## Submission

# HOUSE OF REPRESENTATIVES STANDING COMMITTEE: 

INQUIRY INTO THE EDUCATION OF BOYS.

## The ACT Department of Education and <br> Community Services, June 2001.

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## Synopsis

In the ACT there are differences in Literacy and Numeracy performance levels between boys and girls especially for Indigenous students. There are many variable factors that do not permit over generalisation of the data.

The ACT continues to explore approaches to improving the performance of boys. ACT Literacy and Numeracy testing results will assist the department to build upon sucessful teaching approaches. The ACT Department of Education and Community Services has implemented various programs aimed at furthering teacher professional development on teacher pedagogy as central to the improvement of the outcomes of all students.

The ACT considers that there is a need for a concerted investigation, at national level, into strategies that target the improvement of the performance of boys in schools.

## Gender Equity in ACT Schools

The ACT Government has a stated commitment to providing both boys and girls with equality in schooling. The framework for ongoing action in the ACT is set out in 'Gender Equity Strategy 1998-2002'. The ACT Government requires gender equity to be considered as a mandatory 'across curriculum perspective' in all ACT Government schools.

The National Action Plan for the Education of Girls 1993-1997 set out a number of key national priorities which were implemented in the ACT. This has resulted in improvement in the performance of many girls. There is a greater willingness to question gender stereotypes and consider broader subject selection as part of the overall appreciation of educational success. There is every reason to continue this valuable work.

## The Relative Performance of Boys and Girls

Information available in the ACT displays the disparity in performance of boys and girls throughout their schooling.

## Preschool

Gender differences in learning develop before students begin their primary school education. On average, boys begin school with better developed skills in maths but poorer skills in reading and phonics. The disadvantage that boys have in reading and phonics is greater for Indigenous boys than for other boys.

In March 2001, students beginning Kindergarten in ACT Government Schools were assessed using the assessment tool Performance Indicators for Primary Schools Baseline Assessment. This assessment showed that boys started school with a small advantage in mathematics but with lower averages than girls for reading and phonics, see Table 1.

Table 1
Gender Differences at the Beginning of School in 2000
ALL
Male-Female
Mathematics
Reading
Phonics
0.7
-1.1
-0.5

This pattern also held for Indigenous students, see Table 2. Indigenous boys performed better on maths questions, but achieved lower scores for reading and phonics compared to Indigenous girls.

Table 2
Gender Differences at the Beginning of School in 2000 Indigenous

|  | Male-Female |
| :--- | :---: |
| Mathematics | 0.5 |
| Reading | -2 |
| Phonics | -1.1 |

However, the difference between boys and girls was lower for maths and higher for reading and phonics. Table 3 shows that the gender differences for Indigenous students were greater than for all students in the year group.

Table 3
Gender Differences at the Beginning of School in 2000
Comparison of Indigenous and All Students
Indigenous-All
Mathematics
Reading
Phonics
-0.9
-0.6

## Year 1

At the end of primary school, teachers assess the needs of students for Learning Assistance support. Many schools provide Learning Assistance through the Reading Recovery program.

Reading Recovery consistently has a two thirds representation of boys, which indicates that at this early stage of schooling boys are over represented in the bottom 20\% for reading. Ninety percent of the students in Reading Recovery achieve the average reading level of their class within twenty weeks.

## Literacy and Numeracy

Results from the ACT Assessment Program carried out in Years 3, 5, 7 and 9 confirm that female students out perform their male counterparts in all literacy strands with the most significant difference being evident in the Writing strand. In the numeracy strands results were much closer with male students either equaling or out performing females by a small margin. Results from testing in 2000 show an improvement in the performance of boys for literacy compared to 1999 see Figure 1.

Figure $1 \quad$ Boys Literacy Results in 1999 and 2000


An examination of Figure 2 will show that there was little difference in boys numeracy results between 1999 and 2000.

Figure 2 Boys Numeracy Results in 1999 and 2000


There were also increases in girl's average scores between 1999 and 2000 in some areas so an increased average score for boys did not necessarily result in a reduction in gender differences. To examine this, the following graphs show the gender differences.

Figures 3 and 4 show the change from 1999 to 2000 in the difference between the performance of boys and girls did not follow any clear pattern. The most significant result was that boys did less well compared to girls on Writing in years 3,5 and 7 . Most of the variation shown in these figures may be due to differences in the cohort of students.

