4ᵗʰ GESIS Summer School in Survey Methodology
Cologne, August 2015

Syllabus for course 5: "Introduction to Web Surveys"

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Time: 14:00-18:00

About the instructors:

Katja Lozar Manfreda, PhD, is an assistant professor of statistics at the University of Ljubljana, Faculty of Social Sciences. She is one of the pioneers in the field of web survey methodology (since 1998, holds the first PhD on this topic from 2001) and member of the WebSM group, involved is maintaining the largest information source on the methodology of web surveys, the websm.org. She has published on this topic (especially on web survey nonresponse, questionnaire design, mixed-mode surveys, and software) in a number of scientific journals and with international book publishers. She is a co-author of a forthcoming book Web Survey Methodology (Callegaro, Lozar Manfreda, Vehovar, forthcoming in 2015 by Sage). She is an associate editor of the Survey Research Methods (ESRA) and member of the Scientific Committee of the Bulletin of Sociological Methodology (ISA-RC33). She is core group member of the Cost Action WebDataNet which is dedicated to the web-based data collection methods and analysis.

Nejc Berzelak, PhD, is a researcher at the Faculty of Social Sciences, University of Ljubljana. He works in the field of survey methodology with a focus on development and implementation of web and mixed-mode surveys. The main topics of his research include questionnaire design, measurement errors, mode effects, and analysis of survey response process. He participates in several national and international research projects related to survey methodology and is regularly involved in practical implementation of large-scale web surveys. He also works as a methodological consultant for surveys conducted by academic, governmental, and private organisations. He has lectured several courses on web surveys and teaches topics related to survey methodology, web analytics, and new technologies in social science research.

Short course description:

The course aims to offer participants general basic knowledge needed for implementation of high-quality web surveys. The course deals with the challenge of using the World Wide Web for survey data collection. Web surveys are technically easy to implement, however the understanding of underlying methodological principles is crucial for successful application in practice. Throughout the course, participants will learn the basics of these principles for all stages of the web survey process: pre-fielding (choosing the mode, sampling design, questionnaire preparation and testing, managerial aspects), fielding (nonresponse reduction, measurement, monitoring), and post-fielding (editing, archiving). Throughout the course, we will put a special emphasis on error sources that can compromise the quality of web survey data. Participants will also be introduced to 1KA (http://english.1ka.si), a free open-source software, for implementing web surveys. They are encouraged to bring their own web survey projects to the class.

Course prerequisites:

- Participants are expected to be familiar with the basics of survey methodology (key terminology and basic principles of writing survey questions).

Target group:

Participants will find the course useful if they:

- have some basic knowledge of survey methodology and would like to extend it to web surveys;
- want to conduct a web survey for their research or study purposes;
- would like to improve the quality of web surveys they already conduct or plan to conduct in the future;
- consider switching a currently existing survey to the web mode.

Course and learning objectives:

By the end of the course participants will:

- obtain the practical and methodological knowledge to conduct high-quality web surveys;
- learn the basics of web survey software tools and understand the principles of selecting the most appropriate tool for specific purposes;
- understand possible deficiences and mistakes in conducting web surveys;
- be able to conduct all stages of their own web survey projects;
- be able to evaluate quality of data obtained using web surveys.

Organizational structure of the course:

The daily classroom time will consist of about 3 hours of lectures with practical examples and discussions, followed by about 1 hour of group work on participants' own research problems. Those without own research project will be provided with practical examples by instructors. Participants will be expected to perform some work on their projects outside the classroom time (ca. 2 hours in the morning). The instructors will be available each day for additional consultations. Please, note that on Monday no consultation/extra 2 hour activity is offered.

Software and hardware requirements:

Course participants will need to bring a laptop computer for performing the practical exercises for this course. The laptop should have a standard web browser installed.

