COMMONWEALTH OF AUSTRALIA

Official Committee Hansard

HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON EMPLOYMENT, EDUCATION AND WORKPLACE RELATIONS

Reference: Education of boys

THURSDAY, 7 DECEMBER 2000

CANBERRA

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HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON EMPLOYMENT, EDUCATION AND WORKPLACE RELATIONS

Thursday, 30 November 2000

Members: Dr Nelson *(Chair)*, Mr Barresi, Mr Bartlett, Mrs Elson, Mr Emerson, Ms Gambaro, Ms Gillard, Mrs May, Mr Sawford and Mr Wilkie

Members in attendance: Mr Bartlett, Mrs Elson, Mrs May, Dr Nelson and Mr Sawford.

Terms of reference for the inquiry:

To inquire into and report on:

- the social, cultural and educational factors affecting the education of boys in Australian schools, particularly in relation to their literacy needs and socialisation skills in the early and middle years of schooling; and
- the strategies which schools have adopted to help address these factors, those strategies which have been successful and scope for their broader implementation or increased effectiveness.

WITNESSES

Committee met at 9.10 a.m.

HILL, Professor Peter William, Deputy Dean, Centre for Applied Educational Research, University of Melbourne

CHAIR—I declare open this public hearing for the inquiry into the education of boys and welcome Professor Peter Hill and the numerous observers in the gallery. The purpose of this inquiry is to examine the social, cultural and educational factors affecting the education of boys in Australian schools, particularly in relation to their education needs and socialisation skills in the early and middle years of schooling. The committee also aims to identify successful educational strategies and ways to promote their wider adoption in schools. Particular concerns which we would like to explore today include, but are not confined to, the gender differences in early literacy attainment and how they might be addressed, the gender difference in school retention rates, the tendency for some boys to adopt negative attitudes towards school and disengage from learning and how boys' difficulties relate to broader social and economic changes in our society.

I call Professor Peter Hill and remind you that the proceedings here today are proceedings of the parliament and warrant the same respect as proceedings of the House itself. The deliberate misleading of the committee may be regarded as contempt of the parliament. The committee prefers that all evidence be given in public but if at any stage there is anything you wish to say in camera then please indicate that that is your desire and we will most certainly consider that.

I note that you have not made a submission to the inquiry so I would like to express our appreciation for you accepting our invitation to appear and taking the trouble to come to Canberra to do so. It is not always easy. If you could outline what you think are the major issues in relation to the reference that we are examining, we will continue up to and including about 10 a.m.

Prof. Hill—Thank you very much, Mr Chairman, and thank you for the invitation to come to Canberra to talk about this important issue. I am the director of the Centre for Applied Educational Research within the faculty of education at the University of Melbourne. I have been in that capacity for the last eight years. I thought that what I might do is break my remarks into three sections: first, the evidence that we have accumulated over three years regarding differences between boys and girls and their education; second, why those differences might exist; and, third, what we might do about them.

In terms of evidence, we have conducted a number of very large-scale studies in the state of Victoria. We have done them elsewhere in Hong Kong and the USA but I will not use that evidence. I will just use the Victorian evidence. In all of these studies, in all the data that we have looked at and at all levels of schooling, while we have not looked for gender differences they have emerged as significant and affecting not just achievement but also attitudes and behaviours. This came out first of all in a study we did between 1992 and 1995. It was called the Victorian Quality Schools Project. We studied 90 schools over a period of three years and collected extensive data on student attitudes, achievement and behaviours. We found that there were significant differences in those achievements, attitudes and behaviours with girls scoring at a higher level in terms of achievement and having more positive attitudes to their schooling. In terms of their behaviours certainly boys were associated with lower levels of attentiveness

and higher levels of antisocial behaviour than were girls. There is nothing unusual in that; you have heard it all before.

On the handout that I have given you, there is a picture that shows progress over 12 years of schooling from the first year, prep or kindergarten through to year 11. The white boxes, called box and whisker plots, show the distribution of achievement of the boys and the shaded ones show the distribution of the achievement of the girls in each of those 12 years of schooling. If you look at the 50 percentile, the line in the middle, typically girls are operating at a slightly higher level than the boys are. If you go to the top of the distribution—the top of the whisker—you find that there are very few differences between girls and boys. If you go to the bottom of the distribution you can see that there is a higher proportion of low achieving boys than there are girls.

In other words, it is important to look at not just the averages but also the distribution of achievement. What you will notice is that boys are overrepresented at the lower end of the performance distribution. Other things to notice are that the gap grows, that the spread in achievement of boys tends to be rather larger than that of girls and that both boys and girls go backwards when they move from primary to secondary school—you can see that between 6 and 7 there. It is the low achievers who really go backwards; the high achievers steady out. That is typical of the sorts of findings we have.

Attitudes go in the reverse direction of achievement: students are most positive in the first year of schooling and revise their opinion in a downward direction annually. On this scale, a 3 represents neutral, 5 is strongly agreeing with statements such as 'I like school', and 1 is strongly disagreeing with such statements. You can see that students are generally positive about schooling. The students with the most negative attitudes, as you can see there, are year 9 boys—no surprises there.

Mr SAWFORD—I have just read a book called *Year 9 are animals*.

Prof. Hill—It is an example of the kind of picture we have seen there. The magnitude of these effects is quite important to talk about. Because everybody uses different instruments in research, you want a metric that is comparable across different measures and different research studies. So researchers typically use a proportion of standard deviation—what is called an 'effect size'. In educational research, if your effect size is between zero and 0.2—either positive or negative—that is small; 0.2 to 0.4 is typically medium; and above 0.4 is large.

The effect size in the VQSP of those 90 schools that we looked at was the gender effect, and the difference between girls and boys was 0.3 of a standard deviation. The significance of that is that it was greater than the effect of socioeducational level—that is, mothers' and fathers' education and mothers' and fathers' income—which, if you think about it, is one that we often think has a huge impact. The effect of that was 0.22, and the effect of coming from a non-English-speaking background was 0.19.

CHAIR—So gender difference was the most important difference?

Prof. Hill—Yes. It was 0.3 for being a girl, 0.22 for the effect of socioeducational status and 0.19 for coming from a non-English-speaking background—just to put it in proportion. Non-

English-speaking background is a very blunt measure, and socioeconomic level is often quite blunt. But it gives you an idea that gender difference has a large effect.

Ms GILLARD—Was that socioeconomic based on parental income and educational attainment?

Prof. Hill—Yes, that is right. In other words, the effect was quite large. The same applies to attitudes: there were reasonably large differences. On that second page of the handout you will see that more recently—in the last two years—we have been involved in a middle years research and development project, looking at students in the adolescent years. We have been focusing on years 5 to 9, although we have actually got data on years 5 to 10. In student attitudes to school you can see a consistent gender gap, with boys at a lower level than girls. But here the differences between gender are not as marked as the decline over the years of schooling. The noticeable feature is that students become much more negative when they go to secondary school. It is immediate and it continues. In other words, they are more positive in the first year of secondary school, and they are least positive in the second year of secondary school. Girls then bottom out and start to become more positive; for boys it takes an extra year for that bottoming out to happen. We have another study's data for years 11 and 12; attitudes become slightly more positive, but not much more. The big thing to note about the attitudes of students is that for both boys and girls they decline—we have to keep that in mind—and the drop for both boys and girls is much bigger than the difference between the two.

