech, in each case reducing the gender gap.

Case studies of individual school composition and community will need to augment NZQA and ERO data before we can see how much schools *do* make a difference, and which schools make the most difference.

Another variable is the cohort. Every boy-friendly school has at least one year group where boys are significantly outperformed by girls, while in the boy-unfriendly schools similar cohort variation produces some huge gender gaps, the highest being 58 percentage points.

Having discovered schools where best practice for boys might be found and then shared, I then discovered another methodological challenge that has bedevilled previous efforts.

Schools are complex and dynamic institutions with too many variables for proper evaluation of any single strategy, and most strategies are deeply contextualized.

The Cambridge University Raising Boys Achievement Project noted that in some of the schools where boys did well "the good results were a bit of a mystery. The schools were often simply throwing every strategy they could think of at the problem. Their teachers were not sure which worked well and why".

So it's the number 8 wire for educational innovation. Almost all strategies for boys I've come across have been home-grown, sometimes principle-driven ("boys only' classes are supposed to be good so let's try them) but mainly pragmatic ("what the hell can we do with those boys"), though nevertheless informed by current thinking.

*Strategies for boosting boys' achievement and behaviour can be categorized as:*

*1 Measures specifically aimed at boys' needs, such as boys' only classes or mentoring*



2 *Gender-neutral whole class or whole school measures from which boys may benefit more than girls because of boys' greater need for motivation and direction.*

In an excellent report, which I have summarized in your conference notes, OFSTED lists a raft of school characteristics which can lift male performance. No surprises: discipline, structure, focus, high expectations, active learning, pastoral support and a strong co-curricular programme; the same characteristics found in ERO reports on our boy-friendly schools – and category 2.

The most common conclusion of overseas educationalists, from Martin to Slade to Rowe to Hawkes is that boys' achievement will be boosted the most by improving the standard of teaching, and the quality of teacher-student relationships, without reference to specific teaching styles for boys. Better teaching will still probably benefit boys more than girls. This was the finding of the Cambridge study. It has been endorsed by a recent Tauranga Boys' College survey.

Again, Category 2.

Initiatives reported by "boy-friendly" schools were all category 2.

Maybe they didn't try category 1 because they didn't have to. Before we write category 1 off, remember that other schools have reported success with category 1 initiatives, particularly single sex classes, though category 1 deficit model withdrawal schemes are often criticized.

Far more research is necessary before we can evaluate the relative potential of categories 1 and 2. For co-ed schools seeking to improve male performance this is one of the key questions.

Arnot says "The overwhelming message from research is that there are no simple explanations for the gender gap...nor any simple solutions". Hightower adds "Whatever problems boys have, there is no simple solution, no "tips for teachers" formula that can "fix" boys....The best policy is perhaps to leave no reasonable option off the table." Indeed. No one solution or even a dozen will do. Included in your conference papers are 60 strategies used at Waitaki to boost boys' welfare and achievement, and also an outline of our staff mentoring programme which has helped to transform the teaching and learning culture of the school.

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Why are we still floundering around in our understanding of the gender gap? Because the institutional response has been so negligible.

We'll conclude today looking at how the Ministry, ERO, PPTA and Academia have responded.

Whether we know it or not, most responses to the gender gap are guided by essentialism or behaviouralism.

Essentialism believes that gender is largely biologically fixed. Therefore, rather than trying to change male behaviour we must adapt to it. Boys under-achieve because there is a mismatch between boys and schools - that some, such as Christina Hoff Summers in "The War Against Boys", take to the point of conspiracy. The essentialist motto might be: "fix the schools".

Behaviouralism (or constructionalism) argues that sex is biological, but gender – how different sexes think and behave is a social construct. Their evidence is that gendered behaviours differ across cultures and time. Boys under-achieve because of an aggressive, competitive, sports-oriented hegemonic male culture inimical

to academic success. They will be liberated by the promotion of diverse masculinities. The behaviouralist motto might be: “Fix the boys”

Sound familiar? It is of course the nature versus nurture debate that has raged in university common rooms for a good century. Essentialists have been the conservatives or pragmatists; behaviouralists the reformers.

Behaviouralist guru John Money severely damaged the cause by pushing it too far and claiming that someone biologically male could be raised as a female. Ministry researcher Angelique Praat was one of many behaviouralists who fell for this. Subsequently, the Canadian boy raised, with Money’s guidance, as a girl insisted on a sex change and then committed suicide.

Recent advances in behavioural and genetic science favour essentialism. We now know so much more about innate cognitive gender differences. I’ve summarized some of this in your conference notes.

Behaviouralism persists because its fuel is not science but gender politics. Behaviouralists know that the discriminatory treatment of women was grounded in essentialism. They are highly sensitized about boys’ misbehaviour being blamed on mothers or female teachers, or being considered “natural”. PPTA says “the discourse that calls for greater tolerance of boys’ “boisterous’ behaviour is at base anti-female and implies that sexual harassment and disruptive behaviour should be accepted”.

Behaviouralists staunchly defend female advances and suspect that concern about boys’ achievements is a Trojan horse for re-asserting male supremacy. They have no sympathy, particularly when men still get the top jobs. PPTA Women’s Officer Sue Shone referred to “squealing” from men when, for once, they weren’t taking first place and one Primary principal complained: “Despite the imbalance of power in men’s favour, we are asked to bolster male achievement. I believe this is a ploy, even a conspiracy, which asks teachers to act in an inequitable manner”.

Essentialism also has a lunatic fringe: disgruntled men’s groups, chaps with mail order brides and John Tamihere. They regard the feminization of education as one of a list of legal, domestic, political and societal conspiracies against males who still wish to be able to leave the toilet seat up. Their views are mainly expressed in chat rooms and can’t be repeated here.

Probably most of what we do as educators is an unconscious blend of essentialism and behaviouralism. Take a caution about lunchtime play “we don’t mind a bit of rough and tumble but don’t think you’re the Incredible Hulk” . This effectively blends an essentialist understanding that most boys like physical play with a behaviouralist understanding that boys’ natural instincts do need constraints. Extremes of essentialism – in which we must passively accept and cater for all masculine proclivities – and of behaviouralism – in which traditional masculinity is a disease to be controlled and cured – will get us nowhere.

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Behaviouralism has dominated the institutional response to the gender gap, together with trivialization, denial and delay.

The gender gap was clear by the mid 1990’s. A few brave voices started asking: why is there no response?

A Christchurch School of Medicine longitudinal study between 1982 and 1995 tested a cohort of 1265 children 18 times. At year 8 both genders had an identical average IQ but girls outperformed boys in all tests but one. In 1997 the project directors concluded that “traditional educational disadvantage of females

has largely disappeared and may have been replaced by an emerging male disadvantage”. They called for “more balanced treatment of gender issues...rather than an approach that focuses exclusively on perceived issues of female disadvantage”.

Their research was met by skepticism and even allegations of statistical error. They were challenging the feminist triumphalism that until the late 1990’s suppressed discussion of boys’ issues. Bluestockings were still busy finding examples of female disadvantage. A 1997 study concluded that “research and writing about gender equity policies had been almost exclusively by women and focused on girls”.

In that year literacy researcher Maureen Rutledge wrote that male under-achievement was neither new nor unique to New Zealand. “The difference here is that there is a virtual silence on the issue, not only from the media and the public but from the education research community and the government”.

