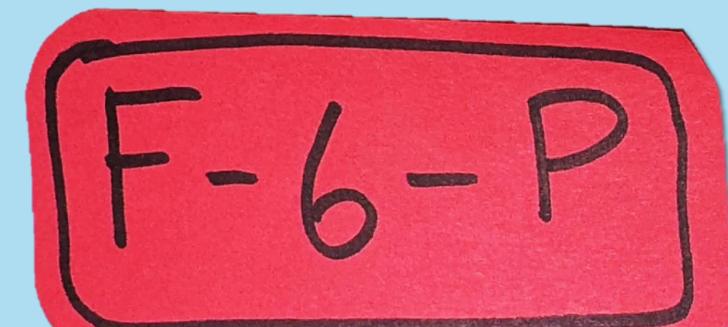


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Building a comfortable and inclusive learning environment through affective connection and small group activities

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Student Learning Objectives

- Given a variety of tools and individualized attention, students will gain a better understanding of the material presented in class.
- 2 Students will be provided with a supportive and encouraging atmosphere, to ensure they feel comfortable and safe asking questions and engaging with the activities.
- Creative thought and curiosity driven questions will be encouraged and answered to help build student interest and learning of the subject.

"I feel [tutorial] was very inclusive and I felt comfortable asking questions."

Values Informing Instruction

My father is a dentist and a lifelong learner. Spending time with my dad was always an adventure in learning something new. Copies of *Scientific American* and *National Geographic* could always be found on the back of toilet, his office was crowded with remote control helicopters, partially completed Sculpey figures, and 3D printed knickknacks. I'd sit on the kitchen stool listening to him describe how convection ovens worked and the modifications he made to his cookie recipe, and we'd watch "How it's made" with nearly every meticulously crafted meal. No matter the subject: making pasta from scratch, electrical engineering, restoring old Schwinn bicycles, installing a new water heater, laying tile flooring... I could always rely on my dad to teach me about it.

He has taught me that learning should be fun. I believe that there are no limits on what someone can learn, and that mindset is critically important.

I've learned from my dad that treating learning like a hobby to satisfy curiosity creates so much more joy and retention. And that you should approach a new subject or field of study as something that you *want* and *choose* to do simply because you're curious. I would like to be able to inspire that kind of curiosity and interest in my students.

"Sabrina was very good at explaining things, and she made almost everything very fun. I could really engage."

Findings and Future Directions

Students were provided with a variety of learning modalities and most students found the construction paper pathways and correcting incorrect answers on multiple choice questions to be very helpful. Review sessions with activity stations and one-on-one review sessions were also found to be very helpful by over 50% of students.

100% of students also either agreed or strongly agreed that tutorial helped solidify their understanding of the material, that they felt comfortable asking questions in class, and that their concerns and questions were heard and addressed in tutorial. This will help guide future classroom planning for human physiology tutorial classrooms.

"I really liked the construction paper activities, especially since I'm a visual learner. It helped to organize components/pathways/and thoughts."



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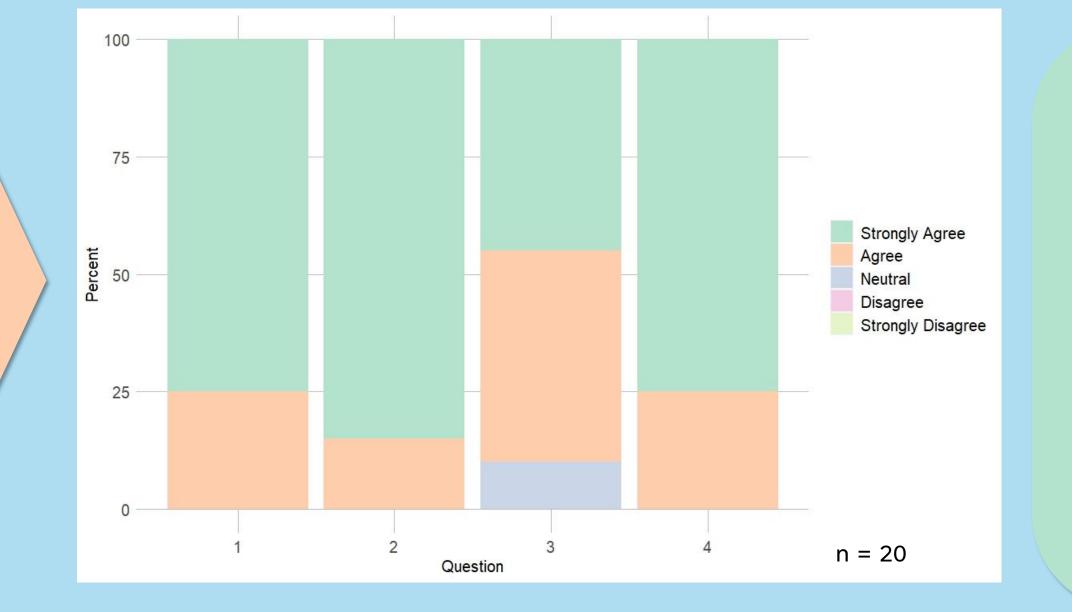
Acknowledgements

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Survey Questions

- **1.** I felt comfortable asking questions in class.
- 2. I felt like my concerns were heard and questions addressed in tutorial.
- 3. I felt like my time was used effectively during tutorial.
- **4.** Tutorial helped to solidify my understanding of the material.



Pedagogies

- 5. Construction paper pathway activities
- 6. Stop light understanding cards
- 7. Group voting on multiple choice questions
- 8. Correcting incorrect answers on multiple choice questions
- 9. Group drawing activities
- 10. Review sessions with activity stations
- 11. One-on-one review sessions
- 12. Pollev review practice quizzes
- **13.** Video links