Looking at other levels of schooling, I have been doing a lot of work over the last four years in the early years in, first of all, a sample of very disadvantaged government primary schools and, more recently, in a very large number of Catholic primary schools in Victoria. In fact, we are currently working in 250 of them, which is about three-quarters of all the Catholic schools in Victoria. We have been not just observing what is happening in the schools but also improving literacy in those schools. So we have been working on improvement programs to improve literacy outcomes for students. I am presenting data here on 8,700 year 1 students and their literacy attainments—only some of whom were in the improvement programs, others were like a control group. We found that, over seven measures of literacy, the average gap between boys and girls was 0.2 of a standard deviation. You will recall that in the earlier one I said it was 0.3. In other words, in the early years the gap is not quite as great, which is what that picture shows. Overall the gap is 0.3 of a standard deviation. In the early years, the gap is 0.2, so it is still there. When students come into school, there is already a gender gap.

CHAIR—I say this at the risk of possibly offending some of my colleagues, but I would not for a minute assume that all of us understand in plain language what 0.2 of a standard deviation means. Would you explain that for us.

Prof. Hill—Yes, with pleasure. A standard deviation is the average spread of achievement—that is the best way to put it. For example, in Victoria their VC results have a mean of 30 and a standard deviation of seven. That means that something like 68 per cent of all assessments will be between 30 plus or minus seven. That is how it is organised. Given a normal distribution, that is how it works out. It is a measure of spread.

CHAIR—From what you are saying, 0.2 of a standard deviation is a significant shift.

Prof. Hill—It is, yes. A standard deviation of 0.2 is small and 0.2 to 0.4 is medium. So it is right on the cusp between being a small to a medium effect size. But, relative to other things that we consider very important, such as non-English speaking background and other measures like that, it is greater. In the Catholic study, that effect size of 0.2 can be compared to an effect size of 0.15 for students who are in receipt of the educational maintenance allowance in Victoria. That is a welfare payment given to families living in poverty.

Mr SAWFORD—I thought I understood what you said by standard deviation; I am now confused.

Prof. Hill—It is a measure of spread.

Mr SAWFORD—But basically, in everyday language, are you saying it is 20 per cent—is that what you mean?

Prof. Hill—Twenty per cent of the standard deviation of whatever the scores were.

Mr SAWFORD—I am with you now.

Ms GILLARD—To measure an effect like gender, you cannot control for SES, can you? How do you extract the gender effect off the distribution?

Prof. Hill—When I assess the effect of gender, it is adjusting for any differences there might be in the proportion of living in poverty and so on. When I give you the effect size for educational maintenance allowance, that is adjusting for the other things. It is the actual effect of that particular variable, not compounded and confounded by the others. So for non-English-speaking background, the effect size we found in the early years is 0.08. So you can see that it is still more important than non-English-speaking background and measure of poverty, which is here on the picture, with the end of receipt of maintenance allowance.

Once again, the gender effect is large, but the significant thing is that that is on performance levels at the end of year 1. But if you look at rate of progress during year 1, of the students in this large number of schools, the effect of gender was zero. In other words, they started at a high level and ended at a high level, but over the year the boys had made as much progress as the girls within these Catholic schools involved in this improvement program. In addition, the effect of EMA in terms of progress was also zero. In other words, they started lower behind and they ended up lower behind, but the students who were in receipt of EMA were making as much progress as the students who were not.

In terms of non-English-speaking background, it was even the other way around. Students from non-English-speaking background actually made slightly more progress than their English speaking peers. In other words—which is what we often find—non-English-speaking background students are initially handicapped by a lack of English, but as soon as they get that under control they are often a more motivated cross-section of the population than their peers and so they made rather more progress. I am saying two things in regard to gender in this study of early literacy. It was bigger than those other two factors in terms of absolute performance levels, but in terms of progress in those Catholic schools the schools were not growing the gap—the gap was not growing.

Ms GILLARD—Was that true for people in the intervention program and in the control group?

Prof. Hill—Yes, in both. In fact, in the intervention program itself there was some evidence that there was slightly more progress by the low achieving boys, and that reflects the fact that they were investing more in intervention programs. So these are the early years. We have also got data on the senior years, years 11 and 12, at the end of this whole process. Two or three years ago I did a study that looked at the VCE database held by our board of studies. We are talking about typically data on about 45,000 to 50,000 students at year 12. I looked at ability adjusted estimates of performance—that is, performance adjusting for the abilities of students who go into the different subjects, because students who have different abilities go into different subjects, and students with different abilities go into different schools. There, the effect on performance of being a girl in 1995—I have got several years of data, but I just pick out 1995 because that was the first year we looked at—indicate across almost all subjects that it is a sizeable advantage to be a girl. I have got the effects sizes in this chart, and you will notice that for a subject like biology, which is largely taken by girls and largely taught by female teachers, the effect size is 0.39 of a standard deviation. That is getting on to very large. That sort of level is the difference between getting into university and not getting into university. A standard deviation of 0.39 means, on the scale out of 50 that I am talking about, it is 0.47 which is 28. It is almost three additional marks you are getting for that. So that is quite substantial.

Mr BARRESI—You said that girls tend to do that subject more than boys.

Prof. Hill—They do.

Mr BARRESI—So the boys that do that subject will probably be inclined to biology to begin with.

Prof. Hill—They would.

Mr BARRESI—And yet they are still being outperformed.

Prof. Hill—Yes. I have put there a lot of science subjects, because typically boys do better in the maths and science subjects. But you will see, in fact, that girls are doing better in those subjects—less well than they do in biology, economics or literature but nonetheless quite well. You can see there that for chemistry it is 0.2, for mathematics it is 0.18, which is the lowest advantage, and for physics it is 0.22. You can see, nonetheless, that while girls do not do so well in the maths and science subjects they are still doing better than the boys.

Ms GILLARD—Is that partly explained though? We have had evidence—and I think it is right—that maths science in year 12 is still disproportionately male. The girls that select maths science are probably a better level of the female cohort because, disproportionately, girls still go into other subjects.

Prof. Hill—Absolutely.

Ms GILLARD—The girls who actually take maths science are probably the top of the female cohort.

Prof. Hill—They are.

Ms GILLARD—They are only 30 per cent of the classes whereas the boys are still selecting maths science even though it might be beyond their ability levels for some of them.

Prof. Hill—That is true. There is a greater expectation on boys that they will do it.

Mr SAWFORD—There might be another factor in this. There has been some suggestion that, if you compare the maths science examinations at year 12 level across Australia with those of 25 and 30 years ago, they are far more literal now than they were before. They were far more analytical before. The questions were short. You either knew or you did not know it, and you passed or failed accordingly, whereas those examinations are very literal. The questions go on for paragraphs. You are not comparing apples with apples like 30 years ago. They are more literal, so they all favour girls anyway. Is there any relevance to that?

Prof. Hill—I am just coming on to that because I absolutely agree with you.

CHAIR—Before you move off that, in terms of that effect that Julia raised of the girls who are good at this self selecting, I think Ken Rowe said that the boys overestimate their abilities in some of these areas. They are doing it out of pressure of career things for physics, chemistry and so on. Have you measured the effect of self selection amongst the girls?

