

## **Statistics Project—Bull Sh-- Detection**

**The Question:** Can a trained professional successfully detect lying? Many occupations have a reputation for uncovering lies: police detectives, poker players, psychologists, etc. This project addresses the question of how well those professionals are at uncovering deception.

**Basic Test:** Each sample involves three people; we can call them the detector, the deceiver, and the moderator. The detector and the deceiver sit across from each other. They have not previously met. The moderator explains the procedure to them both and then passes them both a list of topics about personal characteristics/experiences/attitudes/etc. The moderator deals one card face down to the deceiver. The deceiver looks at the card but does not reveal it to anyone else. If the card is red the deceiver lies about the first topic on the list. If the card is black the deceiver tells the truth about the first topic on the list. The detector then writes down his/her judgment as to whether or not the deceiver has lied. The deceiver puts the card on the discard pile and then the moderator deals out another card and the process is repeated until all the questions have been answered.

**Special Provisions:** To make this test more realistic the first part of the deck is stacked so that the detector knows whether or not the deceiver is lying on the first few questions. This provides the detector with a calibration mechanism. In addition the deceiver is promised a reward for each successful deception.

**Study Design:** xxx

**Getting Started:** xxx.

**First Meeting:** Prior to the meeting do the “Getting Started” exercise. Meet with your instructor and explain your project. Determine the following for your project—xxx, xxx, xxx, and what could go wrong. Write a summary of this meeting and turn it in to the instructor.

**Construct the Instrument:** Based on the decisions from the First Meeting make up a deception topics list. Experiment with this list of questions until you have some intuition as to how this experiment is going to go.

**Second Meeting:** Present your instrument to the instructor and describe your expectations as to how these trials are going to go. Determine how many trials at each setting, what measure(s) of accuracy to use, and how to tabulate the test data. Write a summary of this meeting and turn it in to the instructor.

**Collect Data and Compute Statistics:** Do the stuff specified at the Second Meeting. You should end up with a table of test results and a table of statistics based on the test results.

**Third Meeting:** Present your results. If there are problems with the testing procedures resolve them and run the tests again. Discuss what conclusions are justified. Discuss every section of the project report and what should be there.

**Write Project Report Draft:** Do the stuff specified at the Third Meeting.

**Fourth Meeting:** Present your draft report to the instructor. Use your instructor's critique to write the final report.

**Write the Project Report.**

Additional Project Guidelines:

Due Dates

[Report Format](#)

[Report Writing Cautions.](#)