



Contribution ID: 104

Type: **not specified**

Turning a real story with data into an active learning class exercise in statistical practice with a focus on communication

Wednesday, 18 September 2024 10:35 (15 minutes)

This talk ties in with the previous two talks in the session: the story and data are from one of the series of cases discussed by Froydis Bjerke, from Animalia, Norway, and the communication focus follows guidelines provided by Jennifer Van Mullekom.

The issues that arise in the case study itself include industrial statistics classics: “is the expensive external laboratory test really better than our modern in-house test?”; “does the relatively high variation observed for one property reflect a true lack of homogeneity for this property, or a test problem?”; “is an investigation of the components of product and test variation at an intermediate stage of production relevant to the quality of the final product?”.

Choices made when constructing the active learning class exercise are described. For example, is our starting point a verbal description of the problem, an available data set, or an existing graphical display? Which skills of statistical practice do we want to teach in this exercise, and what is the right amount of guidance? Two examples of skills are how to identify which additional data to ask for or to plan to collect, and how to exploit existing supplementary data that is of limited use. Regarding the communication aspect, we strive to be brutally honest about how well our beloved graphs are really understood by engineers and managers.

Type of presentation

Talk

Classification

Mainly application

Keywords

teaching, active learning, communication

Primary author: ASSCHER, Jacqueline (Kinneret College, Technion)

Co-authors: BJERKE, Froydis (Animalia Meat and Poultry Research Centre); VAN MULLEKOM, Jennifer (Virginia Polytechnic Institute & State University)

Presenter: ASSCHER, Jacqueline (Kinneret College, Technion)

Session Classification: Education and thinking

Track Classification: Other/ Special/ Invited