Prof. Hill—Ken Rowe was a part of this research with me on this first study. He and I never went out to look for gender; it emerged. We never explored the reasons as to why the gender differences should exist. They were incidental to what we were trying to find but, as we went through, this came out as clearly an important area.

CHAIR—So you were not starting from the premise that there is something wrong with boys so let's have a look at it?

Prof. Hill—No, it has been aside to what we have been looking at. I could summarise by saying that over eight years we have been surprised at the large effects of gender. They are very large, and they do not show signs of abating. The other thing is we know that average effects—and when I report effect sizes they are based on averages—can be misleading. We do not have a situation of no boys at the top. We do have them. Boys are quite well represented among the very top achievers. In fact, often they are overrepresented amongst the very top achievers.

The problem we have is one of quite a large and growing proportion of low achieving and underachieving boys as they pass through early adolescence in particular. With that we are seeing growing alienation and disengagement of those low achieving boys. That is really the problem we are seeing. In terms of looking at the reasons, I am only hypothesising, and I do not have research to back up any of them. Over eight years we have talked to the schools a great deal about these things. I am summarising what they tell me and what seem to me to be reasonably good explanations.

One explanation—and this is Ken Rowe's work—seems to be that behaviour has something to do with it, particularly attentive behaviours. It seems from the administration that we have done over all years of schooling of behaviour scales that there are clear differences between

boys and girls at all year levels at all ages in their attentiveness. Boys tend to do better at short and sharp high stakes assessment exercises. They always do well in things like multiple choice tests. If you want to put gender balance in a test give them a lot of multiple choice. If you want to bring girls up, which is what we had with the ASAT in the past, we put in an essay, and that soon fixes up the boys. There seems to be an innate tendency for boys to be inattentive and for them to be best at short and sharp high stakes type assessments whereas girls can be quite comfortable with more extended kinds of assessments that require high levels of ongoing engagement and attentiveness. That is one thing I would put up as a possible factor.

Mr SAWFORD—Can we ask questions as you go along?

Prof. Hill—Yes.

Mr SAWFORD—Isn't using the words 'tendency for boys to be inattentive' actually a way of saying teachers are less effective in teaching boys?

Prof. Hill—There is an interaction.

Mr SAWFORD—That is what I am saying.

Prof. Hill—Disentangling them is very hard and I accept that there is an interaction between the two.

CHAIR—Can we let you finish going through it first, Peter? Some of the members will have to go and I think that it is important that they hear you and then we will open it up.

Prof. Hill—Although this is not popular, I think there are genetic differences that are manifest in the fact that there are a higher proportion of boys that have special learning difficulties and cognitive impairments than girls. You can tell that by rates of referral to special education and remedial classes and they are there from day one. Part of the reason that we are seeing this in the data is that a lot of students with learning disabilities and low levels of cognitive functioning are included in our data, so often you see that that is pulling down the scores of boys more than it pulls down the scores of girls—so there is one factor. We are only talking about two to three per cent of the population now so it is not a big thing but it is a part of the explanation.

The third one is that there is clearly a developmental lag. In terms of language development, girls are more advanced when they start school than boys, as a group. They seem to be more advanced, then you see the boys catching up and overtaking girls in about years 10, 11 and 12. You see that catch-up really accelerating there but certainly all our data shows there is a developmental lag. We test them right at the beginning of kindergarten in the first few weeks of school and there we find that girls are already ahead of the boys.

The problem with this is that in terms of getting students literate, schools have a narrow window of opportunity. What we know is that there is no known intervention program that can catch kids up to their peers after the second year of schooling. You can improve outcomes for low achieving kids but you cannot catch them up. You can in those first two years because the brain is still fairly fluid up to the age of about eight and you can deal with these things. That is

why we are so insistent on working on early literacy because we have got that narrow window of opportunity to catch them up.

It turns out that if you give attention to low achievers in the first two years of schooling there will be a very high proportion of boys that you are dealing with. That is just the way it is. There is the development lag which is there, and if that narrow window of opportunity is missed those problems compound over the years of schooling. They never catch up and they fall further behind.

A fourth reason I would put down would be that there is a bit of a disposition among males to prefer mathematical, logical modes of thinking than language based modes of thinking so I think this is perhaps a gender type preference overall—not for everybody, but there is an overall tendency for this to occur and this is within the context of a curriculum that in recent years has placed more and more emphasis on language. If you take the most mathematical, logical subject of them all, mathematics has become highly language based in recent years because of the increasing attention to problem solving or wrapping mathematics problems in words. Often the sentence structures that the mathematicians use are very complex and require high levels of ability to deal with text. The mathematical, logical content might be quite small relative to the complexity of the language in which the mathematical problem is embedded. That applies to all the subjects. The physics question paper is less on applying the formula and more on quite complex, verbally expressed, written problems. You have got a problem right through the sciences; test questions in the exam papers are much more wordy than they have been in the past.

Finally, I would draw attention to the fact—and I do not really know what this means—that teaching has become increasingly feminised. It is largely a female occupation in the primary school; there are very few male teachers in the primary school. In fact, many students do not see a male teacher until they get to the secondary school now. There are few males in language based subjects, and that is a factor. What that means, I do not know, but it is another phenomenon that is occurring which I rather suspect could be part of the whole set of things. I do not think there is any one particular thing; there is a whole lot of things that are interacting to produce what is actually quite a large effect.

CHAIR—You have got suggested strategies there. Would you like to come back before we grill you?

Prof. Hill—Yes. I must admit I was pretty reluctant about coming up here because in my experience education of boys tends to attract a lot of whacky ideas.

CHAIR—You might tell us about it.

Ms GILLARD—Hear, hear!

Prof. Hill—There are some whacky people.

CHAIR—Fortunately, we have not met any through this inquiry.

Prof. Hill—No, I am sure.

Mr BARRESI—That is exactly right; they have all been very good.

Prof. Hill—I heard that only the best came to this committee.

Ms GILLARD—It is only the best that are on it.

Prof. Hill—Absolutely. By far and away the most important suggestion I can make is that we know we can do something about this gap in the early years. The reason we have alienated boys in the middle years is largely because these boys did not get sufficient levels of literacy early on. They cannot cope with school work; because they cannot cope with it, they get bored with it and become alienated; then they play up. The evidence is there in drop-out rates and retention rates.

You only have to look at the prison population and their literacy levels to see the problem going right through society. The effects of all of this have been costed out many times. I am repeating the same old message: if you really want to tackle the problem of boys, you are actually tackling the problem of people who were low achievers when they started school, and the best thing you can do for kids is do something about those low achievers in the first two years, whether they are boys, from a non-English-speaking background, living in poverty or Koori. It does not matter, it could be any of those things. Go for the low achievers and help them. Go intensively in those first two years and give them the literacy skills.

We have done it now in the Catholic system; we have done it in the government system; and we are doing it in the USA, in Boston, Chicago, New York, Philadelphia and Palm Beach, Florida. The schools we are working in in the Bronx make our most disadvantaged schools look pretty okay. They are very disadvantaged communities, and we can get dramatic results in those first two years. We know how to do it in early literacy. A lot of the things that we want to do in education we do not actually know how to do, but we do not have any doubts about being able to do it in early literacy. It is just a question of the will and the resources—applying the resources to that issue to make it happen. We can do it, and when we do it we reduce the gender gap and prevent ourselves having problems further down the track.

