

In order to prepare mathematics teachers for the greater statistical emphasis in the new mathematics curriculum, statistical training for teachers would clearly be useful. It is the type of training that needs discussion. In this submission I am suggesting that online training will be most practical and that applied rather than theoretical statistics would be most beneficial for many teachers. Such a program does exist in Australia and it could be tailored to the needs of teachers throughout Australia.

The Swinburne University of Technology has recently won an Australian Learning and Teaching Council Citation for the transition of their postgraduate Applied Statistics program from largely on-campus delivery to largely online delivery. This program could provide useful training for teachers who do not have the skills required to teach the statistics to be included in the new mathematics curriculum.

Ours is a nested program consisting of a Graduate Certificate (4 units), Graduate Diploma (8 units including the Graduate Certificate units), and a Masters (12 units including the Graduate Diploma units). However, it would also be possible for teachers to enrol in a single unit such as HMS770: Statistical Practice 1. Our flexible delivery make this program appropriate for teachers located anywhere in Australia, even off-shore.

The structure of the Applied Statistics courses develops competencies in areas ranging from practical and basic statistical knowledge in the Graduate Certificate to the development of higher level statistical and research skills in the Masters program. Industry relevance is Swinburne's number one priority, and this suite of statistical training is in line with this priority. Since 1989 our postgraduate courses and short courses have addressed the needs of business people, social scientists and others, working in environments where the ability to analyse data and turn it into meaningful information is crucial. It is expected that this very applied view of statistics will appeal to school students and their teachers.

A non-mathematical and case study approach is used for teaching students how to analyse data so that they become equipped with real world experiences and skills. This is a big advantage for teachers who have little prior experience with statistics. They will also learn how to correctly communicate their statistical discoveries in a contextual situation.