

# Do they see it coming?

## Expectancy violation in a pedagogically reformed classroom

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### About Expectancy Violation Theory<sup>1</sup>: EV is not always a Bad Thing!

We have expectations for what will occur in a certain situation → When those expectations are violated, we may react positively or negatively → Our reaction depends on our interpretation and evaluation of the violation

Students enter classes with a variety of expectations, such as how clearly teachers should explain material<sup>2</sup> and how instructors should behave<sup>3</sup> (including how to run a class). Expectations serve as a baseline for how to react to the class and impact students' impressions of a class.<sup>4</sup>

**Reformed Pedagogy classes (such as using SCALE-UP to teach introductory physics) may not fit with students' idea of a science class, so to examine the issue, we can ask:**

What are students' expectations of science classes? → Do reformed pedagogy classes violate those expectations? → How do students react to the reformed pedagogy classes?

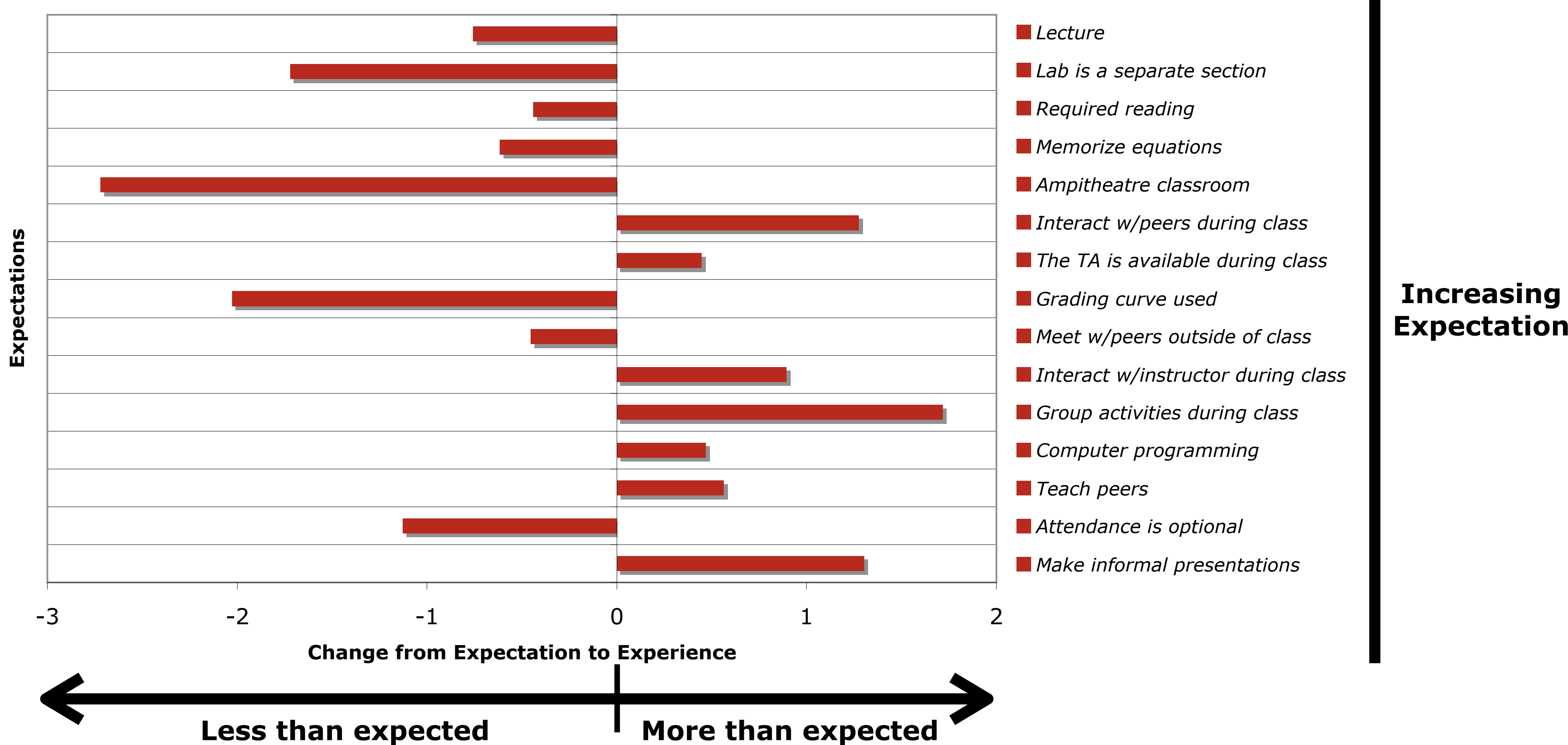
### We violated their expectations!

We surveyed students taking PY 208 in the SCALE-UP pedagogy early in the spring semester (29 respondents) and late in the semester (16 respondents) We asked:

- What they expected when they signed up for a physics course
- What they experienced in the physics class
- Their reactions to the class

**By comparing what they expected to what they experienced, we saw that their experience did not match what they expected.**

How Expectations Were Violated



### References

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2. Houser, Marian L. 2005. "Are We Violating Their Expectations? Instructor Communication Expectations of Traditional and Nontraditional Students." *Communication Education* 53 (2) pp. 213-228.
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### Students responded to the violation

#### both positively...

- + Most respondents said they would recommend the course to friends.
- + Most respondents felt that the SCALE-UP style class enhanced their learning.
- + Course evaluations were overwhelmingly positive with regards to the course structure.

#### and negatively.

- A few students dropped the class once they learned of the style.
- Some respondents felt they would have learned better in a more traditional setting.

*"The [group] roles narrow the thought process of each member, not allowing them to simply focus on collaborating to solve given problems."*

### SCALE-UP at NC State

The goal of SCALE-UP (Student-Centered Active Learning Environments for Undergraduate Programs) is to promote collaborative learning among the students.<sup>5</sup>

*"...Info seems to "stick" better when I actually have to figure out how to do it."*

TA(s) share instruction during class

Whiteboards surround the room

Two projectors and screens

Eleven tables, each seating 9 students in 3 groups of 3



Instructor station (note location in center of room)

Two demo stations

Hand-held whiteboards

The students all face each other, not the instructor or the screens

A computer for each student

Round tables with moveable chairs

*"I expected the typical one-way communication style in most lectures but instead found a more interactive communication style."*

The students are assigned roles within their groups to determine who uses the computer or whiteboard (recorder), who manages the team (manager), and who ensures that the team is on track (skeptic).<sup>5</sup>

The classroom is designed to maximize communication in all directions.<sup>6</sup> The instructors roam the classroom, asking and answering questions, while the students discuss the physics among themselves.

*"Before, during, and after class, I would often talk with the instructor..."*

We also found evidence suggesting that expectations stabilized after the beginning of the class

*"Are you going to lecture and actually teach us?" (paraphrased from a student email)*

### Future Directions

- Examine future SCALE-UP classes at NC State to better identify which expectations were violated.
- Involve other pedagogically reformed classes to pinpoint what aspects of reform most violate student expectations.
- Conduct interviews for more depth; how can we ease implementation of reforms and violate expectations appropriately?

#### You can help!

- Request that your students take the survey (email: jdgaffne@ncsu.edu).
- Provide *training* for the classroom style.
- Be patient and understanding; it may take some students some time to appreciate the change; others might never recover from the violation.