

Impact of Flexible Classroom Spaces on Instructor Pedagogy and Student Behavior

Max Blackburn¹, Sarah Bork¹, Candace Wiwel², Aaron W. Johnson³, & Cynthia J. Finelli^{1,3}



¹Electrical Engineering and Computer Science, ²Naval Architecture & Marine Engineering, ³Engineering Education Research

Background

- **Studio classrooms:** Students sit in small groups at fixed tables instead of in front-facing rows [1-6]
- **Conflicting evidence:** Teaching lecture-based classes in studio classrooms...
 - Encourages instructors to adopt more student-centered pedagogy [7-11]
 - Has negative effects on student learning outcomes [10]
- **Flexible classroom:** Easily reconfigured between front-facing rows (like a typical lecture hall) and small groups (like a studio classroom)
 - Effects on faculty teaching and student learning have not been rigorously examined [6,11-13]

Flexible Classroom Spaces at U-M

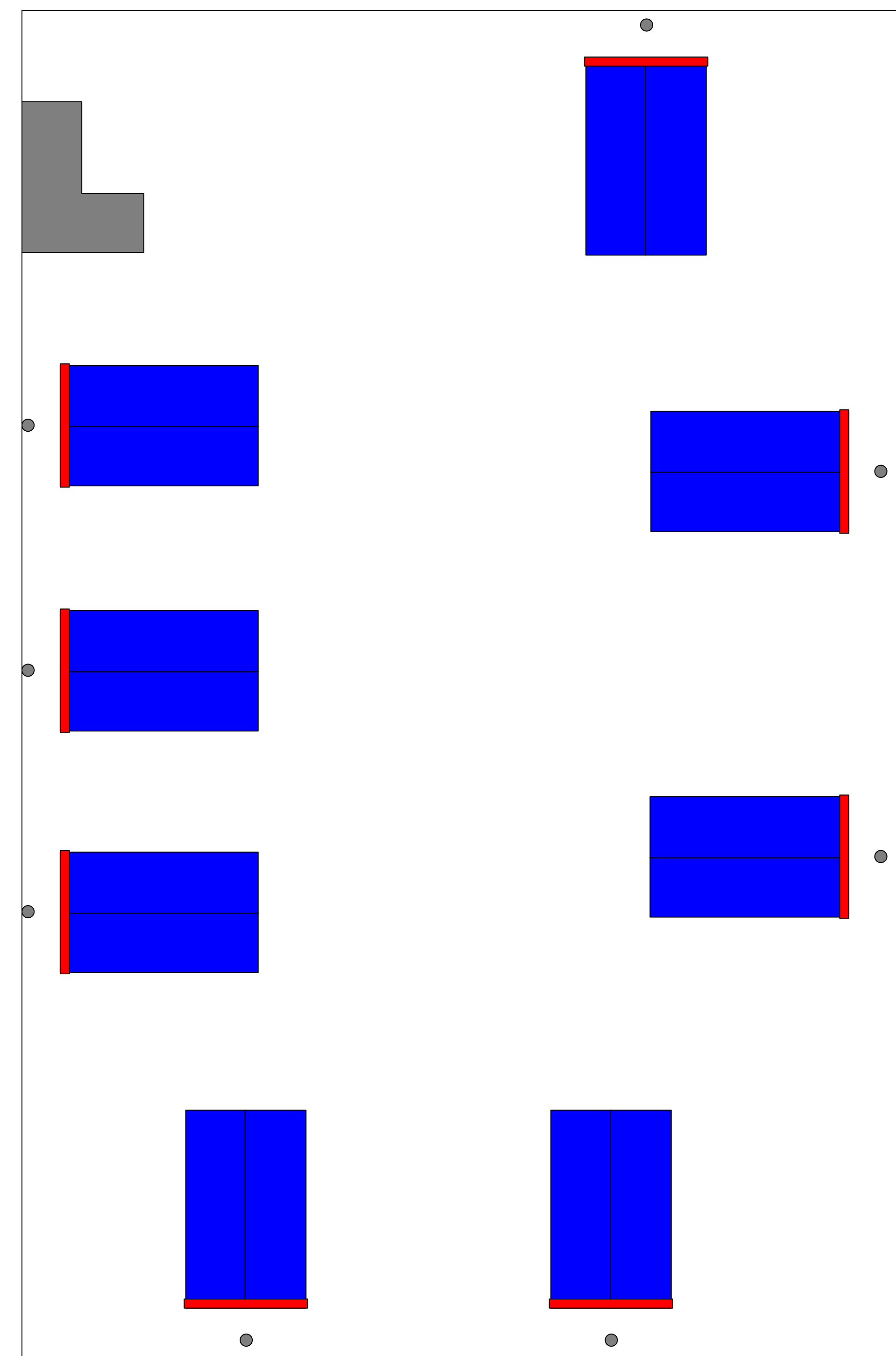
224 Gorguze Family Laboratory
48-student capacity



