

Syllabus

Questionnaire Design 2 credits/4 ECTS

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Video lecture by Prof. Frauke Kreuter

January 10, 2025 – February 28, 2025

Short Course Description

This course introduces students to the stages of questionnaire development in quantitative surveys. The course reviews the scientific literature on questionnaire construction, the experimental literature on question effects, and the psychological literature on information processing. It also pays special attention to the relationship between mode of administration and questionnaire design. Students will get hands-on experience in developing their own questionnaire. Note that this course does not cover developing interview guidelines for semi- and unstructured interviews in qualitative studies.

Course Objectives

By the end of the course, students will...

- be able to develop their own survey questionnaire based on a research question.
- be able to apply the knowledge about the cognitive response process to write good survey questions.
- be able to select and apply tools to pretest their questionnaire.
- know different techniques to ask respondents about sensitive topics.
- be able to develop questions that ask about facts (i.e. behaviors and events) and non-facts (i.e. attitudes and opinions).
- be able to put individual survey questions in an appropriate sequence considering the idiosyncrasies of different modes of data collection.

Prerequisites

No prerequisites, although basic knowledge about survey data collection is recommended. [Survey Methodology, 2nd ed.](#) Is a good introduction for those with little survey knowledge.

This class will also expect students to know how to draft a social science research question(s) that will form the basis of their survey questionnaire.

Class Structure and Course Concept

This is an online course using a flipped classroom design. It covers the same material and content as an on-site course but runs differently. In this course, you are responsible for watching video-recorded lectures and reading the required literature for each unit prior to participating in mandatory, weekly, one-hour online meetings where students have a chance to discuss the materials from a unit with the instructor. Just like an on-site course, homework will be assigned and graded, and there will be a final exam at the end of the course.

Although this is an online course where students have more freedom in when they engage with the course materials, students are expected to spend the same amount of time overall on all activities in the course- preparatory activities (readings, watching videos), in-class-activities (participating in online meetings), and follow-up activities (assignments and exams) – as in an on-site course. As a rule of thumb, the workload in all courses will be approximately 12h/week. This is a 2-credit/4-ECTS course that runs for 8 weeks. Please note that the actual workload will depend on your personal knowledge.

Mandatory Weekly Online Meetings

**** Friday, noon ET, starting January 10, 2025.*

Meetings will be held online through Zoom. Follow the link to the meeting sessions on the course website on <https://elms.umd.edu/>. If video participation via Internet is not possible, arrangements can be made for students to dial in and join the meetings via telephone.

In preparation for the weekly online meetings, students are expected to watch the lecture videos, read the assigned literature, and answer questions on the discussion board before the start of the meeting. In addition, students are encouraged to post questions about the materials covered in the videos and readings of the week in the forum before the meetings (deadline for posting questions is Thursday, 8:00 AM ET the day before class).

Students have the opportunity to use the Conferences feature in Canvas to connect with peers outside the scheduled weekly online meetings (e.g., for group projects and study groups). Students are not required to use Canvas Conferences and can use other online meeting platforms such as Google Meet or Skype.

Grading

Grading will be based on:

- 5 online quizzes (20% total grade)
- Attendance and participation in discussion during the weekly online meetings (7% total grade)

- Posting questions to the weekly discussion forums (deadline: Thursday 8:00 AM ET) demonstrating understanding of the required readings and video lectures (8% total grade)
- Project consisting of 3 homework assignments (65% total grade)

Dates of when assignments will be due are indicated in the syllabus. Late assignments will not be accepted without prior arrangement with the instructor.

A+ 100 - 97
 A <97 - 93
 A- <93 - 90
 B+ <90 - 87
 B <87 - 83
 B- <83 - 80
 Etc.

Variations for grading on a scale are at the discretion of the instructor.

The final grade will be communicated under the assignment "Final Grade" in the Canvas course. Please note that the letter grade written in parentheses in Canvas is the correct final grade. The point-grade displayed alongside the letter grade can be ignored.

Dates of when assignments will be due are indicated in the syllabus. Extensions will be granted sparingly and are at the instructors' discretion.

Technical Equipment Needs

The learning experience in this course will mainly rely on the online interaction between the students and the instructor during the weekly online meetings. Therefore, we encourage all students in this course to use a computer or laptop, headset, and Internet connection that allow for good quality video and sound. The instructor will ask all students to participate with video and sound in order to simulate a classroom experience.

