Mathematicians aim to secure the next generation

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A new institute aspires to become a continental centre for mathematics teaching, starting with an advanced diploma course for graduates. It has the potential to address some of the existing problems in mathematics education at school level.

Technology, Rob Adam, at the launch, are a pencil, paper and waste-paper basket. And nowadays, perhaps one might add a PC or two.

A diploma is being offered, rather than a master’s degree, as the latter has a statutory requirement that at least fifty per cent of its content should comprise a thesis. But the aim of the diploma is to prepare students for entry into doctoral programmes at good-quality universities, either here or abroad. Many African universities emphasize formal learning-dominated approaches — rather than problem-solving ones — and the aim is thus to bridge the gap between undergraduate courses and doctoral entry. Alternatively, diploma graduates can employ their mathematical skills by entering the market place directly.

Students will not only study, but be provided with board and lodging free-of-charge. Estimated annual running costs are between R3 million and R4 million, and are being covered by sponsorship by several corporations, as well as the Department of Science and Technology. The only essential requirement that at least fifty per cent of its content should comprise a thesis. The requirement for higher grade mathematics has led to a bottleneck at university entrance in degree programmes in science, medicine, engineering, and even commerce.

No-one at the launch, of course, dared mention our government’s own complicity in this appalling state of affairs: their first initiative after entering office in 1994, was to offer lucrative severance packages to teachers, resulting in the loss to the education sector of many of the few qualified maths and science teachers we had. Asmal’s recent announcement that he intends to try and recruit these teachers back into the system is welcome, as is his re-establishment of undergraduate bursaries for potential teachers.

He will need to do more, particularly in terms of providing financial incentives for recruiting maths and science graduates into the school system, and retaining their services. But almost a decade into our new democracy, it seems as if the legacy of the last half-century is at last beginning to be reversed.