Sage Research Methods

Data Collection

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Introduction

This stage will:

- Help you decide whether you should use qualitative, quantitative, or mixed methods to collect your data
- Define the variety of qualitative, quantitative, and mixed methods
- Help you decide whether you should use primary or secondary data to answer your research question

Now that you have a research question and you have planned your research and thought about research design and ethics, you need to think about how you'll collect your data. Will you generate your own data or use data that already exist?

How Can I Generate My Own Data?

How you generate your own data will depend on the methods you have chosen for your research. Here are some of the ways you can do it.

Quantitative Data

Social surveys.

- **Face-to-face surveys**

These are expensive to run. However, the response rates are very good and the data produced are high quality when interviewers are well trained. These surveys are usually based on address or electoral registration sampling frames.

- **Internet-based surveys**

  These are cheap to operate. They are increasingly used and the response rates are reasonable. Remember you cannot access respondents who lack Internet access, and this may limit your sampling frames. But these surveys can work well, when, for example, email lists can be the frame and the list gives good coverage of the population of interest.

- **Telephone surveys**

  Cold calling produces poor response rates. But telephone surveys can be very effective if arranged in advance, particularly when interviewing samples of professionals or similar groups.

- **Postal surveys**

  These are cheap to operate but response rate is usually poor.

Experiments

Valid experimental work requires large numbers of cases and effective methods of allocating them to control and treatment groups. This can be done in health and

pedagogical contexts, but it is difficult elsewhere.

Qualitative Data

Qualitative interviews.

- **Structured interviews**
  Here you will work through a list of pre-determined questions, but allow respondents to develop answers which are recorded as text.
- **Semi-structured interviews**
  These are more like a natural conversation, but the interviewer has a checklist of topics to be covered and works through them.
- **Unstructured interviews**
  Here the issues are identified in general terms but then there is a free-flowing conversation about them. Interviews can be with individuals or with groups. But you should note that it is difficult to conduct an interview (as opposed to a focus group) with more than three respondents.

Focus groups.

The aim of a focus group is to bring a group of people together to discuss a topic. The format can be either semi-structured or unstructured. Normally there are two researchers present, a facilitator and a recorder, although (with participants' consent) the discussion can be digitally recorded. The focus group is essentially an

artificial creation of a natural conversation. It can be held with existing groups or with groups created to represent elements or cross-sections of a population.

Observation.

Observation is the ethnographer's preferred method of generating data.

Documentary research.

Documentary research is the analysis and interpretation of primary documents of various forms.

Action Research.

Action research uses any method or combination of methods where the objective is not just to understand the social context but to change it.

Read more about focus groups

What Is Sampling?

What Is a Sample?

A sample is a part that stands for the whole. Note that phrase "stands for." The sample is supposed to represent the whole so that we can say things about the whole on the basis of information about the sample.

Quantitative Sampling

Quantitative sampling is always a matter of selecting some cases from all cases. We take a sample from a population. To be able to do that, we need to have some clear idea as to what the population is—the "theoretical universe." We also need to have some way of accessing (at least) a very large part of that population—the "working universe," through a list of all cases from which we sample. This is called the **sampling frame.**

In quantitative work we also want the sample to be collected in such a way that we can use statistical inference to attach probability statements to measures derived from the sample and from hypotheses which we test on the basis of sample data.

Randomness.

Why is it important to have a random sample?

We want to be able to make statements about the population from which the sample is drawn on the basis of measurements from the sample. That is, we want to make statements about parameters (population values) on the basis of statistics (sample-based estimates of population values). To do this, we must draw our sample randomly, or in a way which is very close to random.

Why does the size of the sample matter?

A random sample of size N is a sample drawn in such a way that all samples of size N have an equal chance of being drawn. It is not a sample drawn in such a

way that all cases have an equal chance of being drawn.

Our sample size must be large enough (N greater than 40). Then, regardless of the shape of the distribution of any parameter in the population, if we were to draw all possible samples of that size from the population, the estimates of the parameter value would be normally distributed. It would have a mean equal to the parameter value and a standard deviation equal to the standard deviation of the population divided by the square root of N-1. This is a consequence of the law of large numbers. It is the basis on which we can make probability statements about the population.

What happens if the sample size is too small?

If the sample size N is too small (if N is less than 40), we can only make probability statements if we can assume that the parameter of interest is normally distributed in the population itself. This requires us to use special tests. For example, the T-test tests for differences of means when we have two small unmatched samples. These tests are less powerful, and less able to detect differences in values of a parameter in the population for different groups. Note that, for larger samples, we have to increase the size of a sample by four times to double the power, increasing the ability to detect statistically significant differences.

Assigning numbers to cases

To conduct a fully random sample, we should assign a number to all cases on our

sampling frame. Then we use a random numbers table or generator to give us numbers for N cases. Systematic sampling is a process where, instead of doing this, we first work out the fraction of the population which we need to sample to get our sample of size N. So if we want to draw a sample of 1,000 from a population of 100,000, then we are sampling one hundredth of the cases.

In systematic sampling we would then randomly select a number between 1 and 100, say we get 57. So we start with the 57th case and then take every 100th case going forward—157, 257, and so on. Systematic sampling ensures that our sample is of cases spread through the population as that population is ordered on the sampling frame. Intuitively, this seems more appropriate than the entirely possible random sample of the first 1,000 cases only. So long as the frame is not organized in a way which might bias the sample, the systematic sampling can be considered as equivalent to random sampling and for geographically ordered frames, for example lists of addresses, it does spread the sample out across the whole population.

