

8th GESIS Summer School in Survey Methodology Cologne, August 2019

Syllabus for Course 11: "Pretesting"

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Date: 19.-23. August 2019
Time: 09:00-13:00, 14:00-16:00
Course starts Monday morning at 09:00

About the Instructors:

Dr. Katharina Meitinger is an assistant professor in methods and statistics at Utrecht University. Her research interests include the method of web probing, equivalence assessment of survey items, and mixed methods approaches. She was involved in cognitive pretests for the European Commission, SHARE, RKI, and PIAAC.

Emily Geisen is the Cognitive/Usability Laboratory manager at RTI International in Research Triangle Park, North Carolina. She specializes in evaluating survey questionnaires to improve data quality and reduce respondent burden. She also specializes in conducting surveys with physicians and other healthcare providers. She teaches graduate courses on questionnaire design and usability testing at the University of North Carolina at Chapel Hill and the International Program in Survey and Data Sciences. She is the 2018-2019 American Association for Public Opinion Research Membership Chair.

Selected Publications

- Meitinger, Katharina. 2017. "Necessary but Insufficient: Why Measurement Invariance Tests Need Online Probing as a Complementary Tool." *Public Opinion Quarterly* 81 (2): 447-472. doi: [dx.doi.org/10.1093/poq/nfx009](https://doi.org/10.1093/poq/nfx009).
- Meitinger, Katharina, Michael Braun, and Dorothee Behr. 2018. "Sequence matters in online probing: The impact of the order of probes on response quality, motivation of respondents, and answer content." *Survey Research Methods* 12 (2): 103-120. doi: [dx.doi.org/10.18148/srm/2018.v12i2.7219](https://doi.org/10.18148/srm/2018.v12i2.7219).
- Meitinger, Katharina, and Dorothee Behr. 2016. "Comparing Cognitive Interviewing and Online Probing: Do They Find Similar Results?." *Field Methods* 28 (4): 363 - 380. doi: <https://journals.sagepub.com/doi/10.1177/1525822X15625866>.
- Geisen, E. & Murphy, J. (in press). Compendium of web and mobile survey pretesting methods. In Beatty, P., Collins, D., Kaye, L., Padilla, J.L., Willis, W., and Wilmot, A. (Eds.). *Advances in questionnaire design, development, evaluation, and testing*. Hoboken, NJ: Wiley.
- Geisen, E., Romano Bergstrom, J. (2017). *Usability testing for survey research*. Morgan Kaufman: Waltham, MA.
- Geisen, E., Powell, R., Stanley, M., Olmsted, M., & Murphy, J. (2017). *Effects of declining response rates on nonresponse bias*. American Association for Public Opinion Research, New Orleans, LA.

Short Course Description:

This course provides researchers with the necessary methods and techniques to evaluate, test, and modify surveys to reduce measurement error. This is achieved through both lectures and in-class exercises. In the lectures, we introduce different pretesting approaches and discuss examples of untested as well as pretested and improved survey questions. The in-class exercises familiarize participants with different pretesting methods. First, we will discuss the overall goal of pretesting surveys and how to fit pretesting into the survey development process. Then, we will discuss the following pretesting methods in detail:

- Expert review & questionnaire appraisal systems
- Focus groups
- Cognitive interviewing
- Web probing
- Usability testing & eye tracking
- Other pretesting methods (e.g., behavior coding)

For each method, participants will receive practical advice on how to conduct pretesting projects and how to decide which pretesting methods should be selected in a given research situation. Participants will learn how the information gained from these techniques can be used to improve data quality and reduce respondent burden. We will also discuss the pros and cons of different pretesting methods and mixed-method approaches. Furthermore, the course provides an introduction to conducting cross-cultural pretesting projects.

Keywords:

Pretesting, cognitive interviewing, usability testing, web probing, cross-cultural pretesting

Course Prerequisites:

- basic knowledge in questionnaire design; however, some practical experience in conducting surveys will be beneficial;
- there are no statistical prerequisites.

