1 ALEC 621:
Online Research Methods
Week #6: Likert Response and M/C—T/F

2 Welcome

- What we need to do this week:
  - Explore Likert response field codes.
  - Discuss differences between M/C and T/F fields.
  - Demonstrate alternative formats for knowledge-based response sets.
  - Continue coding processes:
    - Welcome site - *.htm code
    - Survey site - *.asp code
    - Verification site - *.asp code
    - Hidden components - *.mdb structure
    - Follow-up site - *.htm

3 Likert Response Field Codes

- You must think on two planes:
  - What is my data input type in the *.asp code?
  - What is the field data type in Access?

- Code allows for attitudinal data input
  - Straight-line codes for each field and data point
  - Reverse coding schemes reduce data conversion
  - See examples on "Survey site - *.asp code"

- Scales can be summated after data collection
  - Look for methods to reduce confusion in data analyses
  - Keep accurate records (paper) for your coding schemes

4 Likert Response Field Codes

- Likert-type Scales: the literature shows…
  - How many points (choices) should be in each scale?
  - What category should/should not be included?
  - What "opt out" field is/is not necessary?

- Many answers exist, but:
  - Use consistent processes in your code building
  - Base your scale structures on established theory, research, or literature to avoid problems in data analyses and/or comparisons to previous studies

5 Likert Response Field Codes

Likert Table: Coding for Data Input (Four-point – SD -> SA – Scale)

<table>
<thead>
<tr>
<th></th>
<th>1. I believe foodborne illness caused from bacteria in meats is a problem.</th>
<th></th>
<th>2. I believe foodborne illness caused from bacteria in fruits is a problem.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;1&quot; name=&quot;R1&quot;&gt;</td>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;4&quot; name=&quot;R2&quot;&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;2&quot; name=&quot;R1&quot;&gt;</td>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;3&quot; name=&quot;R2&quot;&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;3&quot; name=&quot;R1&quot;&gt;</td>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;2&quot; name=&quot;R2&quot;&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;4&quot; name=&quot;R1&quot;&gt;</td>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;1&quot; name=&quot;R2&quot;&gt;</td>
</tr>
</tbody>
</table>

6 Likert Response Field Codes

Likert Table: Reverse Coding for Data Input (Four-point – SD -> SA – Scale)

<table>
<thead>
<tr>
<th></th>
<th>1. I believe foodborne illness caused from bacteria in meats is a problem.</th>
<th></th>
<th>2. I do not believe foodborne illness caused from bacteria in fruits is a problem.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;4&quot; name=&quot;R1&quot;&gt;</td>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;1&quot; name=&quot;R2&quot;&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;3&quot; name=&quot;R1&quot;&gt;</td>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;4&quot; name=&quot;R2&quot;&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;2&quot; name=&quot;R1&quot;&gt;</td>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;3&quot; name=&quot;R2&quot;&gt;</td>
</tr>
<tr>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;1&quot; name=&quot;R1&quot;&gt;</td>
<td></td>
<td>&lt;input type=&quot;radio&quot; value=&quot;2&quot; name=&quot;R2&quot;&gt;</td>
</tr>
</tbody>
</table>
Online Appearance: Minimal Change

Differences: M/C and T/F Fields
- Easy to create Multiple Choice or True/False fields
  - Only one correct response per data point
  - Code lurkers can spoil your party...

Easy to create Multiple Choice or True/False fields
- Only one correct response per data point
- Code lurkers can spoil your party...

ASP code allows for fast, easily transmittable online surveys, but lurkers can “view source” prior to answering knowledge questions, for example:

Food irradiation:
<blockquote><input type="radio" name="Q29" value="1"> a. is an additional food safety processing step.<br>
<input type="radio" name="Q29" value="0"> b. can be used to make spoiled food marketable.<br>
<input type="radio" name="Q29" value="0"> c. is a substitute for good manufacturing practices.<br>
<input type="radio" name="Q29" value="0"> d. replaces good hygienic practices in a processing plant.<br></blockquote>

Deter lurkers by:
- Using “same view” codes in the source
- But, you will need to make conversions in Excel or SPSS

After data transfer, convert all “a” responses to “1” for this question; all other choices convert to “0”:

Alternative Formats: Knowledge Questions
- Deter lurkers in knowledge questions by:
  - Converting knowledge questions into Likert response sets with “scale choice” codes in the source
  - BUT, one question becomes four, with each choice (see below) represented equally

Alternative Formats: Knowledge Questions
- Deter lurkers:
  - Using the Likert scale...
  - NO conversions in Excel or SPSS are necessary

What are the downsides to using this coding scheme?
- What do we already know about survey length and response rates?
- What is the “best” solution to limiting survey length and deterring code lurkers?

Differences: M/C and T/F Fields
- True or False questions can be posed as Likert response sets (shorter online survey method), or as individual knowledge-type question (lengthens your survey), for example:

Food irradiation is an additional food safety processing step.
<blockquote><input type="radio" name="Q29" value="1"> a. True.<br>
<input type="radio" name="Q29" value="0"> b. False.<p></blockquote>

Or, use letters and convert in Excel or SPSS after transfer...

Food irradiation is an additional food safety processing step.
<blockquote><input type="radio" name="Q29" value="T"> a. True.<br>
<input type="radio" name="Q29" value="F"> b. False.<p></blockquote>
If no lurkers are expected, use the 1-0 values; use T-F to prevent code stealers, but this method adds a step in your data transfer and prep.

15 Differences: M/C and T/F Fields

- Should only correct and incorrect choices be offered?
- How many choices are needed/required in MC questions?
- Should M/C and T/F questions provide the "I don't know" option?

16 Alternative Formats: M/C and T/F Questions

- Which is the "most" correct presentation of this question?

17 Weekly Code - *.asp

- Week #6 continues *.asp code for the Survey site
- Weekly code writing sessions include:
  - Welcome site - *.htm
  - Survey site - *.asp
  - Verification site - *.asp
  - Hidden components - *.mdb structure
  - Follow-up site - *.htm

18 Final Thoughts

- Likert Fields:
  - Establish your coding scheme and be consistent in scales
  - Increase scale reliability (parallel "positive-negative" items)
  - Deter code lurkers (alternative coding schemes)
- M/C and T/F Fields:
  - Excellent method for presenting knowledge questions
  - Establish coding schemes
  - Deter code lurkers
- For next week:
  - Continue exploring the Internet for relevant materials to discuss in the next class