

Survey Research and Design (07B:209/07P:209)
Department of Educational Policy and Leadership Studies
Spring 2006
Thursdays, 6:30-9:00
N221 Lindquist
Course Website: <http://www.uiowa.edu/~c07b209/>

Instructor:

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Purpose and Objectives

The field of survey methodology draws on theories and practices developed in several academic disciplines — mathematics, statistics, psychology, sociology, computer science, and economics. To become an accomplished survey research professional, one must acquire a mastery of research literatures as well as experience designing, conducting, and analyzing surveys. This course introduces students to a set of principles of survey design that are the basis of standard practices in the field. The course exposes the student to research literatures that use both observational and experimental methods to test key hypotheses about the nature of human behavior that affect the quality of survey data. It also presents important statistical concepts and techniques in sample design, execution, and estimation, as well as models of behavior describing errors in responding to survey questions. Thus, both social science and statistical concepts will be presented.

The course uses the concept of total survey error as a framework to discuss coverage properties of sampling frames, alternative sample designs and their impacts on standard errors of survey statistics, alternative modes of data collection, field administration operations, the role of the survey interviewer, impacts of nonresponse on survey statistics, the effect of question structure, wording and context on respondent behavior, models of measurement error, postsurvey processing, and estimation in surveys. The course is intended as an introduction to the field, taught at a graduate level. Lectures, class discussions, small group activities, and course readings assume that students understand basic statistical concepts (at the level of an undergraduate course) and have exposure to elements of social science perspectives on human behavior. For those lacking such a background, supplementary readings are recommended.

In general, the major objectives of this course are to introduce students to the skills and resources needed to design and conduct a survey. The skills include identifying and developing specific survey objectives; designing survey studies, sampling respondents, developing reliable and valid self-administered questionnaires, and administering surveys. Specifically, students will learn via class readings, presentations, group projects, and practical experience:

1. How to design surveys
2. How to sample in surveys
3. How to develop, evaluate, and ask survey questions
4. How to measure survey reliability and validity
5. How to conduct self-administered and mail surveys

6. How to decrease survey nonresponse
7. How to reduce error in survey research
8. How to do post-collection survey data processing
9. How to conduct survey research with integrity

Valuing Diversity

It is our belief that the diversity you bring to this class is a valuable resource because varied backgrounds and opinions enhance discussion. Research suggests that learning is improved by exposure to diversity in the classroom. It is my intent to present materials and activities that utilize and are respectful of diversity: gender, sexual orientation, disability, age, socio-economic status, ethnicity, race, culture, perspective, and other background characteristics. Your suggestions about how to improve the value of diversity in this course are encouraged and appreciated. Please let us know of ways to improve the effectiveness of the course for you or for other students or student groups.

We also understand that you may celebrate religious holidays that conflict with the class schedule and may have a disability that requires special accommodations. You will not be penalized because of observances of your religious beliefs. Whenever possible, you will be given reasonable time to make up any academic assignment that is missed due to participation in a religious observance. It is your responsibility to inform us as soon as possible of any intended absences for religious observances. If you have a documented disability that is relevant to the work that you will do in this course, please contact us as soon as possible so that appropriate accommodations can be made. Student Disability Services (3101 Burge Hall, 335-1426, <http://www.uiowa.edu/~sds/>) also is available for consultation with students with disabilities.

Academic Honesty

You are expected to abide by the code of academic integrity throughout this course. We encourage you to collaborate with others as you think about, outline, and proofread your work. However, oral and written work must be your own. You must acknowledge any scholars or classmates whose work you quote or refer to in any way. According to the College of Education's Policy on Student Academic Misconduct, examples of plagiarizing or cheating include: presenting someone else's written or spoken words or ideas as one's own; using direct quotes with no quotation marks, paraphrasing without crediting the source or in some other way suggesting someone else's work is one's own; copying all or part of someone else's paper; and knowingly allowing another student to copy one's work or submit one's work as his or her own. In addition, students must not turn in any written work for which they have already received credit in another course. Any sort of academic misconduct is a very serious offense, and may result in a grade reduction and/or other serious penalties. For more information see the University's *Policy on Student Academic Misconduct* available online at:

http://www.uiowa.edu/~coedean/policies/student_ac_misconduct/index.htm .