Figure $3 \quad$ Change in Gender Differences for Literacy from 1999 to 2000


Figure $4 \quad$ Change in Gender Differences for Numeracy from 1999 to 2000


A longitudinal study is needed which compares the same group of students over a period of time to evaluate the change in gender differences as students progress through school.

Figures 5 and 6 show that gender differences in literacy are greater for Indigenous students than they are for all students in Years 3,5 and 9. The strongest effect is for Year 9 students. This may indicate that the relative disadvantage of Indigenous boys increases in the later years of schooling. However, there is no clear trend and some of the variations may be caused by cohort differences.

Care needs to be exercised in interpreting Indigenous results for the ACT, because the group in any one year is small. This means that there are likely to be greater fluctuations between years than there would be for a larger group and trends will be harder to detect.

Figure $5 \quad$ Comparison of Gender Differences in Literacy for Indigenous Students with all Students in 1999


Figure 6 Comparison of Gender Differences in Numeracy for Indigenous Students with all Students in 1999


The ACT increased the percentage of boys and girls achieving the national reading benchmarks for Years 3 and 5. In Year 3, 93.8\% of males and 95.9\% of females achieved the benchmark. In Year 5, $89.8 \%$ of males and $91.8 \%$ of females achieved the benchmark. Although the percentage of boys below benchmark was greater, the gap between boys and girls was reduced at this level.

## Year 12

Those students completing a tertiary entrance qualification in ACT schools in 2000 show boys out performing girls in measures of Quantitative aptitude ( 0.38 standard deviations) but below girls in Writing ( 0.09 standard deviations). However, these results need to be interpreted with caution because of the lower percentage of boys achieving this qualification.

Table 4 illustrates the relative performance for males and females at the end of Year 12 in 1999 for ACT government and non Government schools. More boys received a Secondary College Record because they left school before completing year 12 or did not meet the ACT Year 12 Certificate requirements. Generally, the higher the level of qualification received the lower the percentage of boys in the group. There were 4.4\% (compared to $2.4 \%$ in 1999) more girls receiving a Year 12 Certificate, $11.6 \%$ (compared to $8.8 \%$ in 1999) more girls completing a tertiary package. However, the advantage of girls over boys was not as marked in the top $1 \%$ of students.

| Gender Differences in ACT Year 12 Awards 2000 |  |  |  |
| :---: | :---: | :---: | :---: |
| Award | Male | Female | Male-Female |
| Cohort | 49.3 | 50.7 | -1.4 |
| Secondary College Record | 54.9 | 45.1 | 9.8 |
| ACT Year 12 Certificate | 47.8 | 52.2 | -4.4 |
| Tertiary Entrance Statement | 44.2 | 55.8 | -11.6 |

There is also evidence of the disparity in the participation of boys and girls in the various aspects of schooling. Boys are under represented in some subject areas and over represented in others. For example, boys are under represented in the hospitality training area, but over represented in technology related areas.

If one assumes that boys and girls have the same potential to achieve in school, there is clear evidence that boys overall are underachieving. Boys are over represented at the bottom of the distribution of results at all levels of schooling.

## Literacy and Numeracy

These results are consistent with those available from other States. The Literacy and Numeracy team, part of the ACT Department of Education and Community Services is to undertake further research into the improvement of boys literacy performance. The research will include an exploration of varied teacher styles and student learning preferences. Currently some of the strategies used to improve literacy in schools include, paired reading, reading aloud, cross age or cross gender tutoring, monitoring or tracking, analysis of student performance statistically and parental involvement. All of these strategies need to be evaluated for relative effectiveness.

## Curriculum and Subject Selection

There is evidence of gender division in the selection of vocational subject areas. Males are proportionally over represented in Motor Technology, Electrical Studies, Information Technology and Furniture Construction, which are traditional areas of male employment. Males are under represented in Hospitality, Tourism, Retail and Business, areas where part-time and casual work are common.

Of students awarded a Vocational Education Qualification in the ACT in 2000, 945 were female and 870 male. However, males are more evenly spread over the range of vocational courses than females.

