

# Great math divide

Research shows girls need to be convinced they can star at maths,

Blanche Clark writes

**A**N INFLATED belief in your abilities and a willingness to be challenged might be the keys to succeeding in maths at school.

A Monash University study has found that, though boys and girls have similar ability in maths, girls see themselves as significantly less able at maths than boys.

Researcher Dr Helen Watt says that as a consequence, girls are less likely to take maths for VCE or to set their sights on highly paid, prestige maths-related careers.

Her research shows that girls are far more realistic about their mathematical ability than boys.

"That puts an interesting twist on things.

"Boys have this illusory glow that seems to give them an advantage, and though the girls are realistic, they are doing themselves a disservice."

Watt says her research, part of an international study, also shows girls are less interested in maths,

"Girls are generally engaged by activities that they find

socially meaningful and important. Yet, in secondary school, maths is taught in a highly decontextualised and skills-based way.

"If we could find ways of making explicit connections between maths and its social purposes, that would be a way of promoting girls' interest."

Boys and girls both have an inaccurate idea of which careers involve mathematical skills and they need more information at school, she says.

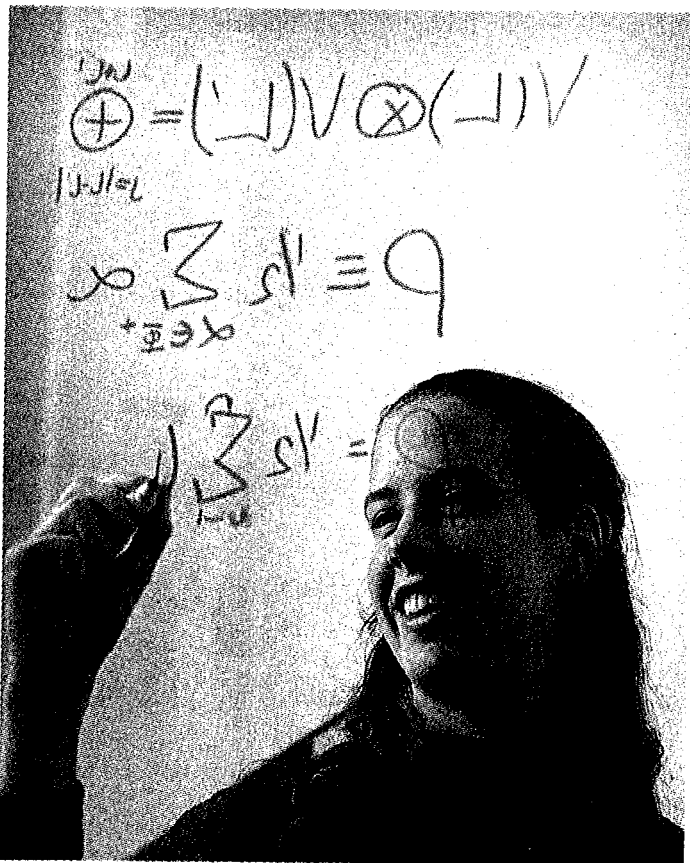
Australia needs to boost girls' interest in taking mathematics at a senior secondary level from a social equity perspective.

"We've got a national crisis in terms of shortfalls of professionals in science, maths and technology careers and here is this under-used pool of women who are unrepresented in those domains," Watt says.

"So, from a pragmatic perspective, why wouldn't we be doing all we could to attract more women?"

Watt will be the keynote speaker this month at a Dutch conference focusing on girls' involvement in science, technology, engineering and maths.

She says though researchers all agree that on average there are no gender differences in mathematical achievement, there is contention about whether boys have superior spatial skills.



It figures: girls need boys' assertiveness about maths.

Watt says American research shows girls may see themselves as less able from grade 2.

This means parents, teachers and the media have a role to play in changing attitudes, she says.

She cites another North American study that found that "parents of boys want them to be successful and parents of girls want them to be happy".

Watt, who majored in pure maths at university, says she always found it difficult and challenging.

"There is an attitude that if you find maths hard you shouldn't be doing it.

"But there's another angle we could take. You could say, 'It is difficult, but it doesn't mean you aren't good at it.'"