

**Introduction to Survey Research Techniques**  
**SurvMeth 988.208**  
**Summer, 2017**

**Time:** Monday, Wednesday and Friday 5:30-8 pm (June 5 – July 14)

**Location:** TBD

<b>Instructors:</b>	Emilia Peytcheva, Ph.D. RTI International emilia@umich.edu	Tuba Suzer Gurtekin, Ph.D. Institute for Social Research, U of Michigan tsuzer@umich.edu
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**Office Hours:** By appointment

**Overview:**

This course covers the basic principles of survey design based on methodological research and introduces the necessary components of a good quality survey. The course employs the Total Survey Error framework to discuss sampling frames and designs, modes of data collection and their effects on survey errors, the cognitive processes involved in answering survey questions and their impact on questionnaire design, pretesting methods and post-data collection processing. The goal of the course is to give an *introduction* to the skills and resources needed to design and conduct a survey.

The expectation is that assigned readings are completed prior to attending the class for which the materials are assigned.

**Class Format and Evaluation:**

This 6-week course offering can be taken in its entirety (3 credits for 6 weeks) or in separate modules (1 credit each for 2 weeks each).

Grading for students taking separate modules will be based on one exercise per module (80% of your grade) and class participation (20% of your grade). Students taking all modules will be given the option to complete one module exercise and a group project (instead of three module exercises). The group project will address a specific problem – participants will be required to write a 10 page paper that explains the research problem, lists the research questions that the study will answer, outlines the sampling design, describes the survey (including developing the survey questions), and outlines the implementation plan. Data will NOT be collected.

**Required Text**

Groves, R. M., Fowler, F. J. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). *Survey methodology (2<sup>nd</sup> edition)*. Hoboken, NJ: Wiley & Sons.

**Course Website:**

TBD

Copies of the instructor's powerpoint slides will be available on the course website before each class.

**Course Schedule:**

**MODULE 1**

**June 5: Introduction, Survey Error, Standardization, and Operationalizing Constructs - Peytcheva**

Groves et al., 2009 – Chapters 1 and 2

Lessler, J. and Kalsbeek, W. (1992). Nonsampling Errors in Surveys, John Wiley and Sons, Chapter 2.

**June 7: Modes of Data Collection –Interviewer-administered Surveys – Suzer-Gurtekin**

Groves et al., 2009 – Chapter 5

Tucker, C., & Lepkowski, J.M. (2008). Telephone survey methods: Adapting to change. In J.M. Lepkowski et al. (eds.), *Advances in Telephone Survey Methodology*. New York: Wiley, 3-26.

West, B. T., & Blom, A. G. Explaining Interviewer Effects: A Research Synthesis. *J Surv Stat Methodol* 2016 smw024. doi: 10.1093/jssam/smw024

West, B. T., Conrad, F. G., Kreuter, F. and Mittereder, F. (2016), Can conversational interviewing improve survey response quality without increasing interviewer effects?. *J. R. Stat. Soc. A*. doi:10.1111/rssa.12255

**June 9: Modes of Data Collection – Self-administered Surveys – Peytcheva**

**Assignment 1 Available on the Course Website**

Dillman, D. (2000). *Mail and Internet Surveys: The Tailored Design Method*. New York: John Wiley and Sons. Chapter 3: pages 79 – 140.

**June 12: Designing Self-Administered Questionnaires – Suzer-Gurtekin**

Leah Melani Christian, Don A. Dillman; The Influence of Graphical and Symbolic Language Manipulations on Responses to Self-Administered Questions. *Public Opin Q* 2004; 68 (1): 57-80. doi: 10.1093/poq/nfh004

Tourangeau, R., Conrad, F. & Couper, M. (2013). Chapter 4: Introduction to Measurement and Design in Web Surveys in the Science of Web Surveys, Oxford University Press: New York.

**June 14: Pretesting Methods – Peytcheva**

Groves et al., 2009 – Chapter 8

Fowler, F.J. (2004) “The Case for More Split-Sample Experiments in Developing Survey Instruments.” In Presser, S., Rothgeb, J.M., Couper, M.P., Lessler, J.T., Martin, E., Martin, J. and E. Singer (eds) *Methods for Testing and Evaluating Survey Questionnaires*. Hoboken, NJ: John Wiley & Sons, pp. 173 – 188.

Esposito, J.L. and J. M. Rothgeb (1997) “Evaluating Survey Data: Making the Transition from Pretesting to Quality Assessment.” Lyberg, L., Biemer, P., Collins, M., de Leeuw, E., Dippo, C., Schwarz, N. and D. Trewin (eds) *Survey Measurement and Process Quality*. New York: John Wiley & Sons. pp. 541 – 572.

Hansen, S.E., and Couper, M. (2004). Usability Testing To Evaluate Computer-Assisted Instruments, in in Presser, S., Rothgeb, J., Couper, M., Lessler, J., Martin, E., Martin, J., and Singer, E. (eds.) *Methods for Testing and Evaluating Survey Questionnaires*, New York: John Wiley and Sons, Chapter 17: pages 337 – 360.

Presser, S., Couper, M.P., Lessler, J.T., Martin, E.A., Martin, J., Rothgeb, J., & Singer, E. (2004). Methods for testing and evaluating survey questions. *Public Opinion Quarterly*, 68, 109-130.

**June 16: Cross-cultural Surveys – Peytcheva**

**Assignment 1 Due**

Smith, T. (2003). Developing Comparable Questions in Cross-National Surveys, in Harkness, et. al., (eds), *Cross-Cultural Survey Methods*, New York: Wiley. - Pages 69 – 91.