Long Course Description

The objective of this course is to introduce the scientific literature on the design, testing, and evaluation of survey questionnaires. The course will explore the theoretical and experimental literature related to question and questionnaire design and focus on practical issues in the design, critique, and interpretation of survey questions.

Discussion will focus on the measurement of both factual and non-factual material. Topics include general principles of writing questions to ensure respondent understanding; techniques for measuring the occurrence of past behaviors and events; the effects of question wording, response formats, and question sequence on responses; combining individual questions into a meaningful questionnaire; guidelines for self-administered surveys versus interviewer-administered surveys; strategies for

obtaining sensitive or personal information; and an introduction to techniques for testing survey questions.

The course will also provide hands on applications of the methods discussed in class. Students will be expected to draw on the material covered in the video lectures and readings in conducting a series of exercises in the development of a questionnaire.

Readings

Primary Readings

Primary readings are from the following books, which are required for students to buy and available at bookstores:

Bradburn, N., Sudman, S., & Wansink, B. (2004). *Asking Questions: The Definitive Guide to Questionnaire Design – For Market Research, Political Polls, and Social and Health Questionnaires*, San Francisco, CA: Jossey-Bass.

Callegaro, M., Manfreda, K. L., & Vehovar, V. (2015). *Web Survey Methodology*. London: Sage Publications.

Converse, J., & Presser, S. (1986). *Survey Questions: Handcrafting the Standardized Questionnaire*, Newbury Park: Sage Publications.

Recommended Books

Interested students might find the following additional recommended books helpful (but not required or necessary) in preparing for the course:

Beatty, P., Collins, D., Kaye, L., Padilla, J., Willis, G. B., & Wilmot, A. (2020). *Advances in Questionnaire Design, Development, Evaluation, and Testing*. Hoboken, NJ: Wiley.

Fowler, F.J. Jr. (1995). *Improving Survey Questions: Design and Evaluation*, Thousand Oaks, CA: Sage Publications.

Fowler, F., & Mangione, T. (1990). *Standardized Survey Interviewing*, Newbury Park: Sage Publications.

Presser, S., Rothgeb, J.M., Couper, M.P., Lessler, J.T., Martin, E., Martin, J., & Singer, E. (2004). *Methods for Testing and Evaluating Survey Questionnaires*, Hoboken, New York, NY: Wiley.

Saris, W.E., & Gallhofer, I.N. (2007). *Design, Evaluation, and Analysis of Questionnaires for Survey Research*, Hoboken, NJ: Wiley.

Schuman, H., & Presser, S. (1981). *Questions and Answers in Attitude Surveys*, New York, NY: Academic Press.

Willis, G. (2005). *Cognitive Interviewing: A Tool for Improving Questionnaire Design*, Thousand Oakes, CA: Sage.

Academic Conduct

Clear definitions of the forms of academic misconduct, including cheating and plagiarism, as well as information about disciplinary sanctions for academic misconduct may be found at <https://www.president.umd.edu/sites/president.umd.edu/files/documents/policies/III100A.pdf> (University of Maryland)

Knowledge of these rules is the responsibility of the student, and ignorance of them does not excuse misconduct. The student is expected to be familiar with these guidelines before submitting any written work or taking any exams in this course. Lack of familiarity with these rules in no way constitutes an excuse for acts of misconduct. Charges of plagiarism and other forms of academic misconduct will be dealt with very seriously and may result in oral or written reprimands, a lower or failing grade on the assignment, a lower or failing grade for the course, suspension, and/or, in some cases, expulsion from the university.

Accommodations for Students with Disabilities

In order to receive services, students at the University of Maryland must inform their instructor at the start of the course regarding any necessary accommodations and contact the Accessibility & Disability Service (ADS) office to register in person for services. Please call the office to set up an appointment to register with an ADS counselor. Contact the ADS office at 301.314.7682; <https://www.counseling.umd.edu/ads/>.

Course Evaluation

In an effort to improve the learning experience for students in our online courses, students will be invited to participate in an online course evaluation at the end of the course (in addition to the standard university evaluation survey). Participation is entirely voluntary and highly appreciated.

Sessions

Week 1: Instrument Development

Video lecture: available Friday, January 3, 1:00 EST

Online meeting: Friday, January 10, noon ET

Online Quiz 1: due Sunday, January 12, noon ET

Required Readings:

Bradburn et al. (2004). Chapter 1.

