

Cornell Guided Notes

Biotechnology for Health (Biomedical Innovations) | 2027-02-23

Name

Period

Date

Lesson

Lesson focus

Research design ticket

Key words and questions

Prepared details and student notes

Essential question
What is today's target?

Submit a research design ticket that critiques a study and proposes a sound physiology design. Big idea: Critiquing an existing study is faster and safer than making the same mistake yourself -- learning to identify design flaws in others' work protects your own.

My notes, examples, and questions

Key words
What vocabulary unlocks the lesson?

- iteration
- feedback
- usability
- hypothesis
- variable
- control

My notes, examples, and questions

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Cornell Notes - Continued

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Must-know ideas
What should I understand by the end?

- How to evaluate a study's variable identification, controls, and limitations using named criteria.
- How the flaws in a study become the design requirements for a better one.
- What a sound physiology study design looks like when variables are controlled and the hypothesis is testable.

My notes, examples, and questions

Process notes
What happens during class?

- 0-10: Introduce the study-critique framework: variables, controls, sample size, and limitations
- 10-30: Read the provided physiology study summary and annotate design choices
- 30-50: Critique: identify variable, control, and limitation problems in the study
- 50-65: Propose your own study design that avoids those flaws: hypothesis, variables, and planned measurements
- 65-77: Submit the Problem 2 research design ticket
- 77-80: Exit check: name the most important design improvement your proposed study makes

My notes, examples, and questions

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Steps and evidence What do I do and turn in?

- Read a short provided physiology study summary.
- Critique its design: variables, controls, and limitations.
- Propose how you would design your own study to avoid those flaws.
- State your hypothesis, variables, and planned measurements.
- Submit the Problem 2 research design ticket.

Evidence: Exit ticket - Problem 2 research design ticket: study critique identifying variable/control/limitation flaws, plus a proposed sound design with hypothesis, variables, and planned measurements.

My notes, examples, and questions

Checks for understanding How do I know I got it?

- You can critique a study's design choices.
- Your proposed design controls variables and is testable.

My notes, examples, and questions

Lab or safety notes What must I handle carefully?

No special lab safety notes today. Follow normal classroom and digital-work expectations.

My notes, examples, and questions

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Summary

Today's lesson focused on Research design ticket. The main target was: Submit a research design ticket that critiques a study and proposes a sound physiology design. The evidence of learning is Exit ticket: Problem 2 research design ticket: study critique identifying variable/control/limitation flaws, plus a proposed sound design with hypothesis, variables, and planned measurements.. In my own words, the most important idea from today is:

My summary

My final question or connection