Sampling, stratification and representativeness.

Can we tell if a sample is representative?

A random sample is more likely to be representative of the population from which it is drawn. If we think of all possible samples we could draw, then there are far more which are close to the character of the population than are far from it. However, when we have a sample, all the information we have about the population

comes from that sample. So we have no way of knowing if the sample is representative or not.

How can we achieve representativeness?

We try to achieve representativeness by using information in the sampling frame as a basis of organizing the selection of cases. We try to make that selection representative in terms of the variation in the population for which we have information from the frame.

For example, if we are drawing a sample of students in a University and our sampling frame is drawn from registration information, then we are likely to know:

- Gender
- Subject of study
- Age
- Year of study
- Whether undergraduate, taught postgraduate or research student.

We can sort our cases into categories on the basis of these five dimensions. For example, we might look at female politics students aged less than 20 in their second year of study who are undergraduates. From the sampling frame we will know what proportion of all students fall into that set. We then sample within the category. This process is called stratified sampling because we have sorted the population into categories.

Proportionate and disproportionate sampling

We can sample proportionately so if that category included 1 in 50 of all students, then we would take one 50th of our sample from it. However, we can also sample disproportionately, taking larger numbers from small and interesting categories and smaller numbers from large categories. Then, in order to give an account of the characteristics of the population, we must weight any data from the category so that they represent the correct proportion of cases. So if, instead of selecting a number of female politics students which would produce one 50th of our sample, we selected double that number, then we would have weight results from this category by 0.5.

As long as we select randomly within our categories, we can treat the results from a stratified sample as results from a random sample. Stratification actually increases the power of a sample but generally most researchers treat them as equivalent to a simple random sample.

Multi-stage samples and representativeness.

Often we don’t have any useful information about our individual cases in the sampling frame, but we do have information about some category to which they belong. For example, if sampling households from a list of addresses, we know where they are located depending on their state or local authority ward. Typically, census data will give us a lot of aggregate information about the set of households in the ward. For example, we can find out the proportion of households owning

or renting, and if they are renting from a social landlord. We can sort the wards into categories by tenure profile, draw a stratified sample of wards according to this classification, and then sample for households within the wards thus selected. This would be a two-stage stratified sample.

Cluster sampling.

Birds of a feather flock together. We must be careful when we sample entities containing other entities of interest to us. The most common example of this is when we have people living in households. If we take a sample of households and then make statements on the basis of information about the characteristics of the relevant population of households, then we are on firm ground. If we collect information from all individuals in the households and then make statements on the basis of that information about the population of individuals, then we are in error. People in large households will be over-represented in the sample compared with people in small households. We have sampled clusters of individuals, not individuals. There is a correction formula which gets round this issue and guides sampling from multi-case entities—be aware of the issue and use it if necessary.

Quota sampling.

Quota sampling is a technique used by commercial research and, in particular, marketing research. It is intended to generate representative samples. Information about the population from which the sample is to be drawn is used to sort that population into categories. The number of cases to be sampled in each category

is then determined. This is the quota. Cases are sought to achieve that number by asking screening questions of potential informants. When the quota is full then sampling for that category stops.

Quota samples are not random samples. Therefore, it is impossible to use the tools of statistical inference to attach probabilities to statements made on the basis of the data they generate. For this reason, they are very seldom used in scientific research.

Qualitative Sampling

When doing qualitative research, we are generally interested in getting results which are in some way representative. So, if we are going to interview a set of informants using qualitative procedures, we generally try to think about the whole population of potential interviewees and make our selection in a way which gives us a representative set.

The same holds for any qualitative technique intended to enable us to generalize beyond the actual cases for which we have information. But here the idea of sampling can be extended beyond our normal understanding of cases—pre-existing real entities such as people, schools, firms, etc.—to “instances” or examples of social action which are of interest to us.

This approach is characteristic of grounded theory where the objective is to generate a theoretical sample by saturation. Saturation means that we keep looking

for new instances of interest until we stop finding anything different. So our sample is representative not because of our initial selection, but because of the way we work when we are actually doing the research. The process is different but the objective is the same—we want to get a part which can stand for the whole.

Theoretical sampling.

This term is used in a specific sense in grounded theory, as developed by Glaser and Strauss (1967). The object here is not to achieve representativeness but rather to develop theoretical accounts of social reality, often causal accounts, by seeking instances which are different than those already investigated.

Search for resources about sampling

Reference

Glaser, B. G., & Strauss, A. L.(1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine.

Is My Research Representative?

Represent: Re-present; Present Again

To represent is to present again—this is what the word actually means. In our research we have to try to ensure that what we say actually does describe the social context and processes we are investigating. This issue has arisen in relation to

sampling, but it also has general implications for social research.

Is It Possible to Represent Completely?

If we tried to reproduce the whole of the social context and processes, we would have, in effect, to produce a dramatic performance in which everything was as it was and was done as it was. To take another example, a wholly representative map would have to be the same size as the territory it is mapping.

Selection and Reduction

In order to represent, we have to select and reduce. The important thing is to make sure that our reduced selection:

- Contains information which can be applied to the contexts and processes as a whole—a sample where the part can stand for the whole
- Has accessed the important things that matter in terms of social dynamics and structures—the focus of theoretical sampling in the tradition of grounded theory.

Generalization

We sometimes conduct social research with a specifically ideographic purpose. That is, we make no claims which attempt to say anything about that specific context and the processes within it. However, much more often, we think that the context of our research can be used as an example and that knowledge generated by

our research is transferrable to other contexts. We want to generalize.