Long course description:

The main objective of the course is to offer participants basic methodological knowledge on all stages of preparation and implementation of web surveys. Although Web surveys are sometimes perceived as a questionable survey mode, experiences over the 15 years of their usage show that they can be used in a valid and reliable way for many research purposes. They offer fast and cost-effective data collection, high level of flexibility, and ability to reach diverse populations. However, their easy technical implementation often leads to negligence of important methodological aspects that can severely reduce the quality of obtained data. The instructors will provide students with the basic methodological principles of implementing Web surveys in order to collect high-quality data.

The course will begin with introductory review of foundations necessary to make informed decisions on choosing a web survey among alternative survey modes for a specific research purpose. The participants will be presented with the history of computer-assisted survey data collection and its varieties, the typology of Web surveys as one of the recently developed computer-assisted modes, and the advantages and disadvantages of Web surveys in the context of their usage. Attention will also be paid to cost-related and organizational aspects that need to be taken into account when deciding for a web survey.

The presentation of basic methodological principles of web survey implementation will begin by an overview of all error sources that can compromise the quality of data in web surveys: coverage and sampling, nonresponse, measurement and data processing. Throughout the course, the most important considerations, issues, and best practices will be evaluated for each stage of the survey process. The participants will first learn about different possibilities and appropriate utilization of sampling procedures. The course will then cover the basics of questionnaire implementation, including evaluation of different question types, computerized interaction with respondents, important aspects of questionnaire design, and principles of questionnaire testing. In the next part, participants will learn how to prepare effective survey invitations and use other available mechanisms of improving

participation in web surveys. They will be also presented with practices of data collection monitoring to assure prevention and prompt handling of potential problems. On the final day, participants will learn how to prepare the collected data for analysis, particularly from the perspective of identification and treatment of low-quality responses. The course will conclude with an overview of ethical issues that may emerge during preparation and application of a web survey.

Participants are strongly encouraged to bring their own research projects on which they will work during the course. They will be offered access to a web survey tool, which they can use to implement all stages of their project. However, they are welcome to use another web survey software if they prefer. For those without own survey project, the instructors will provide a sample survey.

Those interested in combination of web surveys and other survey modes can attend the course "Mixed-Mode and Mixed-Device Surveys" by Vera Toepoel, Edith de Leeuw, and Thomas Klausch in the third week. Completion of web surveys on mobile devices (e.g. tablet, mobile phones, e-reader) including implementation of web survey software is covered in the short course "Mobile Surveys" by Florian Keusch in the third week.

Day-to-day schedule:

Day	Topic(s)
1	**Introduction** • Terminology, classification of web surveys within other survey types • Evolution of web surveys and trends **Practice of web surveys** • Areas of implementation of web surveys, fields of research, topics and target populations • Advantages and disadvantages of web surveys **Web survey process** • The process of preparing and conducting a web survey • Choosing between alternative survey modes • Switching to web survey from other survey modes • Software tools for web surveys
2	**The concept of Total Survey Error in web surveys** **Sampling** • Sampling frames and (non)coverage • Probability vs. nonprobability samples • Internet panels
3	**Questionnaire design and implementation** • Overview of basic questionnaire design principles • Question types and visual presentation • Images and multimedia • Questionnaire dynamics and interaction with respondents **Questionnaire pretesting** • General methods of questionnaire pretesting • Review of common errors and mistakes • Feedback from experts and test respondents
4	**Survey participation and data collection** • Participant solicitation and nonresponse reduction • Survey access management • Data collection monitoring and interventions • Use of paradata for response process monitoring

5	**Data management** • Identification and treatment of errors in collected data • Data analysis **Ethical issues of web surveys**

Preparatory reading:

There is no compulsory preparatory reading for the course. However, participants without any prior knowledge about survey methodology may find it useful to consult some basic literature covering this topic. A good overview of the key survey principles is provided in:

- Groves, M.R. et al. (2009). Survey methodology. Wiley; 2 edition (July 14, 2009).
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). Internet, phone, mail, and mixed-mode surveys: The tailored design method. Hoboken, NJ, US: John Wiley & Sons. (Introductory topics in chapters 3–5).