

Session B1

Teaching and Content of University Courses in Probability and Statistics

- Organiser:* Ken Sharpe (Melbourne, Australia)
- Invited Speakers:* Roger Mead and John Whitehead (Reading, England)
Ken Sharpe (Melbourne, Australia)
John Taffe (Melbourne, Australia)
Yan Shi-Jian (Beijing, China)
- Contributed Papers:* Ruth Hubbard (Brisbane, Australia)
Robin Lock (Canton, New York, USA)
Helen MacGillivray (Brisbane, Australia)
Peter Martin (Ballarat, Australia)
J H Oosthuizen (Bloemfontein, South Africa)
Garry Tee (Auckland, New Zealand)
Joe Ward Jr, Stanley Polk and William Alley
(Texas, USA)
Larry Weldon and P Tham (Burnaby, Canada)
Leigh Wood, Peter Petocz and Sue Gordon
(Sydney, Australia)
- Abstracts and Short Presentations:* M Akram (Isa Town, Bahrain)
Tim Brown (Perth, Australia)
Henry Eastment (Toowoomba, Australia)
Ann Eyland (Sydney, Australia)
Rex Galbraith (London, England)
Michael Glencross (Transkei, South Africa)
Jan Gustavsson and Per Nasman (Stockholm, Sweden)
Masayasu Murakami and Masakatsu Murakami
(Tokyo, Japan)
Peter Nuesch (Lausanne, Switzerland)
David Ospina (Colombia, South America)
Rosemary Roberts (Brunswick, Maine, USA)
Giichiro Suzuki (Tokyo, Japan)
Kathleen Trustrum (Brighton, England)
Jeffrey Witmer (Oberlin, Ohio, USA)
Karen Wong and Debra Taylor (Wellington, New Zealand)

Introduction

Contributions to Session B1 covered a wide range of topics including, as it did, papers on "mainstream" tertiary courses, i.e. courses for students intending to major in statistics, as well as papers on other tertiary courses that did not fit naturally into any of the other Stream B sessions. In order to group together papers on related topics, papers have been allocated to several categories. The first group (Mead and Whitehead, Ward et al.) deals with the teaching of specific topics. The second group (Taffe, Hubbard, Martin, Oosthuizen) deals with more general teaching methods. Then comes a group (MacGillivray, Wood et al.; also the short presentations by Eastment and Witmer) which is concerned with programmes for introductory and service courses. The fourth group (Sharpe, Yan, Lock, Weldon and Tham; also the short presentations by Ospina, Murakami and Murakami) is concerned with mainstream courses, seen from different national and other perspectives. The final paper by Tee, as well as the short presentation by Ospina, was originally contributed to a session on the History of Teaching Statistics, of which they are the only remnants; they are included here for convenience.

The main impression I gained from the papers presented in B1 was that the trend towards making statistics courses more applied and more practical, which was in evidence at ICOTS 1 and 2, is gaining momentum as more people try new ways to make their courses more relevant, more interesting, and more effective. As I see it, one of the main reasons for the current high level of interest and activity in the area of the teaching and content of statistics courses is the developments in computing. These developments have had a dramatic and profound affect on the practice of statistics so that we have been forced to reconsider what and how we teach. It has also provided us with an opportunity to recognise and to admit that many courses in statistics, taught using traditional methods, have failed to achieve either the motivation for or the level of understanding of our discipline that we would like.

In the past, most, if not all, developments in the teaching of statistics at tertiary level have resulted from individuals, or colleagues within the one institution, trying new approaches with their own classes and/or writing textbooks. Much good and creative work continues to be done at this level, in addition to which there are now a number of larger projects that have been started with the aim of improving the overall teaching and content of statistics courses at a regional or national level - see, for example, the papers by Lock, Ospina, Witmer and Yan. It will be of considerable interest to see what comes out of these projects and to see how much change, in the teaching and content of tertiary statistics courses, actually takes place between now and the next ICOTS Conference in 1994.