Grading Rubric for Homework 8

431 Staff and Professor Love

'Due 2018-11-30, version 2018-11-17

1 Question 1 (30 points)

The specifications for the essay are:

1. Length is between 200 and 400 words.
2. English is correctly used throughout, and there is no more than one typographical error and one grammatical / syntax error.
3. A key idea is identified and clearly stated that actually appears in *The Signal and the Noise*.
4. An accurate and properly cited quote from the book is provided that is relevant to the identified key idea.
5. The context for the quote within Silver's book is described in the student's essay.
6. The essay clearly specifies how the idea in the book has changed their way of thinking about something which is explained in the essay.
7. The essay is clearly written, in general.
8. The essay is interesting to read.

- Award 29-30 points to all essays which meet all 8 of those specifications. I assume there will be 5-6 such essays, but if there are as many as ten, that's still OK.
- All other essays that answer the question in an appropriate way meeting 6-7 of the specifications should receive a score between 25 and 28.
- All essays which meet 4-5 of those specifications should receive a score between 20 and 24.
- Essays which meet less than 4 specifications should receive a score no higher than 19.

For students scoring 24 and below, please indicate in the comments which of the first 7 specifications they failed to meet.

2 Question 2 (15 points)

- 10 points for developing an appropriate, attractive set of plots of the relevant distributions, that are appropriately labeled. A single plot for each (`betaplasma` and `log(betaplasma)`) is all that is required.
- 5 additional points for coming to the correct conclusion regarding the logical choice of outcome transformation.

3 Question 3 (10 points)

- 3 points for specifying the R^2 value, and not, for instance, the adjusted R^2.
- 3 more for specifying and interpreting the residual standard error.
- 4 more for evaluating the model as accounting for a statistically significant, but not especially large amount of the variation in the outcome of interest (and getting that outcome right.)

4 Question 4 (10 points)

- 6 points for a correct estimate of the female effect.

- 4 more for a correct estimate of the 95% confidence interval, properly explained.
- If they in fact show the male effect size and CI without realizing it or if they misinterpret how to go from male to female, then that's a maximum of 7 points on the question.
- If they show the male effect size, and label it correctly as the male effect size, then that's a maximum of 9 points on the question.

5 Question 5 (15 points)

- 5 points for fitting the model correctly
- 5 more for specifying the adjusted R^2 and residual standard error correctly.
- 5 more for identifying the better model on these in-sample summaries.

6 Question 6 (20 points)

- 5 points for calculating prediction errors,
- with an additional 5 points for correctly doing the transformation.
- 3 points for an appropriate visualization of whatever errors they wound up with
- 3 points for an appropriate table summarizing whatever errors they wound up with
- 4 points for a correct conclusion in light of their table (whatever it says), and reference back to the decision in Question 5.