

10th GESIS Summer School in Survey Methodology

[2nd Virtual GESIS Summer School]

28 July – 20 August 2021

Syllabus for Short Course C: Pretesting Survey Questions

Lecturers: Dr. Cornelia Neuert
E-mail: cornelia.neuert@gesis.org
Homepage <https://www.gesis.org/en/institute/staff/person/Cornelia.Neuert>

Dr. Timo Lenzner
timo.lenzner@gesis.org
https://www.gesis.org/en/institute/staff/person/timo.lenzner?no_cache=1

Date: 28-30 July 2021

Time: 09:00-12:00 + 13:00-14:00

Time zone: CEST/CEDT, course starts on Wednesday at 09:00 am

Venue: Online via Zoom

About the Instructors:

Dr. Cornelia Neuert is a social scientist and head of the team *Questionnaire Design & Evaluation* at GESIS – Leibniz Institute for the Social Sciences. She has been working as research associate in the GESIS pretesting unit since April, 2012. Together with the staff of the pretesting unit, she has conducted numerous cognitive pretests for various research projects and survey programs. Her research focuses on methods for testing and evaluating survey questionnaires and questionnaire design.

Dr. Timo Lenzner is a senior researcher at the cognitive pretesting unit at GESIS – Leibniz Institute for the Social Sciences. His main responsibilities include conducting cognitive pretests for large survey projects such as the ISSP, SHARE or PIAAC and carrying out research on questionnaire design and questionnaire evaluation methods.

Selected Publications:

- Lenzner, T. (2014). Are readability formulas valid tools for assessing survey question difficulty? *Sociological Methods and Research* 43(4), 677–698.
- Lenzner, T., & Neuert, C. E. (2017). Pretesting Survey Questions via Web Probing – Does it Produce Similar Results to Face-to-Face Cognitive Interviewing? *Survey Practice*, 10, 1–11.
- Neuert, C.E. (2020). Do forced-choice questions trigger deeper cognition than check-all-that-apply questions? *Journal of Survey Statistics and Methodology*, 8(4), 617–635. <https://doi.org/10.1093/jssam/smz015>
- Neuert, C. E., & Lenzner, T. (2016). Incorporating Eye Tracking into Cognitive Interviewing to Pretest Survey Questions. *International Journal of Social Research Methodology*, 19, 501–519.
- Neuert, C. E. & Lenzner, T. (2019). Effects of the Number of Open-Ended Probing Questions on Response Quality in Cognitive Online Pretests. *Social Science Computer Review*. Online first. <https://doi.org/10.1177/0894439319866397>

Short Course Description:

The course covers the basic elements of evaluating questionnaires and highlights the general importance of carrying out (cognitive) pretests before fielding a questionnaire. This is achieved through both lectures and group exercises. In the lectures, we introduce three pretesting approaches, namely questionnaire appraisal systems, cognitive interviewing and web probing. The exercises aim at familiarizing participants with these pretesting methods. We focus on the sorts of information gathered by each method and how the information can be used to reduce measurement error. In this context, we will also discuss the pros and cons of the different pretesting methods and mixed-method approaches. Besides a more general introduction of the pretesting approaches, participants will receive practical advice on how to conduct (cognitive) pretesting projects and how to decide which pretesting methods should be selected in a given research situation.

Keywords:

Pretesting, Questionnaire Evaluation, Cognitive Interviewing, Web Probing, Expert Review.

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 (cognitive) pretesting methods
- 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
- Be able to evaluate survey questions using the selected methods

Organizational Structure of the Course:

- This is a three-day course with a total amount of 12 hours of virtual class time. The course structure includes 3 hours of in-class teaching in the morning with a mix of teaching and exercises, and Q&A sessions. Exercises will be divided in group and individual exercises.
- During the group exercises, lecturers will be available to support in the breakout rooms.
- After the lunch break, we will discuss the exercises and be available for group and individual consultations (Q&A session).

Software and Hardware Requirements:

Participants need laptop/desktop computer that enables them to access the internet.

Regarding statistical software that is not free: We intend to provide the participants with Stata licences. All other statistical software needs to be free; we cannot provide licences of Mplus, SPSS, or other proprietary software (except Stata) for participants.

Long Course Description:

To ensure that the data collected through questionnaires are of high quality (i.e., valid, reliable, and unbiased), researchers must formulate questions that are easily and consistently interpreted by respondents in the ways intended by the researchers. Therefore, an important stage in the data collection process is to conduct a pretest before fielding the questionnaire and starting the actual data collection. However, several pretesting approaches exist that address different aspects regarding the question assessment. This course wants to provide an overview over different qualitative pretesting approaches and to provide the participants with a guideline on how to select the optimal pretesting approach in a given research situation. In this course, we will combine lectures, in-class exercises, and Q&A Sessions.

On day one, we start with a general introduction why it is necessary to conduct (cognitive) pretests and give a short overview over different pretesting approaches and their individual pros and cons. After this general introduction, we present two approaches in more detail, namely Expert Reviews and Question Appraisal Systems. The lecture is followed by an exercise in which participants apply the QAS-99 Coding Form (Willis & Lessler, 1999) – a checklist of potential question problems – to evaluate a draft questionnaire. Finally, we discuss how participants got along with the QAS-99, in what situations this method could ideally be applied, and how it can be combined with other pretesting methods. The afternoon of day 1 is reserved for group and individual consultations.

