

MATH108: Elementary Statistics

Spring 2024

In-Class Activity 03: Inference Game

Assignment is DUE as indicated on the course schedule. This assignment is designed to be completed in class.

*This is a **group assignment**. Work with 2-3 classmates, and submit as a group on Gradescope.*

Notes

Your final submission must be readable. It is your responsibility to write up your answers in a way that is easy to read and follow.

All group members are expected to contribute to all parts of this assignment.

Task

We will collectively create flashcards reviewing inference. First, join our class on Quizlet using this link: <https://quizlet.com/join/XcGMTpwEw>

Each group will be assigned a topic, for example inference for many proportions, or inference for unpaired means. Your job, as a group, is to come up with 10 flashcards related to your topic.

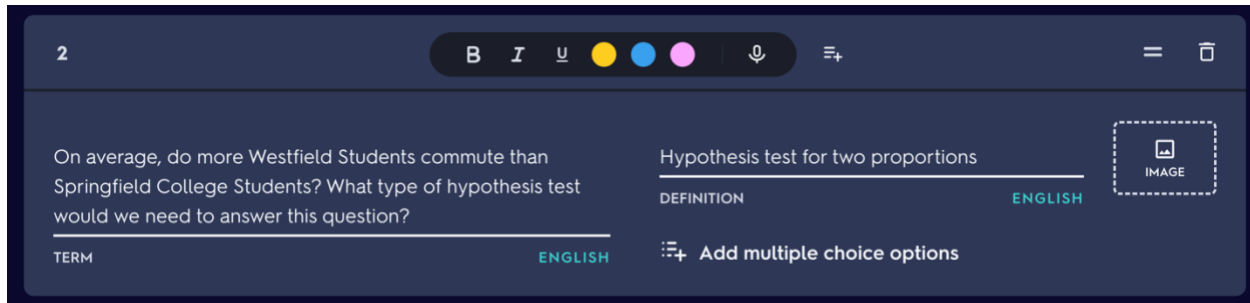
Three of your cards must include a calculation (i.e. on Quizlet, the “term” should be a question and the “definition” should be the answer). For example:

The screenshot shows a Quizlet flashcard interface. The card is titled '1' and has a dark blue background. The text on the card is as follows:

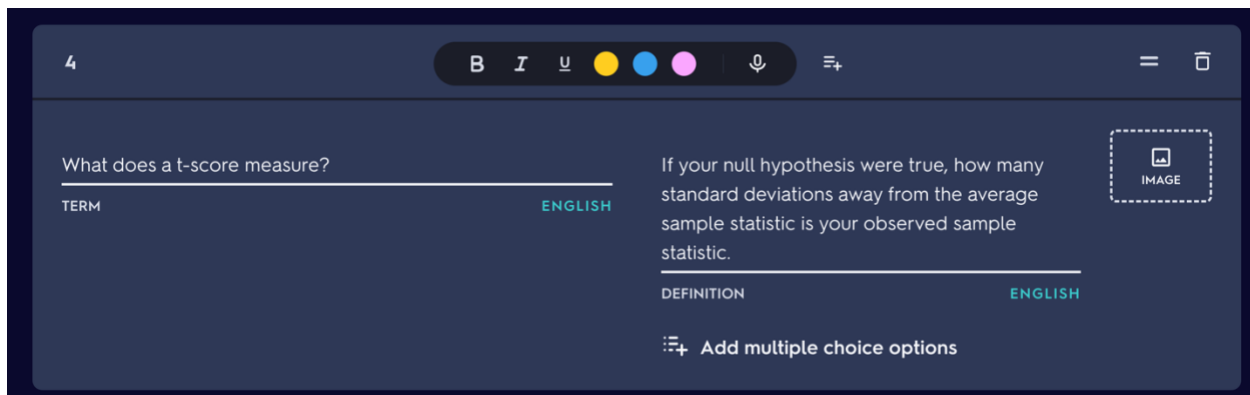
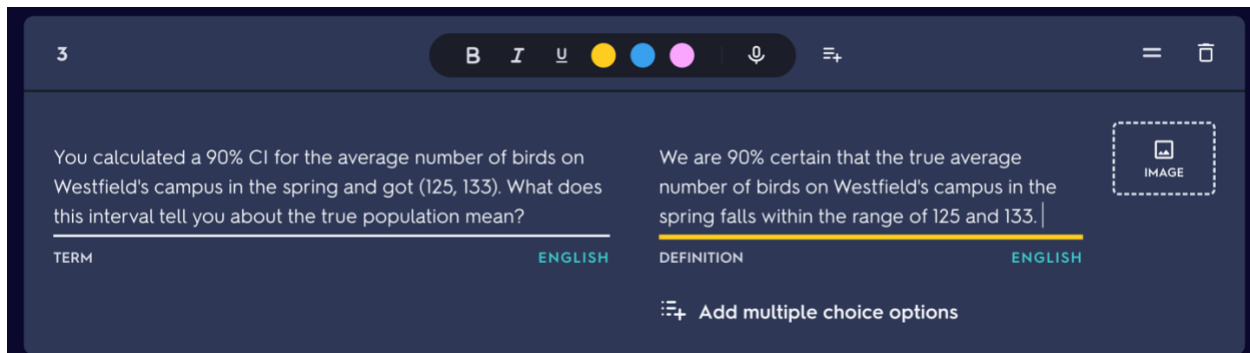
You suspect WSU and SC students have different numbers of siblings. You perform an experiment to statistically test this suspicion. You sample 100 WSU students and find on average they have 3 siblings with $s=0.5$. You sample 110 SC students and find on average they have 1 sibling with $s=0.75$. Calculate a 95% CI for the population mean difference (SC - WSU) from your sample mean difference.

Below the text, there is a 'TERM' label and a 'DEFINITION' label. The definition is $(-2.17, -1.83)$. There is a 'CHOOSE LANGUAGE' button and an 'IMAGE' button. At the bottom, there is a link to 'Add multiple choice options'.

Three of your cards must include a research question for which one must identify the appropriate type of statistical test (i.e. on Quizlet, the “term” should be a question and the “definition” should be the type of hypothesis test). For example:



Four of your cards should be about interpreting results or definitions. For example:



Your questions must all be original, you cannot directly copy ones from class, assignments, or the book.

Once you have your questions, go to the “Inference-Review” set and click edit (<https://quizlet.com/900527578/edit>) to add your questions. Additionally, record which flashcards you contributed (as a group) in a word doc, save it as a PDF, and submit it on Gradescope as a group. Part of your grade for this assignment will be your flashcard contributions.

Once we have all groups' flashcards, we will play a review game with them in class. Your grade will reflect your participation and showing an honest effort in the review game. There will also be prizes.

Submission

Submit on Gradescope. Remember to tag your groupmates!

Rubric

	Missing / Not Complete (0)	Approaching (2)	Meets (4)	Exceeds (5)
Readability	Assignment is unreadable or not submitted.	Assignment includes formatting, but significant improvements could be made. For example, clear labeling of problems and subparts, proofreading.	Assignment includes formatting, but minor improvements could be made. For example, clear labeling of problems and subparts, proofreading.	Assignment is well formatted and easy to read. Text has been proofread.
Completeness	Less than half of assignment is attempted.	Roughly half of assignment has been attempted. On the problems that have been completed, effort is evident. OR All of the assignment has been attempted, but effort is not evident in many parts.	At least 80% of assignment has been attempted. On the problems that have been completed, effort is evident. OR All of the assignment has been attempted, but effort is not evident a few parts.	All of the assignment has been attempted, and effort evident throughout.
Correctness	All answers are incorrect or missing.	Of the complete problems, at least half have been approached and completed correctly.	Of the complete problems, at least 80% have been approached and completed correctly.	All complete problems are approached and completed correctly.