I: I'm gonna start recording then. Okay. And the first note that I want to make here is obviously with Covid-19 we need to acknowledge that teaching and learning has been significantly disrupted in the past month, due to the pandemic and I'm not sure if that's affected your teaching specifically, but for any of the questions that I'm about to ask you can feel free to answer with reference to either your normal teaching or your teaching practices that you've had to adapt for remote teaching. All right, and we're going to start out here, I would like to hear a little more about your background teaching undergrad students, and especially where that background intersects with your current and past research. And then what specific courses do you teach with undergraduates that work with data.

UCSB10: Okay. So my research mostly uses either survey data or cross national administrative data. So it's big data sets. And I use almost all quantitative methods. And so that's what I teach, and I'm actually one of the few people in my department that is comfortable teaching quantitative methods so I teach a lot of required classes, and particularly I teach graduate students at the graduate level every year I teach a course, at least one of the two required courses and quantitative research methods, and I teach at the lower division, a required course at the undergraduate level. It's called methods of sociological research. And it's sort of one from a menu of methods classes that students can choose from they can choose, you know, different either quantitative or qualitative methods. And this is just one of them. And this one is sort of really designed to give you hands-on experience analyzing sociological quantitative data, mostly survey data. And I think that a lot of the skills that I teach are applicable to qualitative data analysis as well because I train students in how to pose sociological questions about relationships between variables, how to interpret the results and communicate the results. So I have them write a short research paper at the end. So, I'm trying to teach them the logic of sociological inquiry. At the same time that they're learning about social statistics so I try very hard not to make it a statistics class but rather to make it a data analysis class. So for the grad course I let students choose their own data. For the undergrad course, I ask them to use the General Social Survey of the US population, as you may know, this is a represent representative survey of US adults that has been conducted about every two years since the 1970s, and it has a lot of, it's huge and it has a lot of demographic questions about social background like your family of origin your current family, your educational attainment, your occupation. All the standard kinds of demographic categories, it also has a lot of questions about your attitudes toward different social issues, and political issues. So students, sorry go ahead.

I: Oh, you can continue but you're actually answering my next question already, which is great. I'm wondering what went into the process of choosing that data set specifically? Is it just that it has such breadth, or are there not other appropriate data sets.

UCSB10: Well there is another one that I use a lot for teaching which is a world value survey that is where they can draw data from about 70 different countries. It has less demographic information and more attitudinal, so if you were interested for example in, the relationship between what your mother did and what you do or something like that you wouldn't be able to

do it with the world value survey, but it has that cross national breath. Yeah, the reason that I use the General Social Survey is because it's very easy to use, it's well documented. And I find most undergrads are interested in sort of demographic and social issues in the United States. And, I'm familiar with it so it makes it easier for me to teach them how to use it. There are some sort of longitudinal surveys where people are interviewed every couple of years like the same person over and over again, but I think for undergrads the data structure is too complex and they spend so much time trying to figure out how to use the data set and it's just not feasible in 10 weeks.

I: Yeah, that makes sense. And how many students do you have in each of those courses, when you teach them?

UCSB10: So, in our department the methods classes are limited to 60. Most other classes are like 100, upper division. But they have sections and the sections are limited to 15 so there's two TAs. And each TA has two sections of 15, so that really helps because it's an opportunity for them to get one on one instruction.

I: Right, right. So the next questions I have are about how the students then work with the data in that course. So how do they manipulate and analyze, or interpret data, what tools or software to do they use? And do you expect any prior knowledge, versus what do you teach explicitly?

