Evaluating a Mathematics Course for Adults Transitioning to Tertiary Studies

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A year-long pre-degree program is offered at the University of Auckland to about 100 students each year from 'disadvantaged' backgrounds. This program was established to attract and help students returning to study, particularly Maori and Pacific Island students. The program aims to prepare students to enter tertiary institutions for further study.

It was challenging for even the very experienced teachers of this class to provide an effective mathematics course. Students often have personal and financial challenges to deal with. Students come with a range of mathematics background knowledge but the curriculum is the same for all students. Mathematics is a compulsory part of the program. A carefully structured and paced re-introduction to mathematics was planned.

When I decided to investigate the effectiveness of this mathematics course, I had to decide what data would be most revealing. I gathered information from students about their beliefs about mathematics and beliefs about their ability to learn mathematics. I developed a questionnaire, conducted interviews and used a projective technique. Examining the relationship between these beliefs and achievement was very illuminating, indicating that this data provided a useful evaluation of the course. It allowed me to conclude that for about 80% of this class, the teaching approach worked. Given the constraints of time and a fixed curriculum, this teaching approach was successful.