

Survey Design (94-828) – Spring 2024
Heinz College
Carnegie Mellon University
Wednesday, 6:30pm– 9:20, HBH 2008

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Appointments: Please schedule with me via phone, text, email, or in person during class.

Overview

When was the last time you were asked to respond to a survey? Customer satisfaction surveys, alumni surveys, consumer product surveys, political surveys, health surveys, and public opinion polls represent just a few of the types of surveys most of us routinely encounter. Moreover, national news organizations and the popular press deliver the results from their latest surveys on a daily basis. To what extent can you trust the results? Are the survey results flawed by inappropriate survey design and methods? This course introduces you to a set of principles and methods in survey design that are based on the scholarship that informs best practices in the field.

We will use the concept of total survey error to frame an understanding of the key issues in survey research, including sampling frames, survey statistics, modes of data collection, non-response, question structure, wording, context and other important features of survey administration and data collection. By developing your own survey, you will examine the major decisions faced by a professional who wants to design and administer high-quality surveys.

The course will focus heavily on class discussion of readings, in-class group work, and a survey design project. For this reason, attendance and active participation are important for successful learning in this course.

General Goal

I want to turn you into a *Survey Snob*. I know this sounds odd, but I want you to become a sophisticated and critical consumer and producer of surveys. To accomplish this, you will need to develop an understanding of the fundamental principles of survey research and design. After this course, I hope that you look at surveys through a new set of eyes. You will be able to distinguish poorly-constructed surveys from well-constructed surveys. You will be able to design and administer surveys that support the social, research, and data collection needs of the organizations and institutions to which you belong.

Learning Objectives

As a result of meaningful and active participation in this course you will be able to:

- Identify and develop specific survey objectives and formulate survey research hypotheses
- Identify and use appropriate survey sampling techniques
- Identify and explain sources of survey error.
- Design, evaluate, test, and iteratively revise survey questions to reduce survey error

Readings

There are several outstanding texts and manuals that provide excellent coverage of the important issues in survey research and design. Rather than work from a single text, we will sample content from many of these texts or from primary sources. Copies of the required readings will be provided through the course Canvas site.

As a source of general information, the following are a sample of excellent resources in the area of survey design. **You do not need to purchase any of these books.**

Alreck, P.L. & Settle, R.B. (1995). The survey research handbook. Boston; McGraw Hill.

Dilman, D.A., Smyth, J.D. & Christian, L.M. (2014). Internet, phone, mail and mixed-mode surveys: The tailored design method, 4th Edition. Hoboken: John Wiley & Sons.

Fink, A. (2013). How to conduct surveys: A step-by-step guide, 5th Edition. Los Angeles: SAGE Publications.

Fowler, F.J.Jr. (1995). Improving survey questions: Design and evaluation. Thousand Oaks: Sage Publications.

Fowler, F.J.Jr. (1988). Survey research methods. Thousand Oaks: Sage Publications.

Groves, R.M., Fowler, F.J.Jr., Lepkowski, J.M., Singer, E & Tourangeau, R. (2004). Survey methodology. Hoboken: John Wiley & Sons.

Nardi, P.M. (2003). Doing survey research: Guide to quantitative methods. Boston: Pearson Education, Inc.

Schuman, H. & Presser S. (1996). Questions & answers in attitude surveys: Experiments on question form, wording and context. Thousand Oaks; SAGE Publications.

Schedule

This course meets over seven weeks, with a total of seven (7) class sessions. The course is framed around the key concepts in survey design methodology. We begin by exploring the

definition of a survey and the central features of the survey process. Next, we examine the notion of survey error and the related concepts of sampling, non-response and the effects of different modes of data collection. As a natural extension of this discussion, we explore the process of writing and evaluating questions and survey instruments. Finally, we wrap up with an introduction to the processing of testing survey instruments.

Readings and instructions for class activities or assignments (when relevant) for each class meeting are provided on the class Canvas site.

Week	Date	Day	Topic
1	March 13	W	<ul style="list-style-type: none"> • Introductions, syllabus review, course overview, and expectations • Survey methodology, the lifecycle of survey design • Research questions and hypotheses • Form survey project groups
2	March 20	W	<ul style="list-style-type: none"> • The survey design process and sources of survey error • Populations, frames, and coverage error • Sampling, sampling error, and sample size calculations • Response rates and non-response error
3	March 27	W	<ul style="list-style-type: none"> • Designing questions: Overview • Model of cognitive process • Problems answering questions • Getting started writing questions
4	April 3	W	<ul style="list-style-type: none"> • Writing questions continued
5	April 10	W	<ul style="list-style-type: none"> • Cognitive Interviewing • Soliciting participation
6	April 17	W	<ul style="list-style-type: none"> • Practical issues in survey design -- class presentations <p>Note: for this class, the professor will be participating remotely.</p>
7	April 24	W	<ul style="list-style-type: none"> • Integrity and ethical issues in survey research • Review for final exam
	TBD	TBD	FINAL EXAM
	May 3 9pm	FR	Survey Project Due

