Unpacking Mathematics Anxiety in Year 9 Students

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Abstract

This thesis explored the extent of mathematics anxiety in Year 9 students in a rural/provincial region of New Zealand. The study's aim was to examine how students' individual and school variables (such as gender, ethnicity, school decile, school gender type and school type) related to their levels of mathematics anxiety. This mixed methods sequential explanatory design utilised two phases: First, a survey was completed by 434 Year 9 students to identify their levels of mathematics anxiety (in terms of mathematics learning anxiety and mathematics test anxiety). Second, focus group interviews were conducted with the most highly-mathematically-anxious students to examine their experiences with mathematics anxiety. The results showed that 21.4% of students, particularly girls, reported high levels of mathematics anxiety. Social categories for which mathematics anxiety was most prevalent was, in general, consistent with the "priority learners" identified by the New Zealand Education Review Office—Māori and Pāsifika students and those from low socioeconomic backgrounds. The four main themes that emerged from the interviews were: the importance of teacher quality; the detrimental effect of high-frequency, high-stakes assessment; the impact of social comparison; and the big jump when starting secondary school. Reasons accounting for these results, and implications for teaching and learning, are discussed.

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