## Learning curves

Technology and flexibility have helped the PTEU and a variety of industry, education and training bodies train Indigenous plumbers from some of Australia's most remote communities.

B ack in 2002, Tony Murphy, the assistant secretary of the Plumbing Trades Employees Union (PTEU), got talking in a Melbourne pub with a man named Joe Grande, who was the accountant for several Indigenous communities in the Broome/ Kimberleys region.

Joe told Tony how remote communities couldn't get plumbers to come out there for a year at a time, and how, when they did come, they charged exorbitant rates. He suggested Tony come up and have a look.

With PTEU Secretary Earl Setches, Tony did just that – and they were shocked by what they saw. "It was a bigger problem than I could ever have dreamed of," Tony says. "I couldn't believe this level of sanitation could happen in a country like Australia."



Cyril Yarran wearing the telematic sunglasses, with teacher Wayne Ellerton.



The PTEU's Indigenous Apprenticeship Program, is now in its seventh year. It takes on five new apprentices a year, from the Broome region, Kalgoorlie, Darwin and Victoria.

Wanting to help, and with the financial assistance of some major construction companies, the PTEU sent a couple of plumbers to improve sanitation in a community called Jarlmadangah Burru, about 300km north of Broome. Return trips were made over the next couple of years, during which time evolved the more effective, long-term solution of training young people from the communities, so they could manage the plumbing themselves.

The result, the PTEU's Indigenous Apprenticeship Program, is now in its seventh year. It takes on five new apprentices a year, from the Broome region, Kalgoorlie, Darwin and Victoria. To date, the completion rate is 100%, with six having completed their apprenticeships and another 13 apprentices currently enrolled in the program. The apprentices are employed on some major projects including the desalination plant, and their training is undertaken at Royal Melbourne Institute of Technology.

Some graduates, like Tehani Mahony, the program's only female student to date, have returned to their communities or nearby towns to work: others have chosen to remain in the city.

The program's success has been hardearned. For the apprentices themselves, moving to Melbourne, a city of over four million people, after spending their lives in remote communities of as few as 30 people, is often a major culture shock. For RMIT's head of plumbing, Warren James, and plumbing teacher, Wayne Ellerton, there was culture shock as well. The teachers were initially confounded by the Indigenous boys' reluctance to speak or, in some cases, even make eye contact.

They sought assistance from Nagara, RMIT's Indigenous Unit, who in turn approached Milton Nomikoudis at RMIT's Teaching and Learning Unit. Milton contacted Ruth Wallace, a consultant in e-learning and Indigenous education from Charles Darwin University for advice. She was engaged as a consultant thanks to a grant from the Telematics Trust, a charitable Trust established by the Victorian Government to support initiatives using information and communications technology for educational purposes.

Ruth has extensive experience teaching Indigenous people in remote communities and provided valuable insight into how best to communicate with their new students.

"She has really helped me a heck of a lot," Wayne says. "They wouldn't tell you if they had a problem before, but now they'll ask you about it. It's taken 12 months, but now I've got their respect it starts becoming easier."

With funding from the federal government's Indigenous Employment Program, Jono Mullins, a graduate of the original class of 2004, was also engaged, to mentor the students. The boys related well to Jono – not only had he faced the same initial struggles with the course but he had played football for Port Melbourne, which gave him considerable kudos. He currently lives in one of the three houses – financed by the Plumbing Commission – that the apprentices are housed in. "I'm like their house-dad," he laughs.

Telematic glasses have proved another helpful piece of technology. Worn by the apprentices, they record their working process and the footage can then be used by teachers to provide feedback on and assess the apprentices' work.

The second major obstacle the teachers faced was that while the Indigenous apprentices' manual hand skills were often outstanding, they were struggling with the theory side of the training.

For most of the apprentices, English is their second language and, with limited access to education in their communities, Tony reckons their average arithmetic and reading skills are at a Year 4 equivalent. It soon became apparent that what Wayne calls the standard 'chalk and talk' approach to teaching was getting him and his new students absolutely nowhere.

As a first step, Tony and Bonnie Rivendell, a PTEU Indigenous Project Officer, negotiated with RMIT to put the Indigenous students together in a single classroom, to overcome their shyness in mixed classes and focus on their specific needs. The results were immediately positive.

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## indigenous training

The teachers also discovered that, while their new apprentices shut down in front of books and blackboards, like any other Gen Y kids they were completely computer savvy, and had no difficulty accessing things like by-laws and Standards online.

Accordingly, the teaching staff have modified – but not compromised – their classroom practices to enable the students to use computers to look things up. They have also found starting with practical demonstrations rather than launching head-first into theory keeps the students engaged.

"The teachers have been really good about it," Tony says. "In some cases some of the goalposts need adjusting – not moving – to suit some of these boys, and I think RMIT see that as well."

Telematic glasses have proved another helpful piece of technology. Worn by the

apprentices, they record their working process and the footage can then be used by teachers to provide feedback on and assess the apprentices' work. They were recommended by Ruth, who has used them in remote communities with much success.

"The guys took to them straight away," Warren says. "When Wayne put the USB with the images from their glasses on it on the computer, they immediately rushed over and were glued to the computer, which in itself was a good step forward in terms of engagement. By having these tools you can open up learning to a whole lot of new people."

For Warren and Wayne, the effort to adapt their teaching methods has clearly been worthwhile. "The personal satisfaction is just huge," Wayne says. "It's more fulfilling as a teacher to see



These Indigenous apprentice plumbers come from Western Australia, the Northern Territory and Victoria.

someone overcome some obstacles. Then to see them get through their apprenticeships – it's magic." ■

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