Concerns

If you have any suggestions or concerns, either positive or negative, about this class, please do not hesitate to see us during my office hours or make an appointment. It is our hope that we will be able to resolve the issue. In the event that we are unsuccessful, College policy suggests that you contact the EPLS department executive officer, Larry Bartlett (N491 Lindquist Center, 335-5307 or 335-5303). He will be able to help you and give further guidance. You also may wish to refer to the college policy on student complaints and dispute resolution. A copy of *Student Complaint Procedures* is available online at http://www.uiowa.edu/~coedean/policies/student_complaint/index.htm

Dropping the Course

This course is given by the College of Education. This means that class policies on matters such as requirements, grading, and sanctions for academic dishonesty are governed by the College of Education. If you wish to add or drop this course after the official deadline, you must receive the approval of the Dean of the College of Education. Prior to dropping the course, we encourage you to come speak with us. We will do whatever we can to find a solution that will allow you to remain in the course and continue your progress toward degree completion. Additional information on dropping the course and details of the University policy of cross enrollments may be found at <http://www.uiowa.edu/~provost/deos/crossenroll.doc> .

Readings

Required (available at the bookstore or amazon.com; also on reserve at Main Library)

Groves, R. M., Fowler, F. J. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2004). *Survey methodology*. Hoboken, NJ: Wiley-Interscience. (Groves et al. in course schedule; ISBN 0471483486)

Recommended (available at the bookstore or amazon.com; also on reserve at Main Library)

Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method (2nd ed.)*. New York: John Wiley and Sons. (Dillman in course schedule; ISBN 0471323543)

Other Readings

In addition to the required texts listed above, you will read additional book chapters and articles. All have been placed on electronic reserve (noted with an * in course schedule) at the Psychology Library and can be accessed at <http://libres.lib.uiowa.edu/psych/> .

Lecture Presentations

We will post all lecture slides on the course website (<http://www.uiowa.edu/~c07b209/>) by 3pm on the day of class. You may find it useful to print the slides prior to attending class.

Additional resources (on reserve at Main Library; required sections on electronic reserve unless otherwise noted)

Allison, P. D. (2002). *Missing data*. Thousand Oaks, CA: Sage Publications. (ISBN 0761916725)

Best, S. J., & Krueger, B. S. (2004). *Internet data collection*. Thousand Oaks, CA: Sage Publications. (ISBN 0761927107)

Carmines, E. G., & Zeller, R. A. (1979). *Reliability and validity assessment*. Thousand Oaks, CA: Sage Publications. (ISBN 0803913710)

Converse, J. M., & Presser, S. (1986). *Survey questions: Handcrafting the standardized questionnaire*. Newbury Park, CA: Sage Publications. (ISBN 0803927436)

Bradburn, N., Sudman, S., & Wansink, B. (2004). *Asking questions: The definitive guide to questionnaire design - for market research, political polls, and social and health questionnaires (revised edition)*. San Francisco: Jossey-Bass. (ISBN 078790883)

DeVellis, R. F. (2003). *Scale development: Theory and applications*. Thousand Oaks, CA: Sage Publications. (ISBN 0761926054)

Fowler, F. J. (2002). *Survey research methods (3rd edition)*. Thousand Oaks, CA: Sage Publications. (ISBN 0761921915)

Fowler, F., and Mangione, T. (1989). *Standardized survey interviewing: Minimizing interviewer related error*. Newbury Park: Sage Publications. (ISBN 0803930933)

