



Read the room: Instructor assumptions about student perceptions



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Preface

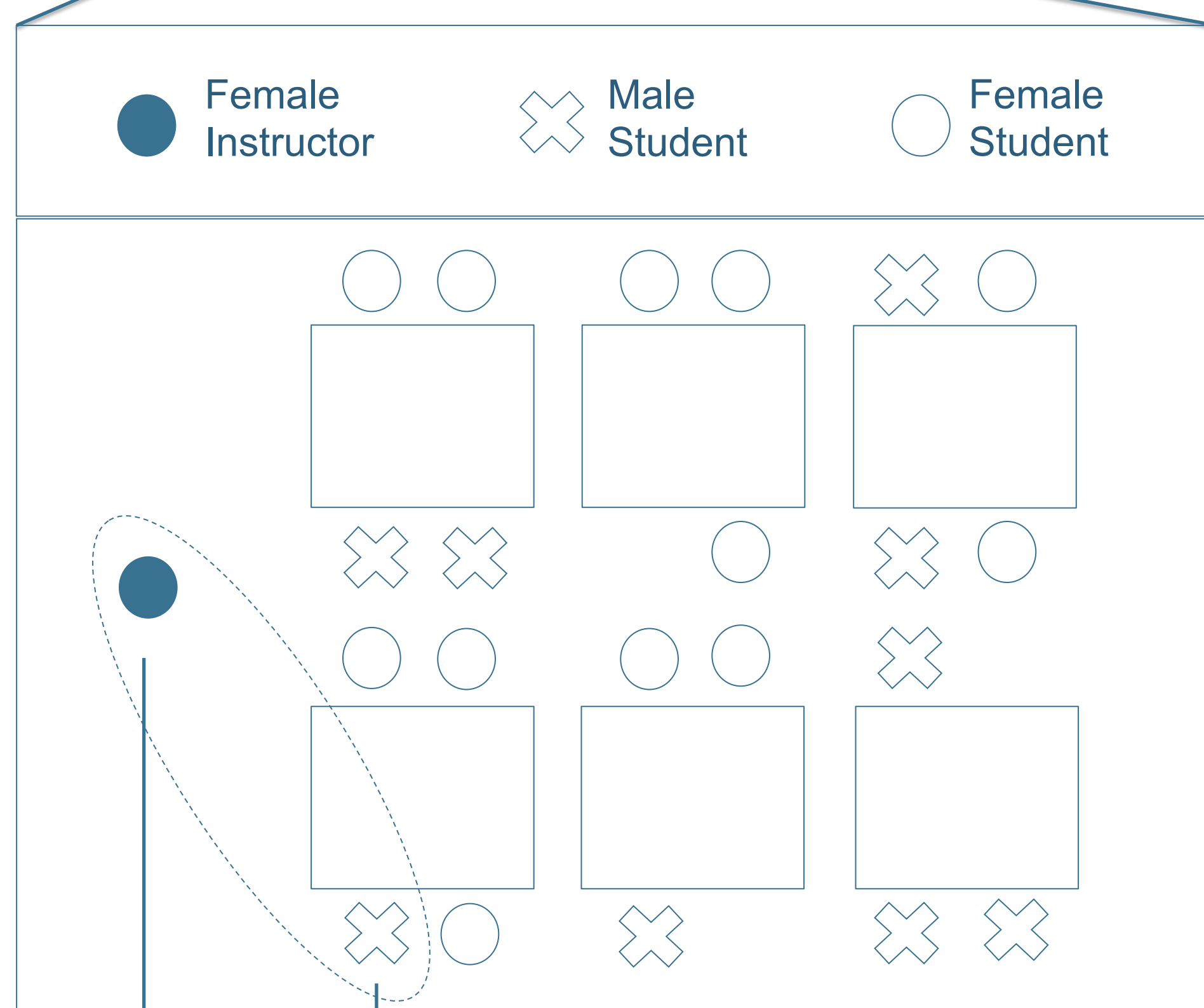
We are eager to expand this preliminary study to include additional undergraduate biology courses. If you are interested in participating please take an information card.

Background

Our ability as instructors to “read” a classroom allows us to assess how well implemented teaching practices¹ facilitate student learning. Such a skill is particularly valuable as each new group of students may have different learning needs².

Methods

Adam Mon. 4 PM Experience: 3 semesters	Barb Fri. 8 AM Experience: 0 semesters	Cara Fri. 2 PM Experience: 1 semester	Dave Mon. 11 AM Experience: 1 semester
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11 Survey Questions

Example Question:

Q4. How relevant do you feel the course material is to your future career goals?

