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Measuring students' persistence on unfamiliar mathematical tasks.

Joubert, M. (ed.), Proceedings of the British Society for Research into Learning Mathematics (BSRLM). Vol. 30, No. 3. Proceedings of the day conference, Newcastle University, UK, November 13, 2010. London: British Society for Research into Learning Mathematics (BSRLM). 19-24 (2010).

Summary: 182 students responded to a number of Likert-scale items regarding their persistence on mathematical tasks. Rasch analysis was then used to construct a measure of persistence from their responses and to assign persistence scores to each student. The same students, all of whom were enrolled in the first year of a third-level programme, also completed a 30-minute test involving mathematics items from PISA. The latter, although commensurate with the students' level of mathematical education, represented largely unfamiliar tasks to the students and required the transfer of previously learned mathematical knowledge and skills to a new context. The students' performance on these items was used to construct a second measure of persistence. Initial findings indicate that although the correlation between the self-reporting measure and the evidence provided by the PISA-type test is statistically significant, there are some inconsistencies between the self-reported data and observed behaviour.

Classification: C73 C74 D63 D64

Keywords: persistence; unfamiliar tasks; self-reporting measures; beliefs; self concept