Sometimes we might even want to make law-like claims that apply always and everywhere—the *nomothetic* position. Much more often in the social sciences we want to make claims which are applicable in contexts and in relation to processes which are sufficiently similar to those we have studied. We want our study to generate knowledge which can be applied to a wider set of social contexts. Therefore, we believe our study has to be representative for such contexts.

The Limits of Generalization

It is important that we delimit the range of our generalization claims. We must spell out just what other contexts and processes might be similar enough to those studied in our research for the implications of our findings to be transferable to them. This is not done nearly often enough! But it should be done in the writing up to the conclusion of any research report, dissertation, thesis and/or publication of any form resulting from our work.

Search for resources about representative research

How Can I Use Sources of Existing Data?

Most social researchers create their own data. However, quantitative researchers have always used available large secondary quantitative datasets. This is now perhaps more common than creating your own quantitative data from a survey. These datasets are comprehensive and easily available as downloads.

The use of secondary qualitative data is less common but the development of qualitative data archives and of data organized, for example in NVivo projects, is a growing trend.

Availability of Existing Data Sources

The development of computing and Internet resources has transformed the picture in relation to the availability of existing data sources.

Quantitative Data

A range of very large social datasets derived from massive national and international surveys are available from national and international statistical offices, e.g., Eurostat and the UK Office for National Statistics. Other secondary quantitative data, which are the product of administrative recording, are often available from the government department or other agency which collects them.

Most grant-awarding bodies now make it a condition of the grant that the resulting data are deposited in a data archive, e.g., the UK Data Archive, which holds data from projects funded by research councils and other bodies. Most non-experimental quantitative social research is now done using these secondary data sets.

Click here to view the online version of the project planner for an optimal experience of its multimedia resources.

BENEDICT WHEELER: I'm Benedict Wheeler. I'm a senior research fellow at the European Center for Environment and Human Health, which is part of the University of Exeter Medical School. And I do quite a broad range of research, but my main methods really are health geography and environmental epidemiology, studying the impacts of the environment on human health and well-being.

So the project that we've been working on at the moment is called Beyond Green Space, and this is about the relationship between the natural environment and health and well-being. There's quite a good history of research in this area, particularly in the last five or 10 years it's really bloomed. But our take on this field research

is let's compare green space and built environments, how do they impact on people's health, in terms of where you live and when you spend your time. But what happens if we unpack that a bit more. Let's take urban green space, say, does it make a difference if it's got water in it, if it's got trees in it, if it's got big open spaces where

people can run around in it. There are different types of spaces that might afford different kinds of activities, different sorts of experiences. So that's what this piece of research is all about. This project is similar to lots of

my other research that I've worked on in the past and other people in the team, which is based on secondary data analysis. So it's taking large data sets that have already

been collected by other people for other purposes, and we take that data. And what we tend to do with it for this kind of research, is link it to environmental data. So we can take data like the Census, which counts everybody in the country, or almost everybody in the country, and it gives us data about health, and age, and sex, and where they live,

and so on. And we can link that to environmental data based on where people live. So we use a lot of geographic information systems, so GIS, which is sort of computerized databases and mapping data. And using that to link together data about the environment, data about people, and joining it together to understand how those things

relate to each other. And that's one of the main things that we have to grapple with is that it's secondary data. We didn't collect it, we didn't design the questionnaires. We have to work with what's there. And so for a lot of our research, it's OK. You know something like the Census asks a really good standard question about health. How is your health in general?

It's a very simple question, but it's actually well-established, it's very powerful. So it really works for us. and other surveys do that too. But obviously like you said, they can be collected for different purposes. So we're sort of repurposing it for our own needs. So we have to play around with it a bit to make it do exactly what we want to do.

The advantages would be the scale and the cost. So the Census is absolutely massive, obviously. It's a huge data set that we could never collect on our own as researches. But similarly large longitudinal data sets, like the British Household Panel Survey, collected data around 5,000 households every year

for 18 years from 1991. A hugely powerful data set. But then we can tap into and use all that sort of statistical power in the large numbers, without having to invest in that data ourselves. Mostly what we have to do, is invest in people's time to fund research, time to actually use that data.

Well, I guess one of the advantages now, is a lot of this data is available online. We have great services like the UK Data Service, which sort of archives and houses a lot of these kinds of data sets, and then makes it available for our kind of research. And so that's really, really useful for us. And we can go online, we can go onto their website.

And just the other day, I was looking for some data on volunteering. I just typed in volunteering to the search terms, and came up with an interesting looking data set that might do what I want it to do. So once you've identified the data, you might have to apply for special permission to be allowed to access it. That's certainly the case for our use when we want to know geography, when

we want to know something about where people live. Quite often that's quite protected data, so we have to apply for a special license to be allowed access to that and to prove that we're not going to do anything that might breach data protection confidentiality. So we download that data. And you're right, we'll go back to things like the original questionnaires,

just make sure how questions were asked, if they're asking the things that we think they are, clean up the data, look at missing data. So quite often, there might be a bit of missing data where people haven't answered the question. And then once we've done all that cleaning up, we get on with actually analyzing it. With those kind of data sets, we'll mostly analyze the whole lot.