Recommended Readings:

Bradburn, N.M. Surveys as Social Interactions. (2016). *Journal of Survey Statistics and Methodology*. 4, pp. 94-109.

Fowler, F.J. Jr. (1995). *Improving Survey Questions: Design and Evaluation*, Thousand Oaks, CA: SAGE Publications. Chapter 1.

Hox, J. (1997). From Theoretical Concepts to Survey Questions. In L. Lyberg, et al. (eds.) *Survey Measurement and Process Quality*, New York, NY: Wiley, pp. 47-69.

Schwarz, N. (1997). Questionnaire Design: The Rocky Road from Concepts to Answers. In L. Lyberg et al. (eds.). *Survey Measurement and Process Quality*, New York, NY: Wiley, pp. 29-45.

Sinkowitz-Cochran, R.L. (2013). Survey Design: To Ask or Not to Ask? That Is the Question... *Clinical Infectious Diseases*, 56, 1159-1164.

Tourangeau, R. & Bradburn, N. (2010). The psychology of survey response. In P.V. Marsden & J. D. Wright (Eds.) *Handbook of Survey Research*, 2nd Edition, San Diego, CA: Elsevier, pp. 315-346.

Week 2: Writing Survey Questions

Video lecture: available Friday, January 10, 1:00 EST

Online meeting: Friday, January 17, noon ET

Course Project Assignment 1: due Sunday, January 19, noon ET

Required Readings:

Converse, J., & Presser, S. (1986). Chapters 1 and 2.

Callegaro, M., Manfreda, K. L., & Vehovar, V. (2015). Sections 2.3.1 and 2.3.2

Recommended Readings:

Fowler, F.J. Jr. (1992). How unclear terms affect survey data, *Public Opinion Quarterly*, 56, 218-231.

Kalton, G., & Schuman, H. (1982). The Effect of the Question on Survey Responses: A Review. *Journal of the Royal Statistical Society*, 145, Part 1, 42-73.

Kamoen, N., et al. (2017). Why Are Negative Questions Difficult to Answer? On the Processing of Linguistic Contrasts in Surveys. *Public Opinion Quarterly*, 81, 613-635.

Krosnick, J.A., & Presser, S. (2010). Question and questionnaire design. In P.V. Marsden & J. D. Wright (Eds.) *Handbook of Survey Research*, 2nd Edition, San Diego, CA: Elsevier, pp. 263-314.

Schaeffer, N.C., & Presser, S. (2003). The science of asking questions. *Annual Review of Sociology*, 29, 65-88.

Schaeffer, N.C., & Dykema, J. (2011). Questions for Surveys: Current Trends and Future Directions. *Public Opinion Quarterly*, 75, 909-961.

Week 3: Asking about Facts and Quasi-Facts

Video lecture: available Friday, January 17, 1:00 ET

Online meeting: Friday, January 24, noon ET

Online Quiz 2: due Sunday, January 26, noon ET

Required Readings:

Bradburn et al. (2004). Chapters 2 and 9.

Recommended Readings:

Bailar, B.A., & Rothwell, N.D. (1984). Measuring employment and unemployment. In C.F. Turner & E. Martin, *Surveying Subjective Phenomena*, Volume 2, New York: Russell Sage Foundation, pp129-142.

Fowler, F.J. Jr. (1995). *Improving Survey Questions: Design and Evaluation*, Thousand Oaks, CA: SAGE Publications. Chapter 2.

Galesic, M., & Tourangeau, R. (2007). What is sexual harassment? It depends on who asks! Framing effects on survey responses. *Applied Cognitive Psychology*, 21, 189202.

Huttenlocher, J., Hedges, L.V., & Bradburn, N.M. (1990). Reports of elapsed time: Bounding and rounding processes in estimation. *Journal of Experimental Psychology Learning Memory and Cognition*, 16, 196213.

Martin, E. T., DeMaio, T.J., & Campanelli, P. (1990). Context effects for Census measures of race and Hispanic origin. *Public Opinion Quarterly*, 54, 551-566.

Smith, T. (1984). The subjectivity of ethnicity. In C.F. Turner & E. Martin (Eds.), *Surveying Subjective Phenomena*, Volume 2, New York: Russell Sage Foundation, pp. 117-128.

Week 4: Questions about Subjective Things (Attitudes)

Video lecture: available Friday, January 24, 1:00 ET

Online meeting: Friday, January 31, noon ET

Online Quiz 3: due Sunday, February 2, noon ET

Required Readings:

Bradburn et al. (2004). Chapters 4 and 6-8.

