A longitudinal study of students undertaking a mathematics major: Changes in attitudes, learning behaviours and achievement

SUSAN WORSLEY
University of Queensland, Australia

Keywords: Mathematics education; higher education; attitudes; learning behaviours; achievement; longitudinal study

How do a student’s attitudes, learning behaviours and achievement in mathematics or statistics inter-relate with each other and how do these change during the course of their undergraduate degree program? In this talk I report on a longitudinal study of students through the three years of a mathematics degree. The two questions I investigated were “What are students’ attitudes and learning behaviours towards mathematics and to what extent do these attitudes and learning behaviours change as students’ progress in mathematics?” and “Are these attitudes and learning behaviours related to achievement?” Students were surveyed after each semester on a maximum of two mathematics or statistics courses they had taken. Responses from a small group of 21 students who had completed both first and third level course surveys are discussed in this talk as are the attitudes and learning behaviours that have changed over this period.