It depends on exactly what the question is. So some of our analyses are using the British Household Panel Survey. We've analyzed the entire

sample, following people over time. For example, looking at whether people report better mental health when they live in green, as opposed to less green urban areas. For other bits of that analysis, we just

look to people who've moved house, because that's the key way in which people's environment changes, is they move to a different location. In that case, it would really boil down the sample, so actually we ended up with about 600 people who had moved to a greener of an area, about 500 who moved to a less green open area. So sometimes we'll but the data like that to find the people that we actually want to study.

There's a lot of depth you can get into now, especially with these complex longitudinal data sets like the VHPS, understanding society, and some of the cohort data sets. They're incredibly rich, have a huge amount of data we can really for our analyses around green space, we can adjust for all sorts of characteristics of individual people, and the places where they live.

But I think for some of these questions, particularly around say how people relate to their urban green spaces, taking a deeper, qualitative approach can be really powerful. And we have some research going on in our center that uses those approaches and starts to tease those relation-

ships apart a bit more. And there are opportunities to do that.

And know there are some sort of qualitative secondary data sets that are available. They can be quite challenging to use I think, because probably even more so than with the quantitative data, qualitative data collection has set off with a pretty particular in depth question that it's trying to answer. And so finding secondary qualitative data

to answer those questions can be quite hard, I think.

Qualitative Data

The availability of qualitative secondary data resources is a recent development. Originally, and to some extent this still holds, qualitative data resources were held as physical archives usually located in a relevant library. So, they existed as filing cabinets or box files full of paper records and/or as original sound recording tapes. Now recordings can be archived as digital files for downloading and it is common for textual materials to exist as downloadable document sets, often organized, for example, into something like an NVivo project.

Click here to view the online version of the project planner for an optimal experience of its multimedia resources.

[MUSIC PLAYING] INTERVIEWER: Libby Bishop, thank you very much for talking to me. The first thing I wanted to ask you is what is secondary analysis of qualitative data?

LIBBY BISHOP: It can sometimes be a bit difficult to define, but I use an informal definition that secondary analysis is using data for any purpose that is different than the original purpose for which the data was collected. And it can be done in a lot of different ways. It's a relatively new area, particularly for qualitative data. It's quite a bit more established

for quantitative data. But it can be done in ways such as taking an existing data set and asking a new question about it, which is something I did as a small example of working with an existing data set where the original purpose was an investigation of health effects, generally a health study.

And I used it to look at the examples of occurrences of talks-- of conversation about food, which is a part of health that the original researchers had not dealt in any detail with the food topic. Most people tend to reuse data for topics or themes that are broadly similar to how the data were reused.

Not always, but if the original study had to with collecting information about class or something, then perhaps a related topic might come up.

In other cases, it really, again, can be a completely different topic. Other sorts of uses of the data can be very constructive to do comparative work,

so you might have comparative work cross-sectionally geography. You might be collecting your own data in one geography here in the UK and want to do comparative work internationally or comparison to another region in the UK, and increasingly, of course, with the idea of temporality and time across cross-periods, you can also do longitudinal comparisons.

So someone will have collected-- we have huge quantities both in the US and in the UK of very valuable data collected in the '60s and '70s, and now people are revisiting that data and trying to make it more contemporary. It's also an example that sometimes people come revisit their own data, so it doesn't have to be a new researcher. People go back and look at their own data from decades

ago and sometimes find very, very new things in it. Increasingly as well as the research aspects of it, you can use readers' data to study methodology. It's a fantastic way to get below the surface of what's happened in a study. So you might read a published account, and you'll get the official

version, if you will. But sometimes reading the actual data,

reading the flow of an interview, you'll get a sense of how the data collection actually went and get a much better and deeper understanding of the methodology. I sometimes make a comparison with doing a literature review, but it's a much deeper kind of result than you can get with a literature review. And the other vitally important area to remembers is it's a very valuable resource for teaching,

so being able sometimes new researchers, in particular, new researchers taking up teaching activities, only have a small set of data. They might only have their own area of data to share with students using archives like the UK Data Archive or new qualitative archives in Ireland, and in Europe, even, there's a wealth

of resources that can be used for teaching both substantive areas and methodology. INTERVIEWER: Can I just ask at this stage, how is what you do in terms of secondary data analysis different to what, say, historians are doing in revisiting data? LIBBY BISHOP: I actually don't think that there is a great deal of difference. It's not surprising that a couple

of the pioneers of doing secondary analysis, people-- just, there are many names I could pick. But Paul Thompson's major Edwardian study was

founding one of the founding studies for qualitative analysis at Qualidata. Mike Savage, of course, is a key one who's redone data. These people come out of oral history or historical traditions. So many-- I should be a bit unkind,

but sociologists sometimes think they're discovering brand new things that, in fact, historians are well-practiced in and already doing, and it's a highly enriching cross-fertilization, I think, to see the collaboration across the social science and the historical methodology. INTERVIEWER: OK. So it's nothing really to do with the types of data that you're working on. They're quite distinguished. LIBBY BISHOP: The distinction would

be-- so much more data in social sciences is actively collected. So historians will-- much rarer for historians will data have been produced from a historical record. Now you can argue when someone famous is writing a diary, is that really a document for their own personal use, or do they actually have in mind that it

might become a significant historical document, but most of the kinds of materials that historians use have not been explicitly actively generated by a research process like an interview elicitation process. INTERVIEWER: So who does secondary data analysis? LIBBY BISHOP: Well, in-

creasingly, birds do it, bees do it, pretty much everyone is doing it

in one form or another. I mentioned a couple of names, but some of our stars are doing secondary analysis. People have been doing it quite awhile now. There's Mike Savage, who's also here, and, in fact, just released his book here at the Research Methods Festival that is an example of using secondary analysis. So his work I found particularly innovative,

because he drew on a very large [INAUDIBLE] set of multiple collections of data. So oftentimes, a reuse project might focus on only a single collection, whereas Mike drew across a really wide range of periods and times and different kinds of data actually drawing on even across the qualitative quantitative boundaries.