- Groves, R. M. (1989). *Survey errors and survey costs*. New York: John Wiley and Sons. (ISBN 0471611719)
- Groves, R. M., Dillman, D. A., Etinge, J., & Little, R. J. A. (Eds.). (2002). *Survey nonresponse*. New York: Wiley-Interscience. (ISBN 0471396273)
- Kalton, G. (1983). *Introduction to survey sampling*. Thousand Oaks, CA: Sage Publications. (ISBN 0803921268)
- Kish, L. (1965). *Survey sampling*. New York: Wiley-Interscience. (ISBN 0471109495).
- Lessler, J., & Kalsbeek, W. (1992). *Nonsampling error in surveys*. New York: John Wiley and Sons. (ISBN 0471869082)
- Lohr, S. L. (1999). *Sampling: Design and analysis*. Pacific Grove, CA: Duxbury Press. (ISBN 0534353614)
- Nardi, P. M. (2003). *Doing survey research: A guide to quantitative methods*. Boston, MA: Allyn and Bacon. (ISBN 0205343481)
- Salant, P., & Dillman, D. A. (1994). *How to conduct your own survey*. New York: John Wiley and Sons. (ISBN 0471012734)
- Schwarz, N., & Sudman, S. (Eds.). (1996). *Answering questions: Methodology for determining cognitive and communicative processes in survey research*. San Francisco: Jossey Bass. (ISBN 0787901458)
- Sudman, S., Bradburn, N., & Schwarz, N. (1996). *Thinking about answers: The application of cognitive processes to survey methodology*. San Francisco: Jossey-Bass. (ISBN 0787901202)
- Tourangeau, R., Rips, L. J., & Rasinski, K. (2000). *The psychology of survey response*. New York: Cambridge University Press. (ISBN 0521576296)

Select journals that publish research on survey methods:

Annual Review of Sociology

Educational and Psychological Measurement

Journal of Applied Social Psychology

Journal of Official Statistics

Public Opinion Quarterly

Social Science Computer Review

Sociological Methods & Research

Research in Higher Education

Evaluation

The course will employ a variety of approaches of instruction and will rely heavily on student participation and discussion. Course requirements include both written and oral assignments. You will be evaluated on the following items:

1. **Class participation (10%)**—This course is conducted as a lecture/seminar class; therefore, you are expected to attend and to be actively involved in the class. You are expected to participate in and lead class discussions in a manner that demonstrates thoughtful reflection and understanding of the subject matter, as well as respect for your colleagues in the class. To do so, you must complete the readings that are assigned for each session of the class prior to attending that class session. Active participation also means that each participant is willing to listen to other points of view and to change his or her mind. This means you must listen to others, respond thoughtfully, demonstrate an understanding of the issues, and show a willingness to learn and grow.

2. **Application exercises (20%)**—Four major topic areas of the course will have a short exercise (2-4 pages) that you will complete in order to further integrate the knowledge presented in lectures and reading. Below are the topics and due dates. Each exercise is worth 5% of your final grade. We will provide detailed information regarding each assignment in class two weeks prior to the day they are due.
 February 16 - Sample design and sampling error
 March 9 - Nonresponse error
 April 13 – Writing questions
 April 27 - Postcollection processing of survey data

3. **Group project (35%)**—Early in the semester, we will divide the class into groups of two or three according to research interests. You will work together on a survey research project that addresses a particular problem and answers a research question or research questions. As a group, you will develop a short survey and write a paper (no longer than twelve, double-spaced pages) that explains the research problem, lists the research question(s) you hope to answer, delineates your sample design, describes your survey (including ways you plan to evaluate it in prior to data collection), and outlines your implementation plan. **You will not collect data** for this project. You will present your project to the class on **May 4**. Additional information on the group project will be provided in class.