Response indicated by tick mark

Not Relevant Very Relevant

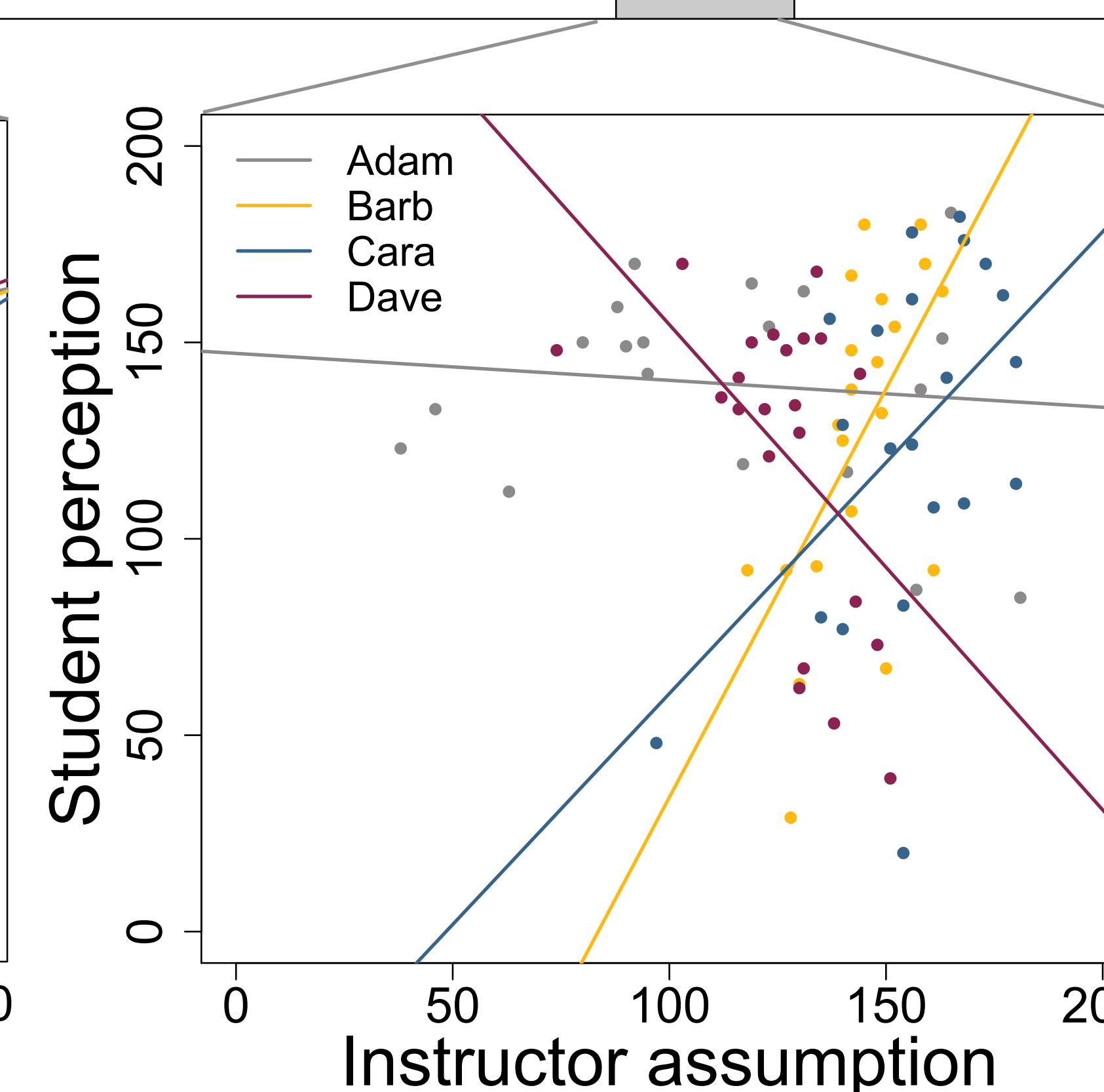
