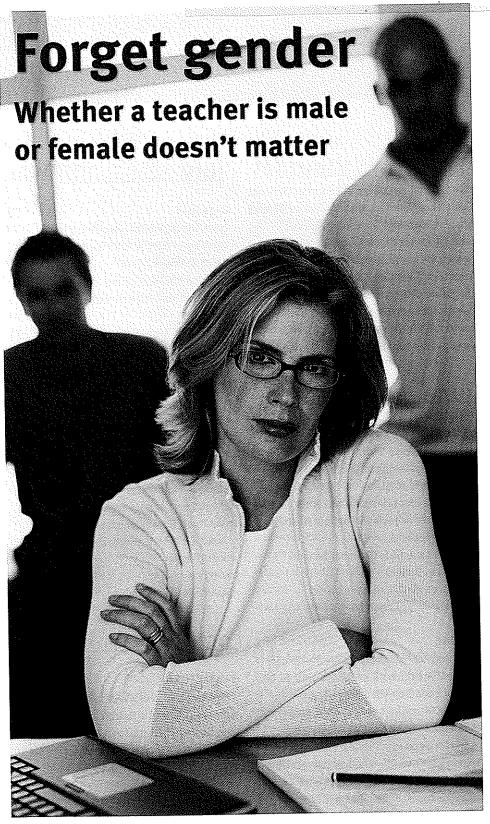
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FEMALE TEACHERS. BUT IS THIS REALLY THE CASE? BRUCE CARRINGTON,
PETER TYMMS AND CHRISTINE MERRELL CHECKED OUT THE GENDER
ROLE-MODEL HYPOTHESIS BY LOOKING AT THE INTERACTION EFFECTS
BETWEEN THE GENDER OF THE TEACHER AND THE GENDER OF THE
STUDENT — AND FOUND THAT GENDER MADE LITTLE DIFFERENCE.

the world have been concerned about the under representation of men in teaching, especially in primary schools, responding in part to a – so far – unsubstantiated view that the relative dearth of male teachers is somehow linked with boys' underachievement and disaffection. It's thought by some that the 'gender gap' in the school performance of boys and girls is the result of the 'feminisation' of the teaching profession and the lack of role models for boys.

From previous analyses, Peter Tymms has found that the average girl consistently out-performs the average boy in reading, even at the primary school level, but the key issue is to do with the size of the difference, and typically that's small - an Effect Size of 0.2. In Mathematics the average scores are about the same, although the spread of scores for girls is smaller, which means more boys will be amongst those identified at the 'special needs' and 'gifted' ends of the spectrum in terms of Mathematics. At this age, girls have significantly more positive attitudes to school overall than boys - an Effect Size of 0.4 - and are generally more positive about reading - an Effect Size of 0.3. This gender gap picture at the primary level was echoed by a review commissioned by the Scottish Executive Education Department back in 2001.

Speculative remarks about the factors underlying working-class male underachievement proliferate. Consider this comment by David Blunkett when he was Britain's Secretary of State for Education and Employment: 'Underachievement is linked to a "laddish" culture which in many areas has grown out of deprivation and a lack of both self-confidence and opportunity.... We need better role models in our schools and society more generally.' (DfEE, Press Notice, 2000/0368). As the comments of David Blunkett demonstrate, the view that the gender gap in achievement stems from the dearth of male role models in schools has taken a strong hold, yet research in Finland by Lahelma suggests that high school students attach relatively little importance to the teacher's gender. Drawing upon interviews with thirteen- and fourteen-year olds, Lahelma found that although the students often commented on

the lack of male teachers in their schools, the issue of gender did not figure prominently in their observations about the quality of teaching they experienced. Her findings indicated that students tended to value teachers who - regardless of gender - maintain discipline in the classroom in a friendly, sensitive and impartial manner.

In the United States, Ehrenberg, Goldhaber and Brewer (1995) analysed data from more than 18,000 students and 15,000 teachers, and concluded that matching teachers and students by gender and ethnicity had little effect on educational achievement. Dee followed up many of the issues raised by Ehrenberg and his colleagues and found conflicting results; matching students and teachers by 'race' in the kindergarten and primary years was 'associated with substantive gains in achievement for both black and white students.' Why might such matching - especially in the case of minority students - lead to enhanced achievement? To answer that, Dee distinguishes between 'active' and 'passive' teacher effects. 'Active' teacher effects refer to the patterns of classroom interaction, such as differences in a teacher's praise or admonishment, or in the allocation of a teacher's time, that occur when 'teachers are oriented towards students who share their racial or ethnic background.' 'Passive' teacher effects, on the other hand, are

'simply triggered by a teacher's racial presence and not by explicit teacher behaviours.' Consider minority students, and the mere presence of a teacher from a similar minority background may in itself be sufficient to encourage students to widen their educational horizons by making them feel more focussed and comfortable in the classroom. Where mismatching occurs, 'stereotype threat' may have an adverse effect on student achievement. Even so, Dee suggests that, 'Although the existence of such rolemodel effects is frequently assumed in commentaries on educational policy, there is actually little direct empirical support.' While his findings lend some support to the role-model hypothesis, there's a downside for policy makers: increased minority achievement may lead to depressed majority achievement and vice versa. Almost none of the teachers involved in Dee's Tennessee study were male, so it's impossible to make any assessment of the impact of matching teachers and children by gender. Subsequently, however, Dee re-analysed data from the national sample used by Ehrenberg and his colleagues and found that, in eighth grade classrooms, both male and female students were more likely to be seen as disruptive by teachers of the other sex. As well, both majority and minority students were more likely to be seen as disruptive by teachers from a different ethnic group.

