

Girls-only groups make scientific sense



Lucy Qu, left, Astrid Powell, Moki Thanusing, Emily Mahnken, Kirsten Hogg, Olivia Mackenzie Ross, Ivy Ford and Ujjeshi Dhir at Toowong. Picture: Glenn Hunt

STEFANIE BALOGH THE AUSTRALIAN 12:00AM December 7, 2016

Brisbane physics teacher Kirsten Hogg has found a way to ensure young women are supported in their pursuit of science, encouraging all-female groups for practical activities.

“I do that because boys tend to dominate practical activities and the girls are more passive and they watch. They often do it without realising it,” Dr Hogg said.

The former physicist is no stranger to being the only woman in class and is committed to helping female students excel in traditionally male-dominated subjects.

“There’s a bit of unconscious bias that girls can’t help but pick up, and I think it even starts in primary school: that girls aren’t as good at maths as boys,” she said.

This reverberates through to the tertiary level, and then into the workforce.

Without women better represented in science, Dr Hogg said, “you lose all of these different ways of thinking about a problem if you’re excluding half of your pool of talent”.

As Australia continues to search for ways to encourage students into the STEM subjects (science, technology, engineering and maths) to future-proof the economy, the Australian Mathematical Sciences Institute is calling for a shift from focusing on marks and final

results such as tertiary entrance rankings, and suggests incentives be built into schools to encourage students to try their hand at higher-level calculus-based maths subjects.

AMSI is also continuing to push for the phased reintroduction of university prerequisites for entry into science and engineering degrees.

It was a move Dr Hogg supported. “The number of kids choosing to do physics in high school in general is declining and one of major factors is that physics is no longer a prerequisite course in university,” she said.

“The only science course that is a prerequisite at university, even for engineering, is chemistry. So our chemistry cohort at our school is enormous.”

The Office of the Chief Scientist last month zeroed in on the ongoing need to encourage and support women to pursue careers in STEM.

Chief Scientist Alan Finkel said Australia needed to build a culture that further encouraged girls and women to enter and excel in these areas.

His office released the paper *Busting the Myths about Women in STEM* to equip Australians with the facts about gender inequality in the area.

Dr Hogg, who has taught from kindergarten through to university level, was singled out by the Queensland College of Teachers this year for her exceptional teaching and commitment to encouraging girls to excel in science.

She is at the Queensland Academies — Science, Mathematics and Technology campus in the Brisbane suburb of Toowong.

The school is one of three state schools for highly capable students in years 10 to 12 who do the International Baccalaureate.

Dr Hogg, 42, described teaching as a “really enjoyable career” and said she had always been passionate about striving to rekindle in older students the fearlessness, optimism and enthusiasm for science that younger students possessed.

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