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Approaches to learning mathematics.

Hyde, Rosalyn (ed.) et al., Mentoring mathematics teachers. Supporting and inspiring pre-service and newly qualified teachers. London: Routledge (ISBN 978-0-415-81990-9/pbk; 978-0-415-81989-3/hbk; 978-1-315-88627-5/ebook). 42-58 (2014).

Summary: The way teachers teach mathematics depends strongly on their own personal view of what mathematics is and how it is learnt. Exploring different views of the nature of mathematics, what mathematics is, and what it means to learn and teach mathematics is very important for pre-service teachers. We discuss the importance of understanding the ‘big picture’ and ‘big ideas’ in mathematics before taking the viewpoint of mathematics as the ‘science of patterns’. We also show that *E. C. Wittmann’s* [Educ. Stud. Math. 29, No. 4, 355–374 (1995; ME 1996f.03582)] idea of a ‘substantial learning environment’ is useful for developing rich tasks for learners of mathematics.

Classification: B50 C29 D49 D59

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