133 Chrysler Center
84-student capacity



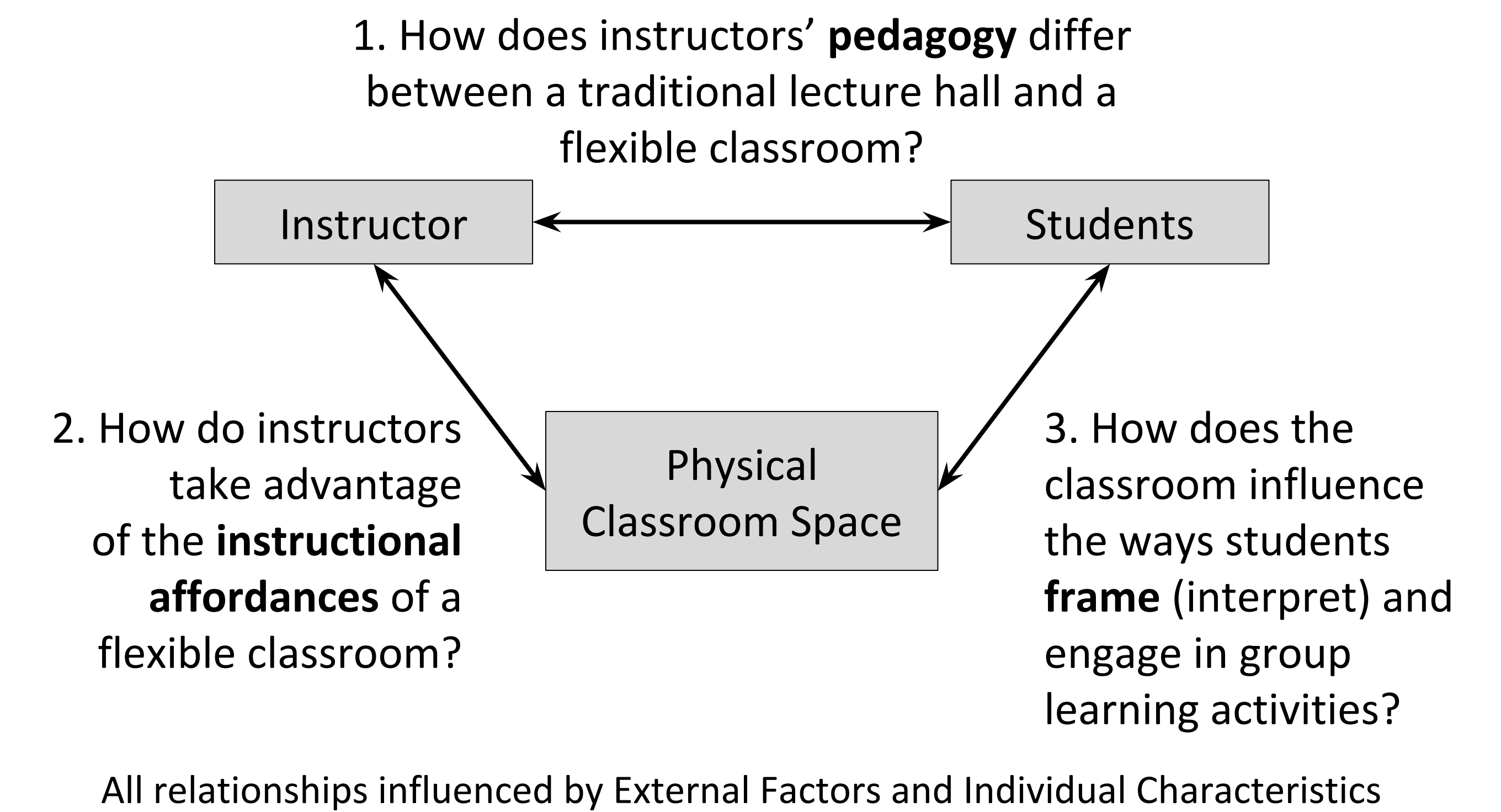
How would you arrange the tables in 224 GFL?