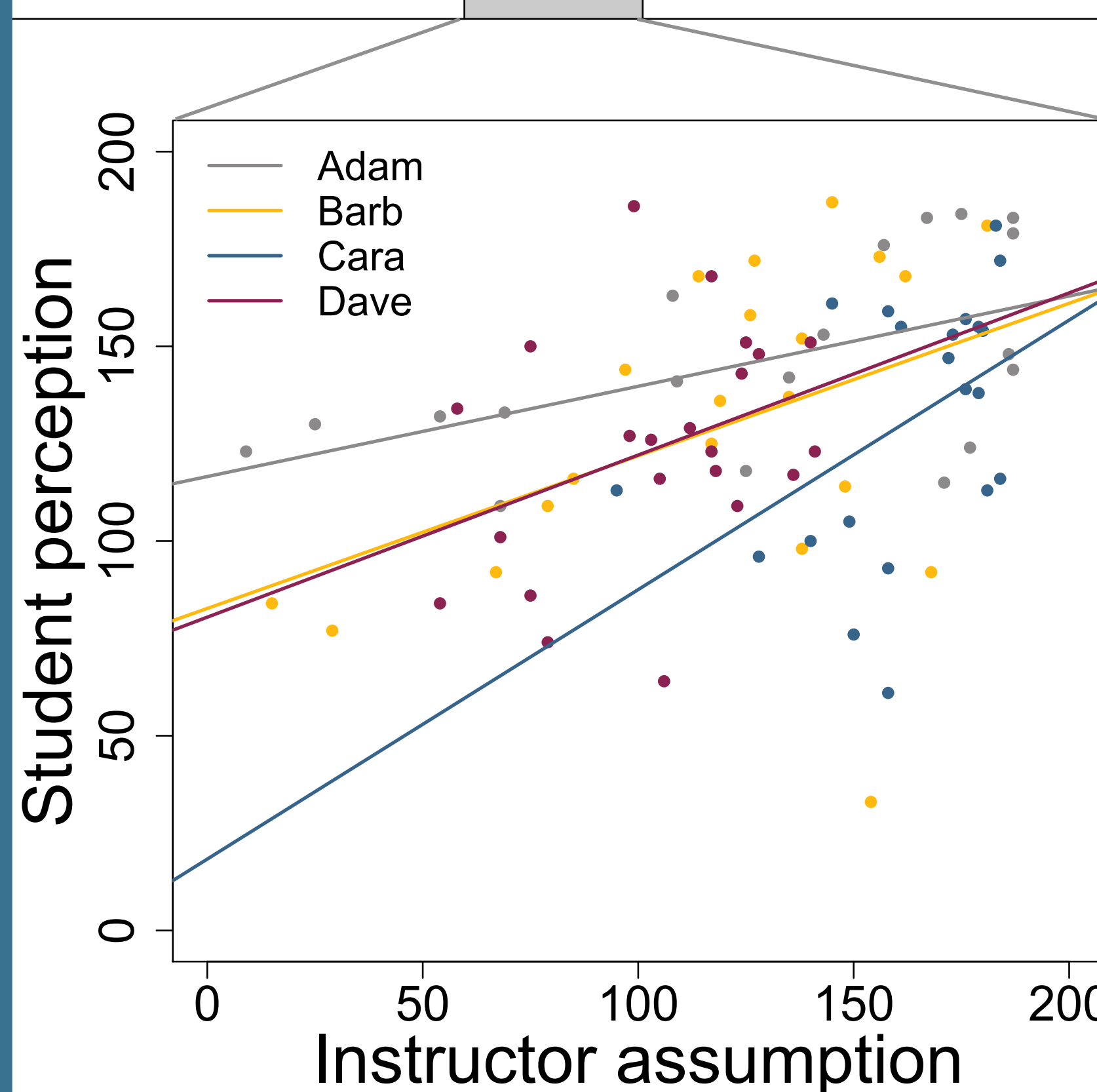
Surveys completed by instructor from student x_i perspective #

