## Year 8 dropout becomes face of a national schools campaign

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Charles Gray was 16 and living on the streets when her year 11 teacher pulled her out of class and said: "Why are you even here?"

"She said, 'You're going to drop out anyway, why don't you drop out now?'," Mrs Gray, 36, recalls of that time in Brisbane.



Charles Gray says she is "living proof" that anyone can go into the field of maths. Photo: Jason South

It was the latest blow in a difficult childhood that had already led Charles to leave home at the age of 15 and move into squats.

"I left high school in year 8 because of family drama," she said. "By year 10, I was still enrolled in schools but I was living in places with no electricity and no toilet at one point.

"It made keeping up with schoolwork pretty hard."

She eventually returned in year 12, lying about all the schooling she had missed.

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At the end of that year, she enrolled in an arts degree after being talked out of studying maths at university – only to return to that original dream at the age of 30.

Mrs Gray, who now lives in Melbourne and is halfway through a PhD in statistics, said she is "living proof" that anyone can go into the field of maths.

That is the message she's taking to 10,000 schools across Australia, as an ambassador of the Choose Maths campaign to be launched on Monday by the Australian Mathematical Sciences Institute (AMSI) and the BHP Billiton Foundation, which is aiming to raise awareness of careers in science, technology, engineering and maths (STEM) disciplines among years 9 and 10 students.

"One of the things I've learnt since connecting with other women in science

is that I m not alone, this is a pervasive message being given to girls from when they're kids, being told 'you're creative, you should go into those types of fields'," Mrs Gray said.

"But maths is just a learnt skill, which means all you need is the curiosity and willingness to do the work. It's not easy, but it's not nearly as hard as everyone thinks it is.

"People also don't realise how fun the job is. They think it's technical and boring, like changing internet routers, but it's asking big picture questions and using your imagination."

Maths teacher at Riverside Girls High School in Sydney's north, Lisa Trapnell, said talking to people like Mrs Gray was a good way of tackling myths about maths careers held by students and parents.

"You're not just going to be an accountant, you're not just going to be

working with data," Mrs Trapnell said.

Janine McIntosh, chief maths project director at AMSI, said the campaign was a new way of talking to students, through people like Mrs Gray who had taken a different path to maths.

Mrs Gray is hoping her example will help counter the message that many girls are given.

"Like most girls, I was told that I was arty and creative, so I enrolled myself in a double degree in arts and music at Melbourne University."

Nearly 10 years later, she had been working as a piano teacher and couldn't get any other job.

So at the age of 29, she enrolled in a maths bridging course at La Trobe University that covers concepts from primary school through to year 12.

"It seemed a bit silly because I was 29 and enrolled in this pre-university course, but it went really well so I immediately enrolled myself in a bachelor of science with a major in maths," she said.

By the age of 33, she was doing an honours thesis in abstract algebra, and began a PhD in statistics at 35.

But Mrs Gray thinks her life would have been completely different if she had been given different advice and enrolled in maths straight after year 12.

"I would have finished my degree and gone into a PhD at 25 instead of 35," she said.