Recommended Readings:

Fowler, F.J. Jr. (1995). *Improving Survey Questions: Design and Evaluation*, Thousand Oaks, CA: SAGE Publications. Chapter 3.

Schaeffer, E.M., Krosnick, J.A., Langer, G.E., & Merkle, D.M. (2005). Comparing the quality of data obtained by minimally balanced and fully balanced attitude questions. *Public Opinion Quarterly*, 69, 417-428.

Schuman, H. & Ludwig, J. (1983). The norm of even-handedness in surveys as in life. *American Sociological Review*, 48, 112-120.

Schwarz, N. (2007). Attitude construction: Evaluation in context. *Social Cognition*, 25, 638-656.

Tourangeau, R., & Rasinski, K.A. (1988). Cognitive Processes Underlying Context Effects in Attitude Measurement. *Psychological Bulletin*. 103, 299-314.

Tourangeau, R. et al. (2016). Assessing the Scientific Knowledge of the General Public: The Effects of Question Format and Encouraging or Discouraging Don't Know Responses. *Public Opinion Quarterly*, 80(3) 741–760.

Week 5: Response Categories and Response Scales

Video lecture: available Friday, January 31, 1:00 ET

Online meeting: Friday, February 7, noon ET

Online Quiz 4: due Sunday, February 9, noon ET

Required Readings:

Bradburn, et al. (2004). Chapter 5.

Recommended Readings:

Alwin, D.F., & Krosnick, J.A. (1985). The measurement of values in surveys: A comparison of ratings and rankings. *Public Opinion Quarterly*, 49, 535-552.

Bradburn, N., & Danis, C. (1984). Potential Contributions of Cognitive Research to Survey Questionnaire Design. In T. Jabine, M. Straf, J. Tanur, and R. Tourangeau (Eds.) *Cognitive Aspects of Survey Methodology: Building a Bridge between Disciplines*, Washington, DC: National Academy Press, pp. 101-129.

Galesic, M., Tourangeau R., Couper M.P., & Conrad, F. (2008). Eye-tracking data: New insights on response order effects and other cognitive shortcuts in survey responding. *Public Opinion Quarterly*, 72, 892-913.

Holbrook, A.L., Krosnick, J.A., Moore, D., & Tourangeau, R. (2007). Response order effects in dichotomous categorical questions presented orally – The impact of question and respondent attributes. *Public Opinion Quarterly*, 71, 325-348.

Höhne, J. K. & Lenzner, T. (2018). New Insights on the Cognitive Processing of Agree/Disagree and Item-Specific Questions. *Journal of Survey Statistics and Methodology*, 6(3), 401–417.

Krosnick, J.A., Miller, J.M., & Tichy, M.P. (2004). An unrecognized need for ballot reform: Effects of candidate name order. In A.N. Crigler, M.R. Just, & E.J. McCaffery (Eds.), *Rethinking the Vote: The Politics and Prospects of American Election Reform*, New York, NY: Oxford University Press, pp. 51-73.

Malhotra, N., Krosnick, J.A., & Thomas, R.K. (2009). Optimal design of branching questions to measure bipolar constructs. *Public Opinion Quarterly*, 73, 304-324.

Smyth, J. D. & Olson, K. (2019). The Effects of Mismatches between Survey Question Stems and Response Options on Data Quality and Responses. *Journal of Survey Statistics and Methodology*. 7(1), 34–65,

Zaller, J., & Feldman, S. (1992). A Simple Theory of the Survey Response: Answering Questions versus Revealing Preferences. *American Journal of Political Science*, 36, 579-616

Week 6: Sensitive Questions

Video lecture: available Friday, February 7, 1:00 ET

Online meeting: Friday, February 14, noon ET

Course Project Assignment 2: due Sunday, February 16, noon ET

Required Readings:

Bradburn, et al. (2004). Chapter 3.

Recommended Readings:

Droitcour, J., Caspar, R.A., Hubbard, M.L., Parsley, T.L., Visscher, W., & Ezzati, T.M. (1991). The item count technique as a method of indirect questioning: A review of its development and a case study application. In Biemer, P.P. et al. (Eds.) *Measurement Errors in Surveys*, New York, NY: Wiley, pp. 185-210.

Kreuter, F., Presser, S., & Tourangeau, R. (2008). Social desirability bias in CATI, IVR, and Web surveys: The effects of mode and question sensitivity. *Public Opinion Quarterly*, 72, 847-865.

