

Syllabus for Quantitative Methods in Anthropology

ANTH 5041 Online ♣ University of North Texas
Dr. Susan Squires
Spring 2016

COURSE DESCRIPTION AND OBJECTIVES

This course provides an overview of the basic principles and techniques for 1) developing a quantitative research design, 2) collecting, and analyzing data, and 3) presenting results. By the end of the course, all students should have a good foundation for understanding and designing a quantitative research study, which should provide a practical foundation for leading a quantitative study or working on a team with statisticians. Procedures for data analysis and evaluation will be reviewed, and students will get hands-on experience with SPSS in order to practice organizing, summarizing, and presenting data.

Students will also have the opportunity to engage in critical analysis and reflection on the uses and misuses of quantitative methods. Three themes will guide discussions:

- Using quantitative methods to solve social problems: What types of problems can be addressed using quantitative methods? What questions can be answered and which ones cannot.
- Interpreting quantitative data: How can statistical data be used to persuade an audience about what is valid and important? What is the difference between interpretation and assumption?
- Combining quantitative and qualitative data: Why and when?

Communication with Instructor

You are welcome to communicate with me during my office hours on Wednesday from 3 to 5 or at any time via phone or email. My telephone number is 940 369 5404. My email address is Susan.Squires@UNT.edu. You can also use the email option within the online course.

Required Texts and Software

In this course, you will be reading 1) an overview book and 2) a set of articles. You will also be required to use SPSS.

1. You are responsible for purchasing the book from any source you wish, such as Amazon.com. The book is:
 - Bernard, Russell, 2006. **Research Methods in Anthropology: Qualitative and Quantitative Approaches**. AltaMira Press Publications, 4th edition or the 5th edition, which was just published in paperback. If you buy the 5th addition, some page adjustments will be necessary as he moved some things around.
2. SPSS GradPack Version 21.0. There are lots of websites that offer it. As of January 2015 there are several options.
 - Buy the complete GradPack, which is basic but all you will need. Costs vary. Onthehub.com has it for under \$100. (Both a Windows or Mac is available).
 - There is a student version 21.0 available that is less expensive. Go to: studentdiscount.com. This version has limitations and expires 24 months from the time it is download.
 - One student option is to buy a 24 month license for multiple people. This is more expensive than a single license but makes the software inexpensive if the cost is shared. Studentdiscount.com is one of many who offer this.
- 3 The articles are on the course homepage.

The reading assignments for each week are summarized in the course schedule, below. Readings are **not** optional and a written report will be expected each week.

You will need a computer with the following programs on it: SPSS, Microsoft PowerPoint, and a speaker headset with microphone for final class presentations, discussions and/or individual meetings/ tutorials.

COURSE REQUIREMENTS

- 1. Complete weekly assignments (35%)**
- 2. Prepare a final written and oral presentation (35%)**
- 3. Act as a discussion leader during one week of the course (10%)**
- 4. Participate in discussions (20%).**

Participation is essential for all students. Class participation makes up twenty percent of your final grade. Your contributions to discussions online will all be included in your evaluation. All students should post **two** substantive messages per week in the online discussions; more postings are encouraged. The goal of our discussions is to have a good back-and-forth among class participants. Because I believe so much of your learning will come from each other.

The following guidelines for online discussions were developed by the 2006 online ANTH 5010 class, as we collaboratively learned how to make best use of the discussion boards. Some of you may not have much experience with asynchronous discussion boards – these simple tips can help the communication process flow smoothly!

- Post your first message(s) early in the week.
- Try to check the discussions daily; focus on contributing to just a few threads if your time is limited.
- Only one idea per message!
- Frequent small posts are better than humongous messages at rare intervals. This will enable more back-and-forth between you and your classmates.
- If you have a new thought that you want to share, start a new conversational thread by clicking “Create Message”– this will promote discussion of the topic. If everyone just hits “Reply” to previous messages the overall structure of the conversation will become confusing.
- Change the subject line when you are replying to a message but shifting the focus. If other people have already said what you wanted to say about one topic, move on to a different topic.
- Don’t put your thoughts in a Word attachment, write them directly in the message field.
- Each week, the discussion leader team should create a thread called “Questions/Clarifications” in their topic area, where we can post basic “Is this what the authors were thinking?” questions.