Target Group:

Participants will find the course useful if:

- they develop their own questionnaires for own data collection;
- they work in a survey organization and work on questionnaire design and evaluation;
- they use survey data and wish to understand the importance of pretesting to reduce measurement error.

Course and Learning Objectives:

By the end of the course participants will:

- be familiar with current pretesting methods;
- learn how to apply pretesting methods to their work;
- know the pros and cons of the different approaches to test survey questions;
- be able to make an informed decision about when to use which pretesting method and the ways in which several methods can be combined within a pretesting project.

Organizational Structure of the Course:

The course structure includes 6 hours of daily in-class instructions. After a lecture on each key topic and the presentation of the different pretesting approaches, there will be practical exercises. In addition, individual consultations are possible.

Software and Hardware Requirements:

- Participants are asked to bring their own laptops for the part of usability testing.
- No particular software access is needed

Long Course Description:

Before collecting new data, it is important to ensure that the survey questions make sense, are measuring the intended concepts, can be answered easily, and are not unnecessarily burdensome. Therefore, an important stage in the data collection process is to conduct a pretest before starting data collection. Several pretesting approaches exist that address different aspects of questionnaire assessment. This course provides an overview of standard and emerging qualitative pretesting, best practices for implementing these approaches, and guidelines on how to select the optimal pretesting approach in a given research situation. In this course, we will combine lectures and in-class exercises.

On Day 1, we discuss the key benefits of conducting pretests, give a short overview of different pretesting approaches, and discuss how pretesting approaches fit in the Total Survey Error framework. Next, we will present the methods of Expert Review and Question Appraisal System and we will do an exercise regarding these methods. In addition, we will provide an introduction into the method of behavior coding.

On day 2, we will dedicate a full day on the method of focus groups. The day will start with a demonstration of a focus group. Participants will learn about the purpose of focus groups, how to write focus group questions, how to moderate focus groups, and how to analyze focus group data. Throughout Day 2, there will be several exercises and participants will have the opportunity to draft a focus group guide and practice moderating a focus group.

On Day 3, we will focus on the methods of cognitive interviewing and its online implementation, web probing. We will introduce both methods, discuss different approaches (e.g., verbal probing vs. think-aloud), and techniques (e.g., different probe types), and provide extensive guidance on how to plan, conduct, and analyze cognitive interviews and web probing. For web probing, we will also discuss the optimal technical and visual implementation of this method in web surveys. Since one advantage of web probing is large sample sizes, we will also provide insights on how to deal with these large sample sizes and show solutions, such as the use of mixed methods approaches. Throughout Day 3, there will be again exercises so participants can directly apply their new knowledge.

We will spend Day 4 discussing usability testing and eye tracking. First, we will provide participants with an understanding of the respondent-survey interaction. This will be followed by guidance on planning for a usability testing, how to moderate usability tests, and decision criteria for the selection of different usability testing methods. Demos and exercises will be provided, too. Throughout the day, we will discuss how eye tracking can be used to supplement usability testing.

On our last day, we will move from pretesting in a national setting to pretesting of cross-national data. We will discuss the importance of conducting pretests of cross-national data. We will discuss the key challenges of pretesting cross-national data as well as approaches for tackling these challenges.

In the last section of our course, we will summarize the methods discussed and provide guidance on which method to choose in different research situations. We will systematically compare the advantages and disadvantages of the different pretesting approaches, present the findings of methodological studies comparing several approaches and we will do a scenario exercise in this context. In addition to lectures and exercise, there will be the possibility of personal consultations.

Day-to-day Schedule and Literature:

Day	Topic(s)
1	<p>Introduction</p> <ul style="list-style-type: none"> ▪ Reasons for conducting pretests and goals of pretesting ▪ Overview over different pretesting methods <p>Locating pretests in the Total Survey Error Framework</p> <p>Expert Review & Question Appraisal Systems + Exercise</p> <p>Behavior Coding</p> <p><u>Suggested reading:</u></p> <ul style="list-style-type: none"> ▪ Willis, G. B., & Lessler, J. T. (1999). Question appraisal system. Research Triangle Institute ▪ Van der Zouwen and Smit (2004) Evaluating survey questions by analyzing patterns of behavior codes and question – answer sequences: A diagnostic approach. In Presser et al.. (Eds.). Methods for Testing and Evaluating Survey Questionnaires. Hoboken, NJ: Wiley.
2	<p>Focus Groups</p> <ul style="list-style-type: none"> ▪ Purpose of focus groups and focus group demo ▪ Writing focus group questions + Exercise ▪ Participant selection ▪ Moderating focus groups + Exercise ▪ Analyzing focus groups <p><u>Suggested reading:</u></p> <ul style="list-style-type: none"> ▪ Kreuger (2002). Designing and Conducting Focus Group Interviews: https://www.eiu.edu/ihec/Krueger-FocusGroupInterviews.pdf ▪ Morgan, David L. (1997). Focus groups as qualitative research. Newbury Park, CA: Sage.
3	<p>Cognitive Interviews</p> <ul style="list-style-type: none"> ▪ Planning & conducting cognitive interviews + Exercise ▪ Analysing cognitive interviews + Exercise <p>Web Probing + Exercise</p> <ul style="list-style-type: none"> ▪ Introduction to web probing ▪ Optimal implementation: Visual design, probe order, nonresponse reduction ▪ Planning & conducting web probing studies ▪ Analysing web probing studies <p>Dealing with large sample sizes: Mixed Methods Approaches</p> <p><u>Suggested reading:</u></p> <ul style="list-style-type: none"> ▪ Beatty, P. C., & Willis, G. B. (2007). Research synthesis: The practice of cognitive interviewing. Public Opinion Quarterly, 71, 287-311. ▪ Behr, D., Meitinger, K., Braun, M., & Kaczmirek, L. (2017). Web probing – implementing probing techniques from cognitive interviewing in web surveys with the goal to assess the validity of survey questions. Mannheim, GESIS – Leibniz-Institute for the Social Sciences (GESIS – Survey Guidelines). DOI: 10.15465/gesis-sg_en_023 ▪ Lenzner, T., Neuert, C. & Otto, W. (2015). Cognitive Pretesting. Mannheim, GESIS – Leibniz Institute for the Social Sciences (GESIS Survey Guidelines). DOI: 10.15465/gesis-sg_010 ▪ Willis, G. B. (2005). Cognitive interviewing. Thousand Oaks: Sage.

4	<p>Usability testing</p> <ul style="list-style-type: none"> ▪ Understanding respondent-survey interaction + demo ▪ Planning for usability testing ▪ Moderating usability tests + demos and exercise ▪ Which method + exercise <p>Eye Tracking</p> <ul style="list-style-type: none"> ▪ Benefits of supplementing usability testing with eye tracking <p><u>Suggested reading:</u></p> <ul style="list-style-type: none"> ▪ Geisen, E., Romano Bergstrom, J. (2017). <i>Usability testing for survey research</i>. Morgan Kaufman: Waltham, MA. ▪ Galesic, M., & Yan, T. (2011). Use of eye tracking for studying survey response processes. In: M. Das, P. Ester, & L. Kaczmirek (Eds.). <i>Social and Behavioral Research and the Internet</i> (pp. 349-370). New York: Routledge Academic.
5	<p>Pretesting of cross-national data:</p> <ul style="list-style-type: none"> ▪ Reasons for conducting pretests of cross-national data ▪ Challenges of pretesting cross-national data: The additional layer of complexity <p>Which method to choose? + Exercise</p> <ul style="list-style-type: none"> ▪ Discussion of advantages and disadvantages of the different pretesting methods ▪ Presentation of methodological studies comparing several approaches <p>Relevant factors for the selection of the appropriate pretesting approach in a given situation (scenario exercise)</p> <p><u>Suggested reading:</u></p> <ul style="list-style-type: none"> ▪ Willis, G. B. (2015). The practice of cross-cultural cognitive interviewing. <i>Public Opinion Quarterly</i>, 79(S1), 359-395. ▪ Meitinger, K., & Behr, D. (2016). Comparing Cognitive Interviewing and Online Probing: Do They Find Similar Results? <i>Field Methods</i>, 28(4): 363-380. ▪ Neuert, C., & Lenzner, T. (2016). Incorporating Eye Tracking into Cognitive Interviewing to Pretest Survey Questions. <i>International Journal of Social Research Methodology</i>, 19(5): 501-519. ▪ Yan, T., Kreuter, F., & Tourangeau, R. (2012). Evaluating survey questions: A comparison of methods. <i>Journal of Official Statistics</i>, 28(4), 503.