So we used affluent worker data, which is housed at Qualidata. He also used the mass observation directives, which are a particular kind of data where people are asked to write on themes and produce data. He's investigated these issues of identity and particularly people's class identity over quite a long historical stretch now by being able to draw these historical perspectives.

Another good example, when I'm working with this team quite closely

now, also people here at the Research Festival-- Graham Crow and Dawn Lyon, and they are reusing data collected by Ray Paul in the 1960s and '70s, I believe. And Ray did a large number of projects, but one of them focused essentially a community study

done on the Isle of Sheppey, which is an island southeast of the UK. So it investigated many aspects of community life in Sheppey, but one of the bits of data collection that Ray did was draw on essays that young people were writing about what they imagined their future lives to be.

And parts of Sheppey, anyway, were regarded as somewhat impoverished, socially excluded areas, so part of this investigation had to do with how people growing up in these circumstances imagine their futures. So Graham and Don are coming along and doing many different kinds of work with this, but one of the exercises that they're doing is reintegrating themselves into the Sheppey

community, into the schools, and indeed, having current young people write an almost identical kind of essay, so they will now have a very nice comparison of how young people have imagined their futures across this time frame. The Timescapes Project, which is a qualitative longitudinal project based at Leeds, one that I also work with, has got its projects that

are studying the life force.

And there are a series of projects, and there's a pair of projects that are studying parenthood, so one on motherhood, one on fatherhood. A couple other pairs of projects are focused on older generation and grandparenting issues. So another way it's a bit different but that secondary analysis is being done is even within the auspices of this ongoing live project, if you will, there's cross-fertilization

within these teams. So you might call it primary, but on the other hand, these people are using the motherhood project as drawing on data from the fatherhood project and vice versa. So it's kind of a contemporaneous form of secondary analysis. So I think probably the most exciting thing about people doing it is now increasingly, I'm opening up conference programs

and looking at particular sessions and finding things on secondary analysis where I don't even know any of the people or any of the topics, because it's proliferating quickly. It used to be that I sort of knew most of the players, and now it's quite exciting to see that it's growing so quickly that it's getting a bit difficult to stay on top of it all. INTERVIEWER: What might be the problems

of using secondary data? LIBBY BISHOP: I think, actually, one of the problems, and I would say this in particular to younger students or post-grads thinking about exploring this as a method, I actually think it's an image problem as opposed to a real problem. So it's what I call the poor relation problem,

and that is that somehow maybe because of the name, secondary analysis, it's also thought of as second class, second tier in some way. And there is a little bit, I suppose, still I think of a bias that would say that somehow primary is privileged, that primary data is always better.

I just don't think it's true. I think you certainly talk to any historian, as you mentioned before. How could any historian think that somehow versions of secondary data would not be equally valid or rich to use? I personally am trying to even get away from the term secondary analysis, although it's very hard to kill a term, unless you have a new term

to replace it with. But I increasingly start trying to use language like reusing data, which is a bit clunky, revisiting data, maybe better. I tried recycling data. It sounds warm and friendly and climate change friendly and whatnot, but typically reusing data is the term I will use.

So it is a bit of an image problem of trying to get away from that. The

biggest challenge I think that probably comes up with reusing data usually focuses on the issue of context. And by context, what is typically meant is the idea that there is something precious, invaluable,

and unreproducible about the original context and situation of the data collection moment, if you will, and there are hot debates about this in terms of various sub0branches of methodology and so forth. But the idea is that even-- take our example. There are important contextual information that is happening in this particular interview.

The room we're in, the temperature, body language, the fact that another person is watching this interview-- these are all things that somebody would need to know, even analyzing this as an example of a formal interview situation, something like that. Now within a secondary analysis, even if you have the transcript, quite frankly, even if you have the audio, even if you were to have a video of this video session,

it wouldn't be the same. It wouldn't represent-- things it might've missed would be your briefing of the original setup for the interview. It would lack context about why we're doing this whole series of interviews in the first place, any previous contacts that we might have had, early images you might have of me, me of you,

these sorts of things. So all these things, it is quite true, cannot be fully reproduced as context in doing secondary analysis. But then, the question is, do they need to be? Must that information be present for anybody to make any good use of data? So I have two answers for that.

One is we're getting better, actually, about collecting contextual information. So that's one answer is, OK, if the context is missing, try and fill it in. And all of the qualitative data archives work quite hard to do that, so they would collect multiple genres of the data-- audio, image, photos, et cetera.

They would collect background information on how the project came into being, how it's funded, reports of the setting, any extensive kind of contextual information. So that is helpful, and I think that that's a very useful way forward. I quite still, though, agree with the critics that says, it doesn't fully answer the question.