UCSB10: Yeah. Unfortunately, I cannot expect any prior knowledge so I teach them step by step how to use SPSS. SPSS is what we're using, statistical package for the social sciences. And the reason that we use that, I mean that's actually the oldest statistical package for the social scientists, it's been developed and further developed over time since I don't know, probably the 70s. It started out as kind of a mainframe you know, it was used with punch codes and stuff, punch cards. So I make them actually, and it's oriented around the point and click with the mouse, but I make the students actually write their own code rather than use the mouse to do the data analysis. I want them to be able to see the logic of what they're doing and I find that writing code is a better way of keeping track of what they're doing to the data. So I have them write a program. I give them an example of my own program and, you know, I go through that line by line and I ask them to come up with their own research question. And to find variables that they can use to address that research question from the General Social Survey. And the reason that I use SPSS, because I actually would prefer to use STATA, is that UCSB has a site license for SPSS, which means that all the students are able to download the software onto their own laptop. And the with STATA, which is actually the program that I think it's sort of easier to use and is more widely used lately. There is no site license and the only place that students can use it is in the lab, in the computer labs so we meet in the social science, the SSMS lab. Okay, but then they have to go you know after hours there's little access to the labs and so a lot of them really prefer to be able to work on their laptops at home. And so for that reason, I use SPSS. The same thing holds for the grad students although for the grad students we really need to also teach them STATA so we've been, you know, sort of stuck with having to find time, you know, document carefully the opening hours of the lab and ask them not to go there at night alone or anything. Um, so yeah that's kind of a bit of a problem that I have. I would love, love it if

the campus could get a site license for STATA.

I: Well, I can say that is something that's changed with remote work. They did negotiate a site license for STATA because it ended up being cheaper than getting the licenses they needed in order to, you know, host it remotely. But I can tell you, I'm not sure what's going on with that, like if they're making it widely available to everyone or not.

UCSB10: Really? Because I would love to know.

I: Yeah, I can tell you more about it after the interview.

UCSB10: Okay. Yeah, so what else did you want to know for me about the software.

I: That's a great explanation for us. Let's see. And I think you've already, one of the questions was, to what extent are those tools or software important for your teaching? I think you touched on that already, especially I appreciated the comparison between STATA and SPSS. Because I don't use those, I don't know why someone would choose one or the other. But are there any general challenges related to students abilities to work with data in those software's that you've run into other than you know timing for the labs?

UCSB10: Yeah the labs have been, I mean I don't know if you want to know about this but the labs, it's been very difficult to work in those labs. In that particular lab, I've just, and it's not the fault of the student employees who are, you know, trying very hard to provide support but I think it's just there's a lack of resources or there's not enough resources and the classrooms are not proper, are not often set up like sometimes they have the partition in and I have to wait 20 minutes till they take it out or sometimes it just, you know, the stuff doesn't work properly and I have to sort of wing it and I can't I can't show my PowerPoints, in both classrooms simultaneously. So I've taught generally like eight in the morning in those labs and it's just been an ongoing problem, and I don't think it's any particular person's fault. I just think that there's something structurally wrong.

I: And with SPSS itself. Are there any, like, obstacles for students that you find that they commonly run into?

UCSB10: SPSS, it's just, you know, learning to use a new program is hard and some students you know have a mental block and they think they can't do it and so. But, yeah, for the most part, I'd say 90% of students by the end of the quarter are somewhat competent in using it. And, I mean what they end up doing is, is really replicating what a social science professional does is they use the same kind of data the same software package and they do an analysis it's very simple and bare bones but, but I think it gives a sense of the research process.

I: Yeah, I know from my experience being on the learning side it's hard to realize that you are learning exactly the same skills that people used to apply for data science.

UCSB10: Yeah, right.

I: Or to feel like that's enough. And there's always more to learn.

UCSB10: The thing is, I mean I can say one thing about I'm, I'm teaching this quarter remote and actually with grad students so it might not be the same, but I feel like the remote, I mean the zoom sharing of the desktop actually works pretty well. It replicates pretty well what I do in the lab, which is a lot of times I just go around from Terminal to Terminal and help the students troubleshoot their program and, you know, why doesn't this work and why do I get these error messages. And so being able to do it. You know, have a student ask the question and say I can't get this to work, and then I say can you share it, and then they show their problem and I'm sort of able to help them fix it but meanwhile the whole class is watching. So I think that works actually pretty well and I don't have to sort of go around and do the same thing, 20 times.

I: Yeah. So, we found that for our workshops too. I'm coming to prefer to share the screen on zoom.

UCSB10: Yeah. So there are things that I think we will retain from our remote instruction.

I: Yeah, that's interesting. Um, let's see the next question I have, I think you've touched on this a little already but maybe you can expand on it. The question is, you know, how do the ways in which you teach with data relate to the learning goals in sociology. And I don't know if there's anything more that you want to say about that other than that you're trying to integrate those in.

UCSB10: Yeah, I try to replicate the research process and give them a sense of what sociologists do so that's that's the part of it. And I try to sort of allow them to take some, you know, address their kind of sociological imagination in a sense or their curiosity about sociological relationships and to actually be able to address the question using real data. The other thing that I think is important is the writing process. So I try to, they do a final paper, and I try to teach them the formula that sociologists use when they write a research paper which is, you know, they introduce a problem, they review the literature on that problem so what do we know so far and what don't we know, and so how they're going to address a gap, and then present their data and methods. And then present their results, and then come back to the original question and say what does this tell us about this question, or how does this help us move the literature forward. So I think that's a very useful skill to have and to be able to sort of communicate sociological information. And, yeah, communicating to others what you've discovered through your analysis.

I: And then the other question was on, what kind of data skills... Are there any data skills that you teach that you imagine will prepare them for a future career? And I'm not sure with sociology if you're more focused on preparing the students to do research like graduate research or if there are like specific careers that people get into right after the degree.

UCSB10: I mean, No, I think, I mean, the minority will go to grad school in sociology, but it

would certainly be useful for someone who did. Having that knowledge when they come to grad school. But, yeah, a lot of students will go into the you know things like teaching or marketing or, you know, some other kind of thing. So yeah, it teaches some communication skills and teaches them data management skills, it teaches them analytical skills. And I've actually had undergrad students tell me they got a job, some kind of internship, because they knew how to use the software. So I think, Yeah, I mean it is somewhat practical.

I: Yeah, yeah, so they're so using SPSS specifically?

UCSB10: So, yeah, in that case it was SPSS.

I: Yeah, that's interesting. I don't know how widespread SPSS is outside of academia, they must use it in some places. But I'm not very familiar with it myself, to be honest. And the next question here is, are there any ethical challenges then with teaching with data in these courses that you need to confront. And to what extent do those affect your teaching?

UCSB10: Oh I don't really have issues of confidentiality. The data I'm using are not, you know, they are very anonymized. I mean, the only thing is you know students' self-esteem or, you know, students' feelings of frustration. I deal with students in all kinds of delicate states as I think all instructors do. And, you know, sometimes when people lack self confidence in a particular type of learning, it may be exacerbated. But yeah, I don't think it's any different from any other type of class.

I: Yeah, yeah. And, have there been any like policy or cultural changes here at UCSB specifically that influenced the way that you teach? With this course, or other courses.

UCSB10: Well, I think that, you know, in general, there's an awareness of, you know, racial justice, gender and issues of gender and sexuality, and sort of economic inequalities I mean all of these things are sort of rising to the, to the forefront of our of our cultural discourse right now and in recent years. I think in general, you know, social scientists are pretty aware of these anyway because a lot of the social sciences have that in mind, or because of those concerns so I don't know how much it changes the way we teach these courses. I hope, you know, I hope that people are aware of them.

I: I imagine since you know gender is your research area this is something that's already baked into the course.

UCSB10: Yeah. Right.

I: And then the next questions about the training for, that you have for students in the course. So it sounds like you have TAs, but are there other people that assist?

UCSB10: Yeah, no I mean just a TAs and it's fine. I feel like I have enough teaching support as I said, it's more that I would like to have more technical support. But you don't always know when

you're going to need it and I can see that you can't just have someone standing there all the time. But it's very distracting when things don't work. And when you have to, you have, you're sitting there in front of 60 students and you're, you can't get things to work.

I: Yeah, you know the technical part is difficult, especially with software updates and yeah you have all the technical bugs worked out and then

UCSB10: Yeah exactly they have to reboot the computers and that takes like 10 minutes and, yeah. So anyway, it's just a kind of a, that's been a bit of a struggle.

I: Yeah, I haven't talked to a lot of people that have had sections with TAs for more help for their students. Do you have a different focus between those and lectures like, do they work more with SPSS in the sections or do they do other activities?

UCSB10: I think sections, they answer questions, they allow students to work on their projects and they just kind of go around and help. So they meet in a computer lab as well.

I: Okay, so it's more it's more help for them to work on their coursework rather than like, there isn't any new material that's coming?

UCSB10: Oh no, not in sections. I know sometimes the TAs will kind of give a little mini lecture that kind of tries to re-explain what I explained in the lecture.

