

Open Your Class With This Tomorrow
Research Methods and Statistics: Palgrave Insights in Psychology Series

Activity submitted by Jessica Flitter, West Bend East High School

Normal Distributions Demonstration

1. Have students flick rapidly through a book and try to stop on the middle page. Note the page number with each test to use later. Half the time start from the back and the other half start from the top. Students should then create a histogram to represent the distribution of page numbers after flicking through the book.
2. Have students create separate histograms for different sample trial amounts, (e.g., 100, 200, 400, 600). Make sure the scales on the y-axis stays the same (0-120, number of times I turned that page) and show the continuum on the x-axis (page numbers, each bar representing five pages).
3. Have students participate in a teacher facilitated discussion. Students should take notice of what happens to the statistical pattern over time.
 - a. Where did you land most often?
 - b. Was the graph more or less symmetrical?

Analyzing Research Activity

Have students find current research examples in psychology. They can search the Internet, magazines, pamphlets, and newspapers for research studies. Instruct students to pay particular attention to sample size and the scale of the axes on any graphs provided. Students should use a critical eye to question the research conclusions. Ask students to identify what type of research study they found (e.g., experiment, correlational study, quasi-experiment, naturalistic observation, case study) along with an explanation of the factors that cause them to identify it as that particular type of research study. For example, if they are reviewing an experiment they should identify the independent variable, dependent variable, control group, experimental groups and method of random assignment. In the case of a correlational design they should identify the variables involved and the direction of the relationship, and for quasi-experiments, they should identify the independent variable, dependent variable, and the factor that makes it not a true experiment.