Special Topic of Psychometrics: Survey Research

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Course credits: 3
Class time and venue: Wednesday, 14:10 – 17:00, Room 455
Office hours: By appointment

Course Descriptions

This **EMI course** aims to prepare students to conduct high-quality survey research. While introductory to survey methodology, it is advanced in level because students already possess general knowledge of psychometrics and research methods. The course focuses on survey design, response behaviors/styles, and the use of technology in survey research. Lectures provide overviews of each topic, while students present chosen papers and lead discussions. Students will draft and present a research proposal related to survey methods, serving as preparation for the master's thesis.

Learning Objectives

By the end of the course, students will be able to:

1) Develop, implement, and evaluate survey studies.
2) Explain and apply theoretical bases for survey responses, including ethical considerations in survey research.
3) Detect and address measurement issues in survey data.

Assessment

Discussion seminars (30%)

Students lead one or two seminars, presenting and critiquing selected articles, suggesting alternative approaches, and engaging peers in discussion. (See Appendix I for details).

Classroom participation and attending talks (20%)

Active engagement in discussions and attendance at departmental talks.

Proposal Writing (30%)

Each student is to choose a topic and write a proposal as a way to prepare for the master's thesis. The proposal should include **a component related to the course contents** or investigate **a topic covered in this course**. The max length of the proposal shall not be exceed 3,000 words in the main text, covering theory, relevant concepts, and methodology. (Appendix II provides some guidelines and a scoring rubric).

Presentation (20%)

Each student is to present their proposal in class. (Appendix III provides a scoring rubric).

Tentative Schedule and Topics

Sessions	Date	Topics	Suggested readings
Block I: Foundations			
1	Feb 25	Overview	Couper (2000)
2	Mar 4	Ethics in e-research	Nosek, Banaji, & Greenwald (2002)
3	Mar 11	Issues in cross-cultural assessment	Cha, Kim, & Erlen (2007)
4	Mar 18	Individual consultation (Topic selections due)	
Block II: Survey Design and Response Behaviors			
5	Mar 25	Inattentive responses in survey questionnaires	Huang, Curran, Keeney, Poposki, & DeShon, (2012); Meade & Craig (2012).
6	Apr 1	Response styles in survey research	Harzing (2006); Van Vaerenbergh & Thomas (2013)
7	Apr 8	**Inter-University Activities (Classes Suspended)**	
8	Apr 15	Rating scale design: Scale polarity and the middle point	Garland (1991); Höhne, Krebs, & Kühnel (2022)
9	Apr 22	Mixed-format design	Chyung, Barkin, & Shamsy (2018); Kamoen, Holleman, Mak, Sanders, & Van Den Bergh (2017); Wong, Rindfleisch, & Burroughs (2003)
Block III: Advanced Psychometric Approaches			
10	Apr 29	Approaches to detect and control wording effects in mixed-format design	Wang, Chen, & Jin (2015)
11	May 6	Item response theory (IRT) models to detect inattentive responses	Jin, Chen, & Wang (2018)
12	May 13	IRT models to detect response styles	Bolt & Newton (2011); Cheung & Rensvold (2000)
13	May 20	Recent development in IRT to detect response styles	Bo¨ckenholt (2012)
Block IV: Technology in Survey Research			
14	May 27	Response time	Ranger, J. (2013)
15	June 3	Mouse movement	Cepeda et al. (2018).
16	June 10	Proposal presentation	
17	June 17	Research proposal due	

Suggested readings

Bo¨ckenholt, U. (2012). Modeling multiple response processes in judgment and choice. *Psychological Methods, 17*(4), 665–678.

Bolt, D. M., & Newton, J. R. (2011). Multiscale measurement of extreme response style. *Educational and Psychological Measurement, 71*(5), 814–833.

Cepeda, C., Rodrigues, J., Dias, M. C., Oliveira, D., Rindlisbacher, D., Cheetham, M., & Gamboa, H. (2018). Mouse tracking measures and movement patterns with application for online surveys. In *Machine Learning and Knowledge Extraction Proceedings 2* (pp. 28-42). Springer International Publishing.

