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Acceleration in Mathematics: Students' Perspectives.

A thesis presented in partial fulfilment of the requirements for the degree of Masters of Educational Studies (Mathematics) at Massey University

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Abstract

This study examines accelerate programmes in mathematics within New Zealand secondary schools from the participant students point of view. Focus group interviews and questionnaires were used to gather information from students about their acceleration experiences in four state secondary schools.

An analysis of the data gathered reveals that for many students, the opportunity to study one or more Bursary subjects earlier than their age cohort is seen as a motivational factor for participation in acceleration programmes. This opportunity allows them to either broaden their subject base at the Bursary level, or to repeat a subject and try and improve on their marks, perhaps securing a Scholarship. Not all students have long-term goals, however and many students appreciate the immediate challenge of working one year ahead of their normal age cohort.

Contrary to fears identified by educational practitioners, this research does not support the commonly held belief that students who are accelerated will suffer from undue stress that may hinder their social and emotional development. Participants perceive that inclusion in the acceleration programme has not affected their friendship base and they report being comfortable being in classes with older students. Students perceive that they have a normal adolescent social and emotional development.

Coupled with these findings is the fact that, almost without exception, participants felt that participation in an acceleration programme had been beneficial to their learning needs. No significant problems with compacting the curriculum or gaps in knowledge were identified by the majority of students in the research sample.

Overall, this study demonstrates students’ endorsement of acceleration programmes. Acceleration is perceived as a viable and valuable tool for meeting the educational needs of gifted and talented students within New Zealand secondary schools. It should be remembered, however, that acceleration is not the only tool available and schools are urged to develop individual, cohesive and flexible programmes to meet the needs of this very varied group.
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