Read a story and watch a short video from Michigan News about our research in these classrooms



Conceptual Model and Research Questions



Student Survey

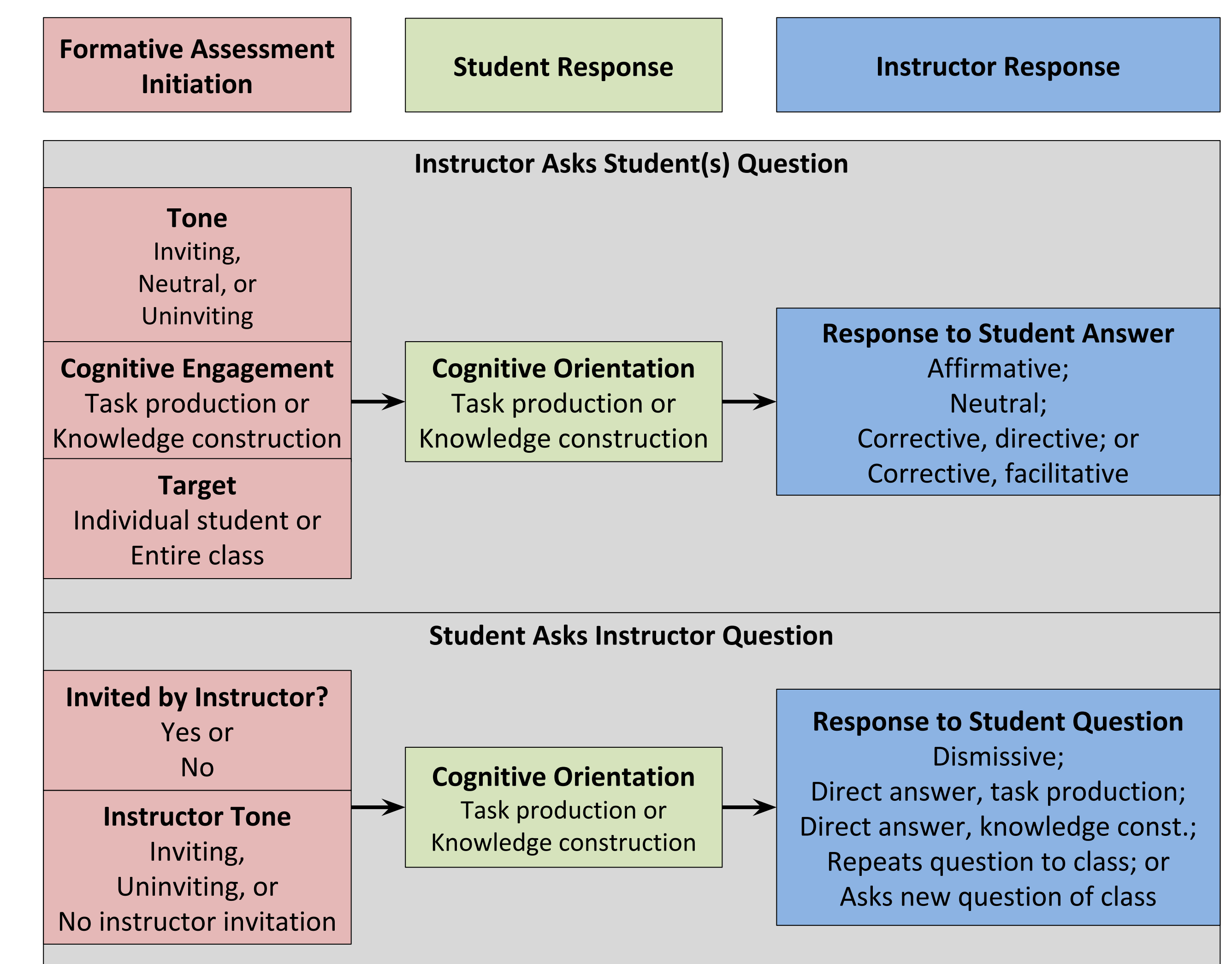
- We have developed a survey to measure students' perception of their instructor, the flexible classroom, and their role in learning activities
- Based on Student Responses to Instructional Practices (StRIP) Survey [14] and University of Minnesota (UMN) Student Survey for Active Learning Classrooms [15]

Survey Section	Relationships Explored	Questions From
Types of Instruction	Student perception of pedagogy	StRIP
	Individual characteristics of student	
Instructor Strategies for Using In-Class Activities	Student perception of pedagogy	StRIP + Added questions
Student Responses to Instruction	Student response to pedagogy	StRIP + Added questions
	Inferring student's framing	
Student Thoughts about the Classroom	Inferring student's framing	UMN – Removed questions
Course Evaluation	Individual characteristics of student	StRIP

- We are continuing development of the survey by conducting cognitive interviews with with student focus groups

Classroom Observation Protocol

- We have developed an observation protocol to fully characterize instances of formative assessment based on the initiation of the assessment, the student response, and the instructor response



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