Post-Doctoral Research Associate in Mathematics Education

Description
The Program in Mathematics Education (PRIME) at Michigan State University is seeking a Postdoctoral Research Associate. This position will provide a qualified candidate with the opportunity to play a major role in a four year NSF-funded collaborative research project entitled, *Collaborative Research: Enhancing Middle Grades Students: Capacity to Develop and Communicate Their Mathematical Understanding of Big Ideas Using Digital Inscriptional Resources*. The initial appointment is for one year, but the position is renewable on an annual basis through June 1, 2020, based on satisfactory performance and the availability of resources.

A major goal of project is to help students deepen and make visible their understanding of mathematics. Using *Connected Mathematics* curriculum materials, we propose to support students to collaboratively construct, manipulate, and interpret shared representations of mathematics using digital inscriptional resources. To this end, the research activities will significantly enhance our understanding of student learning in mathematics in three important ways. We will report on how (1) evidence of student thinking is made visible through the use of digital inscriptional resources, (2) student inscriptions are registered, talked about, and manipulated in collaborative settings, and (3) students' conceptual growth of big mathematical ideas grows over time.

The postdoctoral research associate will work with the project team of educational researchers from Michigan State University (Elizabeth Phillips, Alden Edson, Kristen Bieda, and Joseph Krajcik) in collaboration with Concord Consortium to develop and test a set of digital resources for middle school mathematics classrooms. The postdoctoral research associate will also work on research questions related to the features of the digital learning environment that help students to produce and refine inscriptions of their learning as they explore mathematics problems; how the construction, manipulation, and interpretation of inscriptions change over time; and how the use of inscriptions in digital learning environments compare to conventional learning environments.

Qualifications
The successful applicant will have a doctoral degree in mathematics education or a related field. A background in mathematics education, design research, mathematics curriculum, and/or learning progressions is preferred. Applicants should have demonstrated interest in design research and the ability to work collaboratively with researchers and practitioners.

Contact: Applicants should forward electronically a cover letter, an updated CV, and the names and contact information for three references who can speak to the above qualifications to Elizabeth Lozen, cmp.postdoc@campusad.msu.edu. (517-432-3635)

Application review will begin immediately and will continue until the position is filled.