A/B Testing Final Project Rubric

Criteria	Meets Specifications	Exceeds Specifications (Completely Udacious)
Metric Choice		
Has the student chosen good invariant and evaluation metrics for the experiment?	The student chose a good set of metrics for the experiment, and did not miss any necessary or valuable metrics.	N/A
Has the student given a well-reasoned justification of their choice of metrics?	All metrics had clear and well-reasoned explanations of why they were or were not chosen.	N/A
Has the student stated for which results they would launch the experiment?	The student clearly stated what results they were looking for to launch the experiment, and the stated results were aligned with the experiment goals.	N/A
Variability		
Is the standard deviation for all evaluation metrics correctly calculated?	The standard deviation for all evaluation metrics is correctly calculated.	N/A
Has the student correctly reasoned about whether each analytic standard deviation is likely to be accurate?	Each evaluation metric has a clear and correct explanation of whether the analytic variability is likely to match the empirical variability.	N/A
Sizing		
Does the number of pageviews correctly	The number of pageviews given is correct given the	N/A

take into account the planned analysis?	students choice of whether to use the Bonferroni correction.	
Has an appropriate level of exposure for the experiment been chosen based on the risk?	The student has made a well-reasoned argument about how risky the experiment will be and chosen a fraction of traffic to divert accordingly.	N/A
Does the duration of the experiment correctly take the exposure chosen into account?	The duration of the experiment is correctly calculated given the fraction of traffic the student chose to divert.	N/A
Sanity Checks		
Has the student correctly performed sanity checks?	The student has correctly calculated sanity checks for all chosen invariant metrics.	N/A
Has the student taken the sanity checks into account?	All sanity checks passed or the student did not proceed to the rest of the experiment and analyzed why the sanity checks may have failed.	N/A
Effect Size Tests		
Has the student calculated confidence intervals around the difference of all evaluation metrics?	Correctly calculated confidence intervals have been reported for the difference in all evaluation metrics.	N/A
Has the student correctly evaluated statistical and practical significance?	Statistical and practical significance have been correctly reported for all evaluation metrics.	N/A
Sign Tests		
Has the student correctly reported a sign test p-value for each evaluation metric and indicated whether the sign test is statistically significant?	P-value and statistical significance have been correctly reported for all evaluation metrics.	N/A

Results Summary

Has the student correctly chosen whether to use the Bonferroni correction?	The student has given good justification for their choice of whether to use the Bonferroni correction.	N/A
Has the student correctly analyzed all discrepancies between the effect size tests and the sign tests?	The student has given well-reasoned and plausible explanations for each discrepancy between the effect size tests and the sign tests.	N/A

Recommendation

Has the student made a well-reasoned recommendation based on the results of the experiment?	The student has made a recommendation that is well reasoned and supported by the data.	N/A

Follow-Up Experiment

Has the student chosen a plausible experiment for the purpose given with a clearly stated hypothesis?	The student has described a plausible experiment that would be worth testing and the hypothesis is clearly stated.	The student has described a creative or innovative change that Udacity would be happy to test.
Has the student chosen good metrics to evaluate the proposed experiment with good reasoning to support them?	The metrics the student has chosen will be sufficient to evaluate the hypothesis of the experiment, would be possible to measure under most infrastructures, and are well-supported by the students reasoning.	N/A
Has the student chosen a well-reasoned unit of diversion for the experiment?	The student has chosen a reasonable unit of diversion and given good support for their choice.	N/A