

## Abstract

### **An Investigation of the Knowledge of Proportion and Probability that Students Bring to University with them**

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A questionnaire was designed to study what first year university students already know about proportion and probability. Many questions were based on those previously used by others.

The questionnaire was piloted at Brunel University, UK, in October 1989 with students newly enrolled on mathematics or statistics degree courses. An amended version was administered to some 60 students enrolled in a service course in statistics at the University of Waikato, NZ, at the beginning of the 1990 academic year.

The mathematical background of the New Zealand students varied from below the median in Form 5 (age 15-16) to slightly above the median in Form 7 (age 17-18). After answering each question the respondents were asked to give the reason for their reply. Analysis paid particular attention to the reasons given when questions were wrongly answered.

The questionnaire used, together with tabulations of the students' answers and of the reasons given for those answers, are presented in a poster-paper.