Overwhelmingly I have to say that investment in early literacy for low achievers is the best thing you can do about this gender issue: catch it at the source. If you can get in before school starts, that would be even better because schools are starting too late in many cases. I only wish we could integrate the preschool system into the school system and get them about a year earlier. A large number of kids do not need this but, for our low achieving kids from near where I live in Broadmeadows, it is their only hope. If we do not get in there soon, it is asking too much of schools to turn it around in those 18 months to two years. That is my number one thing.

The other thing is much more related to later on. Certainly, there is a need for a greater awareness among the teaching profession as a whole of the issue of gender and of the need to have balanced curricula that place an emphasis on all modes of learning and are not quite so heavily dependent on literacy and literature. It is rather sad that in English the kind of text that students get exposed to tend to be of the *Catcher in the rye* variety. I know for many boys this is never going to turn them on. My eldest son was a case in point. I have five children: four of them went to university but my eldest boy did not. He did not perform at all well at school for a complex set of reasons. However, the thing I noticed most of all was that he just could not bring

himself to read the novels that were set for years 11 and 12, and yet there he was thumbing through this enormous Novell Net computer manual of which he was the complete master; he knew it in every detail. It was always a sadness to me that he did not get enough of that sort of material to turn him on, the more scientific, technical kind of material.

I would like to see teachers being made more aware of the need for a balanced curricula, and also a balanced assessment. In the name of greater, more authentic assessment—that is, assessment that really gets into problem solving and those sorts of things that we want to do and high order thinking—we have inadvertently and as a by-product made it very much more dependent upon language. As a result, we have tended to exclude some students and have not provided them with supports to engage in the high level thinking and not be held up by the language demands of it all. So our assessment is skewing things a bit too.

They are the two main strategies I would suggest. I have seen all sorts of special programs for boys education and all the schemes about whether you should have single sex schools and all that. I am really not taken by most of that stuff. I believe there are just fundamental things you can do.

CHAIR—Thank you very much, Peter, that was excellent.

Mr BARTLETT—How adequate, in your view, are teacher training courses? You said 'We know what to do', yet it still seems that that is not being done; we are not adequately in those early years addressing the low achievers. How adequate are our teacher training courses in focusing on the things that need to be done to help the low achievers?

Prof. Hill—They are not adequate at all. In fact, our model for training teachers generally is the wrong model. It was much better in the days when there were teacher training colleges and you had a much stronger link between schools and teacher colleges. Since going into the university system you have prospective teachers being taught by people who perhaps have not been in a classroom at all. The emphasis given to the practicum is inadequate, and where there is a practicum it is completely disconnected from the program. We have the wrong model of teacher education in place. The Ramsey review is just out and it is symptomatic of the fact that we realise we have a problem with teacher education. My own institution has been at the forefront of trying to do things about literacy in schools, and with a lot of success, and yet our own training, in my view, is very inadequate in terms of preparing young teachers.

Mr BARTLETT—How do we address that? There are a lot of barriers there in terms of seeing it as a retrograde step, a going back to what was happening before.

Prof. Hill—Yes. My view is that teacher education cannot be a one-year process for our secondary teachers; the Dip. Ed. is inadequate. On the other hand, I think a four-year pre-primary is too long. My view is that entry to teaching should be postgraduate for everybody. It should be two years, and there should be a strong internship year where they are paid at a lower level and expected to do less teaching because they have time to reflect on what they do do. I think Queensland has moved in that direction. I would like to see other states move towards a two-year postgraduate qualification, and with a strong internship year. That would be my preference for teacher education.

It has not actually mattered too much that we have had poor teacher education over the last few years, because we have not been recruiting many teachers. The main challenge has been to re-educate those already in the work force, so it has been professional development models that have been the driving force for the change in schools. Over the next five years, it will be the teacher training that will be increasingly important. So we do need a new model of teacher education.

Mr BARTLETT—In terms of tackling the low achievers, you said boys in particular need short, sharp structured processes. In terms of literacy then, is it your view that the more structured approaches to literacy, the phonics based approaches and so on, are better for boys and/or for low achievers generally than the whole of language approach?

Prof. Hill—Teaching should always be structured, and certainly in the early years it should be in fairly short bursts. There should be a lot of rotation of activities. This does not imply a particular emphasis on phonics as opposed to other approaches. Certainly we have had this discussion between whole language and phonics. I think this is a somewhat artificial debate. My view is that there are a number of queuing systems that young people and all of us use to read. Phonetic awareness is one of them and it is very important, but so is reading for meaning and seeing whether something make senses within the context of a sentence, 'If I said it was this word, would it make sense? That is what whole language was supposed to be about, but it got off the track a bit. There is also of course the syntactical and grammatical structures of the sentence. They are important too. So there are a number of queuing systems. We would argue for a balanced approach that says there are a number of queuing systems, and students need them all. Sure, you need phonetic awareness, but there is no magic bullet with phonetic programs, in my view.

Mr BARTLETT—Has it been a balanced approach in recent years, do you think?

Prof. Hill—Yes. I think Australia has avoided the excesses that America has fallen prone to. There was a bit of an excess with how whole language is interpreted, but I think we have come back from that very quickly right across Australia. We did a survey on literacy in primary schools for the federal government two or three years ago, and we were fairly impressed by the way in which schools had become much more focused on literacy in the early years and that they were, by and, large following a fairly balanced approach.

Mr SAWFORD—There is a propaganda war in terms of education of boys. I thank you for your contribution—I really enjoyed that this morning, and the balance of it I enjoyed even more. You are quite right to suggest that this has just been an unedifying debate in many ways before it has got to this committee, because we have the wacky people who think this has been a feminist conspiracy over the last 20 years and then we have the people in the established education authorities, both in teacher unions and in schools, who are basically at the point of denial; in other words, they are in denial that there is no problem.

Can I just get you to make some comments on the 'possible factors' part that you put in. I made the point that when we say that boys are less attentive than girls, sometimes it means that the teaching causes that situation. I never believe excuses in education; I will not accept any excuses. You make the point about genetic differences, and there is a huge denial about this in a lot of the establishment. Developmental lag—I do not even believe that either. I think the

language of very young girls who come into school is more wordy. The boys are more concise. I do not necessarily think one is better than the other—they are just different. I do not think often we give value to that. I think boys are often better at analysis of problems and girls are much better at synthesis, yet both skills are desirable skills. You mentioned that the exams are more wordy, which is lending to the synthesis part of solving problems, but the analysis of solving problems, which is also important, is getting ignored.

We have had to this committee dismissal of any aggregation of data because it did not suit the purposes of the establishment, and they were all in for disaggregating the data. So any disaggregating of the data they use very strongly. I am glad that you actually mention the socioeconomic differences, because basically what you are suggesting is the opposite to what everybody else has: you are simply saying that gender and the quality of schooling are the big issues.

Mr BARRESI—Ken Rowe did not. Ken would also agree with that; the Rowes agree with that.

Mr SAWFORD—I think you are putting it in a lot better perspective. What recommendations would you be putting forward to us? This can be an unedifying debate. What would you be suggesting—traps for young players in all of this—in terms of how we are dealing with such widely disparate and despairing points of view? What would you recommend to us?

