

Assessing Learning During A Pandemic: The Problem With “Modality”

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BACKGROUND

As we surpass one year of the COVID-19 pandemic, many stakeholders seek to measure the effects of instructional modalities on student outcomes. The instructional environment may differentially affect student motivation and performance.

RESEARCH QUESTIONS

RQ1: In what primary modality were courses delivered according to the institution, instructors, and students?

RQ2: Did students' course performance and self-efficacy differ as a function of their instructional modality?

DESIGN

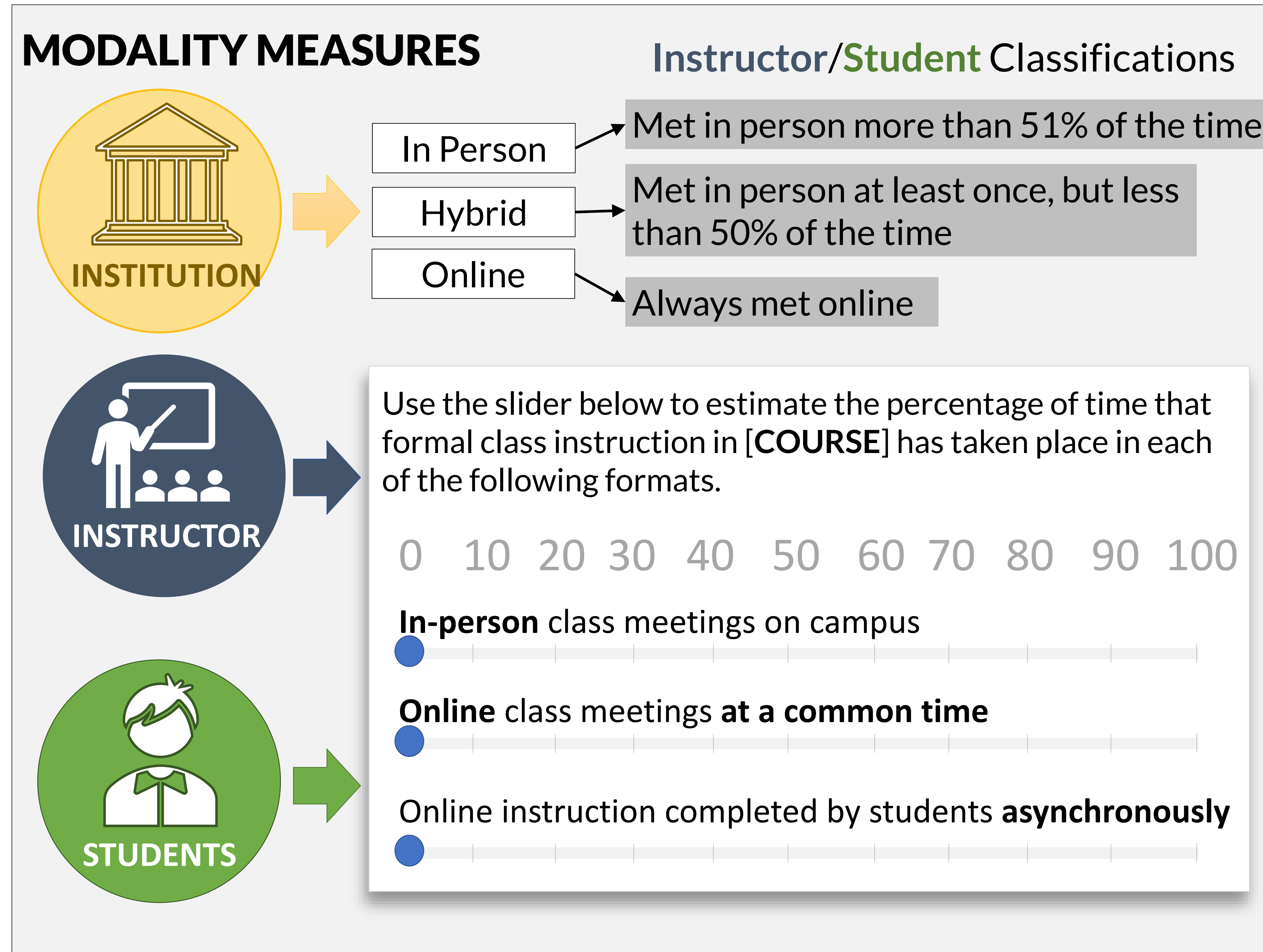
Teaching and Learning During COVID-19 Study (Fall 2020 surveys)

