



Letter to the editors

Efficient, national, computerised assessment for the Tertiary Education Quality and Standards Agency: Well, for the maths and stats assessment anyway

In this year's Budget, a Tertiary Education Quality and Standards Agency was proposed¹.

There are internet-delivered computer-aided assessment methods of testing students (and staff if you like). I'm tolerably knowledgeable about those in mathematics. There is an open-source system (the computer-aided assessment package STACK², underpinned by the virtual-learning environment Moodle³) which would be particularly appropriate for the TEQS-Agency.

This isn't a deliberate plug for the made-in-WA component of it, namely Moodle. The system really does work. It is about to be in use (or possibly has just started to be used) in use at the British Open University.

Basically, the TEQS-Agency could run STACK/Moodle on several servers and be delivered in each of the capital cities, probably in rooms in the maths buildings of a major university in each state capital. (The multiple servers may be necessary to cope with large loads, which could occur if a class of 500–1000, say, had coinciding due dates and times.)

STACK/Moodle would deliver out questions for the students to do, mark them and give instant feedback. The universities could choose their own question banks appropriate to their units (but tell the TEQS-Agency) and have these either for student practice or even as part of the assessment of the course. The students would probably do these questions on home computers after getting used to the system at a computer-lab class on campus. The TEQS-Agency could run invigilated quizzes based on the system in the computer labs of the universities to obtain more reliable data on the skill levels of the students. (It is all very well the students doing the work at home, but there is at least a theoretical possibility of them having a friend do the questions for them.) The TEQS-Agency would have the data on the year of study of the students, their major and their university, and would be able to compare their achievements on the same questions across the different universities.

STACK can be trialled via guest access at <http://stack.bham.ac.uk/>. Documents on its use at the Open University include

¹http://www.deewr.gov.au/Ministers/Gillard/Media/Releases/Pages/Article_090512_182729.aspx

²<http://www.stack.bham.ac.uk/>

³<http://moodle.org/>

www.open.ac.uk/cetl-workspace/cetlcontent/documents/49e85cfa5d4ea.pdf and www.caaconference.co.uk/pastConferences/2008/proceedings/Butcher_P_final_formatted_n1.pdf.

It should be emphasised that I see systems like this as useful for the students' education too. Indeed a system I liked (but which contains an over-priced commercial component) has as part of it a free open-source component called ALICE (assisted learning in a computer environment). The instant feedback and multiple attempts it allows work well to help students learn. At large universities there are lots of options other than STACK/Moodle and here in Perth, at UWA and at Curtin, we are using other computer-aided assessment systems. Thus I have no actual experience with using STACK with classes. I know STACK's author. However, STACK/Moodle works (and is free and open-source).

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