4. **Take-home midterm exam (35%)**—The purpose of the take-home exam will be to apply and integrate all of the information covered prior to spring break. It is easy to labor over take-home exams for days and even weeks. To avoid this, we want to set realistic expectations for the exam. If you were to take the exam in class, you would have approximately two and a half hours. While we hope you spend a little more time on your exam than that, we believe you should take no more than four or five hours to complete it. We will evaluate your exam with this in mind. For those who need a page number guideline, we expect that you will write no more than ten double-spaced pages. You may use your notes and assigned readings to do the assignments, but you may not consult with other people. We will distribute the exam on March 9, and it will be due at the beginning of class **on March 23**.

→ **Note: All assignments should be turned in on time unless other arrangements are made well in advance of deadlines. We do not accept late assignments. We also do not accept assignments submitted electronically unless arrangements are made well in advance of the due date.**

→ All formal written work should adhere to APA style as described in the Publication Manual of the American Psychological Association (5th Ed.).

Grading

Your final grade for this class will be based upon the following:

Participation.....	10 points
Application Exercises.....	20 points
Group Project.....	35 points
Midterm Exam.....	35 points

Your final grade will be calculated using the following scale:

92—100 points.....	A
90—91 points.....	A-
88—89 points.....	B+
82—87 points.....	B

80—81 points.....	B-
78—79 points.....	C+
72—77 points.....	C
70—71 points.....	C-...

I *strongly discourage* incomplete grades. I have seen numerous cases where students become overwhelmed trying to wrap-up incomplete grades. However, if it is absolutely necessary for you to take an incomplete, you must arrange it with me prior to April 20th.

Instructor Responsibilities

We have high expectations not only for you but also for ourselves. You should expect that we will:

- Be prepared for class, read and return your work in a timely manner, and be interested and engaged in your papers;
- remember that each of you brings a different background, experience, and perspective to this course;
- learn from you;
- meet with you individually or in groups upon request and be available in person, by telephone, and by e-mail;
- work hard, have fun, and empower students to develop greater understandings of the topics that are covered in this course.

Course Schedule

We organized the course schedule around the main concepts of survey methodology. We proceed generally, considering concepts of error in survey research, sampling, nonresponse, and different modes of survey data collection. We then examine, in detail, writing and evaluating questions and constructing the survey instrument. We conclude with a discussion of post-collection data processing and integrity in survey research.

Schedule key: * - on electronic reserve and can be accessed at <http://libres.lib.uiowa.edu/psych/>

+ - available on the websites provided

Groves et al. - Groves, R. M., Fowler, F. J. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. text

Dillman – Dillman text

Week 1, January 19 - Introductions, expectations, and setting the stage

Week 2, January 26 - Introduction to survey methodology and the tailored design method

Groves et al. - Chapter 1 & 2 (p. 1-62)

Dillman - Chapter 1 (p. 3-31)

*Miller, (1995). They said it couldn't be done: The National Health and Social Life Survey.

Public Opinion Quarterly, 59(3), 404-419.

Week 3, February 2 - Coverage error, introduction to sampling error, and application exercise #1

Groves et al. - Chapter 3 (p. 67-91)

Dillman – Chapter 5 (p. 194-216)

*Squire, P. (1988). Why the 1936 Literary Digest poll failed. *Public Opinion Quarterly*, 52(1), 125-133.

Week 4, February 9 – Sample design and sampling error

Groves et al. - Chapter 4 (p. 93-132)

- *Lohr, S. (1999). *Sampling: Design and analysis*. Pacific Grove, CA: Duxbury Press. (Chapter 2, p. 23-50)
- *Urdan, T.C. (2001). *Statistics in plain English*. Mahwah, NJ: Lawrence Erlbaum. Chapter 5, Standard errors.

Week 5, February 16 – Modes of collection and implementation

Groves et al. - Chapter 5 (p. 137-165)

Dillman - Chapter 4 (p. 149-193)

- *Tourangeau, R., Rips, L. J., & Rasinski, K. (2000). *The psychology of survey response*. New York: Cambridge University Press. (Chapter 10, p. 289-312).

