

EDST 508b (082)  
**Analyzing Survey Data**

**Time:** Tuesdays, 4:30 – 7:30 p.m.  
**Room:** Scarfe Building, Room 1007 (lab)  
**Professor:** Dr. Lesley Andres  
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*Overview of the Course*

In this course we will take a step by step approach to the analysis of survey (questionnaire) data. We will begin by reviewing the fundamentals of survey design, from problem formulation to code book development. Next, we will enter data from a questionnaire and learn methods of coding and data clean-up. Using SPSS statistical software, we will conduct analyses, beginning with simple data tabulation including frequencies, visual displays, graphic representations, and descriptive statistics. We will proceed to crosstabulations and related measures of association. Next, we will use the qualitative software program Atlas.ti to code qualitative questionnaire data. We will then explore more advanced methods of data analysis including correspondence analysis, discriminant analysis, correlation analysis, factor analysis, and regression techniques. Finally, we will read data coded in Atlas.ti into SPSS. The course will conclude with students completing a comprehensive report which incorporates the analyses and techniques learned.

This is a lab based course. As such, students will gain hands-on experience with each component of the course. We will use the following software: SPSS, MS Access, Excel, Atlas.ti, and SimCA.

*Intended Outcomes*

The goals of the course include the following:

- ✓ Becoming familiar with each step of the survey data analysis process;
- ✓ Employing quantitative and qualitative techniques to answer given research questions;
- ✓ Preparing reports and presentations from the results of quantitative and qualitative analyses.

## ***Prerequisites***

Students should have a basic understanding of social science research design. Prerequisites include completion of EDUC 500 and EDST 515 – *Survey Research Design* (formerly EDST 508) or equivalents. Other courses such as EPSE 482, EPSE 596 and EDST 504) are recommended.

## ***Assignments and Grading***

### Assignments

Assignments are designed to assist students in carrying out projects using analyses of survey data. Six mini-assignments will be completed during the course. Each assignment will be worth **5 marks** for a total of **30%** of the final grade. In addition, two reports will be prepared. The first report will be produced from data supplied by the instructor. The final assignment, consisting of the completion of a report incorporating quantitative and qualitative analysis and at least one advanced quantitative method, represents **60%** of the final grade.

Detailed descriptions of the assignment requirements will be distributed in class.

## ***Required Readings***

(1997). *Atlas.ti user's manual and reference*. <http://www.atlasti.com/downloads/QuickTour.pdf>

Norušis, M. (2004a). *SPSS 12.0 guide to data analysis*. Don Mills: Pearson Education Canada.

Norušis, M. (2004b). *SPSS 12.0 statistical procedures companion*. Don Mills: Pearson Education Canada.

(the Norušis texts can be purchased at (purchase at Chapters, Amazon or <http://www.fetchbook.info> for far less than if you buy them from the UBC Bookstore. Version 12.0, 13.0 and 14.0 are all fine for this course).

In addition, a fee of **\$5.00** will be collected at the beginning of the term to cover costs of additional readings and handouts to be distributed over the term.

## ***Recommended Readings***

Babbie, E., & Halley, F. (1995). *Adventures in social research: Data analysis using SPSS*. Pine Forge Press.

Biemer, P.P., Groves, R.M., Lyberg, L.E., Mathiowetz, N.A., & Sudman, S. (Eds.) (1991). *Measurement error in surveys*. San Francisco: Jossey-Bass.

Bourque, L., & Fielder, E. P. (2002). *How to conduct telephone surveys*. Thousand Oaks, California: Sage. Thousand Oaks, California: Sage.

- Braverman, M.T., & Slater, J.K. (Eds.) (1996). Advances in survey research. *New Directions for Evaluation #70*. San Fransisco: Jossey-Bass.
- Calder, J. (1998). *Survey research methods*. Dundee : Association for the Study of Medical Education.
- Czaja, R., & Blair, J. (1996). *Designing surveys: A guide to decisions and procedures*. Thousand Oaks: Sage.
- De Vaus, D. (2002). *Analyzing social science data*. Thousand Oaks: Sage Publications.
- de Vaus, D. (2002). *Surveys in social research*. Australia: Allen & Unwin.
- de Vaus, D.A.(2001). *Research design in social research*. Thousand Oaks: Sage.
- Denzin, N. (1989). *The research act*. N.J.: Prentice Hall.
- Devellis, R.F. (1991). *Scale development*. Newbury Park: Sage.
- Fink, A. (2002). *How to report on surveys*. Thousand Oaks, California: Sage.
- Fink, A. (2002). *How to sample in surveys*. Thousand Oaks, California: Sage.
- Fink, A. (1998). *How to conduct surveys. A step-by-step guide*. Thousand Oaks, California: Sage.
- Fink, A. (2002). *How to ask survey questions*. Thousand Oaks, California: Sage.
- Fink, A. (2002). *How to design surveys*. Thousand Oaks, California: Sage.
- Fink, A. (2002). *The survey handbook*. Thousand Oaks, California: Sage.
- Foddy, W. (1994). *Constructing questions for interviews and questionnaires*. New York: Cambridge University Press.
- Fowler, F.J. (1995). *Improving survey questions. Design and evaluation*. Thousand Oaks, CA: Sage.
- Fowler, F.J. (2002). *Survey research methods*. Thousand Oaks, CA: Sage.
- Gray, G., & Guppy, N. (1994). *Successful surveys*. Toronto: Harcourt Brace.
- Greenbaum, T.L. (1997). *The handbook for focus group research*. Thousand Oaks, California: Sage.
- Groves, R.M., Dillman, D.A., Eltinge, Little, R.J.A. (2001). *Survey nonresponse*. San Fransisco: Jossey-Bass.
- Gubrium, J.F., & Holstein, J.A. (2003). *Postmodern interviewing*. Thousand Oaks, California: Sage.