Grading

- 1. Class participation (10%).** This is a lecture/seminar-style class. You are expected to attend, in person and actively participate in the class. To do so, you must complete the readings that are assigned for each class *prior* to the class meeting. Participation will be assessed using the following criteria.
 - 0 = absent
 - 1 = present, but little or no participation, or participation that is disrespectful, distracting, or dominating.
 - 2 = present, with participation that contributes to the benefit of the class.
- 2. Homework Assignment and Comprehension Checks (20%).** Homework assignments provide an opportunity to practice important skill-building.
- 3. Final Exam. (30%).** In this course, you must acquire a fundamental knowledge and understanding of the principles, terms, and concepts in survey research. This exam will allow you to demonstrate what you learn.
- 4. Group Project (40%).** See below.

Your final grade will be calculated using the following scale.

90% -100% = A
80% - 89% = B
70% - 79% = C
60% - 69% = D

Group Project

On **the first day of class**, you will be asked to form groups of two or three people, based on your background and interests. Across the span of the course, each group will design a survey proposal, including a draft survey to address a specific research question or area of interest. The project should represent the collective contribution of each member of the team. Each team will submit one project.

The proposal should include the following:

- 1. Introduction.** Identify your specific research question(s), the context from which the question arises or is relevant, any background information, how you might envision using the survey data.
- 2. Methods.** Discuss, in detail, your methods.
 - a. Describe your survey and define the constructs you expect to measure.
 - b. Describe your:
 - i. Target population – in whom are you interested and why?
 - ii. Sampling frame – how will you identify the people who have a chance to be included in the survey?

- iii. Sample design – what kind of sampling strategy will you use? How will you select members of your sample, and how many will you select?
 - iv. Survey mode – how will you contact members of your sample, how will you ask your questions and collect your answers, and how much effort will be devoted to collecting data from those reluctant to respond?
 - c. Explain how you plan to evaluate your instrument prior to data collection.
- 3. **Limitations.** No survey is free of error. Describe issues of error that your design is not able to overcome or areas where you expect error will be introduced.
 - 4. **Survey.** Include a copy of your instrument as an appendix.

Survey Projects are due Friday, May 3, 2024, by 9pm.

Policies and Resources

Academic Integrity. Collaboration is encouraged in the context of the group project, in-class work, and in-class activities (unless otherwise specified). However, individual assignments, homework and the final examination are not collaborative. All work is subject to the university's code of conduct and standards for academic integrity (<http://www.cmu.edu/academic-integrity/>).

Attendance: Class attendance is critical to the learning process and participation contributes to the final grade. If you miss class, you miss important content, discussion, homework review, and opportunities to ask questions and get feedback. However, life happens. Within the first week of class, look at the class schedule, identify any classes you might miss for an excusable reason, and notify me as soon as possible. Each person is permitted one absence without a point deduction. If there are special circumstances that require you to miss more than one class, please discuss the issue with me prior to the absence.

Accommodation: If require accommodations, please contact Catherine Getchell, Director of Disability Resources at getchell@cmu.edu or 412-268-6121. If you have an accommodations letter from the Office of Disability Resources, please discuss your accommodation needs with me as early in the semester as possible. I will work with you to ensure that accommodations are provided as appropriate.

Late Assignments.

In both the professional and academic worlds, deadlines are important. Assignments handed in late or emailed after the due date/time, without prior instructor approval, will be considered late and will not receive full credit.

Help and Assistance: This course involves the development of an applied skill. Like any skill, it takes practice. If you need help, assistance or want additional feedback, please contact me. Part of my job is to support you in being successful in this course.

Take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep, and taking time to relax. Despite what you might hear, using your time to take care of yourself will actually help you achieve your

academic goals more than spending too much time studying. All of us benefit from support and guidance during times of struggle. There are many helpful resources available on campus. An important part of the college experience is learning how to ask for help. Take the time to learn about all that's available and take advantage of it. Ask for support sooner rather than later – this always helps. If you or anyone you know experiences any academic stress, difficult life events, or difficult feelings like anxiety or depression, we strongly encourage you to seek support. Consider reaching out to a friend, faculty or family member you trust for assistance connecting to the support that can help.

Counseling and Psychological Services (CaPS) is here for you: call 412-268-2922 and visit their website at <http://www.cmu.edu/counseling/>. Over 25% of students reach out to CaPS sometime during their time at CMU.

If you or someone you know is feeling suicidal, call someone immediately, day or night:

- CaPS: 412-268-2922
- Resolve Crisis Network: 888-796-8226

If the situation is life threatening, call the Police:

- On campus: CMU Police: 412-268-2323
- Off campus: 911