Here are some further useful guidelines from the University of Guelph, Canada (http://www.open.uoguelph.ca/online/learning_resources/online_discuss_tips.html):

How to Write Good Messages

1. Limit your messages to 1-2 screen lengths.
2. Fill in the subject line for each message.
3. Build on the ideas of others, as well as initiating new ideas. If your message builds on an existing thread, use REPLY. If you are starting a new thread, use CREATE MESSAGE.
4. Remember that quality is better than quantity. “Me too” and “I agree” type messages add little.
5. Quote the relevant part of a message in yours so that others know what you are referring to.
6. Ensure a respectful tone in all messages.
7. If your message is not relevant to the whole group, send it privately via e-mail.

Interactive Learning Skills

1. Focus on the subject of the discussion and bring it back to the main purpose if there is topic drift.
2. Suggest people take their messages to alternative places such as the Cosmic Cafe for the “off topic” messages.
3. Encourage all to participate.

4. Respond to another classmates' question.
5. Weave several messages together and then push the discussion further with a question or thought provoker.
6. Present another perspective on the issue being discussed.
7. Provide a practical application for an idea.
8. Be willing to participate in a debate.
9. Illustrate your point with a story (short).
10. Actively seek out other perspectives, e.g. "This is what I think, but I'm sure others have another perspective to share."
11. Provide group regulatory functions, e.g. "We seem to be getting off topic here. Could we return to...".
12. Accept and understand diversity in learning and personal styles. Respect different points of view.

Dealing with Conflict Online

1. Did you have a strong reaction to a message? Take a step back. Write your response but don't send it. Wait 24 hours. Have someone else read it first.
2. Is there another interpretation? Perhaps clarification is in order. While online interaction can enhance learning, it has some limitations; non-verbal cues are missing.
3. Politely agree to disagree and walk away.
4. Disagreements over points of view are a necessary part of learning, but personal attacks on the motivations and intelligence of others cannot be tolerated. Remember that there are people behind the words that we see and treat others with the respect we all want and deserve.

Assignments: There will be weekly assignments, and a final class project/ presentation. I strongly believe in the team process and most of the assignments will be undertaken in teams. One of the first things you need to do is find a partner with whom you will team. In addition, each team will lead an online discussion on the weekly assignment topic. Look over the topics with your team mate and choose one.

Every week each team will submit a written assignment of about 2 to 5 pages, which should be turned in through the Blackboard/ online course by midnight on Sunday. Assignments will not be accepted after Sunday at midnight. If for some reason the system is down, you can email me the assignment at susan.squires@unt.edu.

Final project: This will be an analysis your team performs on a subset of data from the "World Values Survey" (<http://www.worldvaluessurvey.org/>). You'll have to choose a subset of countries and questions, do the analysis, and give a live 8-10 minute presentation to the class using "Blackboard Communicate". Your team must submit a written report on the same material.

Grading

The gradebook in Blackboard requires me to use a point system. The table below shows how to translated one system to the other. The number of points depends on whether the assignment is worth 20% of your course grade (200 points) or 30% of your course grade (300 points).

Letter Grade	Out of 4 (Traditional Numerical Scale)	Out of 200 (Traditional x 50)	Out of 300 (Traditional x 75)
A	4	200	300
A-	3.7	185	278
B+	3.3	165	248
B	3	150	225
B-	2.7	135	203
C+	2.3	115	173
C	2	100	150
C-	1.7	85	128
D+	1.3	65	98
D	1	50	75
D-	0.7	35	53
F	0	0	0

An A on all assignments would result in a final score of 1000. A final score above 875 (i.e. 3.5 on a traditional scale) will result in an A in the course. According to UNT policy, final grades do not have plusses or minuses.

Plagiarism Policy

The department of anthropology considers graduate students to be new members of the community of professional anthropologists, who are thus held to the high ethical standards of practicing professionals. They are expected to follow the American Anthropological Association's code of ethics: "*Anthropological researchers bear responsibility for the integrity and reputation of their discipline, of scholarship, and of science. Thus, anthropological researchers are subject to the general moral rules of scientific and scholarly conduct: they should not deceive or knowingly misrepresent (i.e., fabricate evidence, falsify, plagiarize), or attempt to prevent reporting of misconduct, or obstruct the scientific/scholarly research of others*" (<http://www.aaanet.org/committees/ethics/ethcode.htm>). Any work not meeting this standard will be evaluated in a hearing before the student; infractions will merit dismissal from the master's program.

For more information on paper writing, including how to avoid plagiarism, and how to use citations, see <http://anthropology.unt.edu/resources-writingpaper.php>. For information on the University's policies regarding academic integrity and dishonesty, see the UNT Center for Student Rights and Responsibilities, <http://www.unt.edu/csrr/>.

