

**ESM269 & ED218 – Questionnaire Design:
A practical guide from conceptualization to administration
Aka**

Survey Design and Environmental Public Opinion

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Class Meetings

Tuesday/Thursday 9:30 – 10:45 am

Room: Bren 1414

Course Website: <https://tinyurl.com/UCSB-surveyclass>

Office: GGSE #3113

Office hours: Mon. – Thurs. by appt.

Behavioral economist Dan Ariely notes that – despite their similarities – several pairs of European countries (e.g., Denmark and Sweden, Germany and Austria) differ by over 80 percentage points in the number of individuals willing to donate their organs after death. In countries like Austria and Sweden (which have over 85% participation) people getting their drivers licenses are asked to “Please check this box if you do not want to participate in the organ donation program.” In countries such as Denmark and Germany (with less than 15% participation) prospective drivers are asked to “Please check this box if you want to participate in the organ donation program.”¹

Although choices about the design and formatting of questionnaires don’t always have the life and death implications described above, they are among the most common data collection methods that social science researchers employ. Thus, surveys wield tremendous impact on the data-based decision-making that increasingly permeates our educational system, environmental policies, and across society more broadly. Yet, far too few scholars are fluent in the basic processes needed to produce high quality survey measures. If asked:

- how they chose between open-ended, ranking, or rating items;
- how they decided between asking questions or posing statements for respondents to agree/disagree with;
- why they decided on 4 vs. 5 vs. 6 vs. 7 response options; or
- what the organizational logic of their survey is based upon

most will grin nervously and change the topic of conversation quickly. Yet, empirical studies provide guidance on each of these choices (and many more). This course will familiarize students with the steps and procedures that are essential to developing surveys with high levels of reliability and strong evidence of validity.

As detailed in the next pages of this syllabus, participants in the course will learn a survey design process that includes the following steps: performing a literature review, conducting interviews/focus groups, synthesizing a master list of indicators, writing items according to best practices, conducting an expert review, cognitive pre-testing items, and administering a small-

¹ See <http://danariely.com/2008/05/05/3-main-lessons-of-psychology/> for Ariely’s full description and explanation (and <http://sports.espn.go.com/espn/eticket/story?page=rayofhope> for an unrelated, but amazing story about organ donation).

scale pilot test. Other important topics include: defining constructs; item wording; response scales; organizing, ordering, and formatting surveys; and bolstering response rates. Finally, students will learn a modest number of theories to inform survey design in the (numerous) areas in which the extant research provides little guidance. The course does not cover sampling procedures, interviewing, item-response theory/Rasch modeling, or data analytic approaches for survey data.

Course goals

A wise academic at my former institution once counseled:

You can't fix by analysis what you have bungled by design.

The overarching aim of this course is to help students to minimize the frequency and severity of the design-related bungling that might otherwise occur in constructing questionnaires.

Specifically, four fundamental goals drive the course:

- 1) Students should learn what the empirical work states about the best way to design questionnaires.
- 2) Students should learn selected relevant theories that can guide their questionnaire design judgment in those instances where empirical evidence is scant, conflicting, or dubious.
- 3) Students should learn a basic template for a high quality survey design process and be knowledgeable about the tradeoffs of adapting it in different ways.
- 4) By the course's end, students should apply this empirical and theoretical knowledge towards designing and developing their own scale (or adapting an existing scale) and embedding it within a broader questionnaire.

The Two Audiences:

I have designed this course for students who are actively developing questionnaires (for their dissertation work, research projects, or other pastimes) or are interested in gainful employment in the real world where they will design questionnaires. Logistically, the course is really a course nested within a course. The goal of this somewhat complicated structure is to better serve two primary audiences (including masters and doctoral students):

1. Students who will largely want to take the full 4 credit version of the course are those who want to not only learn but experience a process for designing their own surveys from scratch. Much of this process enables students to test (in various ways) whether the scales that comprise the surveys are behaving as they are supposed to.
2. Students who will gravitate towards the 2 credit version of the course are those who are more interested in adapting existing surveys to make them better. They will learn how the larger survey design process works but will gain experience only around a couple steps in that process.

See the comparison table that follows.

The course is quantitative in orientation, although only minor quantitative background is needed (i.e., knowledge of descriptive statistics and correlations).

Students should be aware that (for the 4-unit version of the course) there is a substantial, ongoing applied component to the class. Students' major task for the course is to develop a survey scale;

the default mode for accomplishing this task is to do so with a partner². Thus, students may accomplish this task in one of two ways:

- 1) Producing their own original survey scale and ultimately creating a questionnaire during the course, or
- 2) Collaborating with a fellow student to develop a survey scale that the partner is interested in and creating a questionnaire with that colleague.

Students should be prepared for an experience that falls at the intersection of a typical lecture/discussion class, a workshop, a field experience, and a “cognitive” apprenticeship. The basic course structure will blend lectures with sections that will feel more like a workshop. Students taking the course for 2 credits will need to attend the specific classes identified below.

² There are a range of looser and tighter collaborations that can work so think flexibly and coordinate with the teaching team to figure out a partnership that works for you.

4-unit vs. 2-unit comparison:

This table should clarify the differences between what content is covered in the “full” (4-credit) version of the course vs. the “lite” (2-credit) version. The big overarching difference is that participants in the “full” course *experience the full survey design process (and should be able to replicate it in the future)* whereas participants in the “lite” version will *learn intellectually rather than experientially and will be poorly equipped to verify the quality of the final survey scale they adapt*. The chart below clarifies which topics which are covered in each course:

Topic	Coverage in full 4-unit course	Coverage in 2-unit course
Introduction/Overview		
Introduction to survey scales and constructs	Students conceptualize and define their own construct that they will design a scale for in the course	Students identify an existing construct and scale that they will revise in the course
Theoretical grounding	Presented in class; theories are applied via mini-exercises	
Steps in the survey design process	Each step is executed during the course	Process is learned, but application is limited to best practices in designing items (see below)
Validity of survey scales	Presented in class; final project requires (modest) evidence of validity for scale	Presented in class
Scale design process		
Literature review	Required	Not required
Interviews/focus groups of respondents		
Synthesis of literature review and interview		
<i>Best practices in designing items:</i>	Required	
Types of items	Guidelines are presented in class; applications are learned through mini-exercises and final projects	
Item wording		
Response scales		
Expert review	Required	Not required
Cognitive pre-testing		
Whole survey construction		
Ordering and formatting surveys	Guidelines are presented in class; applications through final projects	Guidelines are presented in class; applications through mini-exercises
Introductions/Instructions/Transitions		
Maximizing response rates		
Mixing modes	Guidelines are presented in class	Covered in textbook

Assignment Overview for 4-unit students:

A series of “mini-assignments” are due (usually weekly) as noted on the schedule below. These are required to help you maximize the feedback you can get from your classmates. Three major assignments (where you will receive feedback from the teaching team) will be turned in throughout the semester as follows:

Due Date	Major Assignment	Scope
4/17/18	Definition of your construct and 15 item scale	2 pages, single-spaced maximum
5/22/18	Pre-testing report and scale items	2 page single-spaced maximum for the report; 1 page for the scale items
6/12/18	Conference style proposal in which you ‘show off’ some aspect of your scale	2000 word maximum for proposal.

All assignments, great and small, are all described in detail on the course web-page. All assignments, great and small, are to be submitted to GauchoSpace; **however, you may also be asked to bring certain assignments to class.**

Grading: Your grade will consist of a possible total of 100 points.

Assignments will be weighted as follows:

- Minor Assignments = 20 points (based on adequate completion)
- Major Assignment 1 = 10 points
- Major Assignment 2 = 20 points
- Final conference report = 35 points
- Citizenship* = 15 points
-
- = 100 points

Assignment Overview for 2-unit students:

A series of “mini-assignments” are due on a couple of occasions and a main assignment is due at the end of the course. These are designed to help you a) practice implementing the principles we have learned in class and b) allow you to get feedback from your classmates. These assignments will be turned in as follows:

Due Date	Assignment
11:59pm on 4/12	Choose a scale to revise for your final project
11:59pm on 5/7	Improve the item-stems and response anchors for the scale posted on the website
11:59pm on 5/31	Main assignment

Main assignment: Due as soon as you feel so inclined but no later than 11:59pm on 5/31.

Locate a scale that assesses a construct of interest to you. Write a succinct, yet comprehensive summary of the problems with the scale and how you have corrected each one. Include the revised scale as an appendix at the end of your report. For those who do not have any scale that they are particularly interested in improving, a list of options will be posted on the website. Full assignment details are on the website.

Class dates. Students taking the 2-unit version of the course must attend class on:

Week 1: 4/3 & 4/5

Week 4: 4/24 & 4/26

Week 5: 5/1 & 5/3

Week 7: 5/15 & 5/17

Week 8: 5/22 & 5/24

****Note the highlighting to draw your attention to the weeks and assignments that are for the 2-unit folks.**

Grading: Your grade will consist of a possible total of 100 points.

Assignments will be weighted as follows:

Minor Assignments	= 20 points (based on adequate completion)
Choose a scale	= 10 points
Improve items & response options	= 20 points
Revise a scale	= 35 points
Citizenship*	= 15 points

	= 100 points

*Please see ‘the fine print’ section at the end.

Required Text:

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). [*Internet, phone, mail, and mixed-mode surveys: The tailored design method*](#) (4th ed. ed.). Hoboken, NJ: John Wiley & Sons.

Recommended Texts:

Bradburn, N. M., Sudman, S., & Wansink, B. (2004). *Asking questions: The definitive guide to questionnaire design – for market research, political polls, and social and health questionnaires* (Rev. 1st ed.). San Francisco: Jossey-Bass.

Converse, J. M., & Presser, S. (1986). *Survey questions: Handcrafting the standardized questionnaire*. Beverly Hills: Sage Publications.

DeVellis, R. F. (2003). *Scale development: Theory and applications* (2nd ed.). Newbury Park, CA: Sage.

Fowler, F. J. (2009). *Survey research methods* (4th ed.). Thousand Oaks, CA: Sage Publications.

Robinson, J. P., Shaver, P. R., & Wrightsman, L. S. (1991). *Measures of personality and social psychological attitudes*. San Diego, CA, US: Academic Press.

Tourangeau, R., Rips, L. J., & Rasinski, K. A. (2000). *The psychology of survey response*. New York: Cambridge University Press.

COURSE OUTLINE³:

WEEK 1	Overview
4/3 & 4/5 Themes	The big picture Bounding the course Surveys in context Defining constructs & scales, items & indicators
Required Reading	Menand, L. (2004, December 6). Permanent fatal errors: Did the voters send a message? <i>The New Yorker</i> , 54-60. (Available at: http://www.newyorker.com/archive) Berends, M. (2006). Survey methods in educational research. In J. L. Green, G. Camilli & P. B. Elmore (Eds.), <i>Handbook of complementary methods in education research</i> . (pp. 623-640). Mahwah, NJ US: Lawrence Erlbaum Associates Publishers. Gehlbach, H., & Brinkworth, M. E. (2011). Measure twice, cut down error: A process for enhancing the validity of survey scales. <i>Review of General Psychology</i> , 15(4), 380-387. doi: 10.1037/a0025704. (http://www.apa.org/pubs/journals/gpr/sample.aspx)
...and listening	http://onpoint.wbur.org/2013/08/27/college-affordability (make sure to listen to the first 6 minutes & then about minute 17 until 22 <when they start taking callers> – the rest is up to you)
UNIT 1	Survey items
WEEK 2	Overarching theories & Constructs
4/10 & 4/12 Themes	Motivation: social exchange theory Ability: Respondent processes Context: maximizers, satisficers, & response bias Surveys as conversations
Required Reading	Krosnick, J. A. (1999). Survey research. <i>Annual Review of Psychology</i> , 50, 537-567. Dillman – Chpt. 1 & 2
Due by 11:59pm on 4/10	Minor Assignment – Week 2: Walk in the park assignment. (Don't forget to check GauchoSpace again by 4/11 to see other's postings).
Due by 11:59pm on 4/12	2 credit—Assignment #1 due: Pick your construct and scale

³ Articles are available online unless otherwise noted.

WEEK 3	Types of items
4/17 & 4/19 Themes	Open-ended vs. close-ended Ratings vs. rankings Behaviors vs. opinions/attitudes Numbers of items Item distribution
Required Reading	(For Tues.) Dillman – Chpt. 3, 4 (p. 65 – 79; i.e., the beginning thru “Guidelines for choosing words and forming questions” only) & 5 (p. 107 – 118; i.e., the beginning thru “Close-ended questions” only) (For Thurs.) Whatever additional reading you need to do in preparation for presenting your construct to your peers during class. In preparation for Minor Assignment – Week 5: Bring a draft interview protocol to class to interview 1-2 classmates (see “Details #2” on the Week 5 assignment sheet).
Due by 11:59 pm on 4/17	Major Assignment #1: Pick your construct, define it, and submit 15 potential items that will comprise a scale to assess this construct
WEEK 4	Item wording
4/24 & 4/26 Themes	Language & terminology Bias Double-barreled questions Negatives Sensitive information
Required Reading	Dillman Chpt. 4 (p. 79 – 106; i.e., “Guidelines for choosing words and forming questions” thru the end of the chapter)
Due by 11:59 pm on 4/25...	Minor Assignment – Week 4: Human subjects assignment as needed. Keep your excel spreadsheet up to date!
WEEK 5	Response scales
5/1 & 5/3 Themes	Number of scale points Words vs. numbers No opinion/Don’t know options The strongly disagreeable case of “agree-disagree” response scales
Required Reading	Dillman Chpt. 5 (p. 118 – 150; i.e., “Close-ended questions” thru the end of the chapter) Schwarz, N. (1999). Self-reports: How the questions shape the answers. <i>American Psychologist</i> , 54(2), 93-105.

Due by 11:59 on 5/2... And... in class on 5/3 Due by 11:59pm on 5/7	Minor Assignment – Week 5: Interview and Lit. Review synthesis. Keep your excel spreadsheet up to date! Bring in a revised copy of the items on your scale (e.g., your excel spreadsheet) for in-class editing. 2 credit—Assignment #2 due: Improve item stems & anchors
WEEK 6	Cognitive pre-testing and pilot testing items
5/8 & 5/10 Themes	Goals of pilot testing Open-ended questions Think aloud procedures Follow-up probes
Required Reading	McKenzie, J. F., Wood, M. L., Kotecki, J. E., Clark, J. K., & Brey, R. A. (1999). Establishing content validity: Using qualitative and quantitative steps. <i>American Journal of Health Behavior, 23</i> (4), 311-318. Rubio, D. M., Berg-Weger, M., Tebb, S. S., Lee, E. S., & Rauch, S. (2003). Objectifying content validity: Conducting a content validity study in social work research. <i>Social Work Research, 27</i> (2), 94-104.
Due by class on 5/10	Minor Assignment – Week 6: Design your own expert evaluation form for your survey and bring at least two copies to class. Keep your excel spreadsheet up to date!

UNIT 2	Survey organization
WEEK 7	Ordering and formatting surveys
5/15 & 5/17 Themes	Respondent engagement Context Effects Serial Position Spacing & formatting Bias summary: acquiescence, social desirability, primacy/recency, response order
Required Reading	Dillman Chpt. 6
Due by class on 5/17	Complete your final expert pretesting (from last week) and revise your scale. Minor Assignment – Week 7: In class, begin your cognitive pre-testing assignment. Keep your excel spreadsheet up to date!
WEEK 8	Other components of the questionnaire
5/22 & 5/24 Themes	Introductions Instructions Transitions Review of validity & error issues
Required Reading	A “scale validation” article or two of your choice – see the assignment sheet for the week.

Due by 11:59 on 5/22... & in class on 5/24...and submit your final version the night of 5/24 by 11:59pm	<p>Major Assignment #2: Complete pre-testing report & a copy of the revised scale. Keep your excel spreadsheet up to date!</p> <p>Minor Assignment – Week 8: Figure out the other scales you wish to use in your questionnaire and bring copies of the relevant materials to class.</p>
WEEK 9	Response rates
5/29 Themes	<p>Cover letters Framing the purpose of your research Reciprocity Personalization Dillman’s five step plan</p>
Required Reading	Dillman – Chpt. 7
Due 11:59pm on 5/28 Due by 11:59 p.m. on 5/31	<p>Minor Assignment – Week 9: Bring to class on 5/29 a cover letter, cover page, script for introducing the survey for face-to-face administrations, or some other form of communication to potential respondents that you would like feedback on Keep your excel spreadsheet up to date!</p> <p>2 credit—Assignment #3 due: Final survey scales</p>
WEEK 10	Pilot Testing
6/5 & 6/7 Themes	<p>Survey in the context of the larger study Survey length Sampling The future of survey design</p>
Required Reading	Dillman – Chpt. 8
Due 11:59pm on 6/4	<p>Minor Assignment – Week 10: Bring full questionnaires to class on 6/5 to conduct a small scale pilot testing on colleagues. Keep your excel spreadsheet up to date!</p>
6/12/18	Final Assignment: Final report to be submitted

The Fine Print

Grading. This course—particularly the 4-unit version—requires punctual submission of work. If this is something you have struggled with historically, you will have to figure out some strategy to mend your procrastinating ways. Because there is a substantial level of mutual interdependence (e.g., reviewing survey scales for one another), getting your work done in a timely fashion is likely to impact others.

Going solo. It is assumed that you will find a partner to work with to develop your scale. The 2 person team will submit one document and will receive the same grade for all assignments. Separate grades will be given in the “Citizenship” category. In those instances where it is personally important for a student to work on a particular scale and s/he cannot generate enough interest in the topic to lure a partner, it is permissible to work only loosely with a partner (who primarily provides feedback). Please get permission from a member of the teaching staff if you are considering this option.

Auditing. Auditing the course is fine. Auditors will not be getting feedback from peers or the teaching staff unless they are teaming up with a classmate who is taking the course for credit. Bear in mind that you will not get nearly as much out of the course if you decide to attend lectures but not do the work.

Citizenship. In a class where students depend upon each other to a significant extent for advice, critique, and inspiration, the effort and attitude of everybody matters critically—we are all on the same team. I expect everybody to participate, to listen, and to build off of each other’s ideas. Thus, this component of your grade allows me to make sure that you follow through on the little things that are key to a productive learning experience for all.

Late Assignments. I deduct 5% of the total possible points per day that an assignment is late.

Academic Integrity. Students must take responsibility for knowing and adhering to UCSB’s academic integrity policy. Students who violate the academic integrity policy will be subject to academic sanctions from me and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). If you have any questions, please review the Honor Code (<http://judicialaffairs.sa.ucsb.edu/AcademicIntegrity.aspx>) and/or come see me.

Absences/lateness. Class will start on time. If you are late, please do not ask questions regarding what we have already covered. If you have to miss class, please let me know at least 36 hours ahead of time as it may influence certain activities we have planned. I expect you to catch up on what you missed with a classmate or two first, then if you have additional questions, please see the teaching team.

General Academic Support & Writing. Students are encouraged to visit Campus Learning Assistance Services (CLAS) early and often. CLAS offers instructional groups, drop-in tutoring, writing and ESL services, skills workshops and one-on-one consultations. CLAS is located on the third floor of the Student Resource Building, or visit <http://clas.sa.ucsb.edu>

Students with Learning Disabilities. In addition to discussing needs, requests, strategies, etc. with me, students with disabilities who need accommodations are encouraged to check in with the folks at Disability Services – they can help suggest/determine accommodations. Contact: 805-893-2668, 2120 Student Resource Building, and <http://dsp.sa.ucsb.edu>. Above all, please come see me – we’ll work something out!

Managing Stress. Personal concerns such as stress, anxiety, relationships, depression, cultural differences, can interfere with the ability of students to succeed and thrive. For helpful resources, please contact UCSB **Counseling & Psychological Services (CAPS)** at [805-893-4411](tel:805-893-4411) or visit <http://counseling.sa.ucsb.edu/>.

Above all, please come see me – we’ll work something out!