It doesn't solve the problem of full reproducing the context. But I also think you don't have to fully reproduce context for data to be fully reusable and useful in very, very different ways, because, in fact, any time a researcher comes to new data, that is part of their job is to gather as much context as they effectively can,

use good judgment to make interpretations in recontextualizing that data for the current setting, and that's a term from Nieve Moore, who's written on exactly this issue. So in substance, you can't analyze data without context, because simply by in the process of doing the analysis, you are recreating the context. And that is part of the job of somebody

doing secondary analysis, reusing data rather than primary. And again, this is, of course a whole experience and kind of technique and tool set with which historians are quite expert and very familiar. And I think we can learn a great deal from that in terms of bringing our tools to data reuse. INTERVIEWER: Now can I ask when secondary data might

be preferred to original data. LIBBY BISHOP: There are several situations when that might be the case. One is, think about any sorts of instances where data already exist, and there is anything particularly that burdensome about collecting the data again.

So think about vulnerable populations of various kinds, so elderly, ill, people who've been over researched, and I'm afraid, increasingly, I'm listening to, again, some of the talks around the festival today and yesterday. We know this is the case. You're seeing response rates drop on surveys, difficulty in accessing certain populations who are deemed challenging.

So this idea of burden is important in getting away from, and any time you can find data that might fit your requirements without burdening a new group, that is quite useful. I think sometimes people don't appreciate that another whole value of reusing data is although reusing data

doesn't-- it isn't always faster and easier. I'll come back to that point in a minute. But somehow it does allow your mind to shift and pay attention to other aspects of research design and research methodology, so as opposed to having to focus a huge amount of effort on the particulars of recruiting, for example, you still, of course, have to think deeply about sampling and why you're choosing some people and not others.

But you can focus on design and research questions. You can focus on sampling design, and again, I'm just pointing out Mike Savage's work, I think, is brilliant on this, because he had to think quite deeply about not only which archives to pick and which collections to pick amongst those archives, but there was a vastly greater quantity of material

than he could use. And so within any archive or collection, he had to figure out effective ways of sampling, and I think that is an important thing for us to pay more attention to. We sometimes, I think, shirk that a little bit as qualitative researchers. And also, just getting down to the deeper

layers of what I would call research analysis,

which are things like thinking through implications for theoretical development and thinking through things like causal mechanisms. I will personally go on record as saying I don't think we have done enough of this, and I don't think we're doing it well enough. And again, other people at the conference, Julia Brannan made these points yesterday that she thinks that there actually will be an increase, a growth in reuse of data,

and then, although, there are some downsides of that. There's some key benefits, and one is exploring these areas. And that raises a point is that I think it is a bit tricky right now, because one of the reasons, of course, there might be more pressure to reuse data in the near future is that the money for collecting new data may be scarce and very hard to find.

So this was the point that Julia made. So I think that's true, and I will sadly enjoy the benefit that archives might get. If, in fact, people come to us and need to reuse our data, I will take advantage of that. But there are a couple of important points to make. One is that it's still a very important to remember that reusing data is not always faster and cheaper.

You still have to do your homework. You have to investigate that data, and you have to read data. You have to explore not only the context that

you were given, but try to find the additional context. You still have to pay attention to ethical issues. Some of them will have been somewhat addressed, but you may well have to address them again or think through them also. So anybody who's thinking that somehow using existing data

is the budget model should think again, because I'm not positive that that is necessarily the answer. I also, of course, do not want to see the availability of existing data used as a justification for cutting primary data collection. We need both, and that is not going to be an easy argument, I know, to push in the near future.

But nonetheless, they cannot be pitted against each other. They're very complementary, and they need to continue to be done that way.

Where Can I Find Secondary Data Sources?

Secondary data can be obtained from the following sorts of sources. Go to the web page of the organization to see what is available.

- **National social science database repositories**
  e.g., the UK Data Archive
- **National statistical agencies**
  e.g., the UK Office for National Statistics (ONS)

- **International statistical agencies**
  e.g., Eurostat
- **Government departments**
  e.g., the UK Department for Work and Pensions
- **International organizations**
  e.g., the World Health Organization's Global Health Observatory

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> [MUSIC PLAYING] [INAUDIBLE] thank you very much for coming along. And it'd be fantastic if you'd just introduce yourself. My name's Louise Corti. I'm an Associate Director for the UK Data Archive. And there I'm responsible for looking after qualitative data. I'm also heading up the services for research data management
>
> where we'll go out and train people in how to collect data well and how to look after their data. Also, I have a general management role in the archive. Great. I guess we need to start with a key question, simple but complex, I guess. Can you please start by explaining what secondary data is? Secondary data are really data that you haven't collected yourself.
>
> So it could be any source of research data that you haven't actually had

a hand in collecting. An example there is a government survey that's collected results, and tabulated it, and put it into files, and therefore you can go to that file and use it. Another example might be a collection of research data, a collection of transcribed interviews that a researcher's collected in a qualitative project.

Another example could be historical sources sitting in an archive. So it's data you're going to use, but you haven't collected yourself. Fantastic. You work for the UK Data Archives. Could you tell me about the role that they play in promoting the use of secondary data? Yes. The Data Archives' been around since 1967, so it's quite a long-running institution.

We've actually been funded by the Economic and Social Research Council across all that time, and I provide a service for them called the Economic and Social Data Service. Part of that role is to acquire data, so we have about 5,000 collections of social research data spanning government surveys, censuses, historical materials, qualitative materials, and link

to other service in Europe. We do have a research data catalog, so our every single collection is cataloged and therefore, you can search and browse our catalogue and find data. We also gather together various re-

sources to help users. An example there would be we have thematic collections. For example, if you are interested in using crime data,

what crime data resources do we have. We have a whole portfolio of case studies that come in two page short report on what the other people have done in data, and you can actually search and browse those. It's quite nice if I'm trying to find out what other people have done. We also have various user guides that can take you through, for example, how you use the General Household Survey using

SPSS. The other thing we do then is have various outreach and training activities. And we have some disk lists where we post out new releases of data, and then we have various events where we go to some of the major conferences and show what we do. Or we have workshops where people come to find out how to use, for example, crime data.