Non-Discrimination Policy

It is the policy of the University of North Texas not to discriminate on the basis of race, color, religion, sex, age, national origin, disability (where reasonable accommodations can be made), disabled veteran status or veteran of the Vietnam era status in its educational programs, activities, admissions or employment policies. In addition to complying with federal and state equal opportunity laws and regulations, the university through its diversity policy declares harassment based on individual differences (including sexual orientation) inconsistent with its mission and education goals. Direct questions and concerns to the Equal Opportunity Office, 940 565 2456, or the Dean of Students, 940 565 2648. TDD access is available through Relay Texas, 800 735 2989.

Anthropology does not discriminate on the basis of an individual's disability as required by the Americans with Disabilities Act. The program provides academic adjustments and aid to individuals with disabilities in its programs and activities. If you have a disability, you are strongly advised to contact the Office of Disability Accommodations (UU 318A) or by telephone at 940 565 4323. **It is the responsibility of the student to make the necessary arrangements with the instructors.**

Weekly Cycle

The course runs on a weekly cycle. There is one lesson for each week. Lessons will always be made available on Sunday.

All students must read the lesson, the assigned articles, and the discussion team's post no later than Tuesday of each week. Discussions for each lesson will last one week, from Sunday evening through Saturday night.

Week 1 (Jan 19 – 23): Introductions and Background

**** Assignment due Jan 24th: Make sure you have the book, can access the library readings, and navigate through the course, posting to the discussion board, etc. You'll notice there are 2 discussion posts required- one is your basic bio, and the other is a simple library journal assignment that should take about 15-20 minutes.*

Week 2 (Jan 24- 30): Positivist Thinking: Basic Principles of Measurement

Readings:

1. Bernard Chapters 1-2

2. Murtonen, M., and R. Lehtinen (2003). Difficulties Experienced by Education and Sociology Students in Quantitative Methods Courses. *Studies in Higher Education* 28 (2): 171-185.

***** Assignment due Jan 31st:** Read the Murtonen and Lehtinen article, and write a 2-3 page response. In it, summarize the findings of the study concerning difficulties the students had. Examine the graphs and then examine the results. Do these apply to you? Do you have any fears going into this course? What experience, if any, have you had with quantitative methods? What types of problems do you think you might encounter?

Teams: This is the week to form your team. You may already know the folks in this class and have teamed with them before. If not, read everyone's bio to decide with whom you might want to partner. Send me an email with your team members by Jan 26th as well.

Week 3 (Jan 31 - 6): Conceptualizing Research; Ethical Research

Readings

1. Bernard Chapter 3
2. Fluehr-Loban, Carolyn (1994). Informed consent in Anthropological Research: We are not exempt. *Human Organization* 53 (1): 1-10.

***** Assignment due Feb 7th:** Use Bernard's Table 3.1 (internal states, external states, reported behavior, etc.) to help you think up 2 distinct research questions. In 2-3 pages, first describe the research questions one at a time. One question at a time, what 2 cells does that question relate to, what variables will be involved, and what kinds of relationships among variables will you be looking at? Generate one hypothesis for each of your questions, making them narrow enough to have explicit variables that you could actually recognize (through observed behavior, reported behavior, reported internal states, external states, etc.), and research. Operationalize all the variables thoroughly. Do this for both research questions. Don't design the study or talk about methods, just explicate and operationalize your variables and how they will relate to each other (HINT: there are 2 important parts here: a tight hypothesis that relates the interaction of the two items on the table, and clearly operationalizing the variables in your hypothesis).

Week 4 (Feb 7 - 13): Study Design

Readings

1. Bernard Chapter 5

2. Henry, D., R. Bales, and E. Graves (2007). Ethnography in Evaluation: Uncovering Hidden Costs and Benefits in Child Mental Health. *Human Organization* 66 (3): 315-326.

***** Assignment due Feb 14th:** Look through any newspaper or popular magazine (i.e., NOT an academic journal!) to find a report about some innovative social/organizational program (this can be within your topic of applied interest, or anything- a new bilingual education reading program, a program to introduce some new technology, a recycling program, health-education program, a business corporation's new management plan, etc- as long as your part would be demonstrably anthropology). Now imagine that you get hired by an agency to evaluate the success or failure of the innovative program. In 2-3 pages, briefly describe the program and how you would go about evaluating it. As part of this you should specify one key dependent variable that the program seeks to affect. Describe how you would measure this dependent variable, and how you would assess whether the program had any affect on it. What confounds or threats to validity might your study face? Hint: Make sure you've read the Bernard chapter about experimental research design, and can relate what you'd do to Figures 4.1a – 5.1h before attempting this!

