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

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

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/should not be 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

Likert Response Field Codes

<table>
<thead>
<tr>
<th>Likert Table: Coding for Data Input (Four-point – SD = SA - Scale)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I believe foodborne illness caused from bacteria in meats is a problem: &lt;input type=&quot;radio&quot; value=&quot;1&quot;&gt; 1 &lt;input type=&quot;radio&quot; value=&quot;2&quot;&gt; 2 &lt;input type=&quot;radio&quot; value=&quot;3&quot;&gt; 3 &lt;input type=&quot;radio&quot; value=&quot;4&quot;&gt; 4</td>
</tr>
<tr>
<td>2. I believe foodborne illness caused from bacteria in fruits is a problem: &lt;input type=&quot;radio&quot; value=&quot;1&quot;&gt; 1 &lt;input type=&quot;radio&quot; value=&quot;2&quot;&gt; 2 &lt;input type=&quot;radio&quot; value=&quot;3&quot;&gt; 3 &lt;input type=&quot;radio&quot; value=&quot;4&quot;&gt; 4</td>
</tr>
<tr>
<td>&lt;br&gt;</td>
</tr>
</tbody>
</table>
Likert Response Field Codes

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

<table>
<thead>
<tr>
<th>Statements</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I believe foodborne illness caused from bacteria in meats is a problem.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I do not believe foodborne illness caused from bacteria in fruits is a problem.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Online Appearance: Minimal Change

SD = Strongly Disagree; D = Disagree; A = Agree; SA = Strongly Agree

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...

Differences: M/C and T/F Fields

- 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’.

Which version contains 1-0 or a-d codes?

30. Food irradiation:
   - If it is an additional food safety processing step:
   - If it is used to make spoiled food marketable:
   - If it is a substitute for good manufacturing practices (GMP):
   - If it replaces good hygiene practices in a processing plant.
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

<table>
<thead>
<tr>
<th>Source</th>
<th>D</th>
<th>A</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food irradiation is an additional food safety processing step</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Food irradiation can be used to make spoiled food marketable</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>For food irradiation to provide hygiene in a processing plant</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Alternative Formats: Knowledge Questions

- 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:

  29. 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.</blockquote>

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

  29. Food irradiation is an additional food safety processing step.
      - "input type='radio' name='Q29' value='T'" a. True.<br>
                   "input type='radio' name='Q29' value='F'" b. False.<br>

      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.

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

Which is the “most” correct presentation of this question?

21. Food irradiation is an additional food safety processing step.
  ○ A. True
  ○ B. False

20. Food irradiation is an additional food safety processing step.
  ○ A. True
  ○ B. False
  ○ C. Do not choose the answer.

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

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