Preparatory Reading:

- Beatty, P. C., & Willis, G. B. (2007). Research synthesis: The practice of cognitive interviewing. *Public Opinion Quarterly*, 71, 287-311.
- Behr, D., Meitinger, K., Braun, M., & Kaczmirek, L. (2017). Web probing – implementing probing techniques from cognitive interviewing in web surveys with the goal to assess the validity of survey questions. Mannheim, GESIS – Leibniz-Institute for the Social Sciences (GESIS – Survey Guidelines). DOI: 10.15465/gesis-sg_en_023
- Galesic, M., & Yan, T. (2011). Use of eye tracking for studying survey response processes. In: M. Das, P. Ester, & L. Kaczmirek (Eds.). *Social and Behavioral Research and the Internet* (pp. 349-370). New York: Routledge Academic.
- Geisen, E., Romano Bergstrom, J. (2017). *Usability testing for survey research*. Morgan Kaufman: Waltham, MA.
- Kreuger (2002). *Designing and Conducting Focus Group Interviews*: <https://www.eiu.edu/ihec/Krueger-FocusGroupInterviews.pdf>
- Lenzner, T., Neuert, C. & Otto, W. (2015). *Cognitive Pretesting*. Mannheim, GESIS – Leibniz Institute for the Social Sciences (GESIS Survey Guidelines). DOI: 10.15465/gesis-sg_010

Additional Recommended Literature:

- Behr, D., Kaczmirek, L., Bandilla, W., & Braun, M. (2012). Asking probing questions in web surveys: which factors have an impact on the quality of responses? *Social Science Computer Review* 30 (4): 487-498.
- Behr, D., Braun, M., Kaczmirek, L., & Bandilla, W. (2013). Testing the validity of gender ideology items by implementing probing questions in web surveys. *Field Methods* 25 (2): 124-141.
- Blair, J., & Conrad, F. G. (2011). Sample size for cognitive interview pretesting. *Public Opinion Quarterly*, 75, 636-658.
- Collins, Debbie (2015). *Cognitive Interviewing Practice*. Thousand Oaks: Sage.
- Kaczmirek, Lars; Meitinger, Katharina; Behr, Dorothee ; GESIS - Leibniz-Institut für Sozialwissenschaften (Ed.): Higher data quality in web probing with EvalAnswer: a tool for identifying and reducing nonresponse in open-ended questions. Köln, 2017 (GESIS Papers 2017/01). URN: <http://nbn-resolving.de/urn:nbn:de:0168-ssoar-51100>
- Meitinger, Katharina. 2017. "Necessary but Insufficient: Why Measurement Invariance Tests Need Online Probing as a Complementary Tool." *Public Opinion Quarterly* 81 (2): 447-472. doi: [dx.doi.org/10.1093/poq/nfx009](https://doi.org/10.1093/poq/nfx009).
- Neuert, C., & Lenzner, T. (2016). A Comparison of Two Cognitive Pretesting Techniques Supported by Eye Tracking. *Social Science Computer Review*, 34(5): 582-596.
- Olson, K. (2010). An examination of questionnaire evaluation by expert reviewers. *Field Methods*, 22, 295-318.
- Ridolfo, H., & Schoua-Glusberg, A. (2011). Analyzing cognitive interview data using the constant comparative method of analysis to understand crosscultural patterns in survey data. *Field Methods*, 23, 420-438.
- Willis, G. B., & Lessler, J. T. (1999). Question appraisal system. Research Triangle Institute.
- Yan, T., Kreuter, F., & Tourangeau, R. (2012). Evaluating survey questions: A comparison of methods. *Journal of Official Statistics*, 28(4), 503.