



Mentors go to top of the class

Scientists in Adelaide are showing other scientists the finer points of being a good teacher as well as a good researcher, writes **Julia Hinde**

SCIENCE teaching in South Australian universities is set for a boost thanks to an initiative that aims to help scientists learn teaching from their peers.

Funded for two years to the tune of \$189,000 by the Carrick Institute for Learning and Teaching in Higher Education, the project, Raising the Profile of Teaching and Learning: Scientists teaching Scientists, is the brainchild of Karen Burke da Silva, a Flinders University lecturer and first-year co-ordinator in the school of biological sciences.

“Scientists often have a very heavy workload,” Burke da Silva says. “And research is always at the forefront. You get promoted by doing research, more so in science than in any other discipline. Subsequently, teaching has been very low on the things scientists do.”

She adds that being a good teacher in a science faculty rarely leads to promotion.

“Teaching has become less and less important over the years,” says Burke da Silva, who runs her own science lab, but also undertakes science education research. “Sometimes science teaching in universities can be poor. Our idea is to try and put some emphasis back into teaching.”

Burke da Silva says research suggests that scientists often have few formal teaching qualifications, rarely attend education conferences and often don’t like going to

development seminars where they are lectured to by educationalists.

“They use education-specific jargon the scientists don’t know,” she says.

“Instead we decided we needed to make it really relevant. We needed to try and educate science academics by using other scientists who happened to be really good at teaching.”

Initially, co-ordinators from Flinders University joined forces with Adelaide’s other two universities to run a “scientist leading scientist” conference earlier this year.

It was attended by 140 biologists, 60 per cent of whom were at their first education conference. Among the speakers were biology role models, academics who run successful labs but who also have strong teaching reputations. They were there to pass on their skills but also to show that it was possible to be a strong researcher and a good lecturer.

Also present were academics who are trying innovative ways of teaching.

This included lecturers getting instant feedback by asking students in class to answer multiple-choice questions using handheld clickers.

This way teachers can tell if students are understanding the content in real time. Others described efforts to make classes more relevant with case-based learning and

inquiry-based practicals where students design their own experiments.

The initiative has also identified a number of science academics whose main role is teaching, as opposed to research. They want to help build these lecturers into science education leaders so that in turn “they will be able to go out and influence the teaching around them”.

“We are trying to get these people into science education research,” Burke da Silva says. “They are trying these innovative tools in their classrooms; why not turn it into a study and publish it?”

She says many of these teaching specialists are at a relatively low level within their departments.

The project is keen to identify mentors for these teaching specialists to help them “enhance their respect within the department”, as well as for these academics to network together and share their expertise.

Pat Buckley, associate professor in the school of pharmacy and medical sciences at the University of South Australia, and a key collaborator in the project, says: “At the university level, the education enterprise is core business. The good education of science undergraduates provides the next generation of science researchers. It’s something we need to do well.”