Clearly, claims about the benefits of matching teachers and students by gender or ethnicity remain largely unsubstantiated, and in this study the researchers wanted answers to this question: do male teachers bring out the best in boys and female teachers the best in girls?

The research draws exclusively upon data from the PIPS Project run by the Curriculum Evaluation and Management (CEM) Centre at the University of Durham www.pipsproject.org Data from 413 separate classes for eleven-year olds - in Year Six - with 300 classes taught by females and 113 by males, a three-to-one ratio of female to male teachers, were analysed. The students completed their PIPS assessments in January 1998, by which time they had been with their teacher for just over four months. They completed: attainment tests in reading, mathematics and science; tests of nonverbal ability and English vocabulary; and questionnaires devised to probe attitudes both to core areas of the primary school curriculum and to school in general. Multilevel models were constructed to see if: there was any indication that a male teacher or a female teacher had more impact; if there was an association with higher attainment or more positive attitudes; and if male or female teachers were particularly successful with children of the same or different gender. Finally, an attempt was made to see

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if male or female teachers were particularly effective with children of high or low ability. Within the models it was possible to control for factors such as vocabulary, non-verbal ability, home background and so on.

The results showed that the gender of the teacher was unrelated to the attainment of the children. In other words, there was no indication that male teachers were particularly effective with boys, or that female teachers were particularly effective with girls, and there was no indication that effective results were associated with male or female teachers, particularly with highability children.

What about student attitudes? There were no links with the gender of the teacher except in terms of attitudes to school, where it was clear that boys and girls who had female teachers had more positive attitudes. Indeed, it was statistically very significant – an Effect Size of about 0.13 – although there was no indication that female teachers were producing particularly more positive girls.

Clearly, there is reason to doubt the claims of the role-model hypothesis, especially in relation to its claims about the benefits of matching teachers and learners by gender. Matching has no discernible impact on either boys' or girls' attainment, or their respective attitudes to school. There's plenty of political rhetoric about a link between the gender gap in student achievement and the dearth of male role models in schools, and that rhetoric is often used to justify measures to bolster male recruitment to the teaching profession, yet the researchers found no empirical evidence to support the claim that there is a tendency for male teachers to enhance the educational performance of boys and, conversely, for female teachers to enhance the educational performance of girls. In fact, they found that children taught by women - boys and girls - were more inclined to show positive attitudes towards school than their peers taught by men, which could have significant policy implications in terms of teacher recruitment patterns. As far as attitudes to school are concerned, the research indicates that women teachers seem to bring out the best in both sexes!

For various reasons, however, caution should be exercised when drawing conclusions from the research. First, as the researchers note, they didn't analyse or control for the consequences of teachers and children being matched by ethnicity. Secondly, the teachers sampled, while representative of Year Six teachers across English primary schools, may not be representative of all teachers in all primary schools. For example, with the immense pressure on English schools to secure and maintain a competitive position in government league tables, it's conceivable that the more effective teachers in English primary schools may find themselves channelled into Year Six positions, where they assume responsibility for preparing children for the national tests.

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Although men are generally under-represented in primary schools, they are more likely to be found working with older children - in upper primary. It may well be that gender stereotyping deters men from taking up teaching positions in the lower primary area. Whereas working in the upperprimary sector may be more readily reconciled with dominant notions of masculinity, teaching younger children tends to be associated with nurturing and construed in popular consciousness as a 'woman's job.' Thus, men taking up teaching posts in the lower primary sector, particularly in the early years, are seen, at best, as 'unusual' or 'odd' and, at worst, as potential threats to the children. Matching teachers and students by gender appears to have no significant impact on educational outcomes in Year Six but it ought not to be assumed that the teacher's gender will therefore be similarly inconsequential with younger children. It's conceivable that male teachers could have greater impact as role models for boys in the lower primary years, where men are generally conspicuous by their absence. No data about the gender of previous teachers and the length of time spent with those teachers were available for the sample of students analysed. The data were collected at roughly the midpoint in the academic year - January 1998 - so students had been with their teacher for just over four months. It's possible that the outcomes of the research may have been different if the data collection had taken place later in the year. There are a host of other factors that could have influenced the outcomes, such as the personality and the effectiveness of the teacher. This type of analysis will always be open to such limitations and in an ideal world the random assignment of teachers to classes would be employed to investigate the issue more rigorously.

Such limitations aside, how are current teacher recruitment policies to be assessed in the light of the findings? If the overriding concern of policy makers is to devise effective measures to reduce the so-called 'gender gap' in achievement and attitude, then it could be argued that the current hope that more men might take up teaching posts may be somewhat misplaced.

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For references go to www.acer.edu.au/ teachermagazine/references.html