Harkness, J., (2003). Questionnaire Translation, in Harkness, et. al., (eds), *Cross-Cultural Survey Methods*, New York: Wiley. - Pages 35 – 56.

**MODULE 2**

**June 19: Sample Design and Sampling Error, Part I - Suzer-Gurtekin**  
**Simple random sampling**  
**Sample size calculation**

## **Systematic sampling**

Groves et al., 2009 – Chapter 4

Kalton, G. (1983). *An Introduction to Survey Sampling*. Beverly Hills: Sage, Chapters 1-3.

**June 21: Sample Design and Sampling Error, Part II – Suzer-Gurtekin**  
**Stratification**  
**Cluster Sampling**  
**Stratified cluster sampling**

Kalton, G. (1983). *An Introduction to Survey Sampling*. Beverly Hills: Sage, Chapters 4-5, 11.

**June 23: Sample Design and Sampling Error, Part III – Suzer-Gurtekin**  
**Assignment 2 Available on the Course Website**  
**Probability proportional to size**  
**Construction of unit weights**  
**Analysis of survey data**

Kalton, G. (1983). *An Introduction to Survey Sampling*. Beverly Hills: Sage, Chapter 6.

Valliant R. (2004), The Effect of Multiple Weighting Steps on Variance Estimation, *Journal of Official Statistics*, Vol. 20, No. 1, 1-18

West B.T., Sakshaug J.W., and Aurelien GAS. (2016), How Big of a Problem is Analytic Error in Secondary Analyses of Survey Data?, *PLoS ONE* 11(6): e0158120. <https://doi.org/10.1371/journal.pone.0158120>

**June 26: Coverage Error - Peytcheva**

Groves et al., 2009 – Chapter 3

Martin, E. 1999. Who knows who lives here: Within-household disagreements as a source of survey coverage error. *Public Opinion Quarterly* 63:220–36

Iannacchione, V., Staab, J. M., and Redden, D. T. (2003). “Evaluating the Use of Residential Mailing Addresses in a Metropolitan Household Survey,” *Public Opinion Quarterly*, 67, 2, 202-210.

**June 28: Nonresponse Error - Peytcheva**

Groves et al., 2009 – Chapter 6

Groves, R. M., and Couper, M. P. (1998). *Nonresponse in household surveys*. New York: John Wiley, Chapters 1 and 2

**June 30: Measurement Error – Peytcheva**

## **Assignment 2 Due**

Groves et al. 2009 – Chapter 7

Turner, C. F., and Martin, E. (1985). "Measurement and Error: An Introduction." In Turner, C. F., and Martin, E. (eds.), *Surveying Subjective Phenomena* (Volume 1, pp. 97-128). New York: Russell Sage Foundation.

## **MODULE 3**

### **July 3: Measurement Error and Writing Survey Questions, Part I - Peytcheva**

Sudman, S., Bradburn, N., and Schwarz, N. (1996). *Thinking about Answers: The Application of Cognitive Processes to Survey Methodology*, San Francisco: Jossey-Bass Publishers. Chapter 3, pages 55 – 79; Chapter 4, pages 80 – 99, and Chapter 5, 100 – 162

Tourangeau, R., Rips, L.J., and Rasinski, K. (2000), *The Psychology of Survey Response*, Cambridge: Cambridge University Press. Chapters 3-5, pages 62 – 164

### **July 5: Measurement Error and Writing Survey Questions, Part II - Peytcheva**

Tourangeau, R., Rips, L.J., and Rasinski, K. (2000), *The Psychology of Survey Response*, Cambridge: Cambridge University Press. Chapters 6-7, pages 239 – 254

### **July 7: Survey Interviewing and Measurement Error - Peytcheva Assignment 3 Available on the Course Website**

Groves et al., 2009 – Chapter 9

Hansen, Morris H., William Hurwitz, and Max Bershada (1960). "Measurement Errors in Censuses and Surveys." *Bulletin of the International Statistical Institute*, 32nd Session, 38(2), 359-374.

Conrad, F.G., & Schober, M.F. (2000). Clarifying question meaning in a household telephone survey. *Public Opinion Quarterly*, 64, 1-28.

### **July 10: Post Data Collection Processing - Peytcheva**

Groves et al., 2009 – Chapter 10

Granquist, L, and Kovar, J. (1997). "Editing of Survey Data: How Much is Enough." In Lyberg, L., Biemer, P., Collins, M., de Leeuw, E., Dippo, C., Schwarz, N., and Trewin, D. (eds.), *Survey Measurement and Process Quality* (pp. 415-436). New York: Wiley.

**July 12: Mixed-mode Designs, Responsive and Adaptive Designs – Peytcheva**

Biemer, P. and Lyberg, L. (2003), Data Collection Modes and Associated Errors, Chapter 6 in Introduction to Survey Quality, New York; Wiley.

Groves, R., and Heeringa, S. (2006), Responsive design for household surveys: tools for actively controlling survey errors and costs." *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 169(Part 3): 439-457.

**July 14: Multiple Sources of Error; Principles and Practices of Ethical Research - Peytcheva  
Assignment 3 Due**

Groves et al., 2009 – Chapter 11

Groves, Robert M. and Lou J. Magilavy. (1984) "An Experimental Measurement of Total Survey Error," Proceedings of the Survey Research Methods Section of the American Statistical Association, 1984.

Peytchev, A., Carley-Baxter, L A., Black, M C. (2011). "Multiple Sources of Nonobservation Error in Telephone Surveys: Coverage and Nonresponse." *Sociological Methods & Research*.

Singer, E., & Couper, M.P. (2011). Ethical considerations in web surveys. In M. Das, P. Ester, & L. Kaczmirek (eds.), *Social Research and the Internet*. New York: Taylor and Francis, 133-162