Cha, E. S., Kim, K. H., & Erlen, J. A. (2007). Translation of scales in cross-cultural research: issues and techniques. *Journal of Advanced Nursing, 58*(4), 386-395.

Cheung, G. W., & Rensvold, R. B. (2000). Assessing extreme and acquiescence response sets in cross-cultural research using structural equations modeling. *Journal of Cross-Cultural Psychology, 31*, 187-212.

Chyung, S. Y., Barkin, J. R., & Shamsy, J. A. (2018). Evidence-based survey design: The use of negatively worded items in surveys. *Performance Improvement, 57*(3), 16-25.

Couper, M. P. (2000). Web surveys: A review of issues and approaches. *The Public Opinion Quarterly, 64*(4), 464-494.

Fowler Jr, F. J. (2013). *Survey research methods*. Sage publications.

Garland, R. (1991). The mid-point on a rating scale: Is it desirable. *Marketing bulletin, 2*(1), 66-70.

Geisinger, K. F. (2003). Testing and assessment in cross-cultural psychology. In J. R. Graham & J. A. Naglieri (Eds.), *Handbook of psychology: Assessment psychology* (Vol. 10, pp. 95-117). Hoboken, New Jersey: John Wiley & Sons.

Harzing, A. W. (2006). Response styles in cross-national survey research: A 26-country study. *International journal of cross cultural management, 6*(2), 243-266.

Höhne, J. K., Krebs, D., & Kühnel, S. M. (2022). Measuring income (in) equality: Comparing survey questions with unipolar and bipolar scales in a probability-based online panel. *Social Science Computer Review, 40*(1), 108-123.

Huang, J. L., Curran, P. G., Keeney, J., Poposki, E. M., & DeShon, R. P. (2012). Detecting and deterring insufficient effort responding to surveys. *Journal of Business and Psychology, 27*(1), 99-114.

Jin, K.-Y., Chen, H.-F., & Wang, W.-C. (2018). Mixture item response models for inattentive responding behavior. *Organizational Research Methods, 1*, 197-225.

Kamoen, N., Holleman, B., Mak, P., Sanders, T., & Van Den Bergh, H. (2017). Why are negative questions difficult to answer? On the processing of linguistic contrasts in surveys. *Public Opinion Quarterly, 81*(3), 613-635.

Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological Methods, 17*, 437-455.

Nosek, B. A., Banaji, M. R., & Greenwald, A. G. (2002). E Research: Ethics, security, design, and control in psychological research on the internet. *Journal of Social Issues, 58*, 161--176.

Ranger, J. (2013). Modeling responses and response times in personality tests with rating scales. *Psychological Test and Assessment Modeling, 55*(4), 361.

Van Vaerenbergh, Y., & Thomas, T. D. (2013). Response styles in survey research: A literature review of antecedents, consequences, and remedies. *International Journal of Public Opinion Research, 25*(2), 195-217.

Wang, W.-C., Chen, H.-F., & Jin, K. -Y. (2015). Item response theory models for wording effects

in mixed-format scales. *Educational and Psychological Measurement, 75*(1), 157–178.
Wong, N., Rindfleisch, A., & Burroughs, J. E. (2003). Do reverse-worded items confound measures in cross-cultural consumer research? The case of the Material Values Scale. *Journal of Consumer Research, 30,* 72-91.

Reminders

1) Academic honesty is central to the conduct of academic work. Students are expected to present their own work, give proper acknowledgement of other's work, including the correct use of quotation and page number for direct quotes of paragraphs, sentences and phrases, and honestly report for findings obtained. Students who commit an act of academic dishonesty which jeopardizes the integrity of the learning and assessment process may be liable to disciplinary actions.

2) Do not make or acquire illegal copies of the readings.

