



Survey Design 101

ASSESSTIVAL OF LEARNING WINTER 2017

HARTWICK COLLEGE

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▶ Strengths

- ▶ Allows for collecting lots of data relatively quickly and easily
- ▶ Data analysis is simple for most assessments
- ▶ Lots of tools to assist in survey design and administration
- ▶ Administration doesn't require a lot of resources

▶ Challenges

- ▶ Students are HIGHLY surveyed
- ▶ Response rates are becoming a huge issue on campus
- ▶ Non-responsive answers (you can't follow up, if you don't get the answers you need)
- ▶ Limited in the types of questions you can ask
- ▶ Skills sets needed for higher level analysis

Steps to creating a survey:

Determine purpose/outcome/what you need to know

Outline a shell of what the survey should cover

Determine which question formats

Write and edit question items

Determine sequence

Review/Revise/Check content or face validity

Pilot/Revise as needed

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Purpose/outcome/what you need to know

- ▶ Clear goals/objectives make it easier to create instruments, analyze data, and report results
- ▶ Communicate the intentions of the assessment to future students, administrators, parents
- ▶ Serve as guides for planning future assessments or recreation at a later date



Given your outcome, what topics do you need cover in your survey?



Survey Outline

A **survey outline** lists each topic according to how important it is or how much time is spent covering that objective



Developing a Survey Outline

- ▶ List topics
- ▶ Choose how many questions you want in your survey (Hint: response rate literature says keep it to 15 questions max)
- ▶ Designate number of items per topic:
 - ▶ Consider proportion of total survey
 - ▶ Base on importance of objectives
 - ▶ Should relate to amount resources that would be allocated based on the responses

Sample Outline: Leadership Training

Total number of questions 15

| Priority | # questions | Aspect |
|----------|-------------|--|
| 1 | 10 | Identify what students already know about leadership techniques so the program can address new content |
| 2 | 2 | Determine ways in which students say they can best benefit from the target material |
| 3 | 1 | Learn what students would want to get out of a leadership training program |
| 4 | 2 | Demographics: class year, gender |

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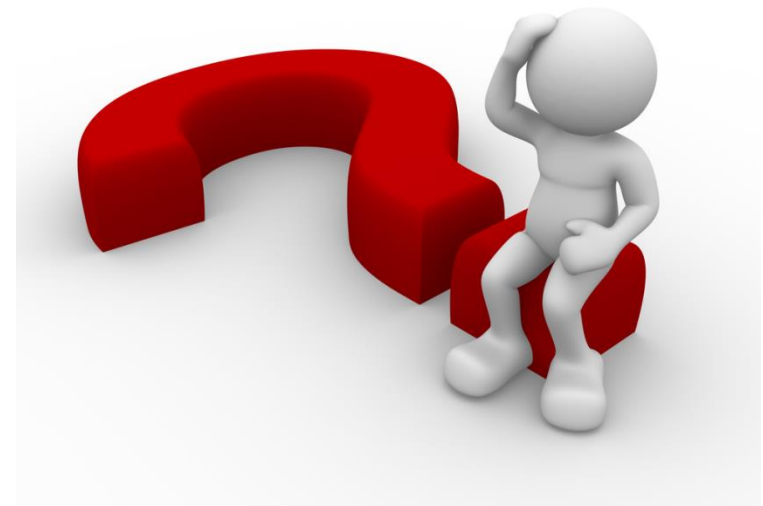
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Questions

- Focus on information you need
- Avoid questions you cannot act upon or do not want to know the answer to
- Tie to your outline
- Avoid leading questions, socially desirable responses, and language barriers
- To assess *future behavior*, ask past behavior



Types: Closed-Ended

- ▶ Yes/No
- ▶ Single response
- ▶ Multiple response (e.g., Check all that apply, Select 3)
- ▶ Scales
- ▶ Ranking



Common Pit-Falls

- ▶ Using Yes/No when it is a scale (or vice versa)
- ▶ Overlapping scales (eg., 1-10, 10-20...)
- ▶ Scales and “Stems” don’t match
- ▶ When to include “Other” or “None of the Above”
- ▶ Using text box when it should be closed-ended



SIDE NOTE:

Anatomy of a Multiple Choice Survey Question

Consist of 3 parts

1. Stem
2. Item(s)
3. Response options / scale

Please indicate the level of importance you place on the following in terms of veteran services/policies at the University of Arizona:



Academic advising
Admissions application assistance
Alternative curriculum delivery formats
(online, evening, or weekend courses)
Career services advising

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1 - Not at all important | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4 - Neutral | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7 - Extremely important | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



Types: Scale Items

- Rating scales that measure attitudes, behaviors, and beliefs (Rosenthal, 2006)
- Use at least four-five options (you can always combine responses later)
- Describe each option with words whenever possible
- Use a middle option when appropriate
- If you think there will be a “ceiling” or “floor” effect, use more options or make unipolar

Example Scales

Frequency:

- ▶ Always → Never
- ▶ Daily, Weekly, Monthly, Once a Sem., Once a yr., Never
- ▶ More than 5 times, 4-5 times, 2-3 times, 1 time, less than 1, never

Likelihood:

- ▶ Definitely Like Me → Not at all Like Me
- ▶ Always True of Me → Never True of Me

Proficiency:

- ▶ Excellent → Extremely Poor

Importance:

- ▶ Very Important → Unimportant

Agreement:

- ▶ Completely Agree → Completely Disagree

Amount (good for confidence questions):

- ▶ All → None

Ease:

- ▶ Very Easy → Very Difficult

Quality:

- ▶ Excellent, Good, Average, Below Avg., Poor

Find more at:

<http://www.extension.iastate.edu/Documents/ANR/LikertScaleExamplesforSurveys.pdf>

Open Ended Questions

- ▶ Ask a limited number
- ▶ Ask only when you absolutely need to (e.g. for objectives that ask to explain, apply, compare)
- ▶ Place throughout survey, rather than all at end
- ▶ Takes time to analyze
- ▶ When possible, give choices with an “Other (please specify)” option

Other Types:

- ▶ Matching
- ▶ Fill In the Blank
- ▶ Matrix
- ▶ Rating (better to ask for top 1-2 choices)

Question Writing Tips:

- Avoid excess words
- Use specific, appropriate vocabulary
- Avoid bias (age, ethnicity, gender, disabilities)
- Underline and bold negative or other important words
- See what is already created
- Have others review your items
- Proofread, proofread, proofread



Question Writing Tips Continued

- Each question should be meaningful to respondents
- Specific questions provide specific information
- Keep the stem as short as possible
- Place the main idea of the question in the stem, not the item options
- Don't use negative stems too frequently
- Have one-part stems (aka don't ask two questions in one)



Test your questions...

- ▶ Will respondents interpret the item in the same way on a different day? (reliability)
- ▶ Will the item mean the same thing to all people in the population? (reliability)
- ▶ Will the item elicit the information you want? (validity)
- ▶ Will the item elicit accurate and relevant data? (validity)

What are your survey pet peeves?



Things to Avoid:

- ▶ Socially desirable responding – based on social norms
 - ▶ Can never be eliminated
 - ▶ Consider sensitive topics like race, drug and alcohol use, sexual activity, and other areas with clear social expectations
- ▶ Leading questions – suggesting there is a correct answer
- ▶ Double-barreled questions – asking more than one question
- ▶ Double negatives – including negative phrasing which makes responding difficult

CAUTION

Survey Cheers and Jeers Worksheet



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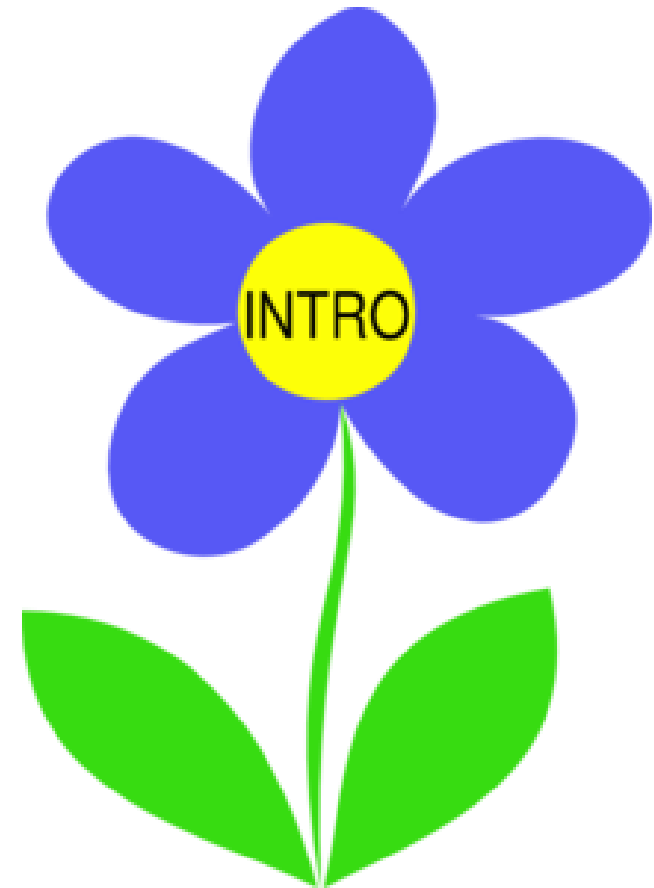
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Pulling it Together: Introduction

Include a written introduction with:

- Importance of the survey (why, who)
- How results will be used
- The confidentiality of responses (vs. anonymous)
- How long it will take to complete the survey
- Any incentives you are providing
- Who to contact with questions

But the catch – Keep it short!



Pulling it all Together: Order

- ▶ Use item order to get the most accurate responses possible
- ▶ Start with “ease-in” items
- ▶ If long, put important items first
- ▶ Keep a logical order
- ▶ Intersperse different item types
- ▶ Whenever possible, leave demographic items until the end



Pulling it all Together: Length

- ▶ Keep it as short as possible
- ▶ Use matrix to combine questions
- ▶ People tend to tune-out after 15 minutes; less for Web-based surveys
- ▶ Remember: You don't have to answer all your assessment questions at once. Consider saving some items for later.



Final Check for Validity:

Face Validity

Someone who knows survey design checks to ensure you are measuring your intended outcome

Content Validity

Someone who is knowledgeable about the subject matter checks to ensure being true to subject area



A quick note about response rates:

- ▶ Salience is key
- ▶ Show respondents you are using data
- ▶ Sample when you can
- ▶ Incentives help but just a little
- ▶ Bottom line – try to avoid surveys are your go-to tool



Share some response rate ideas...

