Montana Math Teachers’ Circle

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Recommended Citation
Peck, Fredercik, "Montana Math Teachers' Circle" (2018). University Grant Program Reports. 45.
https://scholarworks.umt.edu/ugp-reports/45
During the grant period the project team collected data from 12 field sites across the state, analyzed portions of the data, presented two papers at scientific meetings, submitted a paper to a scientific journal, and submitted a research proposal to the NSF.

**Data collection**

The research team traveled to eight field sites in Montana to collect data during gatherings of the Montana Math Teachers’ Circle (MTC): Billings (three times), Butte (twice), Great Falls (twice), Havre (four times) Helena (six times, including a 3-day training academy and two 3-day summer retreats), Polson (four times), Miles City (once) and Missoula (nine times).

Across all sites, there were over 250 participants: approximately 80% were practicing teachers (20% elementary, 30% middle school, 30% high school), approximately 10% were post-secondary mathematics faculty, and approximately 10% were pre-service teachers (these percentages are approximate because there are some participants for whom we do not have demographic data).

For each of gatherings, we have video and audio recordings of 2-6 problem-solving groups.

In addition, the team recruited six focal teachers in four locations to study the connection between a teacher’s participation in MTCs and her classroom practices. We collected multiple “teaching sets” from the focal teachers. Teaching sets consist of a video-taped lesson, along with pre- and post-interviews.

**Data analysis**

Our initial analysis has focused on the ways that participants negotiated aspects of community formation. In particular, we have focused on the *joint enterprise* of the community, as it is enacted by participants. This has led us to consider the ways in which participants negotiate the *essential tension in teacher communities*: the tension between focusing on pedagogical practice on the one hand, and engaging in subject-matter disciplinary practices on the other (Grossman, Wineburg, & Woolworth, 2001). We have also examined the nature of the mathematical activity enacted at gatherings. Two graduate students participated in the data analysis.

**Papers and proposals submitted**

We presented two papers at scientific meetings and submitted a manuscript to a scientific journal. Both papers include student authors. We submitted a proposal to NSF, which was declined.

**Papers and presentations at scientific meetings**


Journal manuscripts
Submitted manuscript in review

Manuscript in preparation

Proposal submitted to NSF
We re-submitted a research proposal to the National Science Foundation’s, Education and Human Resources (EHR) directorate, in the “EHR Core Research” program. This proposal was declined in February, 2018.