

Appendix

The Social Science of Designing Effective Surveys

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What is the **Purpose** of the survey? For example...

Is this for a large organizational initiative?

Is this part of a mandated report?

Who is the **Audience** of the survey results? For example...

Will this be going out to the public?

Will this be going to upper management?

Who is the **Population** being surveyed? For example...

Is it a population that requires special considerations, such as children and youth, cognitively impaired adults, non-English speakers, etc.?

Is it a difficult to reach population, such as homeless or minority groups?

What is the **Topic** of the survey? For example...

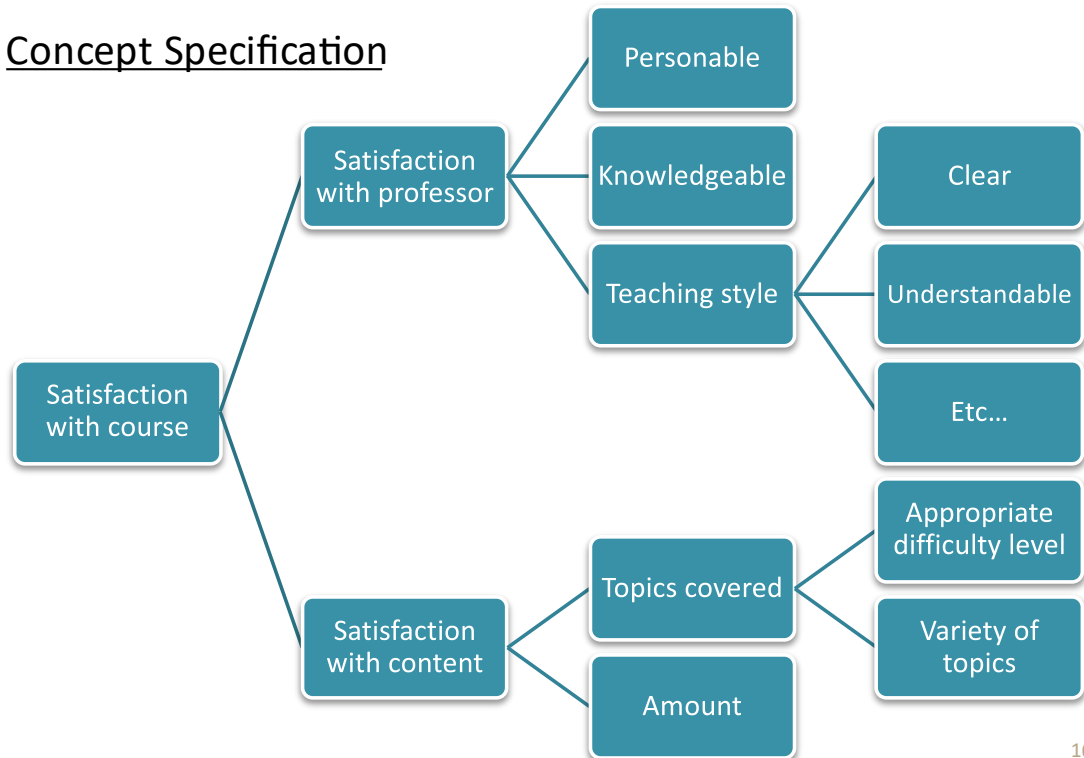
Is it a sensitive topic that participants may be uncomfortable answering questions about?

Is it a highly politicized topic that may be susceptible to biased responses?

Is it a complex topic that may be difficult for respondents to understand?

What do you want to know?

Concept Specification



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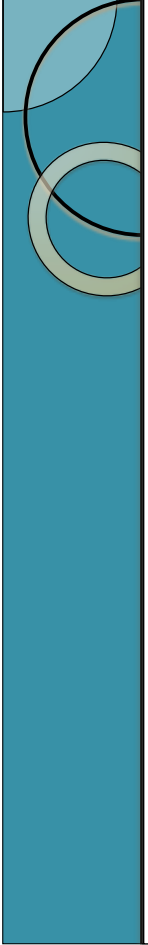
Content specification is an exercise that can help break down the purpose of the survey into smaller digestible parts.

For example, let's say we wanted to do a survey that evaluated how satisfied students were with a particular training course. First we have to think, what are the main factors involved in "course satisfaction"? This might include satisfaction with the professor and satisfaction with the course content.