## Post School Workforce Participation

Although girls outperform boys at school, this higher level of achievement not necessarily translate into better outcomes for girls in the workplace. Recent Australian Council for Educational Research (ACER) research reveals that:
"Girls overall higher average performance in most subjects in Year 12 does not translate into better labour market outcomes for girls". And "while males are more likely than females to be registered in the official unemployed category, they are also considered more likely to be in training schemes leading safely to full time work (eg apprenticeships), or in full time work, and considerably less likely to be permanently in the part-time employment market or to be out of the labour force altogether" (Collins, Kenway \& Macleod, 2000)

In 1996, The Commonwealth Department of Education, Training and Youth Affairs (DETYA) reported that patterns of involvement in education and employment for males and females in the 15 to 18 year old groups were similar. Males are more likely than females to be in full time employment.

## Social and Cultural factors

The media report an increase of $70 \%$ in suicide for young males (20-39) since 1979. ACT statistics, consistent with national trends, relating to youth suicide, attempted suicide and involvement in traffic accidents, continue to be of concern as indicators of deeper problems. In the male portion of the population these incidents may often be associated with an inability to effectively manage interpersonal relationships.

The limited information available suggests that further research into the impact of cultural background and group participation would be of value in identifying the effect such factors have on the educational performance of particular groups of boys. The results of such research would then be able to better target and support effective teaching and learning strategies.

The DETYA report What Works? Explorations in improving outcomes for indigenous students released in March 2000 highlights these and other key factors that may be vital in improving the performance of boys in schools. The factors identified include: -
"Flexibility particularly regarding content and teaching methods, the importance of personal relationships and mutual trust, particular focus on across curricula literacy skills, relevance of curricula to students' lives, interests, context and culture."

Recent research reinforces the importance of equity issues in effective teaching. Teachers who are able to effectively relate to students, accept student individuality and teach in an inclusive and democratic environment are more effective as teachers of young adults.

## Student Behaviour and Harassment

The ACT Department of Education and Community Services builds issues related to gender into all programs and training related to counter bullying and harassment. The DETYA educational kit No Fear (1995) addressing gender based violence, has been successfully employed by a number of ACT schools. However, males constituted $85 \%$ of suspensions in ACT schools for the 2000 school year and also accounted for a large proportion of reports of bullying and violence

An ACT Department of Education and Community Services representative coodinates GAVE (Gender and Violence Educators) a coalition of local government and community representatives which consult on issues related to education programs on issues of bullying, harassment, homophobia and violence. This group is planning to host a major community EXPO on bullying in late 2001 for teachers, parents and students.

## Improving the Performance of Boys

An initiative of the ACT Minister for Education, Mr Bill Stefaniak MLA at the April 1999 meeting of MCEETYA led to the establishment of an ACER research project to review research literature on the improvement of educational outcomes for boys. A report, including papers by Ken Rowe and Graeme Withers, has been forwarded to education systems for final consultation.

The performance of boys in schools has become a national issue as a result of consistent results indicating the links between social factors and achievement across Australia.

International evidence suggests similar concerns. In 1998 research in the United States indicated that female students had higher average writing scores than their male peers. Changes in teaching practice for Literacy and English in recent years may have impacted upon standards. Recent media reports from England suggest a refocusing on the teaching of the rules of grammar in the early years of schooling.

In Australia, The National Action Plan for the Education of Girls 1993 - 1997 identified a consistent national recognition of the issues relating to the needs of girls. The plan provides a useful model for research and implementation of strategies to similarly improve the school performance of boys. The research should also focus upon the relationship between socio-economic status and educational performance for both boys and girls. It would be useful to link the work with the research currently being completed for MCEETYA and that by DETYA.

## The Social Construct of Gender

The National Action Plan for the Education of Girls 1993-97 assisted many girls to extend their understanding of their gender. Similar research, examining issues of
masculinity, may usefully inform work on the improvement of the performance of boys in schools.

Gender Equity - A Framework for Australian Schools (MCEETYA 1997) provided education systems with a useful national framework that built around five strategic directions. The central basis of the framework is the concept of gender as being largely a social construct. The ACT Department of Education and Community Services is implementing the national framework in Government schools through the ACT Gender Equity Strategy 1998-2002.

## Role Models \& Mentors

For many years there have been empirical statements regarding the shortage of male teacher role models in schools. The ACT does not have any evidence to show that this factor is linked to the performance levels for boys in ACT schools. The most significant factor would still appear to be the quality of teaching rather than the gender of the teacher. However, all students should have access to teachers of both genders in their school life.

