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The mathematics of symmetry and attitudes towards mathematics.

Dewar, Jacqueline M. (ed.) et al., Doing the scholarship of teaching and learning in mathematics. Washington, DC: The Mathematical Association of America (MAA) (ISBN 978-0-88385-193-7/pbk; 978-1-61444-318-6/ebook). MAA Notes 83, 157-169 (2015).

Summary: In this chapter the author describes a study of student learning in a mathematics for liberal arts course offered as an alternative to the typical quantitative skills course. His approach to getting baseline data for his study was to teach the traditional quantitative skills course first. As a result of pursuing a SoTL investigation over several semesters, he encountered a number of issues with the use of surveys. Awareness of the lessons learned by the author will be useful to those beginning in SoTL. The author presents a different perspective on the personal and professional impact of SoTL. For him, SoTL will not be a path to publication, but will serve as a form of professional development that enables him to revise and improve his courses.

Classification: D20 C25

Keywords: scholarship of teaching and learning; universities; educational research; long-term study; symmetry; student attitudes; beliefs; self concept; didactics of mathematics; educational diagnosis; analysis of learning outcomes; teaching-learning processes; academic approach; professional development; peer review