- Harkness, J. A., van de Vijver, F.J.R., Mohler, P. (2002). *Cross-cultural survey methods*. San Francisco: Jossey-Bass.
- Holstein, J.A. & Gubrium, J.F., (2003). *Inside interviewing*. Thousand Oaks, California: Sage.
- Levy, P.S., & Lemeshow, S. (2003). *Sampling of populations: Methods and applications, solutions manual*. San Francisco: Jossey-Bass.
- Litwin, M.S. (1995). *How to measure survey reliability and validity*. Thousand Oaks, California: Sage.
- Nardi, P.M. (2003). *Doing survey research. A guide to quantitative methods*. Boston: Allyn & Bacon.
- Oishi Mertens, S. (2002). *How to conduct in-person interviews for surveys*. Thousand Oaks, California: Sage.
- Palys, A. (2003). *Research decisions. Quantitative and qualitative perspectives*. Scarborough: Thomson Nelson, 2003.
- Punch, K. (2003). *Survey research. The basics*. Thousand Oaks, California: Sage.
- Rea, L.M., & Parker, R.A. (1997). *Designing and conducting survey research*. San Francisco: Jossey-Bass.
- Sapsford, R. (1999). *Survey research*. Thousand Oaks, California: Sage.
- Thomas, S. J. (1999). *Designing Surveys That Work!* Thousand Oaks, California: Sage.
- Thomas, S.J. (2004). *Using web and paper questionnaires for data-based decision making*. Thousand Oaks, California: Sage.
- Thompson, S.K., & Seber, G.A.F. (1996). *Adaptive sampling*. San Francisco: Jossey-Bass.
- Weisberg, H., Krosnick, J., & Bruce D. Bowen, (1996). *An introduction to survey research, polling, and data analysis*. Thousand Oaks, California: Sage.

## EDST 508a – Analyzing Survey Data Class Schedule

<i>Date</i>	<i>Topic</i>	<i>Readings</i>	<i>Assignments</i>
Class 1 Jan. 9	Introduction to the course Review of survey research methods Overview of data analysis programs		
Class 2 Jan. 16	<b>Survey data set #1</b> Data entry Data coding Data clean-up in SPSS	Norušis (2004a) Ch.1-3 Norušis (2004b) Ch. 1-3	
Class 3 Jan. 23	Running frequencies Recoding variables Dealing with missing data Descriptive Statistics Tables, graphs and histograms Coding qualitative data Using Atlas.ti to analyze	Norušis (2004a) Ch.4-7 Norušis (2004b) Ch.4-6 Atlas.ti manual	<b>Assignment 1.</b> Cleaned data file
Class 4 Jan. 30	Counts & Multiple Response Crosstabulations Tests of significance Weighting samples	Norušis (2004a) Ch.8, 12-14 Norušis (2004b) Ch.8, 10	<b>Assignment 2.</b> Descriptive statistics exercise
Class 5 Feb. 6	Preparing a report of Survey #1 based on quantitative and qualitative analyses to date	De Vaus (2002) Ch. 28, 29	<b>Assignment 3.</b> Tables & graphs exercise
Class 6 Feb. 13	<b>Survey data set #2</b> Repeat Class 1 - 5 Advanced plots	Norušis (2004a) Ch.9	<b>Assignment 4.</b> Coding with Atlas.ti exercise
<b>Feb 20 Reading Week</b>			
Class 7 Feb. 28	Preparing a report of Survey #2 based on quantitative and qualitative analyses to date		
Class 8 March 6	Report preparation (continued)		
Class 9 March 13	Advanced Methods: Correspondence analysis Discriminant analysis	SimCA Manual Norušis (2004b) Ch.14	<b>Report 1a.</b> Report of Survey 1 (draft)
Class 10 March 20	Advanced methods: Correlation analysis Factor analysis	De Vaus (2002) Ch.35, 36, 50 Norušis (2004a) Ch.20 Norušis (2004b) Ch.11, 17	<b>Report 1a.</b> Final report of Survey 1

## Class Schedule (continued)

<i>Date</i>	<i>Topic</i>	<i>Readings</i>	<i>Assignments</i>
Class 11 March 27	Advanced methods: Regression analysis Demonstration of structural equation modelling techniques	Norušis (2004a) Ch.21, 23 Norušis (2004b) Ch.12, 13, 15	<b>Report 2b</b> Report of Survey 2 (draft)
Class 12 April 3	Reading Atlas.ti data into SPSS An overview of advanced Atlas.ti features	Atlas.ti manual	<b>Assignment 5.</b> Draft of advanced methods assignment
<b>April 13</b>			<b>Report 2b.</b> Final report of Survey 2