So we have a whole portfolio of different ways in which we can engage with the users. What are some of the things you need to consider before doing a project using secondary data?

I think the first thing is to think about your research question and whether the data you're going to use is going to answer the questions you really want to answer. So familiarity with the data, with the documentation, with the research approach. For example, the sampling. Is it the right group

of people who've been interviewed or have been researched? So doing a little bit of groundwork to find out if that data's going to be suited for your question.

It may not answer everything, but it may answer some of the questions, give you some background, some context. In that case, you may want to go and continue to do some additional research to answer your questions fully. The other thing you must do is find out if you're actually able to use the data, so look at some of perhaps restrictions on using data. Some data are gathered under particular license,

so not everyone can use them, so you need to check if the conditions of usage are appropriate. Also whether the data themselves have sufficient consent for you to reuse something. Normally, if you're coming to a public archives like the Economic and Social Data Service, there will be consent to use, so users can use that. But there may be various restrictions placed upon the data.

For example, a depositor may want to see the file in publication. So there are some things like that to do with terms of conditions. The other thing you really must do if you're going to use data is think about limitations to data. The context, is there enough context? Have you made assumptions, and make sure you elaborate on them when you're writing up.

[INAUDIBLE] data. A lot of students assume if it's secondary, I can just use it. Can you give me an example? Normally, in the case of a public archive or a research archive, you will be able to use it and can certainly be fine. For example, if you're going to use your colleague's data, and they've done a small qualitative study, and they've sent in their consent form or consent

agreement that only I will see the data, you have to think very clearly about who can actually see the data after it's been collected. One of the things we're encouraging people to do is not to restrict consent when you're collecting data. So make sure that the agreement you have with your respondents is more open, so at least your colleagues or other people in the future can use it. Fantastic. What are the key benefits of using secondary data?

I think there's many benefits ranging from the actual researcher's perspective through to society. And it's very expensive to collect the research. It is a huge exercise if you're doing large scale surveys. They cost millions of pounds. By reusing what other researchers have done, you are helping the public first so there's that big perspective. I think also that most people can't use all the data.

Even if you've done a survey, you're not going to analyze all of it. Most

data collected actually remains fairly unused, so there's always that perspective to try and get more out of publicly funded research. The other benefits are some researchers may have been able to approach a group of respondents, an elite group, that you might never get to.

If you can interview cabinet ministers, because only some people can get through the door to do that. So you can benefit from their expertise and experience to get through the door. So there's lots of benefits. Also, if it's a similar area, an area that you want to pursue yourself, you don't have to go and do the fieldwork yourself. So there's quite a lot of benefit to using data.

So if I was a research student and you were my supervisor, what would be your top tips for me at the beginning of my research project? First of all like we said before, you must have a sensible research question and it must be limited to the time you have. If you have three months to do a research project, make sure you're not undertaking something absolutely huge. And that's the right guidance.

If you're doing a PhD, you've got more time and more room to think about approaching different sources. I think the first thing to do is to have a really good look at the sources that may appeal to you. So if you look in a research data catalog, you might find five areas that look appropriate. Go

in, maybe download the data, have a look at them, and make sure that they are going

to answer the kinds of things that you want to answer. You really do need to get a good feel for the data themselves and the documentation, the sum of information before you approach anything. So the first tip is to do some evaluation before you just leap in. So to make sure the data suits your research question is very important. You can also find out what other people have done with data.

In our research catalog, you'll find out ways that people have used data, and you may find some very helpful tips in how people have used various variables or approached research questions. And you could even make contact with them and ask them about the data themselves. So there's lots of things you can do rather than just approaching something cold. I think not just thinking about using one data source, but maybe various data sources that

complement each other. I think the other thing to do is also make sure you're discussing things with your supervisor along the way. They may not know that much about secondary data analysis, but it's still useful to have that conversation. And I think once you have analyzed the data and maybe compared it with things you've done yourself. An example might

be you've gone to look at a study carried out

in the '70s. You want to look at the context of the '70s, but you want to how things have changed, so you may actually undertake some similar research questions yourself using the same methodology just to make sure you've got some comparison, and so you can compare various questions. I think the other main thing to do is to make sure when you're writing your research that you definitely are aware of the limitations of the research,

that you're talking about the context. Was there enough context? Did you make assumptions? Did you know enough about the context in which the interviews were carried out and the interview settings? So make sure you're very clear when you write up that you're using secondary data and you don't know everything about the research context. In qualitative research, it's one of the barriers and worries

people have about approaching somebody else's data because they've lost some of the reflexivity and analysis on being there. I think just be very aware that you are writing up those limitations in your research report. Fantastic. Any other little soundbites or pieces of advice you'd like to--

To [INAUDIBLE] another minute? Yes, I'll probably just do it. I think one thing I should say is I think there is a definite move to reusing other peo-

ple's data. We're in a climate of austerity. There's much less money available for research grants for new data collection.

There's actually reduction in the number of surveys carried out in government departments. We are looking at a time where we've got to recycle and reuse things. Definitely research grants that are interested in people actually approaching old data sources, reusing them, coming up with innovative methods. There's lots of room in the academic area

to publish on some of the methodological issues to reusing data. So it's a good thing to get into now, so I would advise people even if you don't do secondary analysis completely for your project, then think about at least doing some because I think it will win you brownie points. [MUSIC PLAYING]

Checklist: Practical Considerations in Using Secondary Data

Here are six questions to ask yourself when using secondary data.

