

**Session 2: Using Statistics** Presenter: Randy Kolb [rkolb@stcloudstate.edu](mailto:rkolb@stcloudstate.edu)

Statistics and Consulting Center: <http://lrts.stcloudstate.edu/about/ims/statconsulting/>

**Tips for using statistics:**

1. Find existing data
  - a. NORC: National Opinion Research Center  
<http://www.norc.uchicago.edu/homepage.htm>
  - b. ICPSR: Interuniversity Consortium for Political and Social Research  
[www.icpsr.umich.edu/](http://www.icpsr.umich.edu/)

**Quantitative and Qualitative Studies**

The center focuses on Quantitative Data.

(Check with the Psychology Department Qualitative studies)

**Descriptive vs. Inferential Studies**

Descriptive: collection of information from a survey that describes a population

Online surveys like Survey Monkey automatically tallies the data

Inferential: Utilizes a control and experimental group in order to make comparisons

Tools: Minitab, SPSS, they provide program support

**Miscellaneous**

Try to keep data in the raw form, identify missing data or unanswered questions

Multiple response questions

Mutual exclusive: choices only fit in one category

Collectively exhaustive: All responses can fit into a category

Write a thank you note at the end of a survey.

Check all that apply are treated as each a separate question

Identify missing data or non applicable data

When asking a series of questions to build an index: word the questions in the same direction. There is a national set of adopted question: example positive or negative phrasing. Keep it consistent unless it is part of your research

Advisor and thesis committee have the final say

## Creating Surveys:

Bring survey to the center prior to use. The center will help with the design process.

### 1. Survey Guidelines

- a. Define the target audience and how to contact them.
  - i. Choose a large population size (Min. 50) (Rec. 200)
  - ii. E-mail works well with online surveys
- b. Define the timeframe for response
  - i. Between 2 and 3 weeks is reasonable.
  - ii. On average there is a 30-40% response rate.
    1. Depends on the population. Sending reminders is helpful.
      - a. 1<sup>st</sup> notice 20-25%
      - b. 2<sup>nd</sup> notice 25-30%
      - c. 3<sup>rd</sup> notice 30-40%

### 2. The Statistic and Consulting Center can help design the survey.

- a. Results compiled in about 2-3 weeks.
- b. Be open to follow-up surveys.

### 3. Layout is important for keying information.

- a. Excel format works well if keyed own information
- b. When designing a survey use numerical choices like 123 rather than ABC
- c. Avoid number ranges: Categories cannot be redefined
  - i. Leave questions open-ended so that individual answers can be grouped
  - ii. Example: age: 20-30 Not a good choice because the range is too broad
- d. Other as a choice: Leave a blank so participants can write in an answer
- e. When using a likert scale (Strongly Agree--Strongly Disagree) does not give a neutral option. This forces participants to choose.