

ANTH 5041.200

Quantitative Methods in Anthropology

Spring 2022

“There are 3 kinds of lies. Lies,
damned lies, and statistics.”

-saying popularized
by Mark Twain

Course Information

INSTRUCTOR: Dr. Doug Henry

COURSE DESCRIPTION:

This course covers basic principles and techniques of research design, sampling, and elicitation for constructing, collecting, and comprehending quantitative behavioral data, in Anthropology. 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. This is NOT a “statistics” course! My goal is that you develop a base of quantitative and statistical literacy for practical application across the social sciences, in the academy and the world beyond.

COURSE-LEVEL LEARNING OBJECTIVES:

By the end of this course, you should be able to:

- Describe the limitations and benefits of quantitative study design
- Explain how to operationalize variables for measurement
- Explain the ethical concerns of an Institutional Review Board
- Explain the differences in the TYPES of studies anthropologists do
- Design an evaluation to measure a study’s effectiveness or benefits
- Design a study that incorporates a random-sample
- Construct survey questions with high validity and reliability
- Set up a dataset in a statistical software package
- Conduct univariate and bivariate data analysis from a secondary source
- Present graphical data coherently

Requirements

REQUIRED READINGS/ SOFTWARE:

Required book:

- Bernard, Russell
2017 Research Methods in Anthropology: Qualitative and Quantitative Approaches.
AltaMira Press Publications, 6th edition. Try to get this edition!

- Pallant, Julie
2010 SPSS: Survival Manual, 4th edition or later. McGraw Hill: Open University Press.
This is an excellent reference book. I've scanned in the chapters that we will use in class so you don't need to buy this, but if you think you might work with statistics more later in life, it's a worthwhile buy. You will find the readings under "Supplementary Readings." I use the 4th edition because it's what I have, but there are also 5th, 6th, and 7th editions that are not very different. If you choose to buy a copy, you can get a new version on Amazon.
- **Other weekly readings** for this course will be available electronically through the course website on Canvas.
- SPSS (IBM- SPSS 27)
In the second half of the course, we'll learn and use SPSS. SPSS has long been the gold standard in social science quantitative methods and statistics. There are other programs that are popular and equally usable, such as R, STATA, and SAS; however, once you learn windows-driven SPSS, it's easy to "move" to other programs. So- this will be a good resume item.

For the last couple of years, UNT has made SPSS available for free for active UNT students. I've added our course to the list, so that everyone should have free access. If you want to, you can also request it individually by submitting an individual request form. Alternatively, you can have your students request it individually by having them sign up on our individual request form: <https://itservices.cas.unt.edu/forms/desktop-streaming-access-request>. After you fill out the form and someone adds you, they'll send you a welcome email that tells you how to connect and use it. <https://itservices.cas.unt.edu/services/computers/articles/access-desktop-streaming>

You'll need access to a computer with Microsoft PowerPoint, and web-conferencing ability like Zoom or Teams on it. PowerPoint is available to all students via Office365.com.

Minimum computer skills and digital literacy: This course defines digital literacy as the ability to use technology to find, evaluate, and communicate information. At a minimum, your successful completion of this course requires a basic digital literacy, where you must either know, or be able to learn, how to navigate UNT's "Canvas" system, including posting assignments, receiving announcements, linking out the course to readings, watch required videos posted, or view films through the UNT digital library. We will likely also meet periodically together over web-conference software, likely either Zoom or Teams.

Prerequisites: Besides graduate status, there are no prerequisites for this course.

Assessments and Grading

The Week (including Discussions)

The course runs on a weekly cycle (Sunday through Saturday), with one lesson for each week. Lessons will be made available by the Friday before (and if I forget to make something "available," someone please email me a gentle reminder!).

I encourage everyone to read through the entire lesson early in the week because there are Discussion posts that will be due by Wednesdays with responses due by Fridays. When we have video conferences (see below), everybody must read the lesson and the assigned articles by the time we have a synchronous class meeting.

Video Conferences

Our course includes weekly video conferences will start with Week 7. The main purpose of these video conferences is to go over SPSS and discuss the weekly assignment as a class. They will last no longer than 60 minutes. I'll put a Doodle Poll on the Discussion board to establish the best time.

Weekly Assignments

You will have about 13 different assignments in this course, which are due Saturdays at 11:59 p.m. CST. Assignments will be accepted after this date but will be marked as late. No assignments will be accepted after Wednesday of the following week, unless you've worked something out with me ahead of time. Many assignments (particularly in the second half of the course) will be GROUP assignments, where you'll have to coordinate with someone else in the class. [Plan on group work for Week 5 and then Weeks 8 through the end of the course.](#)

Final project: More about this later, but this will be an analysis you perform on a subset of your choosing of the "World Values Survey" (<http://www.worldvaluessurvey.org/>). You'll have to choose a subset of countries and questions, do the analysis in consultation with me, give an 7-10 minute presentation to the class, and submit a written report of 6-10 pages based on what you find. You'll get a grade on BOTH the oral and written parts.

Everyone will have the same basic dataset to work with. It's a subset of a real, world-wide survey started by some Europeans in the 1980's, called the "World Values Survey," now run through the University of Michigan. Their intent is to use the data to analyze differences that exist in values and beliefs between people around the world, on things like politics, society, gender, religion, ethics, work, the environment, and culture. Even if you're skeptical (and you SHOULD be) that a survey question can be standardized to the point where someone in rural Thailand will interpret it the same as someone in urban Stockholm, Lagos, Buenos Aires, etc. (i.e., that your "reliability is high"), it's a REALLY interesting (and very anthropological) idea. And they do have local teams that go into each country in order to attempt to develop language/ culture specific versions of every question.

It's all real data- I haven't tampered with it at all. You can download the whole survey yourself (with results all the way back to 1981) at the University of Michigan website (<http://www.worldvaluessurvey.org/>). As you can imagine, it's huge.

So, what I've done, is uploaded both the survey data and the English- language questionnaire for just the most recently available wave (wave 2017 - 2020, which took place in 79 places around the world, with 127K respondents) as a Word doc. to the "Practice Datasets" folder (it's under the "Assignments" tab on the left margin). I'll also attach a list of all the countries that were part of this wave of interviews.

Spend some time first browsing the questionnaire in Word. Everyone will need to choose about 50 variables they want to work with, and 1-2 countries (no 'extra' points for 2 countries- I just imagine that some people will want to focus in on one country, while others would rather do comparisons between 2- I'm exactly neutral either way).

You can choose whatever “angle” of the survey you want to analyze. Read through the questions; there are plenty to choose from-- environmental attitudes, attitudes towards abortion, unionization, differences between men and women, religious types and non, those who are happy and those who are not, those who have certain values for their children, or really whatever).

You'll write up a 6-10 page report based on what you find. I'll put some sample reports from previous years in the "Supplementary Readings" section of the Modules page, so you can get an idea of what you'll create. In addition, everyone will present their findings to the class in PowerPoint presentations. This will happen over 2 weeks, at the end of the class (see the syllabus). More on that later. You'll get a grade on BOTH the oral and written parts.

Your written report should include the following sections:

INTRO (2 paragraphs)- give some background about the issues involved that led to your choosing of the data that you did. This can include some references to literature, but don't overdo it with an extensive literature review. For example, is there some problem within the population that was polled? Then, “set up” the report by telling who designed the survey/ study you're using (use information from the website), for what populations you chose, when, etc. Finally, set up the information that your report will talk about.

METHODS (1 paragraph)- Research what you can find out about the World Values Study methods (there are several websites you'll find if you Google or go to Wikipedia). Write them as if you were the director of the study.

RESULTS (3-5 pages). Here's where you insert graphs, tables, some text, etc. Make sure they convey significant information in ways that are simple, concise, professional, and easy to understand! Highlight statistically significant relationships if they exist. You don't have to do multivariate analyses (a late Weekly Lesson), but I fully expect you to do at least bivariate data analysis with significance testing.

DISCUSSION (1-2 pages). What was relevant about what you found? Can you think of any limitations of the study data? What would a more in-depth, anthropological/ social science follow-up study/ survey involve?

The oral presentations will be PowerPoint presentations of the angle or issue you've chosen. Aim for around 7-10 minutes, and 8-12 slides, as if you were professionally presenting your findings to a corporate boardroom or an academic conference. If I have you guys work in teams, make sure to put your name at the bottom of graphical slides that you develop. Then we'll have 3-4 minutes of questions.

Student Evaluation:

Class participation	24% of grade, or 68 points
Assignments:	41% of grade, or 143 points
Final:	35% (12% class presentation, 23% written) <u>105 points (30 points, and 75 points)</u>
	316 total points

A = 284-316

B = 252-283

C = 221-251

D = **don't make anything lower than a C.**

Your evaluation of me.

The Student Evaluation of Teaching Effectiveness / "SPOT" evaluation at the end of the course is a requirement for all organized classes at UNT; Please do it!! Feedback (good and bad!) is always good.

Course Policies

Some Guidelines for Online posts:

In case you don't have much experience with asynchronous discussion boards--these tips can help the communication process flow smoothly. The goal of any online discussion in our program is to have a good back-and-forth among class participants. This is a seminar-style class, so much of your learning will come from each other, and what you discover from the lesson and the readings. I will be assessing you for the overall quality of the whole conversation, rather than the magnificence of an individual posting. Try to post a first message(s) before our video conference every week. Check the discussions daily; focus on contributing to just a few threads if your time is limited. Try to limit yourself to one idea per message! Otherwise, ideas can get lost.

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 the topic, and if there's a subject line, fill it! 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 should create a thread called Questions/Clarification in their topic area, where anyone can post.

While online interaction can enhance learning, it has some limitations; non-verbal cues are missing. Make sure to keep a respectful tone in all messages; everyone should feel encouraged to participate. This isn't so much of an issue in this class, but disagreements over points of view often happen in learning, but personal attacks on the motivations and intelligence are never OK. Remember that there are people behind the words that we see and treat others with the respect that you would want for yourself.

Some Guidelines for Group Work:

At least 4 weeks for the class will involve group work with group sizes of 2 people. Learning how to work together in groups is a necessity of life, and working with online collaborators around the globe is a skill every anthropologist needs to learn. I'll have a place in the course for everyone to leave their contact information, but the most important things to remember with group work is to establish channels of communication early in the week, establish reasonable individual and group goals along a time frame, and to keep those lines of communication open.

Graduate Student Statement on Professionalism and Plagiarism

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.

Acceptable Student Behavior:

Student behavior that interferes with an instructor’s ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. For information on the University’s policies regarding academic integrity and dishonesty, see the UNT Center for Student Rights and Responsibilities, and especially the [UNT Student Code of Conduct](#).

Sexual Discrimination, Harassment, & Assault

UNT is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you (or someone you know) has experienced or experiences any of these acts of aggression, please know that you are not alone. The federal Title IX law makes it clear that violence and harassment based on sex and gender are Civil Rights offenses. UNT has staff members trained to support you in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more.

UNT’s Dean of Students’ website offers a range of on-campus and off-campus resources to help support survivors, depending on their unique needs: <https://deanofstudents.unt.edu>, or by calling the Dean of Students’ office at 940-565-2648. They are here to help.

ADA/ ODA Accommodation Policy: The University of North Texas and the Department of Anthropology makes reasonable academic accommodation for students with disabilities. I personally go out of my way for physically and neuro-diverse students. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time; however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the [Office of Disability Accommodation website](#). You may also contact them by phone at 940.565.4323.

Helpful Resources

- 1) Student IT HelpDesk. If you experience technical difficulties with Canvas or the course, I recommend contacting the UNT [Student IT HelpDesk](#), [linked here](#) or by pasting this link into your browser: <https://it.unt.edu/helpdesk>

- 2) **Veteran Students:** For students who are active or retired military, thank you for your service! If you are a new or returning student, UNT has a lively Student Veteran organization, and a number of other campus resources available here: <http://studentaffairs.unt.edu/student-veteran-services>
- 3) **UNT Learning Center:** The UNT Learning Center is an AMAZING department filled with AMAZING people –all here to help you, the student, maximize your potential in college and beyond. Not only do they provide us with our Supplemental Instructors, they also offer free of charge a number of services such as tutoring, academic coaching, study and learning workshops, speed reading, campus resources, and a number of other academic success-related topics! Check them out here: <https://learningcenter.unt.edu/>
- 4) **UNT Writing Lab:** Another AWESOME resource available to students is the UNT Writing Lab. Need a refresher course in academic writing or some quick links for your next paper: <https://writingcenter.unt.edu/resources>. On-campus and want to attend a workshop to improve your writing skills? <https://writingcenter.unt.edu/workshops>. Off-campus and struggling with academic paper writing? Check out their online tutoring link here: <https://writingcenter.unt.edu/online-tutoring>
- 5) **Life happens!** If you are experiencing a personal or family crisis which is affecting your success as a student here at UNT, please check out the resources here at UNT. <http://deanofstudents.unt.edu/resources>
- 6) **Basic Needs** –You can't learn if you're hungry: Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the Dean of Students for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable me to provide any resources that I may possess. Dean of Students 940-565-2648. You are not alone; we are here to help.

The UNT Food Pantry (some of you may live close to campus): Any current UNT student in need can visit the Food Pantry 10am-7pm Monday-Thursday and 10am-5pm on Fridays during the long semesters. Student can get in through the front door of Crumley Hall, or through the back near the docks. Students who visit the food pantry can request to meet with a staff member to discuss any difficulties they may be facing. When appropriate, referral to additional campus and/or community resources will be made. The Dean of Students Office has established protocols that allow for student confidentiality and dignity to be maintained. There is also a pantry located at the Discovery Park in Room A160 next to the College of Engineering- Office of the Dean, which is open Mon-Fri 8am-5pm. There is also a Food Pantry located at UNT's New College at Frisco, which can be accessed by visiting the information desk.

COURSE SCHEDULE AND READING ASSIGNMENTS

Week 1 (January 18 - 22): Introductions and Background

Assignment at end of week 1: Familiarize yourself with the Canvas course- how to access readings and practice datasets, and submit assignments. Under “readings,” go and open “Practice DataSets.” Download these pdfs and read through them, to see the kinds of things you’ll be doing at the end of the course.

Week 2 (January 23 - 29): Thinking Like a Positivist: Basic Principles of Measurement

Bernard **skim** Chapter 1, read **in detail** Chapter 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.

**** Do assignment based on these readings (see Canvas).*

Week 3 (Jan 30 – Feb 5): Conceptualizing Research; Researching Ethically

Bernard Chapter 3 (“Preparing for Research”)

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

**** Do assignment based on these readings (see Canvas).*

Week 4 (Feb 6 – Feb 12): Research Design I: Evaluations, and Operationalizing Outcome

Bernard Chapter 4 (“Research Design”)

Barkman, Susan (2002) A Field Guide to Designing Quantitative Instruments to Measure Program Impact. West Lafayette, IN: Purdue University (in Canvas)

Berkowitz, Bill, and Jeanette Nagy (2004). Chapter 3, Section 7. Conducting Needs Assessment Surveys. University of Kansas: The Community Tool Box/ Work Group for Community Health and Development. <http://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/conducting-needs-assessment-surveys/main>

(read the content from the tabs “main section,” “checklist,” and “examples”)

*** Do assignment based on these readings (see Canvas).

Week 5 (Feb 13 - 19): Research Design II: Sampling

Huff, Darrell (1993) (1954). Introduction and Chapter 1, The Sample With the Built-In Bias, *How to Lie With Statistics*, pages 9-28. New York: Norton and Company.

Bernard Chapter 5 (“Sampling I: the Basics”)

*** Do assignment based on these readings (see Canvas).

Week 6 (Feb 20 - 26): Designing Questions and Doing Interviews

In Bernard Chapter 8, read sections “Interview Control,” “Learning to Interview,” “Presentation of Self,” “Using a Voice Recorder,” “Response Effects,” and “Accuracy.”

Bernard Chapter 9 (Interviewing II- Questionnaires) (all).

Fowler, Floyd J. Jr. (1995). Chapter 2: Designing Questions to Gather Factual Data, Pp. 8-45. *In Improving Survey Questions*. Thousand Oaks: Sage Publications.

*** Do assignment based on these readings (see Canvas).

Week 7 (Feb 27 – March 5): Introduction to Data Analysis: Creating Datasets, running frequencies

Read through the World Values Survey (online), and the background for it:
<http://www.worldvaluessurvey.org>

Dressler, William (2015) Chapters 1-2: Measures of Central Tendency: the Arithmetic Mean, and Measures of Dispersion: the Standard Deviation. Pp. 31-46. Walnut Creek, CA: Left Coast Press. (Canvas)

Optional: Bernard Ch. 20 (“Univariate Analysis”), from the beginning up to “Measures of Dispersion II” (p 516 in the 6th edition) (*note: DON'T get caught up in the math or the formulas! It's more important to me that you understand concepts, not their mathematical derivation*) (*the exception is the “mean.” Everyone should be able to know how to calculate an average*). What's important here is this: be able to distinguish univariate from bivariate and multivariate analysis, how to construct a list of codes, how to clean data, the difference between string, nominal, and numerical variables, the difference between mode, median, and mean, and the different kinds of graphs.

(recommended) Julie Pallant- 16-46 (from Chapters 3, 4, and 5)

***2 Part Homework due Week 7: (see Canvas)

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

Huff, Darrell (1993) (1954). Chapter 5, The Gee-Whiz Graph, Chapter 6, The One-Dimensional Picture, *How to Lie With Statistics*, Pages 62-75, and 102-123. New York: Norton and Company. (CANVAS).

Brooks, Arthur. (2021). Different Cultures Define Happiness Differently. *The Atlantic*. July 15, 2021. (CANVAS)

OPTIONAL: (In Bernard Chapter 20 (“Univariate analysis”), read “The Logic of Hypothesis Testing (pp. 518-521) (*and again, concepts, not math*).

Recommended: Pallant, Chapter 8, Pp 90-96 only (“*Collapsing the Number of Categories*”)

*** *GROUP Homework due at the end of Week 8: See Canvas. Make sure to prepare 6-10 slide 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 13 – 19 UNT SPRING BREAK.

GO PLAY. RELAX YOUR BRAIN AND CATCH UP ON SLEEP.

Week 9 (Mar 20 - 26): Bivariate Beginnings: the chi-square.

Dressler, William Chapter 3: the Logic of Significance Testing: the Chi-Square. *The 5 Things You Need to Know about Statistics: Quantification in Ethnographic Research*. Walnut Creek, CA: Left Coast Press.

Huff, Darrell (1993) (1954). Chapter 9 How to Statisticulate. *How to Lie With Statistics*, New York: Norton and Company.

OPTIONAL: Bernard Chapter 21 (in “Bivariate Analysis”), read from “Cross-tabs of Nominal Variables” through the end of “Fisher’s Exact Test” (Pp. 536-543 in the 6th edition). (*concepts, not math derivations*)

(recommended) Pallant, Julie, Chapter 16 Pp. 217-221.

**** Group Homework for the end of Week 9 (see Canvas). Like last week, group presentations using PowerPoint, and the World Values Survey*

Week 10 (Mar 27 – Apr 2) Bivariate Tests II: T-tests, ANOVA, and more significance.

Huff, Darrell (1993) (1954). Chapter 10 How to Talk Back to a Statistic. *How to Lie With Statistics*, New York: Norton and Company.

Dressler, Bill Chapter 4: the Logic of Significance Testing: Analysis of Variance. *The 5 Things You Need to Know about Statistics: Quantification in Ethnographic Research*. Walnut Creek, CA: Left Coast Press.

OPTIONAL: Bernard Chapter 21 (in “Bivariate Analysis”) read from Intro through the end of “Direction and Shape of Covariation” (Pp. 527-536).

(recommended) Pallant Chapters 17 and 18

**** Group Homework for the end of week 10: (see Canvas).*

Week 11 (Apr 3 - 9): Bivariate Analysis III: One more t-test, and the “Correlation.”

Dressler, William Chapter 5: the Logic of the Correlation Coefficient. *The 5 Things You Need to Know about Statistics: Quantification in Ethnographic Research*. Walnut Creek, CA: Left Coast Press.

Pallant, Chapter 11 (“Correlation”)

Individual Assignments due at the end of Week 11: (see Canvas)

Week 12 (Apr 10 - 16): Multivariate Analysis: the Linear Regression

Pallant, Chapter 13 (“Multiple Regression” through page 162)

****Homework due at the end of Week 12: (see Canvas)*

Week 13 (Apr 17 - 23): Wrap Up/ Being a Professional/ Debating Methodologies/ Review

Dressler, William (2015). Integrating Quantitative Research into Anthropological Research Design. *The 5 Things You Need to Know about Statistics: Quantification in Ethnographic Research*. Walnut Creek, CA: Left Coast Press.

There's an "In-class assignment" due at the end of this week, that should take you about 2 hours. Otherwise, nothing other than to work on your projects. Get moving on your project data analysis and write-up! Call or email me if you have any questions or if I can help.

Weeks 14, 15 (May 5, May 12): Class presentations (all written presentations will be due Sunday May 8 by 11:59pm CST).