Week 5 (Feb 14 - 20): Sampling

Readings

1. Bernard Chapter 6
2. Babbie- The Practice of Social Research Pp. 191-203

***** Assignment due Feb 21st:** After having read Bernard and Babbie, imagine you work for a research firm that gets a small grant to study the job satisfaction of working women in Washington State. Because money is tight, your team can't interview (or survey) more than 500 women total. So the research question is: "Are women satisfied in all respects with their jobs?" In 2-3 pages (NOT >3), explain how you would draw a multistage cluster sample that would be representative of all "the working women" in Washington State. Be specific in your detail, and frugal in your design. Remember that the most accurate samples are both representative and randomly drawn. Finally, make sure to operationalize "working women," and realize who you're leaving out! The following have websites that can help you dig around for your first steps: US Census Bureau's American Community Survey, US Census Bureau quick facts, US Census Bureau Local Employment Dynamics, US Census Bureau Occupation by Sex and Median Earnings, the Bureau of Labor Statistics, The Economic Opportunities Institute, Municipal Research Services Center of Washington, and the Office of Financial Management. One more note: be realistic. Realize that any methodology that would require you to show up at a place

of employment and ask to talk to their female employees (about job satisfaction) is not likely going to happen.

Week 6 (Feb 21 - 27): Designing Questions and Doing Interviews

Readings:

1. Bernard Chapter 9, sections “Interview Control,” “Learning to Interview,” “Presentation of Self,” “Using a Voice Recorder,” “Response Effects,” and “Accuracy.”
2. Bernard Chapter 10 (all).
3. Fowler, Floyd J. Jr. 1995. Chapter 2: Designing Questions to Gather Factual Data, Pp. 8-45. *In Improving Survey Questions*. Thousand Oaks: Sage Publications.

***** Assignment due Feb 28th:** *Imagine your team is conducting interviews (quantitative or qualitative) for the Program Evaluation from Week 4. In 2-3 pages, what does your team think will be gender-response-effects of your face-to-face interviews? Would there be race/ ethnicity effects? Age effects? Why or why not? If there are problems, how would you get around them? What would you gain or lose from other styles of interviewing, such as telephone interviews, computer-assisted interviews, or Internet chat-room interviews?*

Week 7 (Feb 28 - 5): Introduction to Data Analysis: Creating Datasets, running frequencies

Readings

1. Review the World Values Survey (on course reserve), and the background for it:
2. <http://www.worldvaluessurvey.org>
3. Bernard, skim Ch. 16, Introduction to Qualitative and Quantitative Analysis;
4. Bernard Ch. 19, from the beginning up to “Shape: Visualizing Distributions” (p 572 in the 4th edition) (*note: DON'T get caught up in the math! It's important that you understand concepts, not their mathematical derivation*).
5. Julie Pallant- 16-46

*****Assignment this week (March 6th:** Make sure that SPSS is installed on your computer (or that you can open the version at school). Read through the World Values survey and the associated website.

As a team, use the complete (and cleaned) dataset of “Teen Drug Use” to answer the following questions:

How many Latinos were in this group? What percentage of the sample reflected African Americans? What was the most commonly used drug? What percentage of teens had used it in the last year? What percentage of teens reported having ever been to college? Do basic math to figure out the following number: What percentage thought it was either “unlikely” or “very unlikely” that they were infected with the Hepatitis C virus? Do a series of pie-charts/ graphs of “Groups of Cases,” putting your race/ ethnicity variables in one at a time to represent the “Slices” (figure out why you can’t accurately represent ethnicity in a single pie-chart). Do a simple bar chart of levels of education, putting “highest level of education completed as the Category axis. Cut and paste these charts into your homework to turn in.

Week 8 (March 6 – 12). Data Analysis: Univariate and Descriptive Statistics – I (Selecting out groups, creating and computing new variables, running frequencies)

Readings

1. Bernard Chapter 19, from where you left off, through the end of “Type 1 and Type II Errors” (page 586 in the 4th edition-- again, concepts, not math).
2. Pallant, Chapter 8.
3. Greenhalgh, Trisha 1997 Statistics for the non-statistician I. British Medical Journal Vol. 315, No. 7104: 364-366.

***** Assignment due March 13th.**

Your team should prepare 6-10 slides PowerPoint presentation in which you graphically and textually illustrate your findings. You can use either PowerPoint or SPSS graphs. At least ½ of your slides should include graphical illustrations.

