Can We Take the Perfect Selfie?

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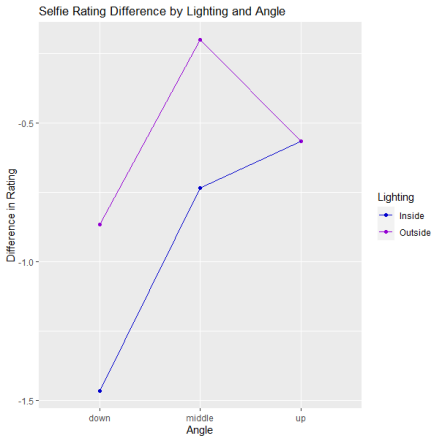
What's the best way to take a selfie? Our Design of Experiments class ran an experiment to answer this question. Selfie-pros make sure to get the best angle and lighting possible, so we decided to investigate how angles and lighting affected the photos.

We looked at 6 combinations of angles and lighting. We considered two types of lighting and three angles. These were inside and outside lighting and up (holding the phone up higher than your head), middle (holding the phone straight out in front of you), and down (extending your arm down and looking down at the camera). The six combinations were then inside lighting/up angle, inside lighting/middle angle, inside lighting/down angle, outside lighting/up angle, outside lighting/middle angle, outside lighting/down angle.

Our class split into groups, and each asked six people how they would rate their average selfie on a scale of 1-10 with 1 being the worst and 10 being the best. Each of these people was randomly assigned to one of the six combinations and asked to take a selfie on their phone with the specified lighting and angle. They were then asked to rate that selfie. We recorded their baseline ranking, the ranking for the experimental selfie, and the type of phone they used.

Our analysis focused on the difference between the participants' rating of their experimental selfie and their baseline. It was important to establish this baseline because some people feel really confident in their selfies whereas others do not necessarily like taking selfies, which may affect how they view the photo we had them take.



The above graph shows an interaction plot for angle and lighting for the difference in selfie ratings. From the graph, it looks like lighting has an effect in this difference (because the lines are not on top of each other) and like angle has an effect (the lines are not horizontal). There also looks like there may be an interaction effect between angle in lighting on rating difference because the lines intersect. However, our statistical model says these effects are insignificant. This is likely due to small sample size.

Even though selfie-pros may disagree with our assessment, we were not able to conclude that lighting, angles, or their combinations improved people's selfie ratings. In the future, we could run this experiment again with a larger sample. Additionally, people may have been trying to be modest when giving their ratings, which may have skewed the results. Further, having to ask people to move inside or outside to take a selfie made data collection less efficient. Thinking about these drawbacks can help improve this experiment going forward so we can confidently recommend how to take a good selfie.