PARTICIPANTS

- U.S. public land-grant university
- 111 instructors
- 251 undergraduate course sections
- 7,020 undergraduate students

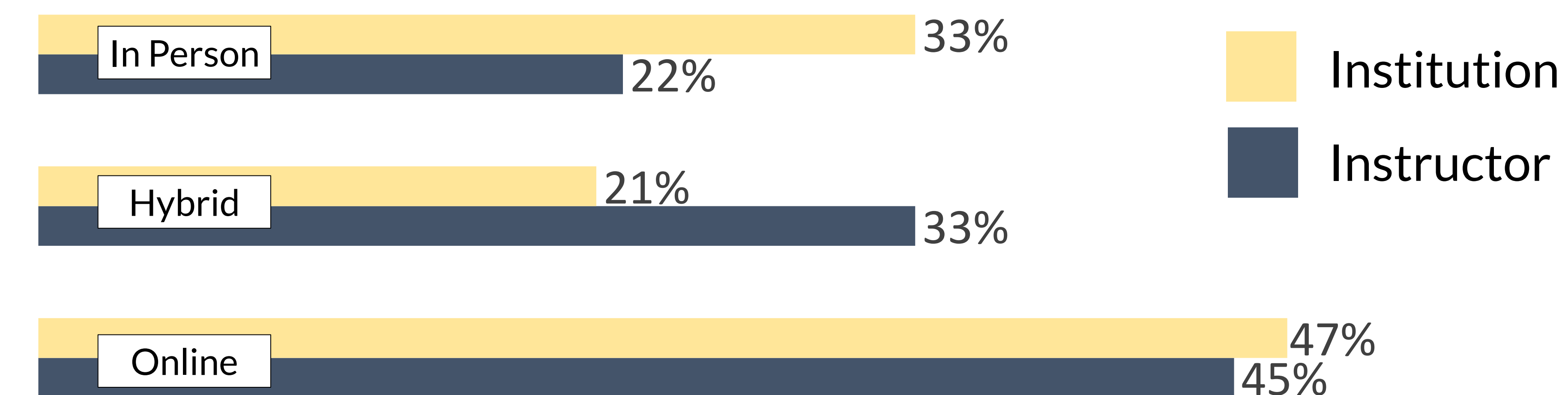
OUTCOME MEASURES

- Course grades: 0.0 (F) to 4.0 (A)
- Self-efficacy: 1 (low) to 6 (high)
 - Academic (3 items; $\alpha = .91$)
 - Self-regulation (5 items; $\alpha = .88$)



