

GESIS Summer School in Survey Methodology 2022

Syllabus for course: “Questionnaire Design”

Lecturers: Prof. Dr. Marek Fuchs
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Date: 15-19 August 2022

Time: Mo: 10:00-12:30 & 13:30-17:00 | Tu-Fr: 09:00-12:30 & 13:30-16:30

Venue: KOMED, Im Mediapark 7, Cologne

About the Lecturer:

Prof. Dr. Marek Fuchs is a full professor for social science research methods at Darmstadt University of Technology, Germany. He obtained his Ph.D. from Kassel University in 1993 and conducted post-doctoral work at the University of Michigan, Ann Arbor (USA). His research is particularly concerned with methodological aspects of survey measurement. Over the course of the past 25 years, he has published laboratory and field-experimental studies concerning questionnaire design for face-to-face surveys, telephone surveys, and self-administered surveys. He has a long-standing experience in teaching courses on survey methodology at the Ph.D. and Master levels to an international audience.

Selected Publications:

- Baier, Tobias; Fuchs, Marek (2020). Prevalence of page switching in mixed-device web surveys and associated data quality. *Survey Methods: Insights from the Field*, Special issue: ‘Advancements in Online and Mobile Survey Methods’. Retrieved from <https://surveyinsights.org/?p=13446>
- Kunz, Tanja; Fuchs, Marek (2019): Using Experiments to Assess Interactive Feedback That Improves Response Quality in Web, pp. 247-274 in: Lavrakas, Paul; Traugott, Michael W.; Kennedy, Courtney; Holbrook, Allyson L.; Leeuw, Edith D. de and West, Brady T. (Eds.): *Experimental Methods in Survey Research: Techniques that Combine Random Sampling with Random Assignment*. New York: Wiley.
- Kunz, Tanja; Fuchs, Marek (2018): Dynamic instructions in check-all-that-apply questions. *Social Science Computer Review*, 37(1), 104-118.

Course Description:

Designing questions and questionnaires is broadly described as an important step when planning a survey. However, little advice is provided on how to phrase individual questions and response categories and how to design a good questionnaire as a whole. This course will approach questionnaire design by means of two strategies:

- (1) On the one hand basic concepts relevant to survey measurement will be discussed (e.g. mode differences, question-answer-process, satisficing, social desirability) to make participants aware of the mechanisms underlying survey measurement.
- (2) On the other hand, participants will be introduced to results of field-experimental studies testing various aspects of survey questions and a questionnaire as a whole (e.g. question wording, response order, visual design of a question). The discussion of these studies will highlight the implication of various design aspects of a survey question for the answers provided by respondents.

Based on these two pillars of knowledge the course aims to educate participants in their professional reasoning when designing survey questions and questionnaires. Based on the theoretical concepts and experiments

discussed in the lectures, participants will be guided and supported in designing and testing topical survey questions during practical sessions and by means of assignments.

The examples discussed in the course will mainly be taken from surveys of individuals and households; the business survey will not be covered. The course is not restricted to a specific survey mode; examples will be taken from face-to-face surveys, telephone surveys, web surveys, and mail surveys. Coverage issues, sampling, weighting, nonresponse, and other aspects of survey design will not be covered.

Keywords:

Question wording, types of questions, question-answer-process, pre-testing

Course Prerequisites:

- Basic knowledge in quantitative social science research methods is required.
- Basic knowledge concerning survey design and data quality is advisable.
- There are no statistical prerequisites.

Target Group:

Participants will find the course useful if they:

- plan to or are about to conduct a survey and would like to strengthen their ability to design the questionnaire
- would like to supplement their initial experience in designing questionnaires with practical advice based on a sound theoretical basis concerning the underlying mechanisms.

Course and Learning Objectives:

By the end of the course participants will:

- have an overview concerning the various components of survey data quality in general and questionnaire quality in particular
- understand the structure of a survey question and have improved their reasoning about the design of its components
- be able to design simple survey questions of various types, to conduct a pre-test and to combine them in an integrated survey instrument
- understand the cognitive processes underlying survey measurement for the various survey modes.