Prof. Hill—I have always been persuaded by evidence. You have to change people's beliefs and understandings on this and, amongst policy makers, that is what you have to do. You have to have evidence of what you are saying. You have obviously got plenty of evidence that you can talk about. I would be trying to defuse some of the whacky thinking and getting the emphasis on to the core learning in ways that are going to reduce the problem in the future. I think that has got to be a message.

Mr BARRESI—I am interested in what you are saying, Professor, because some of the evidence that comes across is not necessarily from whacky people. It is also from those who are real opinion makers out there. I am talking about people from the department and also from the union movement. They come out categorically and say that there is not enough evidence or that there has not been enough research to verify that. It is an absolute statement that they are making—yet the evidence that you and others put forward contradicts that. Is it a 'head in the sand' approach?

Prof. Hill—It is funny because the evidence is not just in Victoria. I think you know the Timms evidence; you know the international surveys; you have access to all that sort of stuff. The evidence that I have is just corroborating an international picture. It is not something that is localised to Australia or to Victoria; it is an international picture. I do not know any serious researcher who would say that there was no evidence.

Ms GILLARD—I have a couple of questions. Your conclusion is that one of the prime solutions is heavy investment in the first two years to ensure that you get literacy formation, that if you miss that window, you have an ongoing problem, particularly for boys and that you are actually doing that stuff in the Bronx and other places. Can you give us a feel of how resource

intensive that is? If this committee were to make a recommendation—putting aside the Commonwealth-state divide about who funds what—what sorts of resources would you be talking about to make a difference in literacy levels?

Prof. Hill—Two hundred million dollars. I will tell you why I come to that figure.

Ms GILLARD—And how would you spend it?

Prof. Hill—To do something about early literacy, you have to have somebody who has freed up sufficient time to go into the classrooms to make sure that the teaching is happening. A really good teacher can be a coordinator, coach and mentor to other teachers and improve their literacy teaching. In the average primary school, they need to have one teacher who can do that in the early years and they have to work in the morning because that is when they do their literacy block. Most schools now are doing a two-hour literacy block. If you want to teach, you can go into those classrooms and prove it. The only way you will improve teaching is through coaching and mentoring. Joyce and Showers research on that shows that you can talk to teachers until you are blue in the face but, if you want to change them, you have to go into their classroom while they are teaching and work alongside them, coaching and mentoring them.

Mr SAWFORD—And do it.

Prof. Hill—That is right. So that is 0.6 of a person in each school and, if you do the numbers, I think it will cost you about $100 million across the country—something like that. I do not know, I am just guessing. They can put in some of it. That would be the sort of money that would lock that in place. With the very best of teaching—all our teachers are doing really well—you are still going to have some kids who fall behind. It is the nature of the game. If you are really going to catch those kids up, they need one on one tutoring, using an intensive program. We have seen the power of this. We have seen kids taken from the bottom of the class that go to the middle of the class in 12 weeks.

The intervention program we have been making use of in Victoria is Reading Recovery. I am not saying that that should be the program, but it is a good example of a one-to-one program where you get very highly trained teachers who have been trained as Reading Recovery teachers, working on a one-to-one basis with these very low achievers, and they catch them up. Having that person is very expensive and they cannot do it all day long. You would go bananas if you were doing it all the time, so they are about 0.6 on it too. That is the other side to it all. Victoria was able to fund both of those—the coordinator and the Reading Recovery person—for $50 million, and I think Victoria is about a quarter of Australia.

Ms GILLARD—Victoria is just moving to that now, is it?

Prof. Hill—It has already put the money in. It cost Victoria $50 million, so that is how I come to the figure of $200 million. That is the kind of thing and there you are not just fixing up boys and girls. You are fixing up literacy. This would be part of a much bigger agenda.

Ms GILLARD—There is something I have struggled with, and I am still struggling with, in this whole debate. Everything you have said about achievement levels makes sense and is obviously right, given the data, but was it always so and we did not realise it because girls were

getting knocked out of the educational race for other reasons, which have now changed over the last 20 or 30 years?

Prof. Hill—If you go back to the exam data in the past, it was not always the case. It was typically the case 15 years ago that girls did better on literature, art and the humanities and boys did better on the maths and sciences. That was considered some sort of balancing thing; that is where we were. There were the differences, but they were smaller and they were in that direction. Now we have moved to this situation where much more consistently across all subjects on average girls are doing better than boys. It still does not mean that we have got gender equity for girls, because in the top places often boys are still right at the very top, but certainly boys are swamping it down the bottom.

Ms GILLARD—If you had been able to run the early literacy achievement study 20 years ago, would you have come out with the same set of numbers or a different set of numbers, do you think?

Prof. Hill—Twenty years ago Australia was not such a multicultural society and things were easier. I talk to teachers who taught 20 years ago who say, 'I didn't let one kid go through who was not a good reader.' There would be very few teachers who could say that that has happened to them in the last 10 years. It has become harder. It is a tougher job. Another factor you can put in there with the early literacy thing is that 20 years ago somebody was at home being mum. These days the mum is probably out at work earning a second salary; she has to in order to live these days as generally it is two breadwinners rather than one. This has impacts on things like reading at home. It you are coming home at 5.30 or six at night and you have to cook tea, it is too late to start reading to your kid. I think the nature of the family has changed and made it harder, particularly for the have-nots really.

Mrs MAY—I would also like to thank you for your presentation this morning and I would like to go back and look at the professional development of teachers. The new ones coming into the system you are not so concerned about—

Prof. Hill—Not in the future, but right now—

Mrs MAY—What about those teachers who have been in the system for a long time? Is there professional development to bring them up to a standard? I know in your early literacy research project you have said that teachers must believe that they can make a difference and, obviously, they are an integral part of early literacy. Can you just expand a little on that?

Prof. Hill—Yes, in all the projects that we have been working on in early literacy, we have insisted that teachers work as part of a professional learning team and they come to professionalism as a whole team. This is relatively recent. In the past, they have gone individually, but now the whole team comes in. We have given them four full days of professional development as a team so they learn together. They have a coordinator who then goes back and there are weekly meetings of the team.

On a daily basis, the coordinators go into the classroom doing this coaching mentoring so that the professional learning does not happen four days but every day of the year. There is a mix of the external and the internal, but the powerful stuff happens on site at the school level. There is

a weekly meeting of that team to discuss not planning but actual teaching. The impact of that on teaching practice has been enormous. That is really what has made the difference in these schools. It has been professional development but of the kind that actually changes practice.

Mrs MAY—The practice of those teachers who have been in there for a long period of time?

Prof. Hill—Yes.

Mrs MAY—Would you like to comment on the male to female ratio of teachers in the schools now and the people we are attracting?

Prof. Hill—Yes. It is the case that teaching has become a low paid female occupation over time. There was a time when education was attracting the very best females who did not have the aspiration to go into other careers. Now our very best females are saying they can do better than teaching and they can do other things. For a while, we were getting the very best brains into teaching. When those who are now in their late fifties went through, the males that went in too were the very brightest from poor backgrounds that got scholarships. You got the very best males going into teaching 30 years ago and 15 years ago we were getting the very best females going in. If you look at the tertiary entrance ranks of those going into teaching, the problem now is that at Melbourne University they are either the lowest or close to the lowest.

I must say it has been picking up in recent years. We have been working on it and I believe there is a real opportunity to pick it up. At one stage of the selection process at the beginning of last year the entry to get into Melbourne University into education was higher than it was to get into science. While that is slightly encouraging for education, it is actually disastrous for science, which is going through real problems too. Nobody wants to do science now because it does not lead directly to a vocation. They want to do engineering or business or commerce or medicine or law or anything that gives you an immediate job.

Certainly the signs are that we can be a bit more selective now about the teachers. I think starting salaries across Australia are not bad for teaching. It is what happens afterwards. Would you be unhappy with a starting salary of $40,000 coming out at the age of 21? It is not bad. The trouble is that it does not go up much. In the long run—and this is very controversial—teaching is going to be much more rewarding when there is an element of private or group practice into the teaching force and teachers are not just all public servants or employees. They will be hired by the school to deliver certain services over a particular period of time and they will be paid as to how they perform.

Ms GILLARD—You would have teaching companies that would make their work force available to x school and get the following results.

Prof. Hill—That is right, or individual teachers, as currently happens with music specialists.

Mr SAWFORD—Except that a disadvantaged school cannot employ them because they do not have the money.

Mr BARRESI—The concept is right.

Prof. Hill—Yes, the concept is right. There is a way in which you could make it work. You would not have to do it across the whole school. You could use it for critical areas. It is not a general solution or panacea to the teaching profession but for where you need the highest levels of skills and performance. I cannot think of any area more important than those first two years of schooling. By the way, most trained teachers are already there. Our best teachers are in prep and year 1. There is no question in terms of their capacity to teach. We have our very best down there already. I think that is a real challenge.

The interesting thing is that over the last few years we have trained these teachers and coordinators and a good half dozen have been poached by the Americans, where they are earning salaries of $US80,000 to do what they do in the US. The good side of that is that at last educators are being seen as valuable people who you will pay a decent wage to—because of their skills, because they can do things that other people cannot do. Teaching is not something which any fool can come in and do and get away with it—it cannot be like that. It has to be something that is so skilled that you say, 'I need to pay the money to get the person who really does it.' You are getting some people in the early years now who have got to that stage. People like DAS Noble in New York are recruiting Australian teachers left, right and centre and paying them huge dollars. Because they have skills, they are in short supply.

Mrs MAY—But in time that is going to have an impact on our own resource of teachers here, isn't it?

Prof. Hill—It is, yes.

Ms GILLARD—How do you square those comments with the fact that we have been told that we are going to face a teacher shortage over the coming period because the ageing cohort will retire and the replacement rates are not right. How are we going to lift standards in circumstances where we are in short supply in any event—

Mrs MAY—We are in short supply now.

Ms GILLARD—even putting aside the poaching question, which is another problem?

Mrs MAY—They are going to England, too.

Prof. Hill—It could be that, even when it comes to education, there is a base level which the state must supply because it is so vitally important. For any state, ensuring that it has a literate citizenry is hugely important, so the state as a whole must intervene to ensure that it happens for everybody. For other things, the state might decide that that is an optional extra—I do not know. What I do know is that there is not a government anywhere in the world that can fully fund a full education system anymore. It is under pressure. It would like to; it would like to have the wonderful music program, the art program, the sports program—this, that and the other—but at the end of the day there is not the money to go around. So you either dig into your own pocket and get it or you have to make some hard choices.

Many of our government schools have to make hard choices: do I go to the music program that would appeal to middle-class parents, who have got the money in the first place, or do I spend it on early literacy, when that is for the students of parents who take little interest in

education and are not going to help the image of the school? You can see what they are going to do: they are going to go for the music program; otherwise they will not get any enrolments and they will go out of business. What I am saying is that I think the core has to be underpinned by the state, and it has to be there in the first measure to ensure success for everybody. We have to underwrite that for every kid in Australia. But then there are other things which we will do when we can to the best of our abilities.

CHAIR—That is right. We have been looking at the SES system for the independent schools which, as you know, is controversial. My electorate probably has the highest SES in the country, yet I have got government schools, quite rightly, in my own electorate where parents could certainly be putting more in and more of those public resources could be going to very low SES areas.

Ms GILLARD—They could pay more tax.

Prof. Hill—The amount of funding to low SES schools is not enough to enable them to deal with their very difficult students. You have to deal not only with the individual student but also with the fact that it is the critical mass of a large number of these students. I drive every day through Broadmeadows and those places, and those teachers are doing it hard. One of our schools is Dallas North, which is right in the middle of all that mess. It is very hard work. They do not really have the resources to do this.

Mr WILKIE—Thanks very much for your submission, Professor. It was fascinating. Obviously, there are more boys than girls in special ed, because they have got learning difficulties. When they are getting the specialist teaching, are you finding that that trend continues—that there are still boys learning at a lesser rate than girls in that environment, or do they tend to lift?

Prof. Hill—That is a good question. In the Reading Recovery program in Victoria there will be about 65 per cent boys. In terms of rates of progress they are about the same, but, within that group, boys tend to be the lowest of the achievers. It is not that boys cannot learn, although you do have a group that is very hard to move. But the intervention programs seem to work equally for boys and for girls, which I think is the point of your question.

CHAIR—Steve Biddulph is clearly very popular, quite rightly—he has a lot of very sound views. He is advocating that boys start school a year later than they currently do. Some have said to me, 'That will compound the very problem you're trying to address.' Whereas I notice, having been speaking at large audiences about our inquiry, that a lot of parents seem to be persuaded to this and want to keep their boys at home for an extra year. Given the importance that you, Ken and others have placed on this first two years, what is your response to Steve's proposition?

Prof. Hill—What I have noticed is that some very young children do not seem to be learning and then suddenly they go through a growth spurt and it all happens and all comes together. Often we say that they were not ready in some way and then they matured and they learnt, and that is called the whole business of developmental readiness. The trouble is that I do not know any reliable method to know whether that is going to happen to a young person. What I do know is the later you start the smaller the window of opportunity to make the difference. So, no,

I would be on the side of those who would want to start earlier rather than later. It could be that I am pushing the kid a little bit too soon and that I might have to have two or three goes before they get there, but the trouble is I have got no way of knowing whether it is a developmental issue or a teaching thing.

What I would really love to be able to do would be to work with preschools where they get them between three and five, which is when they are really ready, and to put greater emphasis in those preschools on the structures of oral language to get those in place and their concepts about print. It would take very little to get our preschools much more effective in that area and to ensure that the most needy of our children got that preschool education. What we are finding is that currently in our most needy schools it is taking an additional six to nine months to get them up to the level where we expect kids to be. It is largely because almost all the first year is spent on just that very stuff—that is, putting in place the structures of oral English. It is all talk until almost the last two months. In fact, October, November and December is when the biggest learning takes place, and then you are in competition with the Christmas concert, swimming and every other disruption you can think of—and yet that is just at the point when they are ready to take off and learn. So if a lot of that could happen before they got there, or if there was a summer school before they started to get those most needy kids, you could give them a bit of that and get them off to a flying start. I think you would see a dramatic difference in our lowest achievers.

Mr WILKIE—We were talking before about keeping them at home for another year. What about the opposite, where the children are involved in day care from a fairly early age and integrate with other children and are informally taught different things?

Prof. Hill—Professor Bridie Rabin, my colleague at the University of Melbourne, has done a study into the impact of preschool education on students' later literacy achievements. Where it is a good program, the effects are very dramatic indeed. So it all depends on the quality of the program. Too many programs we know about actually have no educational content, they are just child care. In fact, they do not pretend to be otherwise—they are child care. The good ones have a strong educational content as well.

Starting age is a vexed issue, as you know. Mostly, children start school in the year in which they turn five, and there is a certain month set as the cut-off. In New Zealand, they stagger it, so that children start on their fifth birthday, which means that enrolments are happening every month. You start the school year with a small number and then, as the year goes by, more and more join. It is almost a right of passage—as you turn five, you enter the school. They stagger the entry into the school as the year goes by. There is a lot of debate about this but there is a lot of research evidence that points to the fact that younger students are disadvantaged in terms of their later educational progress—not by a great deal, but it is consistent in the literature that younger students tend not to fare as well.

In terms of those birth dates in relation to the school year, if you are the youngest in terms of that school entry year, the chances are that you will not make as much progress as if you delayed the starting date. Of course, a lot of parents are aware of this research and that puts them off. The effect is not that great and, in my view, if you have got good structures for teaching, it is not going to be an issue. Certainly, we know that repeating a school year is a bad practice. We do not want to be doing that; we want to get it right the first time. There is no

evidence that repeating improves things for most kids. It is one of the most expensive forms of intervention. Holding kids back does not work. So if we are going to bring them in, let us get it right the first time.

Mr SAWFORD—In 1978, in South Australia, and also in Tasmania and Victoria, there were campaigns right across Australia run by the primary principals associations in those states. They were literally called 'Primary Means First'. They were identifying a 10 per cent problem with school literacy. Within a year, all these campaigns failed. In 1978, I was a country principal. In 1979, I came down to town. In 1980, I was the president of the metropolitan group. I orchestrated another campaign, called 'Into the Nineties'. Interestingly enough, it was to add one teacher for every 100 enrolments in every primary school in South Australia. Over a period of five or six years, when there was decreasing enrolment at secondary level, at TAFE and at university, there was a chance, without changing the budget by one cent, to do that.

The interesting thing about being a young principal and being involved in all of that was, in the educational community, the resistance that came from trying to do something for early intervention, et cetera. Who were the biggest enemies? The universities white-anted the whole program. The teachers union said it was not in their interests because at that stage they were reflecting the views of TAFE and senior secondary schools. The secondary principals almost tried to get me sacked for pointing it all out. The Education Department fought like hell and told lies in parliament. The resistance was incredible. Yet there was no resource strain on the budget under this proposal. In other words, here was an opportunity for some leadership in the education community, and they white-anted the whole lot.

Teachers in junior primary and in primary are the weakest organised group because they are working so damn hard. They do not have the time to be organised and they do not have the flexibility of additional staff. When you look at what has happened in the last 100 years in terms of resources, when you take out wars, depressions, recessions and God knows what else, the windows of opportunity for increasing resources in education are not there. You have indicated that the resources are probably likely to decrease. If I said to you that that was the most important matter, you do not reflect the views of many of your colleagues at universities, particularly sandstone universities like Melbourne, where you fight for every dollar and if someone down the line gets screwed, well, bad luck.

How does an ineffectual lobby win their fair share of resources? If you look at the transition from year 7 to year 8, after the Christmas holidays, suddenly you get four times as much resources in a secondary school as you do in a primary school. And it all happens over the Christmas holidays. What happens to kids over the Christmas holidays which means that you need four times as much money in order to teach them? You know all of these things are true. TAFE—they all fight for their own. Sitting Bull, the old Sioux Indian chief, used to say, 'White man very good at making and doing everything, but he ain't very good at distributing it all.' The money is there; it is a matter of distribution. Would you like to comment on that?

Prof. Hill—Yes, I can relate to a lot of that. It seems odd to say that schools are not resourced to teach kids to read and write, because schools have got a lot of money and surely they have got enough to teach kids to read and write if that is their number one priority. It is hard to make a case that there is not the money in schools now to have a Rolls Royce approach to literacy. The trouble is that education has many different interest groups with an interest in doing lots of

different things. The languages other than English program in schools have become very big in the last 10 years, sport has become much more important and the performing arts have become very big. People want everything. The people that want these other things have already got the literacy happening for them. Their kids can already read and write. Often some can read before they go to school, so they are wanting the bells and whistles in a curriculum. Meanwhile, there are kids who have not got the basics under way.

The trouble is that the number that have not got these basics under way is politically rather difficult. I reckon it is about 30 per cent. The difficulty is that 70 per cent are happy, and if 70 per cent are happy they are going to win. So at the end of the day it is a question of politically mounting the campaign that we cannot afford to have anybody down there. Basically, we are saying we have got to eradicate illiteracy. We are talking about this being a bad disease because it does bad things to our community: all the crime in the community—that appeals to people—all the social benefits that we are paying out and get nothing back on; all the loss of income; and all of those figures that we know happen through kids being illiterate—dropping out of school and then dropping out of society, and so on. It is a question of a publicity campaign to persuade the public at large that we cannot at all afford to have that sort of proportion of people not making the grade. But it is a hard message to sell because an individual school cannot do it.

Mr SAWFORD—That is not quite what I asked. The comparison of resources of all the sectors of education is quite dramatic on a per capita basis. I would have thought the older the learner the fewer resources you need—and the more independent the learner. That is not always true. It was recognised 20 years that resources for education were not going to increase, that the pool was going to remain about the same or perhaps even get smaller. And there is a problem at the lower end of this: you have to redistribute the money. That means you have to take it away from universities, from TAFEs, from senior secondary or from private education. You have to get it from somewhere.

Prof. Hill—I was on a funding committee that worked for three years on funding formulae based on age in Victoria. The recommendations to vary the formula on a yearly basis in terms of educational need related to age were never implemented, although the general relativities were implemented. We found that the point of lowest cost is probably year 4. The highest cost now is definitely year 12, which is close to 200 per cent of the year 4 costs. That is because we have the smallest classes in the school system in year 12, which is odd because we have the largest classes in the education system in year 13. They come to university and go into classes of 300, whereas at year 12 they are in classes of three to 10. So you are right about that. In other words, in year 12 we support an elite education system modelled on the 'A'-level and baccalaureate European tradition. It is a very good but very expensive system that we run in year 12, and that is our biggest cost year. So the ratio we found was about 1.9:2—the costs—

Mr SAWFORD—When you add the ancillary staff, the grounds and the money for whatever it is—

Prof. Hill—Which we did not.

Mr SAWFORD—That would quadruple.

Prof. Hill—Yes, it would.

Mr SAWFORD—I am not just talking about the personnel.

Prof. Hill—But if you put in the capital resources—

Mr SAWFORD—And all the rest of it, it is quadruple.

Prof. Hill—Yes, that is true.

Mr BARRESI—When it is my turn to ask a question, Professor Hill, you know that we are getting close to the end! I found your submission to be excellent. I have a series of questions that have already been asked. One of my questions is in regard to the preschool years. You mentioned that the best thing we can do is to tackle literacy in the preschools as much as possible. Do you have any comment to make about those schools that have a preschool as part of their school? I have got one in my electorate but it has been going for only two years, so I do not know whether there has ever been any research done into its effectiveness.

