



FLIPPED MATHEMATICS INSTRUCTION OBSERVATION PROTOCOL



Wenmin Zhao, Jaepil Han, Jessica Kamuru, Zandra de Araujo, & Samuel Otten
University of Missouri

Introduction

- Flipped instruction is a model of instruction in which the lecture portion of a class is delivered electronically by video.
- Many variations of flipped implementations exist in mathematics, however extant classroom observation protocols do not adequately capture the nuances between these different variations.
- Our Flipped Mathematics Instruction Observation Protocol (FMIOP) draws upon existing frameworks and consists of two main lesson components: *in-class* and *at-home*.
- The *in-class* component captures two aspects of the lesson: instructional quality and interactivity.
- The protocol also distinguishes the whole-class and the non-whole-class activity formats.
- The *at-home* components are examined along three aspects: instructional quality, multimedia design, and interactivity.
- Looking ahead, due to rapid changes in technology, our observational tools must advance to account for key features of instructional videos, and their use in mathematics instruction.

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References

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Observation Protocol

Format	Whole-Class Discourse (WCD)	Group Work (GRP)	Individual Work (IND)	Non-Instructional Time (NIT)
Description	All students are expected to attend to public discourse.	Students are expected to work in groups.	Students work individually or in voluntary groupings (No clear expectation for them to work in groups).	Segments are devoted to non-instructional tasks generally.
Duration (mins.)	12	0	34	4

