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