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**Does students' confidence in their ability in mathematics matter?**

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Summary: Research was conducted into first year engineering students' learning of mathematics in a university college during 2005–2007. The aims were to understand better students' confidences and explore which factors affected performance and how these were inter-related. Questionnaires were administered which posed questions regarding previous mathematics qualifications, student confidences, attitude, liking of the subject and motivation. The responses were analysed and compared with marks achieved by the students in their first year engineering mathematics examinations. The majority of students were fairly confident, reported improved confidence acquired during their first year of university study and had positive attitudes. Better mathematically qualified students were generally more confident and successful in mathematics. A regression model was produced which predicted a 12% increase in mathematics marks per increase in GCSE mathematics grade, and 5% increase in marks for each increase in confidence level. Thus, better qualifications (and the skills represented) were shown to be associated with better university marks and student confidence also produced a notable association with the marks achieved. The findings suggest that having attended to the mathematics syllabi, lecturers could seek to boost student confidence in their ability in mathematics as a further means to improve student performance at university.

*Classification:* C75 C25

*Keywords:* student characteristics; self concept; teaching-learning processes

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