Mobile-Designed Website Survey

SkillBuilder

This SkillBuilder uses data from an A/B testing scenario where we are checking the usability of a new mobile-first help website for a software product. The web developers who developed the change set up a survey to collect users' opinions on the site using a 5-point scale. (1=least satisfied, 5=most satisfied) The developers wanted to detect if the new website made any difference in its usability, before they decide on any further revisions.

This is where you come in, to help that team out!

Part 1 - Preparing for Analysis

1. In words, state the null hypothesis for the data collection that was performed.

2. In words, state the alternative hypothesis for the data collection that was performed.

   - To clarify the developers' intentions, they just want to check if the changes they made had any impact at all. You could consider this an initial probe into changing the website experience for the better.

3. Prepare the data for analysis by copying and pasting the ratings for surveyed site users in the control and test groups into separate columns of the workbook (Columns E and G of the Questions sheet).

   - You'll need to apply a filter to the MobileSurvey data table to isolate the rows corresponding to each condition of the data.

Part 2 - Analysis and Interpretation

4. Use the Data Analysis ToolPak to analyze the survey responses.

   - Make sure you are running a two-sample t-test, assuming unequal variances.

5. Assuming a statistical significance level of 5%, what do you conclude from the statistical test? Make sure to phrase your conclusion in terms of your hypotheses above, and justify your decision.

6. It is possible that we came to an incorrect conclusion. If the truth is in fact different from the conclusions drawn from the data, what type of error would we be making?

7. The web team ended up collecting data without the data team's input until the analysis step. But they're ready to take advice for getting serious about their website redesign. What advice would you give to the web team on setting up a follow-up A/B test or experiment?

    ○ Think back to the previous module, on what we needed to do to prepare to run an A/B test. You don't need to know the specific math required to do all of the preparations. Just think about what general aspects of running an experiment need to be considered before you start up data collection.