

First Year Experience: Learning from Data



Communicating with statisticians

Invite practicing statisticians to come talk with your students! My first year students love to hear how they can apply what they are learning in the classroom, as well as various careers they can work toward. I dedicate approximately 10 class days to hear from visitors who work in areas such as Sports Statistics, Actuarial Sciences, Industrial Statistics, Quality Control, Biostatistics, Statistical Consulting, and others. If you can't dedicate a full day, consider a 15-20 minute brief talk - these can be in-person or virtual.

Before a visiting statistician meets with us, each student composes at least one question they would like the visitor to answer. Students find that **having a question for our visitor prepared ahead of time alleviates pressure during Q&A, and fosters an environment of rich discussion and communication about the field of Statistics.**

Student well-being

Dr. Laurie Santos, Professor of Psychology at Yale University and host of the popular podcast *The Happiness Lab*, teaches the most popular course at Yale: *Psychology and the Good Life*. Dr. Santos has condensed her course into a modulated course on Coursera, called *The Science of Well-Being*. You can pick and choose the various well-being topics you'd like to include in your course. In my First Year Experience course for Statistics majors, I have students complete modules and activities about happiness, physical exercise, sleep, mindfulness, gratitude, and more.

During class, **students come together with their peers to discuss their experiences, their challenges, and areas for improvement.** Outside of class, they review their weekly experiences and write a reflection based on what they see in the data they have gathered about themselves. They also gather additional data related to each of the topics, to gain a better understanding of how each of these plays a role in their transition to college and in their everyday lives. **They discuss in pairs, and then come together as a class to talk about and briefly present the data they found, and how it relates to the topic of well-being.**

Additionally, **I aggregate the students' data each week and present the data in a series of visualizations. As a class, we discuss what we see, what we wonder, and the various questions these visualizations inspire.**

Bringing it all together

At the end of the semester in my First Year Experience course, students complete a data visualization project based on data related to one of the topics in the Science of Well-being course. They choose their topic, find publicly available data related to the topic (or gather their own data, in some cases), and **create a data visualization using Tableau**. They report on their progress mid-way through, and at the end of the semester, they then **present this visualization to the class and share their data story**.

How does this foster communication?

Students in this First Year Experience course have many opportunities to **communicate with and about data**. They have rich discussions with practicing statisticians about the field of Statistics, they write reflections about their weekly well-being experiences - based on their personal data, they talk with their peers about supplemental data related to their well-being and transition to college, and they create visualizations to tell stories about data.

Resources and contact

The Science of Well-Being



Tableau Academic



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