

The Gorillas of Introductory Statistics

Roxy Peck
Cal Poly
rpeck@calpoly.edu

What is a gorilla?

- Something that is so obvious to us that we assume it will be obvious to students
- Something that, because we explained it and the students nodded their heads, we assume students understand

This session

- Gorillas
- Gorilla busters—taming the gorillas
- This is an interactive session. Abstract said to come prepared, so I am assuming...

Gorilla #1

Students can leave “common usage” terminology behind.

For example

Normal → usual

Random → haphazard

Gorilla Busters:

-
-
-

Gorilla #2

There is a difference between random selection and random assignment.

And we throw in the term randomization to add to the confusion...

Gorilla Busters:

- “What am I?” scenarios
-
-

Gorilla #3

Students can recognize variability in a distribution by looking at a graph.

Gorilla Busters:

- Histogram → data → dotplot → standard deviation
Data → dotplot → histogram, boxplot
-
-

Gorilla #4

Students understand the meaning of confidence level.

Gorilla Busters:

- (In your face) Class activity inspired by the “Can you hear me now?” TV commercial.
-
-

Gorilla #5

Students understand the logic of hypothesis testing.

Gorilla Busters:

- The cookie game.
-
-

Gorilla #6

Gorilla Busters:

-
-
-

Gorilla #7

Gorilla Busters:

-
-
-

Gorilla #8

Gorilla Busters:

-
-
-