

WHAT INFLUENCES COOPERATIVE LEARNING BEHAVIORS IN AN INTERDISCIPLINARY ORGANISMAL BIOLOGY COURSE?

Hannah Jardine | hjardine@umd.edu | Dan Levin | dlevin2@umd.edu

Research Question

What factors influence how students go about answering challenging biological questions in cooperative learning situations?

Issues to Consider

What is the end goal of cooperative learning (for the instructor and/or for the student)? To learn how to work together? To come up with the "correct answer"? Or to construct explanations and make meaning?

Concluding Thoughts

Assumption: The value in having students construct an explanation is that they construct one that is meaningful to them.

Tentative Claim: We have to be aware of the diversity of factors that influence students' participation in cooperative learning (e.g. epistemological framing) and how this affects the way they approach constructing explanations.

Data

How do students interact and learn socially in addressing this problem?

- Video and transcript from the Lounge (9-4-14)

Q4. Finally, a skeptical senator asks, *Doesn't the Second Law of Thermodynamics forbid the spontaneous formation of organized life?* You answer this question by clarifying what the Second Law does predict about **1) spontaneous processes in general, and 2) the spontaneous origin of biological structures**. Eventually, this question will become much easier to answer from class material presented later, but I want you to track down the relevant knowledge now and to discuss that knowledge among yourselves for completing this assignment. (3 pts of regular credit and 1 pt of extra credit)

- Transcript of final review session (12-14-14)

What factors might influence how students go about answering this question in these cooperative learning situations?

- Transcript from the focus group (9-18-14)

Things to think about...

- What do you notice about how students are interacting socially to answer questions?
- What are the explanations being offered for the question? What do the students think constitutes a good explanation?
- How does the students' pursuit of these explanations fit (or not) with our hopes for them?
- How do student responses in the focus groups relate to what we see happening in the lounge?