March 14 – 20 Spring Break

Week 9 (March 20 – March 26) Data Analysis II-Bivariate Analysis, and Chi-square

Readings

1. Bernard Chapter 20, from the “Intro” to the end of “Fisher’s Exact Test” (p. 615 in the 4th edition) (concepts, not math derivations)

2. Pallant, Chapter 11.
3. Greenhalgh, Trisha 1997 Statistics for the non-statistician. II: Significant relations and their pitfalls. British Medical Journal Vol. 315, No. 7105: 422-425

***** Assignment due March 27th**

Prepare 6-10 slides PowerPoint presentation in which your team will graphically and textually illustrate your findings. This time you HAVE to use PowerPoint graphs. NOT "Excel." At least 1/2 of your slides should include graphical illustrations.

Week 10 (March 27 – April 2): Data Analysis III: T-tests and ANOVA

Readings

1. Pallant Chapters 16 and 17

***** Assignment due April 3th: dataset work on t-tests and ANOVA.**

Present a 10 minute presentations using PowerPoint, and the World Values Survey. PowerPoint Graphs!

Week 11 (April 3 - 9): T-Tests Continued and Correlation

Readings

2. Bernard Chapter 12
3. Pallant, 90-93.

By Monday of this week, post an attachment to the Discussion Board of 3-4 pages (double spaced), where you outline your team's plan for analyzing the dataset for the final World Values Survey project. Start by printing out the "2000 wave World Values survey English questionnaire.doc" from either the course readings or the datasets folder on the homepage, reading through it, and thinking about what looks interesting to you.

Be VERY specific. What hypotheses is your team going to test, among what dependent and independent variables? What univariate (descriptive), bivariate, and/or multivariate analyses will you do? What specific variables will your team be considering for testing for significant relationships? What variables will you control for? What specific tests and procedures within SPSS will you use?

Realize that the best projects are structured simply: pick one idea (perhaps composed of several variables) or even one variable (e.g., "happiness") that will become your

Dependent variable(s). Then, test MANY other variables as Independent variables to see what is significantly correlated with your dependent, and how much variation in the dependent you can explain.

Also by Monday, come up with a list of 45 variables that your team is interested in (be specific- look through the Word doc. version of the survey in the "Datasets" folder on the course homepage), and 1-3 countries you want to include. Include both country and your dependent variable(s) as part of the 45.

By April 16th, use the dataset (11) World Values Survey Scaling A, and the Word doc. copy of the accompanying survey, assume (usually wrongly, but more on that later) that a scale about volunteering might be applicable cross-culturally. Then, assess variables 28-36 (based on strong conceptual association- we'll say no reliability analysis needed in this case) for all countries in the dataset to answer the following question with a 2 page report (include a discussion of your methods):

- *Who are more "socially involved," Christians (note the recode your team will have to do), Hindus, or those with No Religious Denomination?*
- *Men or women?*
- *Is social involvement significantly related to "happiness?"*

Week 12 (April 10 – April 16): Multivariate Analysis: the Linear Regression

Readings

1. Pallant, Chapter 13, Pp. 140-155

By the end of this lesson (April 18th), your team now has 2 - 2 1/2 weeks before team written and class presentations are due (I hope that both online and face-to-face students can be at the presentations, even if you're not presenting, people need your feedback). You should email me electronic versions of your PowerPoint presentation the day BEFORE the class presentation.

Your team assignment for the end of this lesson, it's in 3 parts:

1. Go back to your "support for bilingual education" scale from the dataset you worked on at the beginning of this lesson. Look at the scaled variable you created, "Support for Bilingual Education" (the one that has values from 3 to 15). Tell me how much of the variation in support for bilingual education can be explained from the Independent Variables "Voting Patterns," "County of Residence," and "How long have you resided in this country." Which one variable seems to explain the most? You can submit your answer on the "Submit assignment" tool here.

2. *Your team should email me with any questions about analysis or preliminary data analysis you want to go over. Trust me- doing this will help- if you don't, I'll worry that you're putting this off until the last minute, and that your analysis will be sloppy.*

Week 13 (April 17 – 23): Being a Professional

Readings

1. Baum, Frances 1995 Researching public health: behind the qualitative-quantitative debate *Social Science and Medicine* 40(4):459-68.
2. (Anonymous) Proposal for Continuing Education Needs Assessment for the Paper Industry.

Work on your team projects. Get moving on your data analysis and write-up! Call or email me if you have any questions.

Weeks 14 – 15 (April 24 – May 7): Wrap-up: Work on oral and written presentations

By Thursday, May 5th, you should submit rough drafts of your team's project results. This should be 3-5 pages telling me descriptively what you've found (including the actual data-- you can have several pages of Output, and 1 page of single-space descriptions, for example). It doesn't have to be beautifully formatted as yet, but should include tables and descriptions showing significant relationships and tests performed. I will provide feedback before the final presentation is due.

Final Presentations due: May 9th!

Class presentations during the week of May 9 - 13.