In 1998 an article said that many schools have awoken to the gap “but in the absence of the government coming to the rescue schools are having to find their own solutions, or look abroad to Australia, where research is well advanced”. The Vice-president of the Secondary Principals’ Association, said “I find it quite disturbing that this issue is well down the track and we are muddling around”. The principal of Whangarei High added “The Ministry of Education is doing nothing”.

That 1998 article could have been written yesterday.

New Zealand’s belated institutional response, a decade after the gap emerged, was kickstarted by ERO’s pioneering 1999 report *The Achievement of Boys*, which lectured that “The obligation to provide equal educational opportunities for boys is implicit in the NEGS and the government may need to consider whether there should be stronger requirements for schools to assess and address the achievement of boys”. It recommended different teaching styles and single sex groupings. Fix the schools!

An unprecedented second report, *Promoting Boys’ Achievement* was issued in 2000: It was based on analysis of 1999 ERO reviews. Eighty per cent of schools showed some awareness of the gender gap but only 11% were convincingly responding.

The behaviouralist riposte was not long coming. From academia, Noelene Wright considered ERO reactionary for not locating the causes of under-achievement at its source, masculinity. Fix the boys! From the Ministry, senior researcher Lynne Whitney said that rather than focussing on gaps it was “more helpful...to look at areas of relative strength...for example...boys still out-rate girls at measurement based tasks”.

The debate was on. Half of the National Library’s indexed articles on boys’ education are from just two years, 1999 and 2000.

In 2001 the Ministry fought back with a substantial literature review, *Explaining and Addressing Gender Differences in the New Zealand Compulsory School Sector*. Although, ‘prompted, in part, by the widespread concern about the performance of boys in education’ it always carefully balanced their interests scrupulously with those of girls. It partly attributed male underachievement to some subjects being seen as “girls’ subjects”, which was barking up entirely the wrong tree, as our analysis shows that the gender gap grew most in traditional boys’ subjects. It continually demeaned gender differences by positing them alongside greater ethnic and socio-economic differences. It rejected the notion of feminization of the classroom (as advanced by ‘popular discourses’) and, on the flimsiest of evidence, concluded that single sex schooling and the gender of teachers were not relevant.

The review was summarised on a Ministry website, of which the following are extracts:



**Ministry Website**

**Gender differences in Achievement**

- Face both females and males.
- By school leaving age males out perform females in Maths and Science
- Any gender differences that exist have been a consistent feature over time.
- Any initiatives to address gender differences should be directed to both genders.

Denial, trivialization, it's all there. A presumably forgotten time capsule of past responses to the gender gap. Last updated? 16 February 2006.

The Ministry's gender Bible was in fact outdated even on publication. For example it cited seven items of overseas research to prove harassment of girls in co-ed science classrooms. Six were from the 1980's. A Mathematics section cited evidence back to 1974.

Nevertheless, from the Ministry's point of view this publication seemed to have put the matter to rest. More recent Ministry publications have made occasional references to gender or ignored it.

In 2003 the Association of Boys' Schools lobbied Education Minister Trevor Mallard for more action on boys' achievement. At this conference two years ago Mallard announced new initiatives to include a reference group to guide the Ministry, "a literature review to establish where there are gaps in the current evidence base related to boys' education and to identify programmes resulting in improved achievement of boys....I anticipate that we will have some clearer evidence as to what is working in terms of boys' achievement in schools towards the end of the year".

The reference group has met four times, and at one of these meetings the chairperson was lost to a tennis ball. There was no evidence that in between meetings the Ministry did any work at all. Trevor Mallard said one advantage of NCEA was that we could analyze boys' achievement in much more detail. At every meeting I urged the Ministry to undertake such research. Eventually I started it myself.

Group members are left wondering whether the whole exercise was a sham to defuse a potentially hot topic before an election. I'm told that boys' education may not be on the new Minister's agenda, which is a bit disingenuous, as it is also absent from the Briefing for the new minister which is the Ministry's opportunity to shape his agenda. In that briefing boys are mentioned in passing in relation to obesity (less than girls) leaving without qualifications (more) retention (lower) attitude (similar) and reading and maths literacy

(lower). Nowhere is boys' education posited as an *issue*. It is not mentioned in current work or priorities for improvement.

Until this month the new Minister of Education, Steve Maharey, appears to have made no comment on gender issues. I wrote to him three weeks ago seeking his views and have not had a reply. His reported response to this year's NCEA figures was that

- research was continuing (what research?)
- parents had a part to play (what guidance have they had?).
- schools were doing their bit (nice wartime rhetoric, but what does the Ministry know of what is happening in schools; it could not even tell me which co-ed schools have boys-only classes)

The Ministry is clearly not interested in gender-specific (category 1) responses to boys' education.

However it's only fair to applaud the many gender-neutral (category 2) Ministry initiatives – Literacy, ICT, suspension reduction, Principal training, Best Evidence Synthesis, Specialist Classroom Teachers, Sports and Arts Co-ordinators, Quality Teaching Partnership Fund – that will benefit all but maybe boys more than girls.

Back to ERO. It's contribution to boys' issues seems over. The organisation that once called for schools to recognise boys' achievement now doesn't recognise it itself.

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Not one of the ERO reports of the 38 schools I identified as highest and lowest achieving for boys recognizes that it is appraising schools where boys do particularly well or badly. Gender, like Trotsky, has been airbrushed out of History. For example at a Northland school where the male pass rate was the lowest in its decile, and 18% behind the girls, ERO wrote that students were “confident, resilient, proud of their school and well prepared for life beyond school”. Of a rural South Island school that achieved the highest NCEA pass rate of any state school in New Zealand and in which boys outperformed girls in two levels, ERO wrote that students “generally achieve as well as students in similar schools”. We're all accustomed to being damned by ERO's faint praise, but is it fair to write of a Southland school where boys achieved the highest pass rates in its school, “students are generally performing well against national norms...”. Or of a Waikato school where boys achieved the highest pass rates *and* the highest gap over girls for its decile, “most students attain a good level of achievement”. ERO's Acting Chief Executive officer has told me that ERO will only report systematically on boys if instructed to do so by the Government, which seems unlikely.

## PPTA Website

Myth 1: “Boys are under-achieving at school.” “No they’re not” it adds. “Some boys are under-achieving as are some girls”.

Myth 2: “Boys do better at single sex schools”

Myth 3: “Boys would achieve better with more male role models.”  
It then stated

The Reality: Girls (and boys) who work harder achieve better results.

Mallard’s announcements two years ago got PPTA all of a fluster. It wanted to join the Ministerial Reference Group, but also seemed threatened by it. It took the extraordinary step of posting a new web page which warned darkly of self interest from some boys’ groups and listed what it claimed was a number of myths.

PPTA is good at creating and then demolishing “myths”. National President Debbie Te Whaiti states “There’s no conclusive evidence that all boys will do better at single sex schools”. Past Auckland Chair Martin Henry said “it is no good saying that boys can only succeed in all male schools”. I challenge them to cite one person who has claimed that!

