

**REU Mentor Training Workshop
Iowa State University**

Case Number 3

Tweaking the Data Case Study

John is mentoring an undergraduate in his lab, and has assigned her to collect data for one of the experiments in his dissertation. When the dataset is complete, he sits down to analyze it and finds his predictions completely disconfirmed. Dismayed, he calls her into his office and asks her to describe, in great detail, what she did when collecting the data. He wants to make sure that these anomalous results can't be more easily explained by mistakes in the lab. Their conversation lasts quite a while, but at the end he is still frustrated and puzzled by the data, and he sends her home so he can think about it some more.

Later, John is eating lunch in the cafeteria when he overhears his mentee talking to a friend of hers. "I think John is mad at me," she tells her friend, visibly upset, and describes their recent meeting. John is surprised to realize that his mentee took his questioning very personally. When John's mentee finishes venting, her friend replies, "If he's so mad, you probably did make a mistake somewhere. After all, he's the expert. Maybe you should tweak the data a little next time to keep him happy."