

SCHOLARLY ACTIVITIES OF K-12 MATHEMATICS EDUCATORS

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OVERVIEW

In schools, teachers' work has traditionally taken place behind classroom doors and scholarly activity has been allocated to academic researchers in post-secondary institutions. However, the work of teachers has become more public as reflective inquiry is emerging as an expectation of teachers' professional practice. A current shift in professional development initiatives is to recognize, enhance, and share teachers' knowledge of their professional practice.

Teacher study groups, professional learning communities, and action research projects are just a few sites where teachers increasingly have opportunities to engage in critical discussion and inquiry into teaching and learning. In post-secondary institutions similar activities are often considered 'scholarly' according to the Scholarship of Teaching and Learning (SoTL) literature.

The SoTL literature focuses on post-secondary institutions and points to three forms of scholarly activity: (1) engagement with the literature on teaching and learning to improve practice, (2) critical inquiry into and reflection on practice, and (3) communication of results to contribute to the scholarship of teaching and learning.

Although the work of elementary and secondary school teachers is only occasionally referred to as scholarly, we see similarities in the scholarly activities identified in the SoTL literature and the emphasis on inquiry within the public school system. We are interested in the forms of scholarly activities that educators in school mathematics engage in, how the activities are similar to or different from activities identified in SoTL literature, and which activities school educators point to as having value to them as professionals.



WHAT IS THE RESEARCH ABOUT?

In this study we investigate the range of scholarly activities that school mathematics educators engage in and the perceived impact of these activities on their professional practice.

Sixty K-12 mathematics educators completed an online survey and 14 self-selected participants agreed to semi-structured follow-up interviews to expand upon survey responses. We gathered demographic information and data on the teachers' participation in the three scholarly activities of reading, inquiring, and disseminating. Descriptive statistics were used to analyze survey responses. A thematic analysis of the interview data was used to identify key assertions in relation to the participants' scholarly activities and the impact of these activities on their professional practice in mathematics teaching and learning.

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Recursive Elaboration through networks: Ideas coming out of decentralized locations and being taken up further

IMPORTANCE

The study provides insight into the scholarly activities of teachers based on the SoTL literature that at present focuses almost exclusively on teaching and learning in higher education. The insights gained from this study suggest that there are many similarities in the types of activities that school and post-secondary educators engage in; yet, the present study highlights some key differences as well. This study provides a starting place to investigate the place of scholarly activities in mathematics teaching and learning in school settings.

FINDINGS

The teachers engaged in all three forms of scholarly activities; however, unlike much of the SoTL literature, the teachers' activities did not follow a reading-inquiry-dissemination cycle to address a pre-specified issue. Instead, their selection of literature was often upon recommendation from colleagues and was discussed and critiqued collaboratively with the broad goal of challenging taken-for-granted notions of what it means to teach and learn. The teachers in this study perceived the impact of these activities on their professional practice as significant but only when these activities were integrated and occurred in collaboration with others. Knowledge was not necessarily owned by any one individual, but shared, taken up and modified within local contexts.

McGarvey, L. (2010). Scholarly teaching. *Teaching Children Mathematics*, 17(1), 4-7

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