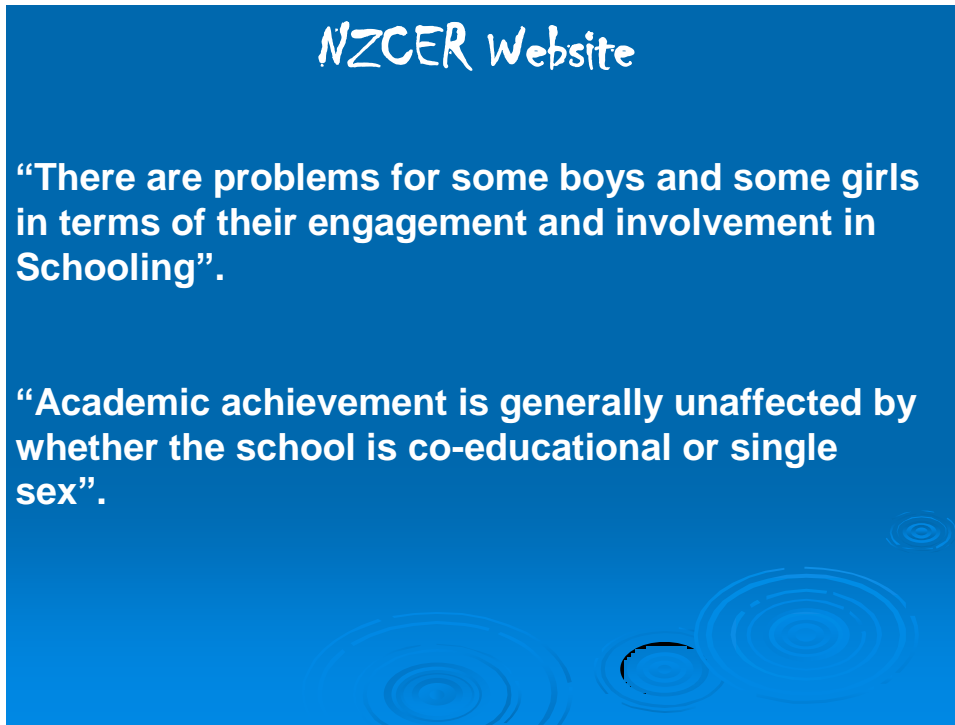
Having denied a problem with boys’ achievement, the website then proceeds to give a classic ‘fix the boys!’ behaviouralist analysis. “Boys’ socialization and experience continues to prepare them for a world that does not exist any more”, and while sport is valued over academic achievement “nothing will change”. It calls for a “boys can do anything” campaign.

PPTA ideologues have declared class warfare on essentialism. A 2002 conference paper recommended “adoption of gender inclusive practice requiring a rejection of the false duality of essentialism “. A draft by the Ministerial Reference group included, as factors promoting male achievement: loyalty, pride in school, co-curricular activities and defined boundaries. In its submission to the Reference Group,” PPTA wanted these “essentialist” elements deleted, in the interests of “taking a broad view”.

Despite claiming that gender is socially constructed, PPTA oppose calls for more male role models. That’s an inconsistency at the heart of PPTA policy. Here’s another: although endorsing all female staffrooms, PPTA totally opposes all-male classes or schools.

A PPTA Gender Education Paper listed boys problems. The list didn’t include academic achievement! The paper urged that tackling boys’ problems “is in the interest of women members as issues to do with harassment, gendered curriculum and the position of women teachers cannot be tackled otherwise”.

PPTA's position is ideological, monocausal and protectionist. It lacks consistency and credibility. PPTA isn't part of the solution, it's part of the problem.



To another website, and to more trivialization and denial.

The New Zealand Council of Educational Research Website lists 209 items of research. Not one is about boys or gender. The research team of 12 women and two men have 37 current research projects, none related to gender. A leading researcher recently told me that boys' issues are no longer popular with researchers or publishers.

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I'll conclude today with a brief outline of some recent research on boys' education, its strengths and limitations. It has mainly focused on aspects of male motivation, the key to unlocking male potential.

The Christchurch longitudinal study found that males were more prone to inattention and misbehaviour, and when that was controlled for, there was no gender gap. Boys underachieve because they misbehave.

Regression analysis may have established a relationship but it can't show how it works. It's equally likely that some boys, at least, misbehave because they underachieve.

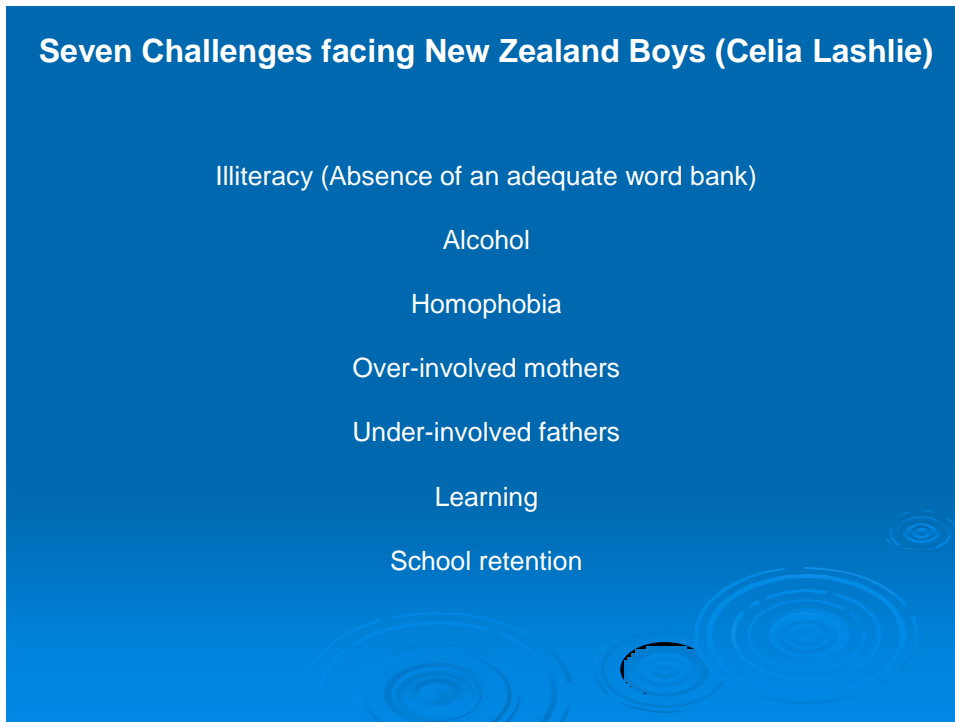
Roy Nash also sensed illogic in the Christchurch conclusion. If misbehaviour causes under-achievement, he asked, do boys misbehave more in English? (I put this to an English teacher, and the answer was an emphatic yes).

Nash surveyed the career ambitions of Year 9 students and concluded that boys do worse at school because their ambitions are low, unrealistic, and shaped by hegemonic masculinity. Far more boys dream of futures in sport or the police or the armed forces than will actually make it.

Nash may be reading too much into ambitions at a level where they are generally unformed and bear little relation to motivation. However it may be significant that even at that age more females than males planned Tertiary Education.

Whangarei Boys found that under-achieving boys were more likely to buy their lunch, do less homework, own a car and have a job. However, as with the Christchurch study, a relationship was established, but not causality.

Via a detailed questionnaire on NCEA, Gavin Leighton found girls more likely to attribute outcomes to intrinsic factors such as effort; boys to extrinsic factors such as teaching. Boys thought they had less control over their learning, but nevertheless approached tasks with more brio.