Appendix 1: Discussion Seminar (details)

Duration for each Discussion Seminar: Around 120 mins

Expected components in each Discussion Seminar: Presentation & Discussion sessions

Recommended time frame (recommended only, you may or may not want to follow): 80-90 mins for Presentation & 30-40 mins for Discussion (including Q & A)

Presentation session: More like a one-way delivery
Discussion session: More interaction with the floor would be expected. The exact format for the discussion session is up to you. Formats can include debates, role-play as reviewers, or mini peer-review exercises. The goal is to engage the audience to think more deeply into your topic and to initiate some discussion. You may, for instance, lead a Q&A session and have some guiding questions prepared in advance, allow time for group discussions and ask feedback from other, or even show a short clip which is related to your topic to elicit some further thoughts and discussion etc.

Expectations and marking scheme
1) Present the chosen papers in a clear and easy-to-understand manner (e.g., the key issues and arguments raised by the author(s), some details of the methodology, general findings, and conclusion) **(30% of mark)**
2) Evaluate the strengths and weaknesses of the chosen studies, including its 1) methodology (e.g., whether the method is sound or not, and its suitability for the target issue), 2) theoretical significance, and 3) applied values **(30% of mark)**
3) Discuss whether and how the different research approaches can complement each other to enrich our understanding about the target issue **(30% of mark)**
4) Lead a discussion session in an interactive manner **(10% of mark)**

Item 1) above must be completed in the Presentation session
Items 2) and 3) can be included in the Presentation and/or Discussion session

Appendix II: Written Proposal Rubric

Length: Maximum 3,000 words (main text, excluding references and appendices)

Format: APA

Criteria	Description	Weighting
Structure & Organization	Clear introduction, literature review, methodology, and conclusion. Logical flow and coherence.	25%
Methodological Rigor	Research design is appropriate, feasible, and well-justified. Addresses sampling, measurement, and analysis strategies.	25%
Innovation and Critical Reflection	Goes beyond summary of existing work. Offers new perspectives, identifies gaps, or proposes methodological improvements.	15%
Integration with Course Content	Explicitly connects proposal to topics covered in class (e.g., response styles, IRT, technology in surveys).	20%
Academic Writing & Referencing	Clear, professional writing style. Proper citation and adherence to academic honesty standards.	15%

Performance Levels

- **Excellent (A):** Well-structured, theoretically rich, methodologically rigorous, innovative, and tightly integrated with course themes. Writing is clear and polished.
- **Good (B):** Solid structure and content; demonstrates understanding of theory and methods; some innovation; minor issues in clarity or referencing.
- **Fair (C):** Adequate but limited depth; weak methodological justification; minimal innovation; uneven integration with course content.
- **Poor (D/F):** Disorganized, superficial, or incomplete; lacks theoretical or methodological grounding; little connection to course themes; major writing/referencing issues.

Appendix III Proposal Presentation Rubric (20%)

Total Duration: ~20 minutes per student (15 minutes presentation + 5 minutes Q&A/discussion)

Criteria	Description	Weighting
Clarity of Presentation	Ideas are communicated clearly, logically, and in an engaging manner. Slides/visuals are well-organized and support the talk.	25%
Content Quality	Proposal demonstrates strong grasp of theory, relevant concepts, and methodology. Shows originality or innovation in approach.	30%
Integration with Course Themes	Explicitly connects proposal to topics covered in the course (e.g., response styles, survey design, IRT methods, technology in surveys).	20%
Critical Reflection	Identifies strengths, limitations, and possible improvements. Shows awareness of ethical and practical issues.	15%
Engagement & Response to Feedback	Actively engages audience during Q&A, responds thoughtfully to questions, and demonstrates openness to critique.	10%

Performance Levels

- **Excellent (A):** Clear, confident delivery; strong theoretical and methodological grounding; innovative ideas; excellent integration with course themes; insightful responses to questions.
- **Good (B):** Mostly clear delivery; solid content; some integration with course themes; adequate reflection; responsive to feedback.
- **Fair (C):** Presentation lacks clarity or depth; limited integration with course content; weak reflection; minimal engagement in Q&A.
- **Poor (D/F):** Disorganized, unclear, or superficial; little connection to course; fails to engage audience or respond to feedback.