Prof. Hill—I do not know of much research into them but, anecdotally, of those that I know, it is very effective, for two reasons. One is that the staff in the preschool are generally part of the staff of the whole school; therefore, they get the same training and the educational perspective of the kids in the school, which is good. The other thing is that there is continuity, which helps a great deal at that age. I would love to see more primary schools doing two things. One is having before and after school care in these disadvantaged areas—which they need to do—and the other one is having a preschool.

CHAIR—I found from personal experience that it was cheaper to have my kids in a prestigious private school preschool than it was to have them in child care.

Prof. Hill—And there is no comparison, is there?

CHAIR—Chalk and cheese.

Mr BARRESI—This is more in terms of some of the research that you have done; I am looking at the background briefing. You have done quite an extensive amount of research. You have done some research in terms of the culture of low expectations amongst teachers. Rod, every now and then, reminds us that any teacher can teach someone who wants to learn but a good teacher is someone who can get someone to learn who perhaps has low expectations. Is there some way in which we can address that in terms of getting those low expectations dealt with by teachers? I still recall very vividly my year 12 English teacher—it was some time ago. I went to Fawkner High School, in the Broadmeadows area—who just gave up on me in terms of English, so I applied myself and ended up getting my best score. But she basically had wiped me halfway through the year.

Prof. Hill—I really believe that when we work with teachers, the most important thing we ever do is work on their beliefs and understandings. At the secondary level, sometimes it takes 18 months of working with teachers before we are ready to move, because you have got to deal with that. There is an entrenched view amongst society, not just teachers, that some people have ability and some people do not. I go to Hong Kong a lot and the teachings of Buddha, I think, keep stressing effort all the time—'by effort I could achieve this.' Certainly, you notice, with

Chinese speaking students in our schools, that if they are not doing well, they do not say, 'I'm not able to do this', they say, 'I'm not working hard enough', and they work harder. They have probably got it to excess; they place too much reliance on effort. We tend to make too much of an excuse of lack of ability or other debilitating circumstances. All those equity programs we had in the sixties and seventies were palliative programs. They never built in the accountability for improving the outcomes for those groups because they did not improve the outcomes one little bit for those groups.

Mr SAWFORD—They dealt with the peripherals.

Prof. Hill—They just gave us an excuse for having them down there—that was the sad thing. Because most of our teachers have been through that, they lived through those 1960s and 1970s when that is what we used to do. We would buy a bus and take them on excursions. We said, 'Hey look. They've missed out on these experiences in their life. Let's be nice and kind to them, but let's have no further expectations in terms of achievement.' They lived through that. So now they are coming out the other end and saying, 'Yes, but I can make a difference.' The interesting thing is that while effect size for gender—I am talking between about 0.2 and 0.3 and being bigger than non-English-speaking background and poverty—for making a difference, is 0.6. That is the difference. They are more powerful than all these things: they are more powerful than gender and they are more powerful than student background. Schools do make a difference, and the effect sizes we have been getting in our projects have been typically 0.65. In the US they are twice that—they are 1.2. That is because, of course, they just have not had any teaching.

In Australia we, by and large, have good quality teachers, which I think is why we have the results that we have today in the papers. We can be quite proud of our teachers really, in terms of other English speaking countries. We are in the top of the second division, as it were. Nonetheless, we can make that difference through our teaching. But teachers need to believe they are powerful. They are so surprised to believe that they have that power to make that difference. They have to believe in their kids that they can make that difference. So that is very important.

Mr BARRESI—I was intrigued by your comments about single sex schools and the value of them and what difference they can make—you are a bit ambivalent about that. Yet we have seen some examples already through independent schools, so that might be a factor, where by having boys only schools they have been able to tackle some of those gender differences, particularly in terms of the way the curricula is structured or the learning methodologies. Surely there must be an argument for single sex schools, and for some boys that might be the way to go.

Prof. Hill—The literature shows a fairly consistent positive effect for being in a single sex girls class or school. In terms of all boys, the literature typically shows it is negative. Here you have a problem with numbers because boys do better in mixed classes and girls do better in single sex classes. Of course, the numbers do not compute and you cannot have both. I have been analysing a whole lot of data from Hong Kong, which is very interesting because they tend to be very high achievers, and their data is more dramatic than ours but it is in the same line. Their girls schools do very well, and their boys schools are a liability to go to. You have that funny thing where, if you have a lot of all girl schools, you are going to have a lot of all boy schools or a lot of schools with a high proportion of boys in them.

For me, we are always going to have single sex schools, and we have them now. Some people prefer them and they are going to happen. I think much more is a situation that, within the context of schools that are mixed, schools will nonetheless set up all boys and all girls classes within those schools. That will appeal to some of the students but not all. In other words, I can see that for a particular group of students you will have an all girls or an all boys class, and they will work very well because they are set up deliberately to try to get to some students who have not been doing well in that mixed context. But it will not be the total environment in which they have their education. I have taught in both all boys and in all girls schools. My overwhelming personal view is that I would like to see the capacity to have an all boys or all girls context within a mixed school and vary about what you might do. I do not think all boys or all girls classes are going to be very critical in a lot of subjects. In fact, I think mixed classes would be probably a better thing for some, but in some areas it will help.

Mr SAWFORD—Going back to what you were originally saying, perhaps the more important point Phil is really making is that the public secondary system that existed 30 years ago was far more diverse than it is now.

Prof. Hill—Yes.

Mr SAWFORD—There were technical high schools that were specialising in academia and also very strong vocational areas. Prior to the Karmel report, basically a lot of the technical schools in Victoria and South Australia were winning all the physics, maths and chemistry prizes, which really gave the academic high schools the heebie-jeebies because some of the better teachers and the better principals were going to the vocational high schools where they had a choice to do different things. We had area schools, we had agricultural schools, we had streamed technical schools and streamed high schools and we had demonstration schools. Then, all of a sudden, we finished up with one single comprehensive school to which basically the parent body of Australia said, 'Thank you, but no thank you.' They started to move. I think parents actually like the diversity, and the diversity was more important than it was just being a single girls school or a single boys school. Sometimes it was the quality of the program, that that single girls school focused on an educational program that suited those parents—that it was a girls school was a secondary issue.

CHAIR—Peter, on behalf of the committee I really do thank you. Whilst you made some comments earlier about the eccentric nature of some of the individuals and their views in this area, we have had a couple of outstanding public hearings, and I can assure you that yours is one of the latter. As I said to Ken and Kathy Rowe when they came to speak to us, when we get towards the sharp end of the inquiry and we are actually writing the report, we might come back to you and run a few things past you.

Prof. Hill—I am glad you are talking to Ken and Kathy. They have both been my colleagues for a long time.

CHAIR—Yes, theirs is very similar sort of stuff.

Prof. Hill—We have shared a lot of this journey, but recently we have taken different paths. We would have very similar views. My situation is that I am departing to work in the USA in January.

CHAIR—Okay.

Prof. Hill—I can be contacted.

CHAIR—Make sure we have got your email address. Thank you so much for coming here. It was very worth while, and we appreciate it.

Resolved (on motion by **Mr Sawford**):

That this committee authorises publication, including publication on the parliamentary database of the proof transcript, of the evidence given before it at public hearing this day.

Committee adjourned at 10.41 a.m.