In her tour around boys' schools, organized by the Association of Boys' Schools of New Zealand, Celia found seven challenges facing New Zealand boys:

Blending essentialism and behaviouralism, Celia wished to help schools find and promote those male attributes that were the solution to these challenges. She asked "what are the attributes of a good man"

She ended up with a rather unmanageable list of 46 characteristics, of which three stood out:



**The good man is:**

Loyal

Principled and trustworthy

Good-humoured

**Five other qualities were frequently mentioned:**

Compassionate

Determined

Honest

Motivated and hardworking

Humble

Quite a few boys' schools have used Celia and her work to promote more positive masculinities in their schools.

Of current research I'm aware of, Graeme Ferguson is investigating the behaviourist belief that certain types of masculinity are inimical to learning. Through interview and observation he hopes to discern even the smallest reactions of six year old boys to learning. Michael Irwin is currently taking a more essentialist view and investigating the conditions in schools most conducive to male motivation, from pastoral care to timetable.

May I conclude with a list of recommendations for further research and action:

### **RECOMMENDATIONS FOR FURTHER RESEARCH**

- 1 Is content and assessment of conventional subjects, particularly subjects with a large gender gap favouring girls, gender inclusive, or does it sometimes favour girls?

*Two downward trends, the number of males in Tertiary Education and in teacher Training, must be reversed:*

- 2 What factors are increasing the Tertiary Gender Gap? Are remedial policies are desirable or possible?
- 3 How important is teacher gender? How can more males be attracted to Secondary teaching?

*Most boys attend co-ed schools so their needs must be addressed within the co-ed context:*

- 4 Where can best practice for boys be found within co-ed schools? In what ways can co-ed schools target boys' achievement and welfare without being seen to undermine girls? What has the potential to boost male achievement the most – whole school improvement or programmes targeted at boys?
- 5 How common are boys' only classes in New Zealand co-ed schools? What is their rationale, organization, and success rate?

### **Recommendation for ERO**

In a forthcoming cycle, report on the welfare and achievement of boys, measuring:

- Academic statistics, comparing boys in each school both to girls in the same school and to all boys of the same decile.
- Behavioural statistics i.e. attendance and suspension
- Boys' participation in leadership and service positions in the school.
- Boys' participation in cultural activities.

Boys' attitudes towards the school, schooling in general, themselves and their futures.

For further discussion please e-mail me at [paulb@waitakibhs.schoolzone.net.nz](mailto:paulb@waitakibhs.schoolzone.net.nz)

## **WAITAKI BOYS' HIGH SCHOOL**

We are a decile six school of 550 students that does not enrol selectively and basically is the high school for non-Catholic boys of North Otago. There is a hostel of 120 students, who are of good character but average academic ability. The school traditionally under-performed in external examinations. In 2003 the school's NCEA results were well above the Decile Six and national averages; in 2004 they were spectacularly above, the highlight being an 87% Level Two pass rate. In 2005 the results, averaged, improved again. At the same time the school came 6<sup>th</sup> nationally in Basketball and in Softball, won local Rugby and Soccer tournaments and boasted six choirs, the largest attracting a quarter of the roll.

## **STRATEGIES FOR PROMOTING BOYS' ACHIEVEMENT**

### ***BY THE SCHOOL***

1. Traditional values: honesty, reliability, tolerance, industry, integrity, initiative.
2. Clearly communicated and consistently applied standards of behaviour, with set disciplinary and pastoral consequences for misbehaviour.
3. Students encouraged to take responsibility for their behaviour (Glasser Model). Works with students at risk to improve their behaviour and to learn and grow from mistakes.
4. Holistic education: recognition and reward for academic, cultural, social and sporting effort and achievement using a variety of hierarchical reward systems.
5. A wide variety of contact and non contact sports (bowls, croquet and fencing all recently added). Students encouraged to find the right sport.
6. Boy-friendly opportunities for mass participation in orchestral and choral music, drama, dance, debating, theatresports, social service, library, auditorium and canteen service.
7. Through courses, activities, speakers, ideas, and the use of school leadership positions diverse models of masculinity presented and affirmed.
8. Systems that are responsive to individual problems. Targeted guidance programmes for self-handicapping behaviours, social skills, smoking, anger management, communication skills, learning difficulties etc, including Rock and Water Programme and Brooklyn project.
9. Opportunities for curricular and co-curricular contact with girls.
10. Women seen in positions of power (rather than simply menial or nurturing roles) and in "non-traditional" roles i.e. First XV management.
11. Senior students as peer-mentors for juniors, particularly in reading.
12. House competition used to motivate boys to participate widely in co-curricular activities, especially cultural, with weekly events.
13. Student leaders trained in the responsible use of power, and used them as role models – all prefects must sing in the choir, deliver a book review to assembly and participate in the 20 Hour Run.
14. Student ownership of school programmes and policies encouraged.
15. Tradition valued. (Cornelius Riordan talks of 'The romance of tradition by which boys are led to value and defer to the triumphs and failures which make up the history of their institution.')
- Events, ceremonies and rituals and hundreds photographs that involve every student, foster their identity and loyalty, and turn the school into a community.
16. A tutor group system that ensures that every student is known well by at least one teacher.
17. Student safety ensured. Vigilant for bullying and harassment, effective response if they do occur, and positive interactions between all in the school community modelled and promoted (Garbarino says this makes a school safe, not a "zero tolerance for bullying policy").
18. A uniform that promotes common identity and is worn well but permits small permutations to reflect seniority or achievement.

19. Modelling by school leadership of good teaching practice. School-wide learning activities that explore and express values.
20. The positive influence of fathers harnessed and encouraged. Fathers expected to attend school functions.
21. Participation and striving for excellence encouraged via competitions (Anzac Service poem Photography, Talent quest, Iron man, Speech, Mastermind.)
22. Healthy eating promoted.
23. Special Needs students integrated with others in all school activities.
24. Curriculum related learning has primacy over all other activities.
25. Reading promoted, with weekly assembly book reviews and advertisements for new books, daily silent reading and staff Literacy PD.
26. ICT-rich learning environment.
27. Streaming, special courses, programmes and targeted assistance for boys who are gifted or have special learning needs.
28. Vocational Education. Pathways for boys between education and work, flexible opportunities or work experience, and relevant learning contexts.
29. A six period school day: shorter periods benefit boys.
30. Total silence and hard work in the supervised senior study room.
31. Homework set meaningfully and regularly, checked by staff, with lunchtime detention for non-completion.

#### ***BY THE TEACHER***

32. In control. Has set entry, exit routines; a seating plan with educational rationale. Clear, non-negotiable behavioural boundaries. Is fair and consistent. No favourites.
33. Accepts responsibility for student learning. Does not let students choose whether to succeed or fail. Gives every student the opportunity for genuine success (“personal best”) at a level realistic to their abilities.
34. Treats boys with respect; eschews ‘role’ and communicates with them genuinely and sincerely as if they are adults. Does not humiliate.
35. Encourages, praises, (“It takes nine acts of praise to counter a single negative comment”) tolerates, admits when he/she is wrong. Is relentlessly positive. Creates a co-operative learning culture which defuses “fear of failure” and consequent self-handicapping. Discreetly targets popular or image-making boys to ensure they act as good role models.
36. Exercises “relaxed control”. Lively and good-humoured, robust teaching. Kids and joshes. (A sense of humour is the single most valuable attribute in a teacher of boys). Knows how to ‘defuse’ situations and handle difficult boys. Fun, optimism, positivity.
37. Is responsiveness to individual personalities. (Russell Bishop of Waikato University finds that rapport between teacher and student the key determinant of a student’s learning, particularly for Maori students). Is empathetic. Knows that boys are far more sensitive than they are prepared to show.