Some schools operate mentoring programs using older students to assist younger students in a one to one tutoring role. The selection of suitable older students as mentors involving a range of personal qualities and attributes before providing suitable training is a complex issue. There is some evidence to suggest that mentoring is effective in providing role models especially for boys in some domains.

Mentoring in Schools by Members of the Community the report commissioned by DETYA in 2000 reinforces the need for schools to carefully plan mentoring programs. In terms of providing positive rather than negative role models, there is however a need for caution and careful research before selecting suitable role models.

## Implications for Teacher Practice

Recent research across Australia reinforces the view that to be effective for all students, teachers must be able to connect with students, recognise their individual differences and foster inclusive learning environments. Strategies already being pursued in the ACT will continue to reinforce the central importance of the recognising and implementing productive teaching and learning strategies considering individual student differences. Several ACT projects focus upon an analysis of teacher pedagogy so as to promote more inclusive approaches that consider issues related to gender along with socioeconomic background and cultural issues.

The ACT collaborated with the Australian National Schools Network to provide a program for teachers that used a structured process developed from the Coalition of Essential Schools (USA). This program has resulted in the kit The Heart of Teaching currently being distributed throughout Australia.

Projects within the ACT High Schools for the New Millenium initiative are an example of encouraging teacher analysis and reflection on teaching and learning styles. It is
believed that these educational experiences will more effectively engage and motivate students who, in the past, have not been motivated to achieve success at school.

Action should be taken to provide the professional development teachers need to learn from programs such as the ACT Exhibitions Program and the Education Queensland Rich Tasks to ensure that the most effective pedagogies are used throughout Australia.

## The Need for Further Specific Research

Numerous possible reasons for the relatively poor performance of boys when compared to girls have been put forward including evidence that cultural and psychological influences have impact. Broadly speaking, research confirms that the greatest differences occur where lower socio-economic status of families and limited masculinity constructs apply. Research into biological determinism has only recently become an area for research in this context. Data so far available and based upon samples of significant size suggest greater differences within genders than between them. It is therefore essential that proven fact be considered rather than unsubstantiated opinion.

The influence of single parent households, especially in families of lower socioeconomic status, needs to be considered. Factors such as the prior low educational attainment of parent/s yet high expectations for their children as well as effective role modelling in the home and at school should also be included in any research.

## An ACT Department of Education Strategy to Improve the Performance of Boys.

The ACT Department of Education is currently developing a strategy specifically aimed at improving the performance of boys. This is intended to complement the existing ACT Gender Equity Strategy which aims to implement the MCEETYA Gender Equity Framework and the ACT School Literacy Strategy.

It is expected that this strategy will be further complemented by material provided by the ACER, arising from the MCEETYA request in 1999 and research by DETYA and the Curriculum Corporation.

## Future Directions

The ACT considers that there is a need for a concerted investigation, at national level, into strategies that target the improvement of the performance of boys in schools.

MCEETYA and DETYA might consider producing and distributing materials illustrating effective strategies for improving educational outcomes for boys, to schools and teachers, once the research projects conclude.

To achieve a consistent national recognition of the issues relating to the educational performance of boys production of a document, similar to The National Action Plan for the Education of Girls 1993 - 1997, should provide a model for research and implementation strategies to improve the school performance of boys.

In particular research needs to consider the following:

1. The impact of cultural background and group participation would be of value in identifying the effect such factors have on the educational performance of particular groups of boys.
2. There is a need for research that focuses upon the relationship between socioeconomic status and educational performance for both boys and girls.
3. Research, examining issues of masculinity, should be examined for its potential to inform work on the improvement of the performance of boys in schools.
4. A longitudinal study is needed, which compares the same group of students over a period of time to evaluate the change in gender differences as students progress through school.

New research should be linked to work currently being completed for MCEETYA and DETYA. MCEETYA through ACER, and DETYA through the Curriculum Corporation should produce and distribute materials illustrating effective strategies for improving educational outcomes for boys, to schools and teachers, once the research projects conclude.

In addition,
1a. Action should be taken to increase the percentage of male teachers so that all students can have access to teachers of both genders in their school life.

1b. Professional development for teachers who need to learn from programs such as the ACT Exhibitions Program and the Education Queensland Rich Tasks must be provided to ensure that the most effective pedagogies are used throughout Australia.

## ACT Department of Education and Community Services