Result #1: Institutional-Reported ≠ Instructor-Reported Modality

Figure 1. Percentage of Courses Classified by Each Reporting Source

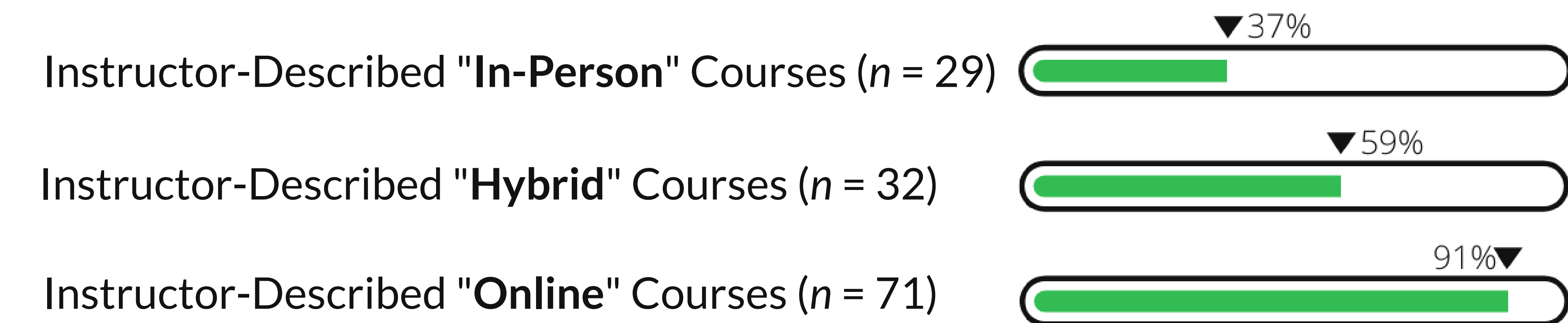


DISCUSSION

- Findings reveal that instructional modality varies according to who is reporting it—particularly during COVID-19.
- Measurement decisions can lead to different conclusions about the effects of instructional modality on motivation and learning outcomes.
- Institutional and educational researchers should exercise caution both in how they measure modality and how they interpret findings.

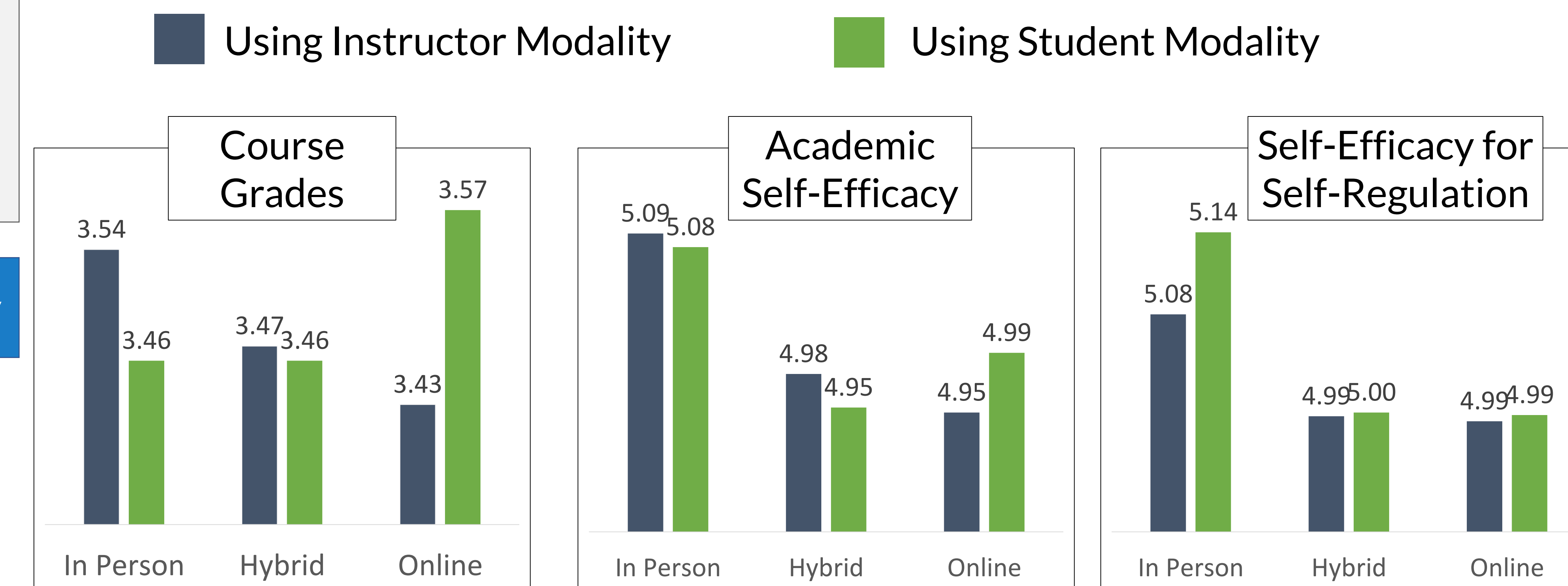
Result #2: Instructor-Reported ≠ Student-Reported Modality

Figure 2. What percentage of students agreed with how their instructors characterized their course's modality?



Result #3a: Outcomes Differed By How Modality Was Measured

Figure 3. Mean Outcome Levels By Instructor- vs. Student-Reported Modality



Result #3b: Descriptive results show that students' self-efficacy was highest in in-person courses. The effect of modality on course grades depends on how modality is measured.