38. Treats the class as a team. Gives 'the team' some choice in and ownership over class behavioural and learning issues. Students participate in lesson goal setting and evaluation. Challenges the class – intellectual or practical, large ("I've struggled with this. I wonder if you...") and small ("Bet I can do this before you").
39. Doesn't talk too much. Resists temptation to be the 'sage on the stage' Promotes active rather than passive learning. Students learn how to learn. Fosters Critical Thinking Skills: gently demands logical and analytical thinking.
40. Uses boy-friendly resources, with visual construction of concepts, not overly reliant on text.
41. Promotes interactive learning, particularly through pair/share and ICT, and kinesthetic learning: plenty of movement, action, and 'hands-on', experiential learning.
42. Ensures curriculum is relevant to students' current and future lives. (Martin says educators need to "stay abreast of popular culture, information technology, world events and students' lives".)
43. Regularly checks student work for quality, completion and organization. Provides exemplars from other students. Is supportive of students who lack personal organization and can quickly give up. Insists on students having 'learning kit'
44. "Chunking" of lesson and learning activities, each with goal and time frame; manufactures a series of new "starts" during the lesson. ("Hawkes says "the discerning teacher is often able to disguise an open-ended task by turning it into a series of closed tasks").
45. "Chunking" of long term open-ended assignments, with target dates for sections that enable teacher to respond to laggards. Boys need scaffolding for everything. Insists that a deadline is a deadline. Insists on punctuality. Insists on the same things that an employer will insist on.
46. Is aware of student literacy levels, uses appropriate materials, whatever the subject, helps students with literacy strategies, and engages student interest in what is being read. Values the narrative/analytical as well as the emotional/imaginative.
47. Teaches students how to study.
48. Constant formative assessment of class and individuals. Where are we at, where do we need to be at, what do we know, what do we still need to know?
49. Extensive whole staff PD on the education and welfare of boys.
50. Staff ownership of the ten School Pedagogical Goals, using these as a basis for all appraisal and for a robust, well resourced, skilled and non-judgemental mentoring programme that supports teachers progress towards mastery of the Pedagogical Goals. Each year all staff are mentored on one goal and some staff are mentored on all goals.

## THE TEACHER MENTORING PROGRAMME AT WAITAKI BOYS' HIGH SCHOOL

1 There are five Teacher Mentors:

- \* A part-time teacher, primary trained, employed primarily as a mentor (team leader)
- \* The Guidance Counsellor, an advanced NLP practitioner
- \* An RTLB
- \* The Deputy Rector
- \* The HOD History who is also the school's Specialist Teacher

There are also three ICT mentors.

The Teacher Mentoring team has a combined time allowance for mentoring of one full time position. The ICT Mentoring team has a combined time allowance of .6 of a full time position.

2 This Teacher Mentoring Team is into its fourth year. It meets once a week to review progress. It has undertaken extensive Professional Development with various mentoring experts. It takes a lead in planning Professional Development for the staff. All mentors sit on the Professional Development Committee.

3 There are two types of Teacher Mentoring

A Comprehensive mentoring, offered to all staff, and mandatory for new staff. Each term the Mentor and Mentoree focus on several Pedagogical Goals chosen by the Mentoree from the staff list. The time allocation for the Mentor is three periods a week per Mentoree, for as long as this is needed (generally a year). Generally two of those periods will be spent in observation and one in discussion.

In the fourth year of the programme almost all staff have now been mentored. As staff turn-over is low, an increasing proportion of the mentoring resource can be devoted to:

B Specific mentoring, mandatory for all staff each year, on the Pedagogical Goal selected by the staff for whole school focus. In 2005 it was ICT; in 2006 it is Literacy and in 2007 it is likely to be Success for All (Differentiated Learning). This specific mentoring is accompanied/preceded by whole some whole staff PD. A Mentoree will still have three periods a week but probably for a term only.

4 There are two types of ICT Mentoring, each with specialist mentors:

- A Technical. (How can I do this?)
- B Pedagogical. (How can I use this to enhance my teaching?)

ICT mentors respond to requests, work with Faculties, staff surveys, and initiate mentoring where they feel there is a need.

5 Principles

- A One on one professional development is generally more effective than courses and conferences.
- B Mentoring must be non-judgemental, with nothing written, no accountability, and no connection with Appraisal or Attestation.
- C Mentoring will only work if there is a good rapport developed, and the Mentoree *wants* to be mentored. It will not work if it is imposed or rushed. A struggling, defensive teacher may resist.
- D If Mentors are good then positive word of mouth will spread and most staff will want to be mentored.
- E The time allowances for Mentoring must be jealously guarded. Every year there will be timetable pressures somewhere. Long term school improvement will come more from mentoring than from reducing a few class sizes each year.

6 Results

- A Almost all Mentorees have been very positive.
- B Some have reported it as a transformational experience.
- C Mentoring has helped the whole teaching and learning culture of the school to change.

## WAITAKI BOYS' HIGH SCHOOL PEDAGOGICAL GOALS

### Goal Setting

- Clear learning goals for each lesson, discussed with students.
- Students copy goals at start of lesson; teacher and students monitor progress against goals during lesson, and review at the end of the lesson.
- Where possible, opportunity for student input / choice as to the topic or method, teaching or assessment.

### Routines and expectations

- Steady routines.
- Clear expectations for work and behaviour, and for the learning materials students must bring ( regularly checked).
- Firm, fair classroom control.
- Clear instructions, and checks that these are understood.

### Pace and Structure

- A range of “do now” activities to rapidly engage students from the beginning of the lesson.
- An immediate sense of “purpose”.
- Lessons that are then well sequenced and effectively paced.
- Well managed “transition points” and “fresh starts” so as not to lose focus and momentum.

### Success for All

- Differentiated learning that provides a variety of teaching and assessment strategies that are open ended or flexible and afford students of varying ability a genuine opportunity for success. (Success defined as “personal best”).

### Active and Co-operative Learning

- Students actively involved in their learning rather than passively listening
- Practical, tactile activities to reinforce learning.
- Avoiding heavy reliance on texts or student worksheets.
- Independent work habits / learning skills promoted.
- Students work as “autonomous learners” but also have plenty of opportunity to work co-operatively with others.

### Literacy

- Strategies to enhance effective reading / comprehension of resource materials used.
- Careful introduction of new subject-based technical terms to build up student vocabulary.
- Strategies to engage student interest in what is being read.

### Critical Thinking

- Promoting good levels of critical thinking and participation in discussion through the effective use of open ended questioning techniques.
- Students encouraged to think, to question and to take intellectual risks.

### Relevance

- Using teaching contexts that are of high interest, relevance and are motivating to students.
- Recognising and building on learners’ culture.

### Formative Assessment

- Continual formative assessment – finding out through formal and informal (written, practical and verbal) methods what students know and what they need to know; what they can do and can’t.
- Using this information to guide lesson planning and delivery.
- Sharing this information positively with students as part of goal setting and review.

