GESIS Summer School in Survey Methodology  
Cologne, August 2020

Syllabus for course 1:  
“Questionnaire Design”

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Date: 03-07 August 2020  
Time: 09:00-12:00, 13:30-16:30  
Course starts Monday at 09:00  
Venue: Online via Zoom

About the Instructors:
Prof. Dr. Marek Fuchs is full professor for social science research methods at Darmstadt University of Technology, Germany. He obtained his PhD from Kassel University in 1993 and conducted post-doctoral work at the University of Michigan, Ann Arbor (USA). Since then, he has been the principal investigator of several large scales surveys. His methodological research is particularly concerned with methodological aspects of survey measurement. Over the course of the past 25 years, he has published on laboratory and field-experimental studies concerning questionnaire design for face-to-face surveys, telephone surveys and self-administered surveys (paper & pencil as well as web and mobile web surveys). He has a long standing experience in teaching courses on survey methodology at the PhD and Master levels to an international audience.

Selected Publications:

Short Course Description:
Briefly speaking, the quality of survey answers provided by respondents can only be as good as the questions being asked. Thus, an effective questionnaire is a key component of a survey contributing to overall data quality. In addition to an overview of theoretical principles underlying questionnaire design this course particularly aims at providing evidence-based practical advice on how to design good survey questions and questionnaires. Based on field-experimental studies evaluating various aspects of questionnaire design participants will acquire state of the art knowledge concerning questionnaire design. The course offers the opportunity to apply these competencies under the supervision of the lecturer in group exercises and assignments. The course will strengthen the participants’ ability to design effective survey questions and to integrate them into a meaningful questionnaire.
Keywords:
questionnaires, survey research, measurement

Course prerequisites:
Basic knowledge in quantitative social science research methods is required; basic knowledge concerning survey
design and data quality is advisable. Participants not familiar with the total survey error framework are encour-
aged to consider the preparatory reading mentioned at the end of this syllabus. There are no statistical prerequi-
sites. However, for performing the practical exercises in this course, participants will need a laptop or desktop
computer with an office suite or word processor installed.

Target group:
Participants will find the course useful if they:
- plan to or are about to conduct a survey;
- 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 cognitive processes underlying survey measurement for the various survey modes;
- be able to design simple survey questions of various types and to combine them in an integrated survey
  instrument.

Organizational structure of the course:
This is a five-day course with a total amount of 24 hours of virtual class time. Participants can expect a mix of
interactive teaching (3 hours per day), exercises, and opportunity for individual consultation (2 hours per day).
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. Additional time of 1-2 hours a
day has to be scheduled for preparation, further reading and desk work.

Software and hardware requirements:
For performing the practical exercises in this course, course participants will need a laptop or desktop computer
with an office suite or word processor installed.

Long Course Description:
In traditional text books questionnaire design is typically treated as an "art". Designing questions and question-
naires is broadly described as an important step when planning a survey however little advice is provided on how
to phrase individual questions and how to design a good questionnaire as a whole. The rules and instructions
given in such texts are either too specifically concerned with particular substantive questions—and accordingly
those rules cannot be generalized to other questions—or the advice given is too broad and general and it is left
to the reader to apply the general rules to his or her specific survey questions.
This course on questionnaire design will avoid this dilemma. Instead of providing general or specific rules on how
to design a good survey question and a questionnaire as a whole, the course will approach the science of ques-
tnaire design by means of two strategies: On the one hand basic concepts relevant to survey measurement
will be discussed (e.g. mode differences, question-answer-process, satisficing, social desirability) in order to make
participants aware of the mechanisms underlying survey measurement. On the other hand, participants will be
introduced to results of field-experimental studies testing various aspects of a survey question and a question-
naire as a whole (e.g. question wording, response order, visual design of a question). The discussion of these stud-
ies will highlight the implication of various design aspects of a survey question for the responses provided by
respondents.
Thus, the lectures provide scientific background knowledge and educate participants in their professional reason-
ing when designing survey questions and a questionnaire as a whole. Based on the theoretical concepts and ex-
experiments discussed in the lectures, participants will be guided and supported in designing a topical survey ques-
tionnaire during practical sessions and by means of assignments. The work on the questionnaire starts with a
discussion of the indicators to be measured and continues with the development of a set of corresponding survey
questions (including all most prevalent question types). Finally, the questions will be combined into a question-
naire and tested. During the time for exercise and feedback on assignments by the instructor (2 hours a day) the
instructor will be available for questions and discussion of individual projects. Participants should be prepared to
spend an additional 1–2 hours a day for preparatory work, reading, and desk research. The questionnaire in the
practical session will be developed using Office software; no specialized software package will be used.
The course will use mainly examples from surveys of individuals and households. The course is not restricted to a
specific survey mode.

Day-to-day schedule and literature used in the course:

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<tr>
<th>Day</th>
<th>Topic(s)</th>
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| 1   | Lecture 1:  
|     | Round of introduction (participants and lecturer)  
|     | Administrative issues  
|     | Presentation of research questions for the assignments  
|     | Quick introduction to the Total Survey Error framework  
|     | Translating theoretical concepts into proper indicators  
|     | Practical session 1:  
|     | Exercise on the development and selection of an indicator  
|     | Lecture 2:  
|     | Survey modes  
|     | Question answer process  
|     | Group Assignment 1:  
|     | Finding indicators for your research question  
|     | Individual counseling by appointment 1:  

Compulsory reading:

- Hox, J. J. (1997). From theoretical concept to survey question. In L. Lyberg, P. Biemer, M. Col-
lings, E. De Leeuw, C. Dippo, N. Schwarz & D. Trewin (Eds.), Survey measurement and process

Literature for the assignment:

- Keywords “Construct” and “Construct Validity” in: Lavrakas, P. J. (Ed.). (2008). Encyclopedia

| 2   | Lecture 3:  
|     | Attitude questions  
|     | Wording of attitude questions and response categories  
|     | Practical session 2:  
|     | Exercise on designing attitude questions  
|     | Discussion of Assignments  
|     | Lecture 4:  
|     | Matrix Questions  
|     | Quick overview of response errors in attitude questions  
|     | Group Assignment 2:  
|     | Designing a matrix question  
<p>|     | Individual counseling by appointment 2:  |</p>
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<td>Literature for the assignment:</td>
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3 Lecture 5:  
Behavioral frequency questions (open, closed)

Practical session 3:  
Exercise on designing behavioral frequency questions  
Discussion of Assignments

Lecture 6:  
Open-ended and closed-ended questions

Group Assignment 3:  
Developing an open-ended and closed ended question

Individual counseling by appointment 3:

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4 Lecture 7:  
Dealing with social desirability and asking sensitive questions

Practical session 4:  
Exercise on designing a sensitive question  
Discussion of Assignments

Lecture 8:  
Multiple response questions (if time permits)  
Response order effects  
Pre-test methods

Group assignment 4:  
Conducting a pre-test

Individual counseling by appointment 4:

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<td>Suggested reading:</td>
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<td>Literature for the assignment:</td>
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| Lecture 9: | Surveys on mobile devices (if time permits)  
Mixed-mode surveys and uni-modal design |
|-----------|--------------------------------------------------------------------------------------------------|
| Practical session 5: | Exercise on designing uni-modal questions  
Discussion of Assignments |
| Lecture 10: | Question order effects  
From questions to a questionnaire |
| Individual counseling by appointment 5: |  |

**Compulsory reading:**

**Preparatory reading:**

**Additional recommended literature:**
This article offers a comprehensive overview concerning the design of attitude and behavior questions.

The following text books offer a comprehensive introduction to the cognitive processes underlying survey measurement: