NASA sent me to space camp: Alumnus wins national award for mission to make science fun

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It's an invitation no child can refuse. "Let's blow something up, let's break something." No wonder Jacob Windle's students enjoy learning about science. "You talk to kids," says the Avondale College of Higher Education alumnus, a Bachelor of Education (Primary) graduate of 2007. "What's your favourite subject?' 'Love sport.' Not at the school where I teach."

Jacob is a specialist at St Paul's Primary School in Karratha, Western Australia, whose mission is to "encourage students to be the captain of their own learning journey." Motivated by the misconception that "science is for the academically gifted," Jacob challenges students to believe "everyone is a scientist." His classes are practical. The students rarely work from textbooks because English is often a second or third language and "many can't write their own name. But they can listen, they can problem solve, they can work with their hands and in groups. There's more they can do than they can't."

Assessments and some lesson plans, which might take a traditional form one week and role playing the next, are open-ended. Homework is out but hands-on experiments are in—it's all about discovery and intrigue.

For a lesson on flight, Jacob's Year 5 and 6 students threw boomerangs and spears. Jacob has organised an astronomy night and a solar eclipse observation station for his students. A connection with local television media for which students measured, recorded and reported the weather from Karratha generated interest and support from the wider school community. An online forum where Jacob discusses a student's progress keeps carers and parents involved. And a website Jacob created gives his students access to resources and an opportunity to provide feedback. His future plans include integrating robotics and coding into every

class.

Jacob has made St Paul's "a school of scientists," says Allen Blewitt, chair of the Australian Scholarships Group National Excellence in Teaching Awards. "He's transformed traditional and stereotypical mindsets where his philosophy was first scoffed at, to getting students to discuss and share their ideas and develop a keen interest in classical sciences." Jacob is one of only 13 educators—from 1350 nominated—to receive a National Excellence in Teaching Award in 2016. He also received an invitation to Space Camp in Alabama, USA, and is now a NASA Australian Education Ambassador.

At the camp, Jacob and other educators completed specific missions. One saw Jacob working as an engineer on a model of the International Space Station, which had been hit by debris. He and a colleague suited up for a virtual space walk to repair the damage. Another mission required the educators to safely pilot a lander to Mars. "I'm surprised I'm alive," says Jacob. "The commander made sure we were all on task otherwise the mission would have failed."



Figure 1: Jacob Windle recipient of the National Excellence in Teaching Award.

He's transformed traditional and stereotypical mindsets where his philosophy was first scoffed at

Reflections, Impressions & Experiences

The experience encouraged Jacob to give his students more problem-solving activities. And he expects them to make mistakes, which help as they consider the issues for which they must deal as part of finding a solution.

His advice for other teachers is similarly challenging. "Don't pretend you know everything. Learn something new so you can pass it on to the kids." New for Jacob is a programming language called Python. "I'm struggling with it, so when I see my kids struggling with their coding, I can say, 'Don't worry. I know what it's like." He's also mastering a fidget spinner, which he's encouraging his students to use while they're studying in class. "Don't hold back the tide. The kids are going to like what they're going to like, the kids are going

to do what they're going to do, every single trend. You might as well take that trend and use it to your advantage." TEACH

Author information

Brenton Stacey is Avondale College of Higher Education's Public Relations Officer. He is also co-convenor of Manifest, an Avondale-led movement exploring, encouraging and celebrating faithful creativity.

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