### ICT

- Use ICT to enhance teaching and learning in all subjects and at all levels
- Use ICT to reinforce that teacher is student not teacher centered.
- Where necessary, teach students (or use other students as teachers) the skills they need to learn through ICT

## SOME CRUCIAL COGNITIVE GENDER DIFFERENCES

- The Male brain's two hemispheres are different while the female's are similar and these brain differences are immutable. Studies in castrating rats at birth have found no subsequent change in the brain of the castrated rat.
- One-day old girls and boys react differently to visual stimuli.
- Boys' brains develop differently from girls, rather than in the same way but slower.
- At birth girls have better hearing and by age seven girls can hear twice as well as boys, especially in the frequencies most important for speech discrimination.
- Boys' attempts to write are handicapped by the later development of the nerves on their fingers, making it difficult to hold a pencil.
- In young children, emotional activity is localized in one part of the brain, and the part of the brain that controls talking is in another, unconnected, section, the cerebral cortex. That's why six year olds can't easily explain their feelings. In adolescence, emotional activity moves to the cerebral cortex, but in girls only. A 16 year old boy may be as stuck articulating his feelings as a 6 year old.
- Females use both hemispheres in processing language, or performing tasks; males only one side.
- Areas of the brain involved in language and fine motor skills mature about six years earlier in girls than boys, while targeting and spatial memory evolve four years earlier in boys than girls. For example at two years of age a boy is three times more likely than a girl to be able to build a bridge out of blocks, whereas a 3 and a half year old girl can interpret facial expressions as well or better than a five year old boy.
- The male brain is "geared to systematize: to analyze how objects work, to organize, to make lists. The female brain is geared to empathize – to communicate, to love, to identify other people's emotions and respond appropriately.

## OFSTED SUMMARY

- The relationship between the ethos of a school and the achievement of its pupils is close. Boys tend to respond well to an ethos that encourages and stimulates high standards, that engages their interest and commitment, and that insists on good behaviour and close partnership with parents.
- Boys perform better in schools which have a strong learning culture and sense of community, and which demonstrably value all pupils by celebrating their achievements and by treating them fairly and with respect. Extra-curricular activities make a significant contribution to boys' views of school.
- The importance of a clearly defined disciplinary framework is especially marked for boys. Boys respond best when there is a consistent and fair minded approach to discipline, backed up by effective pastoral systems and learning support.
- Many of the schools visited in the survey have improved pupils' performance through a whole-school focus on teaching and learning. The focus tends to involve greater use of formative assessment, attention to different learning styles, and structured teaching approaches...
- Boys often respond better to lessons that have a clear structure and a variety of activities, including practical and activity-based learning, applications to real-life situations, and an element of fun and competition. Many boys find it helpful to be given short-term targets and feedback that focuses on how they can improve.
- Boys in particular seem to value individual attention and tend to work harder when they know they are being monitored closely. They respond well when given help to organise their coursework and to plan their revision.
- Boys tend to respond well to teachers who set clear limits and high expectations, direct work strongly, show enthusiasm for their subjects, use humour and reward good work. There is evidence that boys are rather less inclined than girls to learn from indifferent teaching.



## BIBLIOGRAPHY

### Key Sources

- Alton-Lee, Adrienne, *Quality Teaching for Diverse Students in Schooling: Best Evidence Synthesis*, Wellington, 2003.
- Alton-Lee, Adrienne and Praat, Angelique, *Questioning Gender, Snapshots from Explaining and Addressing Gender Differences in the new Zealand Compulsory School sector, a Literature Review*, Ministry of Education, Wellington, 2001.
- Arnot, Madelaine et al. *Recent Research on Gender and Educational Performance*, UK, Office for Standards in Education, 1998.
- Callister, P., Newell, J, Perry, M, Scott, D., The Gendered Tertiary Education Transition: When did it take place and What are some of the possible policy implications?, *Policy Quarterly*, 2, 3, 2006.
- Crooks, Terry, *The Relative Achievement of Boys and Girls in new Zealand Primary Schools*, December 2, nemp.otago.ac.nz/otherstd/probe\_studies
- Cushman, Penny, It's just not a real bloke's job: male teachers in the Primary School, *Asia-Pacific Journal of Teacher Education*, 33(3) 2005.
- Cushman, Penny, Let's Hear it from the Males: Issues facing Male Primary School Teachers, *Teacher and Teacher Education* 21 (3), 2005.
- Cushman, Penny, Male Teachers in Primary Schools, *SET* 3, 2005.
- Department of Labour, *Work Trends, How work is changing in New Zealand*, Wellington, 2003
- Easton, Brian, Single Sex vs Co-ed, is one better than the other, eastonbh.ac.nz downloaded Sept 14 2003
- Education Review Office, *The Achievement of Boys*, Wellington, 1999.
- Education Review Office, *Promoting Boys' Achievement*, Wellington, 2000.
- Education review Office, Reports, web site
- Ferguson, David M. and Horwood, L. John, *Gender Differences in Educational Achievement in a New Zealand Birth Cohort*, Christchurch, 1997.
- Gilbert, Jane, *Catching the Knowledge Wave?, The Knowledge Society and the Future of Education*, Wellington, 2005.
- Laugesen, R, In a Class of their Own, *Sunday Star*, 14.9.2003
- Mallard, Trevor, *Early Assessments help to give new entrants a flying start at school*, Press Release, 7.8.01
- Ministry of Education
  - *Briefing for the Incoming Minister of Education*, October 2005
  - *Education Statistics of 2004*, Wellington, 2005.
  - *The Effects of Curricula and Assessment on Pedagogical Approaches and on Education*, Wellington, 2002.
  - *Exploring the Construction of Gender in Schools: Analysis and Action*, Draft Report, March 2003.
  - *Focus on Pasifika Achievement in Reading Literacy, Results from PISA 2000*, Wellington, 2004
  - *Focus on Low SES Students' Achievement in Reading Literacy*, Wellington, 2004.
  - *Gender Differences in Achievement*, mined.govt.nz
  - *Governing and Managing New Zealand Schools: a guide for Boards of Trustees*, Wellington, 1997.
  - *Learning for Tomorrow's World, PISA 2003*, Wellington, 2004
  - *Making a Bigger Difference for all students, Schooling Strategy 2005-10*, Wellington, 2005.
  - *Mathematics and Science Achievement in New Zealand, Year Five*, mined.govt.nz
  - *Mathematics and Science Achievement in New Zealand, year Nine*, mined.govt.nz
  - *National Educational Framework*, Wellington, 1993
  - *The New Zealand Curriculum framework*, Wellington, 1993
  - *PISA 2000, The New Zealand Context*, mined.govt.nz
  - *Priorities: Statement of Tertiary Education Priorities 2005/07*, Wellington, 2005
  - *Profile and Trends, New Zealand's Tertiary Education Sector, 2003*, Wellington, 2004.
  - *Profile and Trends, New Zealand's Tertiary Education Sector, 2003, Appendix*, Wellington, 2004.
  - *Questioning Gender; Snapshots from Explaining and Addressing Gender Differences in the New Zealand Compulsory School Sector*, Wellington, 2001.
  - *Reading Achievement in New Zealand in 1990 and 2001*, Wellington, 2005
  - *Reading Literacy in New Zealand, PIRLS 2001*, mined.govt.nz
  - *A repeat of the Third International Mathematics and Science Study, 1998-9*, mined.govt.nz
  - *School Entry Assessment, June 1997-December 2000*, mined.govt.nz
  - *Trends in year 5 Students' Mathematics and Science Achievement*, mined.govt.nz
  - *Trends in Year 9 Students' Mathematics and Science Achievement*, mined.govt.nz
- Nash, Roy, Boys and Girls at School: A Study of Structure, Disposition and Practice, *NZ Journal of Educational Studies* 2001,

- New Zealand Qualifications Authority, *Secondary Qualification Statistics, Final Report, 2001, 2002, 2003 2004*
- Ofsted, *Yes He Can, Schools where Boys write Well*, London, 2003.
- Ofsted, *Boy's Achievement in Secondary Schools*,. 2003
- Stirling, Pamela, Girls on Top, *Listener*, 17.1.98.
- Wright, Noeline, What about the boys? An examination of the boys' achievement debate, *English in Aotearoa*, December 2000.
- Wright, Noeline, Baring some essentials: Boys' achievement, ERO and Leadership, *Waikato Journal of Education*, 2000.