Organizational Structure of the Course:

This is a five-day course with a total amount of 30 hours of class time. Participants can expect a mix of interactive teaching (3-4 hours per day), practical sessions and exercises (1-2 hours per day), and an opportunity for individual consultation (1 hour per day). Lectures start with an outline of one particular problem or aspect of questionnaire design. Subsequently, a series of studies from the research literature will be used to discuss the current state of the art concerning the problem addressed in each session. In the practical sessions, applications of this scholarly knowledge to specific topical questions will be discussed.

Participants should be prepared to spend an additional 1-2 hours a day for reading and daily assignments. During practical sessions and while working on assignments a teaching assistant will be available for hands-on support.

Every day participants receive an assignment that they are expected to work on during the afternoon. Participants are expected to upload their individual assignments every night for written feedback. Once during the course, participants are expected to present their assignments in class.

Participants can either bring their own project that they want to use for the assignments or they are provided with literature from two substantive areas to choose a topic for their assignments.

Software and Hardware Requirements:

- Participants need a laptop computer for performing the practical exercises and assignments.
- Participants need office software on their laptops.

Day-to-day Schedule and Literature:

Day	Topic(s)
1	<p>Lecture 1: Round of introduction (participants and lecturer) Administrative issues Presentation of research questions for the assignments A quick introduction to the Total Survey Error framework Translating theoretical concepts into proper indicators</p> <p>Practical session 1: Exercise on the development and selection of indicators</p> <p>Lecture 2: Survey modes</p> <p>Lecture 3: Question answer process Components of questions, types of questions</p> <p><u>Group Assignment 1:</u> Finding indicators for your research question Individual counseling by appointment 1:</p> <hr/> <p><u>Compulsory reading:</u></p> <ul style="list-style-type: none"> ▪ Saris, W. E., & Gallhofer, I. N. (2007). Design, evaluation and analysis of questionnaires for survey research (Chapter 1, pages 15-29). John Wiley & Sons. <p><u>Suggested reading:</u></p> <ul style="list-style-type: none"> ▪ de Leeuw, E. D., & Hox, J. J. (2015). Survey mode and mode effects. In U. Engel, B. Jann, P. Lynn, A. C. Scherpenzeel, & P. Sturgis (Eds.), <i>Improving Survey Methods. Lessons from Recent Research</i> (pp. 22-34). New York: Routledge. <p><u>Literature for the assignment:</u></p> <ul style="list-style-type: none"> ▪ Keywords “Construct” and “Construct Validity” in: Lavrakas, P. J. (Ed.). (2008). <i>Encyclopedia of survey research methods</i> (Vol. 1). Los Angeles: Sage.
2	<p>Lecture 4: Attitude questions (rating vs ranking) The wording of attitude questions and response categories</p> <p>Practical session 2: Discussion of Assignments Exercise on designing attitude questions</p> <p>Lecture 5: Matrix Questions</p> <p>Lecture 6: Response errors in attitude questions</p> <p><u>Group Assignment 2:</u> Designing a matrix question Individual counseling by appointment 2:</p> <hr/> <p><u>Compulsory reading:</u></p>

	<ul style="list-style-type: none"> ▪ Fabrigar, L. R., Krosnick, J. A., & MacDougall, B. L. (2005). Attitude measurement. Techniques for Measuring the unobservable. In T. C. Brock & M. C. Green (Eds.), <i>Persuasion: Psychological Insights and Perspectives</i> (2 ed., pp. 17-40). Sage. <p><u>Literature for the assignment:</u></p> <ul style="list-style-type: none"> ▪ Keywords “Attitude Measurement” and “Likert Scale” in: Lavrakas, P. J. (Ed.). (2008). <i>Encyclopedia of survey research methods</i> (Vol. 1). Los Angeles: Sage.
3	<p>Lecture 7: Behavioral frequency questions</p> <p>Practical session 3: Exercise on designing behavioral frequency questions Discussion of Assignments</p> <p>Lecture 8: Questions on facts</p> <p>Lecture 9: Open-ended and closed-ended questions</p> <p><u>Group Assignment 3:</u> Developing an open-ended and closed ended question</p> <p>Individual counseling by appointment 3:</p> <hr/> <p><u>Compulsory reading:</u></p> <ul style="list-style-type: none"> ▪ Schwarz, N., & Oyserman, D. (2001). Asking Questions About Behavior: Cognition, Communication, and Questionnaire Construction. <i>American Journal of Evaluation</i>, 22(2), 127-160. ▪ Heerwegh, D., & Loosveldt, G. (2011). Assessing mode effects in a national crime victimization survey using structural equation models: Social desirability bias and acquiescence. <i>Journal of Official Statistics</i>, 27(1), 49-63. <p><u>Literature for the assignment:</u></p> <ul style="list-style-type: none"> ▪ Friberg, O., & Rosenvinge, J. H. (2013). A comparison of open-ended and closed questions in the prediction of mental health. <i>Quality & Quantity</i>, 47, 1397-1411.
4	<p>Lecture 10: Dealing with social desirability and asking sensitive questions</p> <p>Practical session 4: Exercise on designing a sensitive question Discussion of Assignments</p> <p>Lecture 11: Multiple response questions Response order effects</p> <p>Lecture 12: Pre-test methods</p> <p><u>Group assignment 4:</u> Conducting a pre-test</p> <p>Individual counseling by appointment 4:</p> <hr/> <p><u>Compulsory reading:</u></p> <ul style="list-style-type: none"> ▪ Wolter, F., & Laier, B. (2014). The effectiveness of the item count technique in eliciting valid answers to sensitive questions. An evaluation in the context of self-reported delinquency. <i>Survey Research Methods</i>, 8(3), 153-168.