Lensvelt-Mulders, G., Hox, J., van der Heijden, P., & Maas, C. (2005). Meta-analysis of randomized response research: Thirty-five years of validation. *Sociological Methods & Research*, 33, 319-348.

Tourangeau, R., & Smith, T.W. (1996). Asking Sensitive Questions: The Impact of Data Collection Mode, Question Format, and Question Context. *Public Opinion Quarterly*, 60, 275-304.

Tourangeau, R., & Yan, T. (2007). Sensitive questions in surveys. *Psychological Bulletin*, 133, 859-883.

Week 7: Questionnaire from Start to Finish; Layout and Mode Dependencies

Video lecture: available Friday, February 14, 1:00 ET

Online meeting: Friday, February 21, noon ET

Online Quiz 5: due Sunday, February 23, noon ET

Required Readings:

Bradburn et al. (2004). Chapters 10-12.

Callegaro, M., Manfreda, K. L., & Vehovar, V. (2015). Section 2.3.3

Recommended Readings:

Couper, M.P., Conrad, F.G., & Tourangeau, R. (2007). Visual context effects in web surveys. *Public Opinion Quarterly*, 71, 623-634.

De Bruijne, M. & Wijnant, A. (2014). Improving Response Rates and Questionnaire Design for Mobile Web Surveys. *Public Opinion Quarterly*, 78(4), 951–962.

Fowler, F.J. Jr. (1995). *Improving Survey Questions: Design and Evaluation*, Thousand Oaks, CA: SAGE Publications. Chapter 4.

House, C., & Nicholls, W. (1988). Questionnaire design for CATI. In R. Groves et al. (Eds.), *Telephone Survey Methodology*, New York: Wiley, pp. 421-436.

Laaksonen, S., & Heiskanen, M. (2014). Comparison of Three Modes for a Crime Victimization Survey. *Journal of Survey Statistics and Methodology*, 2, 459-483.

Redline, C., & Dillman, D. (2002). The influence of alternative visual designs on respondents' performance with branching instructions in self-administered questionnaires. In Groves, et al. (Eds.), *Survey Nonresponse*, New York: Wiley, pp. 179-193.

Sakshaug, J.W., Yan, T., & Tourangeau, R. (2010). Nonresponse Error, Measurement Error, and Mode of Data Collection: Tradeoffs in a Multi-mode Survey of Sensitive and Non-sensitive Items. *Public Opinion Quarterly*, 74, 907-933.

Suchman, L., & Jordan, B. (1990). Interactional troubles in face-to-face survey interviews. *Journal of the American Statistical Association*, 85, 232-241.

Vautier, S., Mullet, E., & Bourdet-Loubère, S. (2003). The Instruction Set of Questionnaires Can Affect the Structure of the Data: Application to Self-rate State Anxiety. *Theory and Decision*, 54, 249-259.

Week 8: Tools for Developing and Testing Questionnaires

Video lecture: available Friday, February 21, 1:00 ET

Online meeting: Friday, February 28, noon ET

Course Project Assignment 3: due Sunday, March 2, noon ET

Required Readings:

Converse & Presser (1986). Chapter 3.

Callegaro, M., Manfreda, K. L., & Vehovar, V. (2015). Sections 2.3.5

Yan, T., Kreuter, F., & Tourangeau, R. (2012). Evaluating survey questions: A comparison of methods. *Journal of Official Statistics*, 28, 503-529.

Recommended Readings:

Conrad, F, & Blair, J. (2009). Sources of error in cognitive interviews. *Public Opinion Quarterly*, 73, 3255.

Kreuter, F., Yan, T., & Tourangeau, R. (2008). Good item or bad – Can latent class analysis tell? The utility of latent class analysis for the evaluation of survey questions. *Journal of the Royal Statistical Society (Series A)*, 171, 723-738.

Maitland, A., & Presser, S. (2016). How Accurately Do Different Evaluation Methods Predict the Reliability of Survey Methods? *Journal of Survey Statistics and Methodology*, 4, 362-381.

Saris, W.E., & Gallhofer, I.N. (2007). *Design, Evaluation, and Analysis of Questionnaires for Survey Research*, Hoboken, NJ: Wiley. Chapters 10 and 13.

Willis, G. (2005). *Cognitive Interviewing: A Tool for Improving Questionnaire Design*, Thousand Oakes, CA: Sage. Chapters 4-6.