### Also Consulted

- Austin, Jenni, Boys need girls more than girls need boys, *New Zealand Women's Weekly*, 8 May 1989.
- BBC News, School works to help boys, 16 September 2003, news.bbc.uk/1/hi/education/3114208.stm downloaded December 2005
- BBC News, Girls Top of the Class Worldwide, 16 September 2003, news.bbc.co.uk/1/hi/education
- Bowden, Anna, Bay leads country in making good men, *Bay of Plenty Times*, 29 10 2005, downloaded 5 December 2005.
- *Boys In Schools*, Boys Getting it Right, 5,3 Newcastle, 2002, pp 30-34.
- *Boys in Schools*, There's More than One way to be a Superman, , 8.3, Newcastle, 2005, pp 33-42.
- Boyd, S, What's Best, Single Sex or Co-ed schools, *New Zealand Herald*
- Bradstreet, Anne, Gender Equity in the New Zealand Curriculum: A change in focus, *ACE Papers*, July 2000.
- Brooking, Keren, Selecting a Principal on Merit or Gender, *NZ Principal*, March 2006, pp. 27-29.
- Buckingham, Jennifer, Let's Make a Start to fix Boy Troubles, *New Zealand Herald*, Jan 19 2004
- Bullen, Esther, A Matter of Gender, *New Zealand Education Review*, 19.3.99.
- Carnachan, Garry, Boy Trouble, *New Zealand Education Review*, Oct 6 2000, p 7
- Cassie, Fiona, Poor Boys on Back Foot from Day One, *New Zealand Education Review*, 6.8. 1999.
- Centre for Educational Effectiveness and Evaluation, The differences between boys and girls in achievement and choice of subject in Flemish secondary education, ppw.kuleuven.be/coe/doctoral\_research.htm, downloaded 6 December 2005.
- Chapman, Ruth, Boys' learning: what has to change, *Otago Daily Times*, 18.1.2000.
- Chapman, Ruth, Boys held back by Macho Stereotypes, *New Zealand Herald*, 6.1.2000
- Claire, Hilary (ed.), *Gender in Education. A fresh approach*. Association of Teachers and Lecturers, cit TES 21 Jan 2005, cit literacytrust.org.uk downloaded 6 December 2005
- Davies, Jan, Gender Equity in Schools: Yet another challenge for Principals, *New Zealand Principal*, April 1991 5 (4).
- Delamont, S , *Gender and the discourse of derision*, Research Papers in Education 14 (1), 3-21, 1999
- Department of Education and the Arts, Queensland Government, *Boys, Gender and Schooling*, education.qld.gov.au, downloaded 6 December 2005
- Department of Labour, *Labour Market Reports*, downloaded 17 January 2006
- Di Prete, T amd Buchmann, C, Gender Specific Trends in the Value of education and the emerging gender gap in college completion, *Demography*, 43 (1), pp 1-24.
- Dye, Stuart, *New Zealand Herald*, New co-ed rejects National; School policy,./co.nz, downloaded 28.06.05
- DEST, *Declining rates of achievement and retention: the perceptions of adolescent males*, 16 May 2005, dest.gov.au/archive/highered/eipubs/eip01\_6/default.htm.
- Dickinson, Pauline, The Phenomenon of Mocking: the voices and experiences of boys in a single-sex school, *New Zealand Journal of Counselling*, 2003.
- Education Counts, *Science Achievement: middle schooling*, educationcounts.edcentre.govt.nz, downloaded 6 December 2005.
- Education Counts, *Reading Achievement: primary schooling*, educationcounts.edcentre.govt.nz, downloaded 5 December 2005
- *Education Gazette* Strong School, Strong Community, 84, 21 November 2005
- *Educating Boys*, Issues and Information, Commonwealth of Australia
- Ellyard, Peter, *Preparing our Young for 21<sup>st</sup> Century Success*, Paper presented at SPANZ symposium, Queenstown, 2-5 April 2006.
- Ferral, H., *Clustering Students by their Subject Choices in the Learning Curves Project*, NZCER, Wellington, 2005.
- Field, Mike, Boys, education and sport: The Darfield High School Model, *Journal of Physical Education NZ*, December 2000.
- Gareljja, Peter, I won't Learn From You, *New Zealand Education Review*, 17.9.99
- Gerritson, John, Finding Seats in Social Classes, *Education Review*, March 9-15 2006.
- Global health Council, New Zealand: Ratio of girls to boys in tertiary education, , atlas.globalhealth.org, downloaded 5 December 2005.