	<p><u>Suggested reading:</u></p> <ul style="list-style-type: none"> ▪ Callegaro, M., Murakami, M. H., Tepman, Z., & Henderson, V. (2015). Yes–no answers versus check-all in self-administered modes. A systematic review and analyses. <i>International Journal of Market Research</i>, 57(2), 203-223. ▪ Tourangeau, R., & Rasinski, K. A. (1988). Cognitive processes underlying context effects in attitude measurement. <i>Psychological Bulletin</i>, 103(3), 299-314. <p><u>Literature for the assignment:</u></p> <ul style="list-style-type: none"> ▪ Willis, G. B. (2016). Questionnaire pretesting. In C. Wolf, D. Joye, T. W. Smith, & Y.-c. Fu (Eds.), <i>The SAGE Handbook of Survey Methodology</i> (pp. 359-381). Longon: SAGE Publications Ltd.
5	<p>Lecture 13: Surveys on mobile devices Mixed-mode surveys and uni-modal design</p> <p>Practical session 5: Exercise on designing uni-modal questions Discussion of Assignments</p> <p>Lecture 14: Question order effects</p> <p>Lecture 15: From questions to a questionnaire Split questionnaire design</p> <p>Individual counseling, discussion of participants projects:</p> <hr/> <p><u>Compulsory reading:</u></p> <ul style="list-style-type: none"> ▪ de Leeuw, E. D., Suzer-Gurtekin, Z. T., & Hox, J. J. (2019). The design and implementation of mixed-mode surveys. In T. P. Johnson, B.-E. Pennell, I. A. L. Stoop, & B. Dorer (Eds.), <i>Advances in comparative survey methods</i> (pp. 387-408). John Wiley & Sons. <p><u>Suggested reading:</u></p> <ul style="list-style-type: none"> ▪ Andreadis, I., & Kartsounidou, E. (2020). The impact of splitting a long online questionnaire on data. <i>Survey Research Methods</i>, 14(1), 31-42 ▪ Lugtig, P., & Toepoel, V. (2016). The use of PCs, smartphones, and tablets in a probability-based panel survey: Effects on survey measurement error. <i>Social Science Computer Review</i>, 34(1), 78-94.

Preparatory Reading:

- Lyberg, L. E., & Weisberg, H. F. (2016). Total survey error: A paradigm for survey methodology. In C. Wolf, D. Joye, T. W. Smith, & Y.-c. Fu (Eds.), *The SAGE Handbook of Survey Methodology* (pp. 27-40). SAGE Publications Ltd.

Additional Recommended Literature:

This text book offers a comprehensive overview of the concept of survey methodology, in which the course on questionnaire is embedded.

- Groves, R. M., Fowler, F. J., Jr., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). *Survey Methodology* (2 ed.). Wiley.

This text book offers a comprehensive introduction to the cognitive processes underlying survey measurement:

- Sudman, S., Bradburn, N., & Schwarz, N. (2010). *Thinking about answers. The application of cognitive processes to survey methodology* (2 ed.). San Francisco: Jossey-Bass.