Introduction
This poster presentation will highlight the importance of question format in web survey design. We will show that radio buttons and drop down boxes are not equivalent measurement tools.

Both radio buttons and drop boxes are used in web surveys for discrete choice options. A drop box may conserve space in a web survey; however, they require the respondent to click and scroll to see the answer options. Whereas radio buttons provide a close equivalent to the check boxes common in paper questionnaires, with all answer options visible.

In today’s world of Smartphone technology, web survey designers need to take into consideration that smartphones have limited screen space, small keyboards. The choice of question format is often made with little consideration of measurement error. The format or design of a question may have an effect on the answers provided independent of the question wording.

Objectives
• To communicate the importance of question format choice for web surveys; that visual options are more likely to be chosen.
• To highlight the effects that seemingly small details have on web survey measurement error.

Study Question
Radio Button Format
How did you first learn of UVU?
○ from high school counselor
○ from friends
○ from parents or other family members
○ Web page ads
○ Flyers/Pamphlets
○ College Day presentation in high school
○ Athletic teams
○ Social Media
○ Other / Don’t remember

Drop Down Box Format
How did you first learn of UVU?
○ Select One -

Results
We combined responses into two categories - the four response options that came first and the four response options that came second. The middle option of “Flyers/Pamphlets” was removed because it received no responses from all three groups.

• There was a difference between the first and second four response option groups in both the drop box and radio button question format, though not statistically significant.
• The low number of responses most likely affected the statistical significance.

Survey Design and Implementation
A brief survey included one question as part of the study. We surveyed three randomly assigned groups of students where one group received the study question with the options randomized.

The survey was sent to Utah Valley University students who had attended 2015 fall semester but not 2016 spring semester. An initial email invitation was sent along with two reminder emails to non-respondents.

Conclusions
1. Radio buttons and drop down box may not be equivalent measurement tools in web surveys. Drop down boxes may be useful when the respondent must search a long list of response options such as state or country of residence. But for question types in which the respondents are formulating an answer the choice of a particular response format should be carefully considered.
2. The order in which response options are presented may be influential in determining which options are likely to be chosen. Unless the items follow a logical order, randomizing the response options may moderate the effects of response order.

In Retrospect
The study question was toward the end of the survey. The average time to complete the survey was seven minutes. If respondents took time to contemplate early questions in the survey, they may have rushed through the questions toward the end, though there is no indication of that.

A recommendation for future studies would be a study question with response options that are opinion based rather than a previous life experience choice.

References


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