- Greer, Cal, Where have all the Boys Gone, *New Zealand Principals Federation Magazine*, November 1998.
- Gurian, M & Stevens, K., *What is Happening with Boys in School*, TC Record, 2.5.05
- Hansen, Sally, *Boys and Writing: What's the problem?*, Massey University College of Education, Set 1, 2002.
- Haque, Bali, Competitive Method not right one for Schoolboys, *New Zealand Herald*, 27.1.2000.
- Harrington, Debra, When girls outclass boys, *Weekend Dominion*, 31.3.2001
- Hartman, Deborah, And now for the Good News, *The Boys in Schools Bulletin*, February 2006.
- Hattie, John, *New Zealand Educational Snapshot*, Knowledge Wave, 2003.
- Hattie, John, *Teachers Make a Difference: What is the Research Evidence*, Auckland, 2003.
- Henry, Julie, *Single Sex classes get boys back to work*, news.telegraph.co.uk
- Henry, Martin, Fooling with Culture, Chapter Three in *Cool Fools, Subcultural Consumption and the Question of Personal identity*, Unpublished Thesis, 2002,.
- Herd, Joyce, *Cracks in a Glass Ceiling; New Zealand Women 1975-2004*, Dunedin 2005.
- Hewitson, M, Male Teachers Staying out of Shadows, *New Zealand Herald*, 27.9.03
- Holgate, Ginny, The Trouble with Boys, *Grace New Zealand*, December 1999.
- Holmes, Sue, *Kamo High School; The Journey*, Whangarei, 2005.
- *Independent*
  - Are chimpanzees the explanation of gender learning differences, 15 April 2004, cit literacytrust.org.uk, downloaded 6 December 2005.
  - What have the researchers found works with boys? 12 September 2005, cit literacytrust.org.ukm, downloaded 6 December 2005
  - Mixed Schools told to use single-sex classes, 17 November 2004, literacytrust.org.uk downloaded 6 December 2005
  - How to turn boys onto studying, 21 October 2004, literacytrust.org.uk downloaded 6 December 2005
- Iterative BES programme February 2005 – Notes Prepared for meeting of Schools Consultative Committee
- Inns, Kylie, Gender Differences in Education, *ACE Papers*, June 2000.
- Kelly, Andrew, Boys will be Boys, *The Press*, 12.12.2000
- Kennedy, Erin, What boys need at school, *The Dominion*, 18 August 1999.
- Kermode, Helen; Rawlinson, Catherine; Tuck, Bryan, Gender Differences in Reading and Spelling Achievement among Year Three and Four students and classroom “engaged time”., *New Zealand Journal of Educational Studies*, 2003, 2
- Langley, John, Neglect of Males a Social Tragedy in the Making, NZH, 12.6.2003
- Lashlie, Celia, *He'll Be OK, Growing Gorgeous Boys Into Good Men*, Auckland, 2005
- Leighton, Gavin, *NCEA, Pupil Motivation and Self Regulation*, Unpublished thesis, Dunedin, 2005.
- Letter from Elsewhere, 17 November 1999, geocities.com/nzwomen/AnneElse/elsewhere,m downloaded 6 December 2005
- Lindo, Nick, Academic Success again a gender Issue, *Otago Daily Times*, 5.8.1999.
- Literacy Trust, What research suggests schools can do to improve boys' performance, literacytrust.org.uk/Research/boysact.html, downloaded 23 December 2005.
- Livingstone, Ian, Going, Going...? Men in Primary Teaching in New Zealand, *New Zealand Annual Review of Education*, 12: 2002, pp 39074.
- Livingstone, Ian, *Men in Primary Teaching in New Zealand, a Literature Review*, Wellington, 2003.
- Lyons, P., Smart Girls and Dumb Boys, It's all a matter of detail, NZH, 24.6.03
- *Manawatu Evening Standard*, Getting Men Into Teaching, Editorial, 19 June 2003.
- Major, Dayle, Male Teachers and Boys' Achievement, *ACE Papers*, June 2000.
- Maxim Institute, *A snapshot of what parents think of schooling in New Zealand*, pp 84-88
- McCarthy, Claire, Tough agenda of gender questions, *New Zealand Education Review*, 14 July 2000.
- McLellan, Ros, New ways of thinking about raising boys' achievement, *Set*, 1 2004.
- McLennan, Vicky, The adolescent male English student is a unique species, *English in Aotearoa*, September 1998.
- MENZ Issues, Fri 13 May 2005, menz.org.nz/2005/girls-better-in-every-subject, downloaded 5 December 2005
- Middleton, Stuart, Gender Tragedies, *New Zealand Education Review*, 10.9.99.
- Ministry of Justice, *Conviction and Sentencing of Offenders in New Zealand 1992 to 2001*, 2003 Report.
- Ministry of Social Development, *Key Findings on Youth Transitions: Executive Summary, Youth Transitions Report Series 2003*,
- Ministry of Social Development, *Children and Young People: Indicators of Wellbeing in New Zealand*, Wellington, undated.
- Morgan, Glen, The social threat we face if boys continue to drift in Education, *The Press*, 20 January 1997.
- Morris, John, Why some boys lag behind girls at school, *New Zealand Herald*, 21.1.2000
- National.org.nz, National's 2005 Schools Policy, , downloaded 5 December 2005
- *New Zealand Herald*, Call for Blokes Only Classroom Incentives, 16.6.2003

- *New Zealand Herald*, Ministry too PC for men say Teachers, 24.9.03
- *New Zealand Herald*, Editorial, Male Staff Essential in our Schools., 26.09.03
- *New Zealand Herald*, Schools Seek Solutions as boys slip in Achievement, 30.11.1998.
- The Trouble with Boys, *Newsweek*, 31 January 2006.
- Nicholson, Tom, Boys will be Boys, *North and South*, July 2001.
- Palmer, Rebecca, *Sunday Star* Students Identify NCEA's pros and cons,
- PPTA, Submission to the Boys' Educational Achievement Reference Group, November 2004,, Wellington.
- PPTA, Auckland Region, Gender Education Paper, 2000.
- PPTA, Boys and Achievement in Secondary Schools, A paper to Annual Conference prepared by the Waikato Region, 1997
- PPTA, *Debunking some Myths surrounding boy's (under)achievement*, ppta.org.nz
- Learning is for Boys Too, *PPTA News*, August 2004.
- Prochnow Jane E.; Tunmer, William E; Chapman, James W; Greaney, Keith T., A longitudinal study of early Literacy Achievement and Gender, *NZ Journal of Educational Studies* 2001, 2
- Quinlivan, Kathleen, Current Approaches to Understanding Gender and Schooling, Paper presented to ABSNZ Conference May 2003
- Richardson, Amie, No Thanks Sir, *Listener*, 18 March 2006, p. 31.
- Roberts, Adrienne, Boys- tricky negotiations, *English in Aotearoa*, September 1998.
- Ross, T, Dearth of Male Primary School Teachers, Press, 14 June 2003
- Rowe, Rebecca, The trouble with cars, work, girls and mates, *New Zealand Education Review*, 10.9.99.
- Rutledge, Maureen, Boys will be stropky boys at School, *New Zealand Herald*, 30 April 1997.
- Rutledge, Maureen, The Gender Differential in Reading: are boys failing the system or is the system failing boys?, *SET*, 1997, 1.
- Smith, Phil, Social Class more influential than Gender, *Dominion Post*, 20.7.04
- Submissions to Boys Educational Achievement Ministerial Reference Group, November 2004
- *Sunday Star* Boys Losing Battle of the Sexes,
- Tait, John, Disavowal of Gender Apartheid, *New Zealand Education Review*, October 15, 2000, pp 7-8.
- Taylor-Smith, John, Discipline: a framework for learning and caring, *New Zealand Principal*, June 1996.
- *Times Literary Supplement*, 3 June 2005, Popular Boys get Lads into Learning, cit literacytrust.org.uk Downloaded 6 December 2005
- *Times Educational Supplement*
  - Gender gap widens in teenage years, 7 February 2003, cit literacytrust.org.uk downloaded December 2005
  - Study defies the "boys need male teachers" belief, 8 March 2002, literacytrust.org.uk downloaded 6 December 2005
  - Girls slip down gender agenda, 18 January 2002, literacytrust.org.uk downloaded 6 December 2005
  - Boys afraid to look to bright but social class is still more significant, 21 September 2001, literacytrust.org.uk downloaded 6 December 2005
  - Gender Gap, March 12 2004, London.
- *UWE News*, University of the West of England, Boys want Good Teachers but they don't have to be men, 22.9.03.
- Walsh, Rebecca, The boy-girl gap: myth or reality, *New Zealand Herald*, 6 July 2000.
- Weaver-Hightower, Marcus, *Dare the School Build a new Education for Boys*, tcr.org downloaded Feb 14 2005
- Weiss, S. Sex and Scholarship, *washingtonpost.com*, 21 July 2002.
- Welch, D., Reader's Guide to Top marks, *Listener*, November 6 2004, pp 17-20.
- Zohrab, Peter, What about Us? – Boys in Schools and Men in Society, New Zealand Equality Education Foundation, nzmera.orcon.net.nz, downloaded 5 December 2005.