TEACHING THE TEACHERS

by Irene Fricke

The University of Pretoria gives historically disadvantaged schools a boost with a mentorship programme for its teachers.

A three-year pilot project in Tshwane to promote science and mathematics in schools is starting to bear fruit in its first year. Under the auspices of Professor Emile Horak of the University of Pretoria, the project supports teachers at disadvantaged schools, rather than the learners themselves.

Although the Teachers' Mentorship Programme (TMP) is too young for the University of Pretoria to release formal results, there is anecdotal and other evidence to confirm that the implementation of the TMP has gone some way to meeting the needs of teachers. One of the teachers says: "My teaching has improved, learners are now responding positively, resources are now available and we really enjoy the workbooks provided."

Funded by the Tshwane Municipality, Anglo Vaal Industries (Consol), the Shuttleworth Foundation and Murray & Roberts, the programme was initiated because of the low number of school-leavers – particularly those from previously disadvantaged schools – entering careers in science, engineering or technology.

The project addresses the crisis in teaching and learning mathematics and science by setting up a system of mentors for the teachers in their school environment. The rationale behind this approach of mentoring teachers is to build capacity and improve competence, and while doing so, address the needs of hundreds of learners per teacher in a very cost-effective manner.

The project involves two skilled teachers – one in mathematics and one science teacher – acting as mentors for the teachers in six schools in the Tshwane region. The mentors spend the duration of the school day at the schools, following the timetable allocated to them for meetings with individual teachers and observing the teachers in their classes. The University believes that the initial impact will be seen in the improved understanding, knowledge, confidence and attitude of the teachers; this impact will result in improved teaching, which will in turn bring about improved learning. The longer-term impact is hoped to be an improvement in Grade 12 passing percentages after two to three years, as the learners' basic understanding of, and grounding in, these two subjects improves.

Textbooks have been provided to the learners as part of the project, and mentor schools in the area have provided the mentors with written material, on request from the teachers, and also in lending apparatus to the schools for science practicals. In addition to this, the mentor schools' laboratories are used for portfolio practicals for the Grade 11 and 12 learners; this allows these senior learners an opportunity to do an experiment in an excellent, fully-resourced laboratory, whilst giving the teacher a chance to complete one portfolio practical as a requirement for the Gauteng Department of Education.

It is expected that the teachers' needs will have been addressed by the end of the three-year project, and that the improvement seen in the schools will then be able to be sustained without the involvement of the University of Pretoria Teachers' Mentorship Programme.

Further reading

Horak, E. and Fricke, I., 2004, "Building Capacity by Mentoring Teachers", For the Engineering Educator, Vol. 6., University of Cape Town.

Irene Fricke *Coordinator of the Teachers' Mentorship Programme, University of Pretoria.*

irene.fricke@up.ac.za

→ The intricacies of motion study: portfolio experiments at Pretoria Boys' High School. Irene Fricke, TMP Project Leader, is shown with Grade 11 J. Kekana learners.