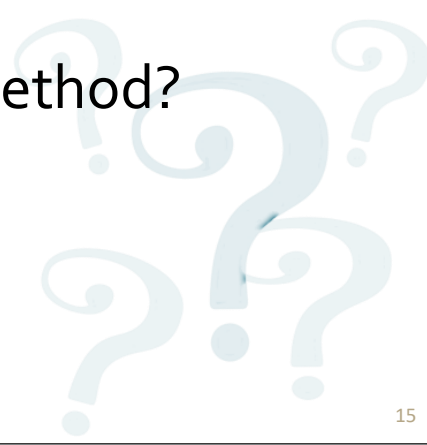
Let's break it down further. What might we be looking for in a "satisfactory professor"? This might be someone who is personable, knowledgeable, has a good teaching style, etc. What makes good course content? We'll be looking at whether the student was satisfied with what topics were covered, how thoroughly they were covered, etc.

And then we can continue to break this down until we've covered everything we want to know. In fact, you may notice that in doing this exercise eventually the questions will just write themselves.

You'll also notice that our questions are now broken down into actionable items. If I ask if you were "satisfied with the course" and you say no, what can I do with that information? Not much. But if I ask if the course content was at the appropriate difficulty level and you say no, that is something I can take action on.



Know Your Question

- What do you want to know?
 - How will the information be used?
 - Is a survey the best method?
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Questions to ask when developing a survey:

- Who is the intended audience for this report and what questions are they going to be asking?
 - Have I covered everything they are going to want to know?
 - Am I collect extraneous information they won't need?
- What actions will be taken based on the results of this survey?
 - Have I designed my survey in such a way that my stakeholders have the information they need to take action?
 - Are my questions clear and precise enough to take action on the results?
- How will we analyze the data?
 - Have I designed my survey in such a way that I can obtain the statistics that I want?
 - Have I designed my survey sample in such a way that I can talk about the populations I want?
- How will we disseminate the results?
- How will we distribute the final report?

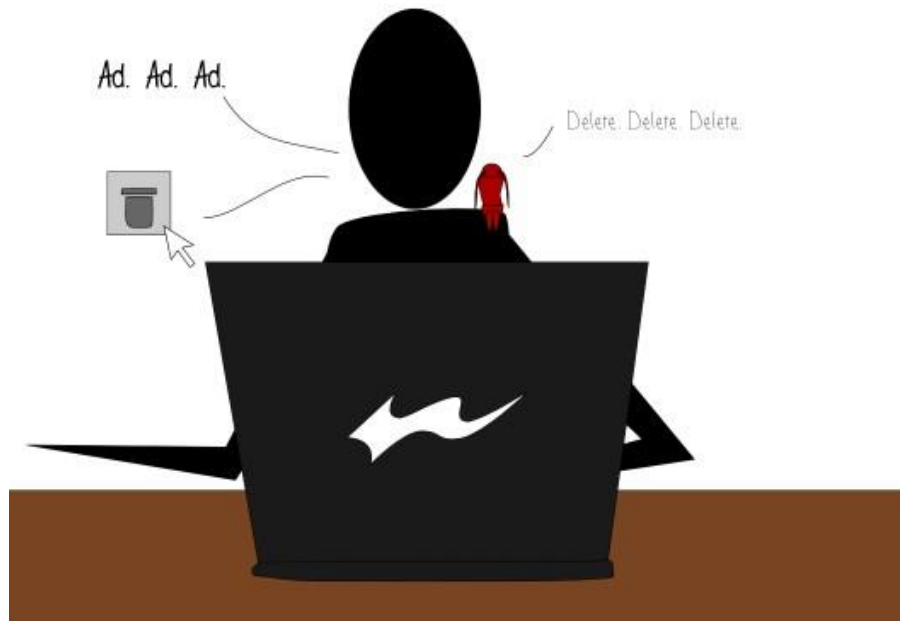
Surveys are best suited for:

- Self-assessment
- Opinion gathering
- Collecting simple objective facts

Surveys work well for questions that are:

- Quick
- Easy to answer
- Click on a button

Cover letters

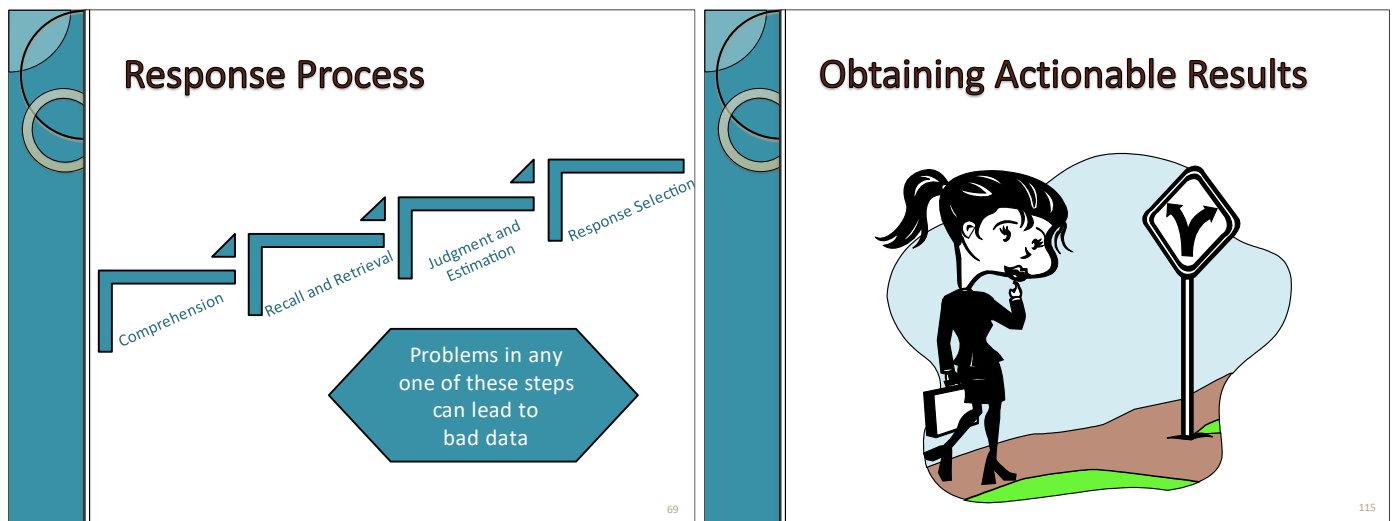


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Every survey should have a cover letter and introduction.

Common elements include:

- Who is conducting the survey
- What is the purpose of the survey
- How is the data going to be used
- Why/how they were selected
- Estimated length of the survey
- Incentive for completing survey (if applicable)
- Confidentiality/anonymity policy
- Who to contact with questions



Comprehension:

- **Use terms that most people interpret the same way** – Definitely avoid abbreviations and jargon.
- **Provide definitions for terms** – Such as additional text or information that interviewers are trained to offer when asked.
- **Limit questions to information the person will actually know** – Surveys work best for self-assessment, opinion gathering, and collecting simple objective facts. Don't ask your respondent to answer for an entire group (e.g., "How satisfied are staff with management's ability to...?"), but phrase the questions to ask about personal experience ("My manager is able to...").
- **Address only one concept per question** – Avoid double-barreled questions. Each concept should have its own question.

Recall and Retrieval:

- **Reduce the time period under review** – Ask about last week, not last year. However, be aware that shorter time periods may lead in increased variability of responses if the event in question is not very frequent.
- **Perhaps use ranges instead of exact figures** – The downside to ranges is that it limits the analytic capability – for example, we cannot report means or medians on ranges. On the flipside, if recall issues are at play, the exact figure is not really "exact" anyway. Ranges can also be preferable when asking about sensitive information such as income.
- **Use a diary approach** – Ask about the event at the time the event is occurring, rather than forcing people to recall the information afterwards. This is an excellent approach for things like workload studies.
- **Ask additional questions** – Asking parallel questions may help trigger memories. For example, ask about events which may have occurred in conjunction with what you want to know. If a person has been a victim of a crime, asking about whether they have called the police or filed insurance claims may help trigger their memory.
- **Avoid pictures or other cues that could change memory in a biased manner** – Cues can affect recall. For example, in one study participants were asked "How many sporting events have you attended in the last year?" Respondents shown pictures of a major league ball park reported lower frequency than people shown images of a little league game (Couper et al., 2004).
- **Take advantage of recognition** – It is generally easier to recognize something from a list than the recall from memory. That is why open-ended questions like "What do you like to do while camping?" will always generate fewer responses than a multiple-choice question like "Check all the things you like to do while camping."