The focus of day 2 is on the method of cognitive interviewing. We introduce the method and discuss different approaches (e.g., probing vs. think aloud) as well as techniques (e.g., different probe types). In addition, we will provide guidance on how to plan, conduct, and analyze cognitive interviews and we will do several exercises in this context. In the afternoon, we give a short presentation on eye tracking (i.e., the recording of participants' eye movements while they answer a questionnaire) and how it can be used to supplement cognitive interviewing. Again, day 2 will end with a Q&A session.

On day 3, we introduce the method of web probing. Web probing is the implementation of probing techniques from cognitive interviewing in web surveys. This allows for large sample sizes in pretesting and facilitates data collection of broader geographical variety (as well as different countries) and increases the comparability of pretesting results. On the one hand, we will discuss methodological findings regarding the optimal implementation of web probing (e.g., visual design), on the other hand, we will provide guidance regarding the planning, conducting, and analysis of web probing studies. The lecture on web probing will be supplemented by an exercise in which participants will be able to code and analyze responses to probes implemented in web surveys.

In the final afternoon session, we will focus on the question on how to decide which pretesting methods should be selected in a given research situation and summarize the advantages and disadvantages of the different pretesting approaches covered during the course. Afterwards, there will be time for group and individual 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>Expert Review & Questionnaire Appraisal Systems</p> <ul style="list-style-type: none"> ▪ Different forms of expert reviews ▪ Exercise on application of QAS-99 <p>Q&A Session</p> <p><u>Suggested reading:</u></p> <ul style="list-style-type: none"> ▪ 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., and Lessler, J. T. (1999). Questionnaire Appraisal System: QAS-99. ▪ https://docplayer.net/147787-Question-appraisal-system-qas-99.html
2	<p>Cognitive interviews</p> <ul style="list-style-type: none"> ▪ Planning cognitive interviews + Exercise ▪ Conducting & analyzing cognitive interviews + Exercise <p>Supplementing cognitive interviews with Eye tracking</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. <i>Public Opinion Quarterly</i>, 71, 287-311. ▪ 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. ▪ 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.
3	<p>Web Probing</p> <ul style="list-style-type: none"> ▪ Introduction to web probing ▪ Optimal implementation: Visual design, probe order, nonresponse reduction ▪ Planning & conducting web probing studies ▪ Analyzing web probing studies + Exercise <p>Discussion of advantages and disadvantages of the different pretesting methods</p> <p><u>Suggested reading:</u></p> <ul style="list-style-type: none"> ▪ 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

	<ul style="list-style-type: none"> ▪ Lenzner, T., & Neuert, C. E. (2017). Pretesting Survey Questions via Web Probing – Does it Produce Similar Results to Face-to-Face Cognitive Interviewing? <i>Survey Practice</i>, 10, 1-11. ▪ 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. E. & Lenzner, T. (2019). Effects of the Number of Open-Ended Probing Questions on Response Quality in Cognitive Online Pretests. <i>Social Science Computer Review</i>. Online first. https://doi/10.1177/0894439319866397
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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.
- 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
- Lenzner, T., & Neuert, C. E. (2017). Pretesting Survey Questions via Web Probing – Does it Produce Similar Results to Face-to-Face Cognitive Interviewing? *Survey Practice*, 10, 1-11.
- Meitinger, K., & Behr, D. (2016). Comparing Cognitive Interviewing and Online Probing: Do They Find Similar Results? *Field Methods*, 28(4): 363-380.
- Neuert, C., & Lenzner, T. (2016). Incorporating Eye Tracking into Cognitive Interviewing to Pretest Survey Questions. *International Journal of Social Research Methodology*, 19(5): 501-519.
- Neuert, C. E. & Lenzner, T. (2019). Effects of the Number of Open-Ended Probing Questions on Response Quality in Cognitive Online Pretests. *Social Science Computer Review*. Online first. <https://doi/10.1177/0894439319866397>
- Willis, G., and Lessler, J. T. (1999). Questionnaire Appraisal System: QAS-99. <https://docplayer.net/147787-Questionnaire-appraisal-system-qas-99.html>

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.
- Blair, J., & Conrad, F. G. (2011). Sample size for cognitive interview pretesting. *Public Opinion Quarterly*, 75, 636-658.
- Collins, D. (2015). *Cognitive Interviewing Practice*. Thousand Oaks: Sage.
- Jansen, H., & Hak, T. (2005). The productivity of the Three-Step Test-Interview (TSTI) compared to an expert review of a self-administered questionnaire on alcohol consumption. *Journal of Official Statistics* 21:103-20.
- Kaczmirek, L., Meitinger, K., Behr, D. (2017). 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-ssaar-51100>
- Meitinger, K. (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.
- Neuert, C. & Lenzner, T. (2019). Use of Eye Tracking in Cognitive Pretests. Mannheim, GESIS – Leibniz Institute for the Social Sciences (GESIS – Survey Guidelines). DOI: 10.15465/gesis-sg_en_025
- 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 cross-cultural patterns in survey data. *Field Methods*, 23, 420-438.
- Willis, G. B. (2005). *Cognitive interviewing*. Thousand Oaks: Sage.
- Yan, T., Kreuter, F., & Tourangeau, R. (2012). Evaluating survey questions: A comparison of methods. *Journal of Official Statistics*, 28(4), 503.