Validating the Equity and Access Rubrics for Mathematics Instruction (VEAR-MI)

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The purpose of the VEAR-MI project is to extend previous validation work on the Equity and Access Rubrics for Mathematics Instruction (EAR-MI) to construct an interpretation/use argument (IUA; Kane, 2016) for this classroom observational instrument. Our systematic investigation includes the evaluation of: training materials and procedures, data collection protocols, scoring decisions, and appropriate interpretations of the scores generated by the EAR-MI.

Significance: The EAR-MI identifies, decomposes, and provides images of practices that support students who have been historically marginalized. Before the instrument is used widely, the work of this study will determine the criteria for its use by systematically evaluating the validity of the inferences and claims that can be drawn from the data. The project will also contribute empirical findings that directly connect practices theorized to be important for students with concrete outcomes.

### Study Design

**Phase 1: Initial Coder Training**
- Training Material Development: S2
- Coder Training: S1
- Cognitive Interviews

**Phase 2: Generalizability & Decision Studies**
- EAR-MI Coding of 60 videos**
- G2 Generalizability and Decision Studies
- S1 S3

**Phase 3: Coding Full Sample**
- EAR-MI Coding of Full Sample*
- IQA Coding of RCES Data
- M-Scan Coding of MIST Data

**Phase 4: Full Sample Analyses**
- Exploratory and Confirmatory Factor Analysis: S2
- Score Distributions
- HLM Analyses of Relations between Measures: E1

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**Full Sample**
- 72 elementary school (ES) teachers (Gr 3-5), 3 lessons per teacher, total of 216 lessons
- 59 middle school (MS) teachers (Gr 6-8), 2 lessons per teacher, total of 118 lessons

**Sub-Sample**
- 24 teachers, 4 teachers per grade
- 36 ES lessons, 24 MS lessons

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*This work is funded by the National Science Foundation under Award #908481. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the investigators and do not necessarily reflect the views of NSF. Correspondence concerning Project VEAR-MI should be addressed to PI, Jonee Wilson, at jwilson9@ncsu.edu.*