ZMATH 2016c.00810
Wade, Carol; Sonnert, Gerhard; Sadler, Philip; Hazari, Zahra; Watson, Charity
A comparison of mathematics teachers’ and professors’ views on secondary preparation for tertiary calculus.

Summary: This article compares the views of teachers and professors about the transition from secondary mathematics to tertiary calculus. Quantitative analysis revealed five categories where teachers and professors differed significantly in the relative frequency of addressing them. Using the rite of passage theory, the separation and incorporation phases were investigated by carrying out thematic analyses on these five categories. For the professors, the analysis revealed specific content within algebra and precalculus that they viewed as vital preparation for students’ tertiary calculus success. For the teachers, the analysis highlighted the classroom environment realities of teaching in the separation phase. The rite of passage and professional turf theories are used to discuss and interpret the findings.

Classification: I14 I15 C29
Keywords: secondary-tertiary transition; university teaching; calculus; teacher attitudes; teachers’ and professors’ views of preparation; research; algebra; precalculus; classroom environment; real world problems; textbooks; secondary precalculus; secondary calculus; tertiary calculus; achievement; prognoses