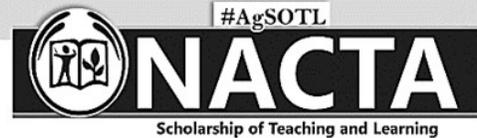


Book Reviews



The Scholarship of Teaching and Learning; A Guide for Scientists, Engineers and Mathematicians

Jacqueline M. Dewar, Curtis D. Bennett and Matthew A. Fisher. 2018. Oxford University Press, New York. (208 pp)

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An age-old debate and a timely matter of importance, SoTL, the science of teaching and learning, offers educators the opportunity to improve practice for student understanding in their field. All too familiar to educators is perhaps a desire for instructional improvements to attempt an increase in students' knowledge in the disciplines. Knowing how to go about creating a study that demonstrates these improvements in a classroom is less familiar to many. Dewar, Bennet, and Fisher (2018) offer an exceptional handbook on how instructors can improve by applying steps for creating SoTL and DBER studies, discipline based educational research, within their classrooms and institutions. This book targets professionals in the sciences, engineering, and mathematics fields offering advice for how to develop SoTL and DBER studies that will enhance and develop the knowledge for student learning and improved pedagogical practices.

With the recent initiatives and attention for improvement in STEM education by the National Academy of Sciences, National Science Foundation, and the National Research Council, Dewar, Bennett and Fisher address SoTL/ DBER's background, the importance for this style of research, and design strategies for implementing SoTL/ DBER at an institution. Though targeted to STEM professionals, beginners and K-12 faculty should discover and use this book to support and improve efforts in DBER/ SoTL research. This text is packed with particularly helpful information for beginners to novices in SoTL/ DBER from developing a researchable question, designing tools and methods of gathering evidence for triangulation, statistical analysis, and presentation of information. This book also gathers from research the debate on practices and discusses both the benefits and potential problems that exist with some forms of evidence. It was a breath of fresh air to read a condensed guide on SoTL/ DBER that formulated an argument for gathering evidence and is thought provoking for the development of a SoTL/ DBER study.

If you haven't thought about incorporating SoTL/ DBER into your research repertoire, you will after reading this book. Utilization of this text will assist faculty in considering the practical and ethical implications of SoTL/ DBER in improving a courses structure for learners, and how faculty can fit SoTL/DBER into their research for publication. Through the utilization of the four appendices that provide information on Carnegie CASTL Scholars, participants in Carnegie Scholarly and Professional Societies and Programs as well as, focus group protocol and an inclusive list of instruments, taxonomies and models for the STEM fields, even a faculty member who has experience in SoTL/DBER can benefit from the current debate and information on improving SoTL/DBER in STEM. I would recommend this scholarly text to all STEM faculty looking to pursue the desire to improve their classroom practices for student learning through SoTL/DBER research.

Submitted by –
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