

ZMATH 2015d.00115

Norton, Stephen; Zhang, Qingiong

Chinese students' engagement with mathematics learning.

Int. J. Math. Teach. Learn. 2013, 24 p., electronic only (2013).

Summary: Over the past decade it has been frequently reported that East Asian students are outperforming their Western counterparts in international tests of mathematics at middle-school level. This paper probes classroom discourse in an attempt to shed some light on this phenomenon. Data were collected from a sample of Chinese Year 8 students in a normal school in the city of Wenzhou China in 2012. The data focused on the students' academic engagement in the study of mathematics, both at school and outside school. Data were collected via surveys, student sketches, open-ended written comments, classroom observations and commentary by teachers. The data were interpreted through a theoretical lens described by Basil Bernstein and extended in empirical work in Australia by Parlo Singh. It was found that pedagogic discourse in these Chinese classrooms was strongly shaped by consensual and differentiating rituals that buttressed a broader cultural respect for valuing esoteric forms of mathematics. In the main, the students in this study were highly engaged and satisfied studying abstract mathematics in teacher-centred classrooms. The findings have implications in regard to the assumptions underpinning much of current Western curricular thinking about engaging middleschool students in the study of mathematics.

Classification: C23 C63 C73 D43

Keywords: learner engagement; teacher attitudes; Asian culture; middle school students; homework; cultural influences; student motivation; learning processes; curriculum design; classroom environment; student attitudes; mathematical discourse

<http://www.cimt.plymouth.ac.uk/journal/norton2.pdf>