Unit #5: 2+ Sample Hypothesis Testing

Content Area: Mathematics
Course(s): Statistics H
Time Period: Semester 1 & 2
Length: 4 weeks
Status: Published

Standards

MA.K-12.3 Construct viable arguments and critique the reasoning of others.

MA.S-IC.A.1 Understand statistics as a process for making inferences about population parameters

based on a random sample from that population.

MA.S-IC.B.4 Use data from a sample survey to estimate a population mean or proportion; develop a

margin of error through the use of simulation models for random sampling.

MA.S-IC.B.5 Use data from a randomized experiment to compare two treatments; use simulations to

decide if differences between parameters are significant.

Enduring Understandings

- 1) Recognizing that while certain computations of hypthesis tests involving more than one sample may differ, the overall format always remains the same.
- 2) Understanding how, and when Analysis of Variance hypthesis testing is used.

Essential Questions

- 1) Will students be able to differentiate between and perform hypothesis tests involving 2 or more samples of means, proportions, standard deviations, or variances?
- 2) Will students be able to differente when to use 1 or 2-way Analysis of Variance?

Knowledge and Skills

- 1) Students will perform hypothesis tests comparing two standard deviations, variances, means, and proportions
- 2) Recognize the differences between and calculate 1 and 2-way Analysis of Variance tests when comparing more than two means

Resources

Elementary Statistics 10th Edition

 $https://doralacademyprep.enschool.org/ourpages/auto/2015/8/18/48840047/Elementary\%20Statistics\%2010e.p.\ df$