I: Okay. Yeah, yeah. Interesting. And do you know if there are other resources that students are using to learn how to work with data outside their formal coursework, you know like, online tools like data camp and things like that. I don't know if you hear about those or not.

UCSB10: Not that I know of, I don't know.

I: Yeah. Is that something that you encourage in your classes?

UCSB10: Well if I knew about some good stuff I would.

I: Yeah, I imagine there isn't as much for SPSS and STATA as things like R and Python. That you know that seems like most of the free resources and like data camp and, you know, coding exercises that I see are usually centered around those rather than tools like SPSS. And then the next question is about your own training and have you, you know since doing your degree. Have you received any other training in order to teach with data, or to increase your own data analysis skills or learning other software?

UCSB10: Well, I certainly have, you know, learned other software. And I've sort of, I mean just through my research. But yeah I haven't taken courses in how to teach quantitative methods or anything. Yeah, I'm not aware of those but I'm sure they exist.

I: Yes, probably somewhere I'm not aware of them either. That would be interesting though. Do you use any data, or you obviously use data sets from other sources but are there any like syllabi or assignment plans, other instructional resources that you've received or adapted from other people and do you share your resources for other courses? I suppose, maybe outside the UCSB sociology department.

UCSB10: Yeah, when I've had other colleagues who are going to teach a similar course, I share my syllabus and I share my, you know some of my course materials. And I was gonna say something but I've forgotten what it was.

I: Shoot hopefully it comes back to you. Is that mostly within the sociology department here, or are there other colleagues at other universities that you share materials with too?

UCSB10: Well I guess I would say, I would share if people asked, I think I might have shared with some colleagues at UC San Diego, that we've exchanged syllabi. But yeah, I don't put them online or publish them or anything, I did publish some syllabi through the American Sociological Association for a course I taught on inequality. They have this collection of syllabi but I never was asked to share one on quantitative methods. I don't know if that is something that is being, you know, sort of collected through the sociological association but maybe it is.

I: Yeah, that's really interesting. I didn't know that there was a syllabi collection for courses, generally. I'm not sure about quantitative.

UCSB10: Yeah there is that, so there are sort of teaching resources that are collected by the American Sociological Association that people can, like if you're going to teach a course on X, you can sort of look at a collection of syllables.

I: That's really interesting. Have you found that, I don't know how much you've used it yourself but do you think that's a good resource?

UCSB10: I haven't used it myself that much but I think junior colleagues have found it helpful. Also the department collects syllabi and so if you're going to teach a course like you can go to the department and say can I see some syllabi for this course that other colleagues have used.

I: Do you see any other types of training to be beneficial for instructors who are teaching with data, especially with quantitative methods?

UCSB10: Yeah, I mean, learning new methods, learning new software is always good and I mean I think through the Broom center I also familiarize myself with new methods and new data sets. There's another, another way that data sets are shared which is through Data Archive. There's an archive service or center called ICPSR which is interuniversity... have you heard of it?

I: Yes, I'm familiar with it.

UCSB10: Yeah, so on Gauchospace, I have a link to that for, particularly my grad students, and I encourage them to search for data that way. So if they're interested in, you know, incarceration or transgender people, you know they can, they can find surveys of people who are falling into, you know one or the other category that are very specialized.

I: Yeah, that's actually good for me to know that you point to that because I'm the point person in the library to advise on that.

UCSB10: Yeah, I use that a lot. I mean, both myself but also, you know, whenever grad students are asking and do I know of any data on X, I say well have you checked here. Right. So about half my students end up downloading data, my grad students end up downloading data from, from that for the, for the required course that I teach.

I: That's good to know that it's being used widely, we don't we don't hear about things until there's a problem.

UCSB10: That's an essential service I think. And I've used it too to get data.

I: Yeah, they definitely do some good work there, you know, I went to their summer institute last summer. You know they had to like to change it from in person to online just like within a month, so I have to imagine they were scrambling to do that, I can't imagine.

UCSB10: Yeah, I've had a lot of students go to that and the Broom center funds some grad students to go to that every year.

I: Okay. Good to know. Yeah, I think I spotted someone else from UCSB in one of the zoom sessions. So, is there anything else from your experience teaching qualitative methods that you want to share?

UCSB10: No, I don't think so

I: Okay, I think that covers all of our questions then, thank you.