



## Center for Research in Mathematics and Science Education

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### CRMSE Colloquium Announcement

## Tamara Holmlund Nelson, Ph.D.

Associate Professor, Science Education  
Washington State University Vancouver

### Three Dimensions of Collaborative Inquiry: Examining Teachers' Use of Data to Improve Science Teaching & Learning

Friday, October 16, 2009

1:00 – 2:00 pm

6475 Alvarado Road, Suite 128

**RSVP:** Karen Foehl, [kfoehl@sciences.sdsu.edu](mailto:kfoehl@sciences.sdsu.edu), <http://crmse.sdsu.edu>

Abstract: Our five-year research project focuses on a professional development project that employed a professional learning community (PLC) framework for engaging teachers in collaborative inquiry. Given the increased emphasis for data-driven decision making in school districts, we've become especially interested in the ways these teachers conceptualized "data" and how they subsequently used classroom-based and other data to understand and improve T&L. In this presentation, I discuss a theoretical framework we developed and used to analyze three dimensions of teachers' interactions within a PLC: their dialogic interactions as they moved through an inquiry cycle; their emergent stance toward the nature and value of student data; and, the degree of simplicity and complexity manifested in their data selection, collection, and analysis. Findings from two PLCs will be examined: 1) a high school science PLC looking at improving students' scientific conclusion writing and 2) a cross-grade, cross-discipline PLC trying to improve students' use of scientific and mathematical vocabulary.