Judgment and Estimation:

- **Be aware of context effects** – Factors such as how the question is worded, how the interviewer presents the question, and the context of prior or following questions can affect how the respondent answers the question.
 - If question wording or response order is a concern, ask the same question in multiple ways with slightly different wording, then use the sum average to provide an overall scale.
 - Question order effects can be mitigated by having a randomized question order (when appropriate). The effects of question order can also be analyzed statistically. The same is true for response order effects.
- **Borrow vetted questions when possible** – If another researcher has looked into the issue and had good success, don't reinvent the wheel. This also (sometimes) has the added bonus of providing some context from a comparable sample.
- **Pilot testing and statistical analysis can identify areas of concerns** – Bring your analyst on board during the planning phase to develop a game plan for looking for context effects that may be biasing your results.

Response Selection:

- **Provide simple scales** – Limit Likert-style scales to 5 possible responses or less (although this may be a matter of preference).
- **Provide simple responses** – If you want to know *why* a respondent chose a certain response, ask that as a separate question. Do not build the “why” into the response option.
- **Provide an (edited) comprehensive response list** – You want to be sure that every respondent has a response option that fits for them. However, if your response list is too long, you run the risk of encountering the “Primacy Effect”; people are more likely to choose the first options presented to them, rather than read through the entire list. Possible solutions include keeping your list of response options brief and using randomized response option ordering.
- **Provide an “Other” response category** – There may be times when you want force respondents to select from a certain list. However, more often than not you should provide an “Other” option.
- **Be aware of how you ask sensitive questions** – Social desirability bias (the desire to be seen in a socially acceptable light) and other response biases may result in under-reporting undesirable behaviors. There are many techniques for getting honest answers to sensitive questions, including some of the examples we've discussed in class.

Obtaining Actionable Results:

- **Force respondents to make a difficult choice** – Depending on the context, it may be important to force the respondents to make difficult choices.
- **Rank, not rate, priorities** – Ranking can be a good way to determine priorities and weed out “needs” from “wants.”
- **Use one (and only one) comment box** – Give people a chance to vent. However, if you need detailed narratives, surveys are not the appropriate format for you.



Below are some example questions that you may want to ask an expert review panel and/or pilot testers:

- Did the survey appear to measure what you expected it would measure? If not, what about this survey was contrary to your expectations?
- How would you describe your overall impression of this survey? What suggestions would you offer the developer team for improvement?
- Is the survey comprehensive enough to answer the necessary questions? Are there any items missing from this survey? Are there any items currently present that should not be part of the survey?
- Is the survey effective enough to be useful in making decisions? Are there any items missing from this survey?
- Is the survey comprehensive enough to help measure progress over time in achieving goals and key outcomes?
- How useful is the survey in helping in determining next steps? Would you be able to the survey findings when making recommendations?
- Is the planned survey process timely enough to be useful in making recommendations?
- Will you able to make recommendations to address deficiencies discovered through the survey process? Are there any potential identified needs in the survey which you may not be able to address?
- Do you think the survey is a fair and unbiased assessment of what it sought to measure? Why or why not?
- Did you feel that any item or aspect of this survey was discriminatory with respect to any group of people? If so, why?
- Are the instructions comprehensive enough to provide clear and unambiguous guidance? Were there any items that you were unsure about how to respond?
- Are there any instructions or other aspects of the survey that may be difficult to understand?
- How did you feel about the length of the survey with respect to (a) the time it took to actually fill out the survey and (b) the number of items on the survey?
- Did you have difficulty in answering the questions on the survey? Were there any items that you absolutely could not answer?
- Did you guess on any items, or feel that there were multiple “right” answers? In these cases, how did you decide which answer to choose?
- How confident do you feel about your responses on the survey?

- Did the selected sample affect the results in any way? Was the sample a good representation of the population under study? If not, why?
- Was there any part of the survey that may be particularly educational, informational, or otherwise rewarding for the respondent? Was there any part of the survey that may be particularly anxiety-provoking, condescending, or otherwise upsetting?