Assignment Due: Application Exercise #1

Week 6, February 23 - Mixed mode surveys, web surveys, and application exercise #2

Dillman - Chapters 6 & 11 (p. 217-244, 352-412)

De Leeuw, E.D. (2005). To mix or not to mix data collection modes in surveys. *Journal of Official Statistics*, 21(2): 233-255. (http://www.jos.nu/Contents/jos_online.asp)

Select one (1) of the following:

- *Couper, M. (2000) Web Surveys: A Review of Issues and Approaches. *Public Opinion Quarterly*, 64: 464-494.

- *Best, S. J., & Krueger, B. S. (2004). *Internet data collection*. Thousand Oaks, CA: Sage Publications. (Chapter 4, p. 36-74)

Week 7, March 2 – Response rates and nonresponse error

Groves et al. - Chapter 6 (p. 169-196)

- *Groves, R. M., Cialdini, R. B., & Couper, M. P. (1992). Understanding the decision to participate in a survey. *Public Opinion Quarterly*, 56(4), 475-495.

- *Groves, R.M., Presser, S., & Dipko, S. (2004). The role of topic interest in survey participation decisions. *Public Opinion Quarterly*, 68(1): 2-31.

- *Johnson et al. (2002). Culture and survey nonresponse. In Groves et al. (Eds.). *Survey nonresponse*. New York: Wiley-Interscience. (p. 55-69)

+AAPOR – skim response rate definitions

http://www.aapor.org/pdfs/standarddefs_ver3.pdf

Week 8, March 9 - Writing questions (Mid-term exam distributed)

Groves et al. - Chapter 7 (p. 201-238)

Dillman – Chapter 2 (p. 32-79)

- *DeVellis, R. F. (2003). *Scale development: Theory and applications*. Thousand Oaks, CA: Sage Publications. (Chapter 5, p. 61-100)

- *Fowler, F.J. (1995). *Improving survey questions*. Sage: Thousand Oaks, CA. (Chapter 3, p. 46-77)

Assignment Due: Application Exercise #2

Week 9, March 16 - No class (Spring break)

Week 10, March 23 – Evaluating survey questions

Groves et al. - Chapter 8 (241-266)

- *Sudman, S., Bradburn, N., & Schwarz, N. (1996). *Thinking about answers: The application of cognitive processes to survey methodology*. San Francisco: Jossey-Bass. (Chapter 2, p. 15-54)

- *Willis, G. B. (2004). Cognitive interviewing revisited: A useful technique, in theory? In Presser, S., Rothgeb, J. M., Couper, M. P., Lessler, J. T., Martin, E., Martin, J., & Singer, E. (Eds.). *Methods for testing and evaluating survey questionnaires*. New York: Wiley-Interscience. (p. 23-41)

Assignment Due: Mid-term exam

Week 11, March 30 - Constructing the questionnaire and application exercise #3

Dillman – Chapter 3 (p. 79-148)

- *Bradburn, N., Sudman, S., & Wansink, B. (2004). *Asking questions: The definitive guide to questionnaire design - for market research, political polls, and social and health questionnaires (revised edition)*. San Francisco: Jossey-Bass. (Chapter 10, p. 283-314)
- *Christian, L.M. and Dillman, D.A. (2004). The influence of graphical and symbolic language manipulations on responses to self-administered questions. *Public Opinion Quarterly*, 68(1): 57-80.
- *Tourangeau, R., Couper, M.P., & Conrad, F. (2004). Spacing, position, and order: Interpretive heuristics for visual features of survey questions. *Public Opinion Quarterly*, 68: 368-393.

