

**CEMELA MATHEMATICS
CLASSROOM OBSERVATION
PROTOCOL (PILOT):
A FOCUS ON LANGUAGE**

OVERVIEW

The CEMELA Mathematics Classroom Observation Protocol (CMCOP) project at UA has focused on adding a language component to the Classroom Observation Protocol developed at the University of Wisconsin. The Academic and Linguistic Support component was informed by research done by CEMELA Principal Investigators. UA is currently pilot-testing the revised protocol in elementary and middle school classrooms in Tucson.

RESEARCH QUESTIONS

- (1) What are the correlations between the inclusion of linguistic support for English Language Learners (ELLs) and their depth of knowledge, understanding of mathematics, mathematical analysis, mathematical discourse and communication, and student engagement?
- (2) What differences are evident between the nature of middle school classroom environments and elementary classroom environments with high population of Latino/a students?

UNDERLYING OBJECTIVES

- Shared experience for UA fellows and staff
- Cross-site collaboration and research
- Potential for quantitative analysis in conjunction with qualitative studies

RESEARCH CONTEXT

- Tucson, Arizona
- 2 urban school districts
 - 7 Elementary School Teachers in 2 Elementary Schools
 - 9 Middle School Teachers in 6 Middle Schools
- Teacher's affiliation with CEMELA
 - Teacher Study Group
 - CEMELA Masters cohort
- Observations conducted by UA fellows and staff

METHODOLOGY: RUBRIC DEVELOPMENT

- Addition of language component to existing Mathematics Classroom Observation Protocol
 - Academic and Linguistic Scaffolding and Support for Bilingual and English Language Learners
- Rubric training and trials using classroom video footage
- Modification of language component to address usability issues
 - Partitioned into four sub-components and refined rubric for each

METHODOLOGY: DATA COLLECTION

- Classroom Observation Field Notes and Ratings
 - Classroom observations in teams of three representing various research groups and Spanish-fluency
- Individual and group ratings
 - Teams debriefed after each classroom observation and developed a team rating for each component

CURRENT STATUS

- Completed 9 classroom observations and ratings
 - 4 Elementary classrooms
 - 5 Middle School classrooms
- December 2007: Proposed revision to language component
 - Sub-component D: Students use of resources for communication

CHALLENGES AND QUESTIONS

- Preliminary Challenges:
 - Consistency of topics across rubric scores
 - Coordination of schedules
 - Presence of research team in classroom
 - Description vs. evaluation
 - Classroom environment vs. teacher
- Questions:
 - Potential for cross-site collaboration (Transnational)?
 - Does this qualify as a quantitative study?
- **YOUR TURN:** Any questions or suggestions?

