

ZMATH 2016f.01254

Nowacki, Amy S.

Teaching statistics from the operating table: minimally invasive and maximally educational.

J. Stat. Educ. 23, No. 1, 16 p., electronic only (2015).

Summary: Statistics courses that focus on data analysis in isolation, discounting the scientific inquiry process, may not motivate students to learn the subject. By involving students in other steps of the inquiry process, such as generating hypotheses and data, students may become more interested and vested in the analysis step. Additionally, such an approach might better prepare students to tackle real research questions outside of the statistics classroom. Presented here is a classroom activity utilizing the popular Hasbro board game Operation, which requires student involvement in the entire research process. Highlighted are ways this activity uncovers a number of research issues. A number of categorical and continuous variables are collected, making the activity amenable to a variety of statistical investigations and thus easy to imbed into any curriculum. Designed to mimic a real-world research scenario, this fun activity provides a guided yet flexible research experience from start to finish.

Classification: K45 K75 K95 M65

Keywords: stochastics; statistics; university teaching; active learning; student activities; statistical reasoning; student-generated data; surgery; medicine; introductory biostatistics course; research; study protocol; classroom experiments; teaching units

<http://ww2.amstat.org/publications/jse/v23n1/nowacki.pdf>