Week 12, April 6 – No class (AERA); Work on group projects

Week 13, April 13 – Survey interviewing, alternative questionnaire delivery, ethical issues, and application exercise #4

Groves et al. - Chapter 9 & 11 (p. 269-298, 345-373)

Dillman – Chapter 7 (245-263)

+AAPOR – Questions about IRBs -

http://www.aapor.org/default.asp?page=survey_methods/IRBS_faq

Assignment Due: Application Exercise #3

Week 4, April 20 – Post-collection processing of survey data: Missing data

Groves et al. - Chapter 10 (p. 303-340)

- *Croninger, R.G and Douglas, K.M. (2005). Missing data and institutional research. In Umbach, P.D., *Survey research: emerging issues, New Directions for Institutional Research no. 127*, pp 33-49.

+De Leeuw, E.D., Hox, J., & Huisman, M. (2003). Prevention and treatment of item nonresponse. *Journal of Official Statistics*, 19(2): 153-176.

(http://www.jos.nu/Contents/jos_online.asp)

Week 15, April 27 – Post-collection processing of survey data: Weights and other issues

+Kalton, G. & Flores-Cervantes, I. (2003). Weighting methods. *Journal of Official Statistics*, 19(2): 81-97. (http://www.jos.nu/Contents/jos_online.asp)

- *Thomas, S. L., & Heck, R. H. (2001). Analysis of large-scale secondary data in higher education research: Potential perils associated with complex sampling designs. *Research in Higher Education*, 42(5), 517-540.

Assignment Due: Application Exercise #4

Week 1, May 4 - Group presentations

Assignment due: Group project

Course Schedule At-a-glance

Week	Topic	Required readings	Assignments due
1/19	Introductions and expectations		
1/26	Introduction to survey methodology and the tailored design method	Groves et al. – Ch. 1 & 2 Dillman – Ch. 1 *Miller (1995)	
2/2	Coverage error, introduction to sampling error, and application exercise #1	Groves et al. – Ch. 3 Dillman – Ch. 5 *Squire (1988)	
2/9	Sample design and sampling error	Groves et al. – Ch. 4 *Lohr (1999) *Urda (2001)	
2/16	Modes of collection and implementation	Groves et al. – Ch. 5 Dillman – Ch. 4 *Tourangeau, Rips, & Rasinski, (2000)	Application Exercise #1
2/23	Mixed mode surveys, web surveys, and application exercise #2	Dillman – Ch. 6 & 11 *DeLeeuw (2005) <u>Choose one of the following:</u> *Couper (2000) *Best & Krueger (2004)	
3/2	Response rates and nonresponse error	Groves et al. – Ch. 6 *Groves, Cialdini, & Couper (1992) *Groves, Presser, & Dipko (2004) *Johnson et al. (2002) +AAPOR – response rate definitions	
3/9	Writing questions (Mid-term exam distributed)	Groves et al. – Ch. 7 Dillman – Ch. 2 *Devellis (2003) *Fowler (1995)	Application Exercise #2
3/16	No class (spring break)		
3/23	Evaluating survey questions	Groves et al. – Ch. 8 *Sudman, Bradburn, & Schwarz (1996) *Willis (2004)	Mid-term exam
3/30	Constructing the questionnaire and application exercise #3	Dillman – Ch. 3 *Bradburn, Sudman, & Wasink (2004) *Christian & Dillman (2004) *Tourangeau, Couper, & Conrad (2004)	
4/6	No class (AERA)		
4/13	Survey interviewing, alternative questionnaire delivery, ethical issues, and application exercise #4	Groves et al. – Ch. 9 & 11 Dillman – Ch. 7 +AAPOR – Questions about IRBs	Application Exercise #3
4/20	Post-collection processing of survey data: Missing data	Groves et al. – Chapter 10 *Croninger and Douglas (2005) +DeLeeuw, Hox, & Huisman (2003)	
4/27	Post-collection processing of survey data: Weights and other issues	+Kalton & Flores-Cervantes (2003) *Thomas & Heck (2001)	Application exercise #4
5/4	Group presentations		Group projects