Survey completed by student x_i #

Matched based on randomly assigned ID number; responses quantified as distance (mm) from line's left endpoint

Table 1. Correlation coefficients (r) between student and instructor survey responses for eleven questions. Question 2 and 9 are also displayed as figures to show within class variation (same color points) and between class variation (different color lines).

	Survey Question										
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11
Instructor Adam	0.77*	0.54*	0.28	-0.07	0.55*	-0.06	-0.02	-0.01	-0.11	0.44	0.14
Barb	0.27	0.42*	0.36	0.03	0.43	0.71*	0.56*	0.30	0.58*	0.45*	0.56*
Cara	0.53*	0.47*	0.41	0.59*	0.27	0.69*	0.36	0.39	0.50*	0.69*	0.72*
Dave	0.17	0.36	0.01	0.02	-0.11	-0.05	0.11	0.09	-0.52*	-0.31	-0.16



Are instructor assumptions accurate?

$r \geq 0.40^*$ Accurate
 $-0.40 < r < 0.40$ Uncertain
 $r \leq -0.40^*$ Contradictory
 $*p < 0.05$

Survey Question:

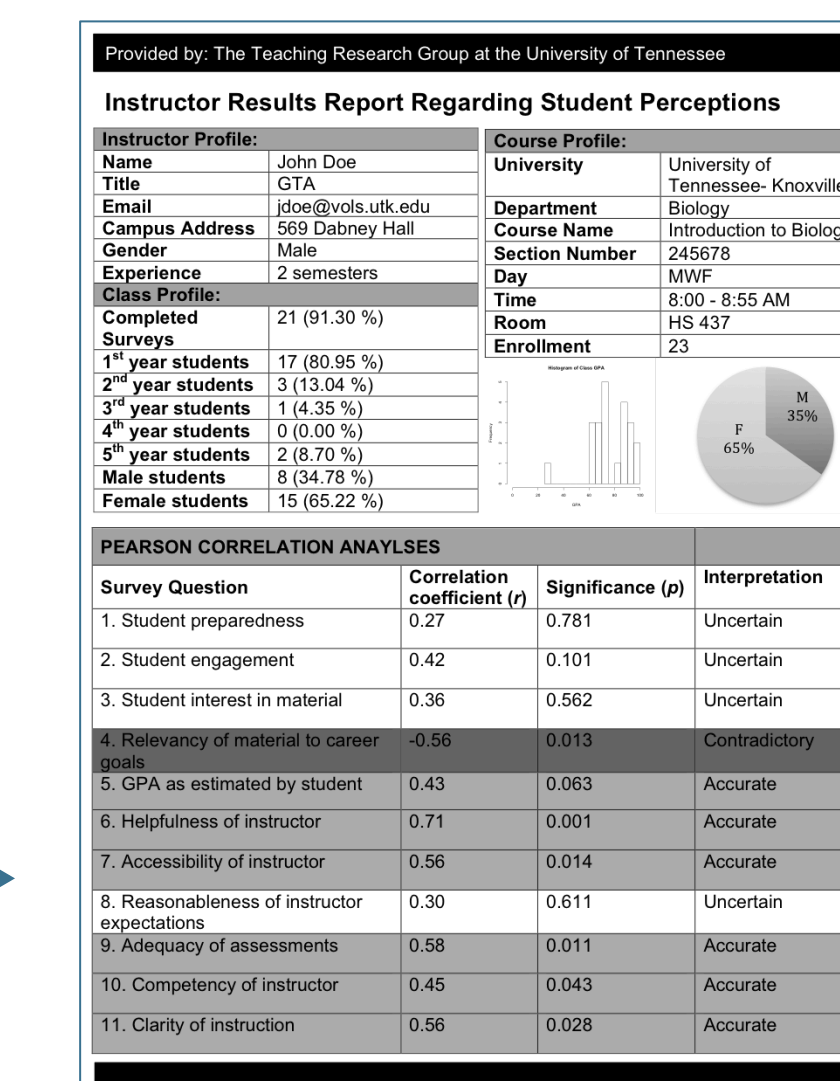
- Q1. Student preparedness
- Q2. Student engagement
- Q3. Student interest in material
- Q4. Relevancy of material to career goals
- Q5. GPA as estimated by student
- Q6. Helpfulness of GTA
- Q7. Accessibility of GTA
- Q8. Reasonableness of GTA expectations
- Q9. Adequacy of assessments
- Q10. Competency of GTA
- Q11. Clarity of instruction

Preliminary Results

- Instructor assumptions about student engagement were generally accurate (Q2).
- Instructors could not perceive how interested students were in course material (Q3) or how students felt regarding instructor expectations (Q8).
- Ability to “read the room” varied by instructor (i.e. Q9) and did not correspond with gender, experience, lab time, or student GPA.

Future Research

- Expansion:** explore potential patterns in the ability of instructors to predict student perceptions.
- New Data Collection Method:** develop online survey system that anonymously pairs surveys and quantifies responses
- Evaluation / Report:** create automated results report for instructors



References

¹ Tileston, D. W. 2011. Ten best teaching practices: How brain research and learning styles define teaching competencies, third edition. Corwin, California, USA. ² Riding, R & S. Rayner. 2012. Cognitive styles and learning strategies: Understanding style differences in learning and behaviour. Routledge, New York, NY.