- **Can you access the data set(s) in readily available downloadable form?**
- **Have you arranged access when you have to go through a registration/permission process?**

- **Are there good metadata descriptions available for the data sets you wish to use?**
- **Have you examined the sampling basis of the surveys or other processes generating the data so that you understand**:
    - The sample design
    - The nature of the population(s) from which the sample(s) were drawn
    - The nature of the sampling frame employed and the extent to which it covers the sample of interest
    - The achieved proportion of cases actually yielding data and any issues this poses for interpretation of the data set.
- **Have you gone through the data set and satisfied yourself that it contains information on the social variation in which you are interested?**
- **Have you gone through the data collection instrument and coding schemes and satisfied yourself that, in combination, they operationalize the measures of the variation in which you are interested in a satisfactory fashion?**

What Are Big Data and Social Network Data?

Big Data

Records in digital form.

"Big data" is the term for the enormous amount of data held in information technology systems. In principle, it can be accessed and used to describe not only the present, but also how elements of the present came to be as they are. For ex-

ample, health care record data, of the kind accumulated by US Health Insurance Companies, record every episode of health intervention for an insured individual, including diagnoses, test results, treatments, and outcome. If we use this, we can both investigate effectiveness of procedures and develop personalized treatment regimens for specific categories of patient. Genomic data contribute to this development, but they are not the most important element in it. What makes all this possible is that these sorts of records now exist in digital form.

Growth of IT systems.

The extent of people's engagement with IT systems which record data about them and about how they use these systems is enormous. Forty years ago relatively few people used computers. A typical smart phone now has more computing power than a mainframe of the early 1970s. We exist as data records and we live online to a considerable extent. How we use that world can be used to describe what we are.

Tools developed by marketing.

Many of the tools for working with big data, particularly data mining tools, were developed in the commercial world of marketing. Amazon mines its data to make recommendations based on both your own purchasing record and the purchases of others who have the same items as you. The algorithms for this are crucial intellectual property for the company. The social sciences are beginning to use similar tools and useful packages are available from SPSS and others.

Social Network Data

The techniques of social network analysis predate the massive development of technology-based social networks. But they have proved particularly useful in dealing with the “big data” generated by social networks. Here the focus is not on the content of communications but on the *metadata.* Here metadata describe the links in communication networks.

Ethical Issues and Big Data

The ethical issue here is confidentiality. The uproar in 2013 when the US National Security Agency and the UK’s Government Communications Headquarters were discovered to be monitoring the whole communications traffic of the Internet demonstrates that people care about privacy. A whole new set of ethical issues is emerging in the world of big data.

What Is Metadata?

Metadata are data which describe data. In the original, more common usage, the term refers to information about a dataset, including its location, time of creation, creator, etc., and usually contains a link to descriptions of the data content. In large data sets stored as Excel files, some of this information is often given in the first few rows of the page or workbook.

More recently, the term “metadata” has become associated with one specific type of metadata, i.e., data about communication elements through emails or web

searches. Social network analysis has been used to describe networks of connection based on the mapping of this kind of metadata.

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What Is Data Mining?

"Data mining" is a general term for various processes by which previously unknown patterns can be identified from large data sets describing cases, the relationships among cases, and the trajectories of both cases and relationships among them. No prior hypothesis is in place. Researchers look to the data to see what they are telling them. Therefore, data mining has much in common with exploratory data analysis.

Some common objectives of data mining are:

- To identify categories of cases. This can be done with clustering techniques and/or the classificatory use of neural nets trained on learning algorithms
- To identify extreme cases—outliers—often as a by-product of classification
- To establish the nature of networks of connections
- To identify the relationship between the characteristics and histories of cases and the current condition of those cases, particularly in health research.

A large number of commercial tools for data mining are now available, since the process is central to contemporary marketing and marketing research.

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How Can I Use Panel Data and Census Data?

What Is Panel Data?

In the social sciences, "panel data" is a term used to describe longitudinal data collected from the same set of cases at regular intervals. Typically, the cases are individuals, households or firms.

Example: British Birth Cohort studies.

These are typical and well-known panel studies, of which there have been four. They track a panel of people from birth throughout their life course. The first, the National Survey of Health and Development (NHSD), has tracked a panel born in a week of March 1946 through their lives. What was originally a study in paediatrics then became a study of educational achievement and has gone through further stages as people age. It is now, of course, a study of ageing.

The study originally contained 13,000 cases. Typically, panels do begin with large numbers and retention is a major issue. Cases that drop out are different. However, panels do encourage participants to continue. But an interesting side effect of this is that being in the panel can change the case. The NHSD participants have done significantly better in educational terms than others of their age cohort, controlling for all other factors.

Where do I find panel data?

Panel data are typically deposited in national data archives and are readily made available to researchers who sign up to a set of conditions for use. These sorts

of data are enormously useful and have stimulated the development of an interest in social dynamics—how cases change through time. Panel data are among the most extensively used of secondary data sets, precisely because they allow us to track change.

What methods are used to gather panel data?

Traditionally, this has been done by conventional statistical methods, especially regression analyses and developments of that approach. More recently, there has been a move to use time series analysis methods imported from econometrics and even qualitative comparative analyses.

What Are Census Data?

Almost all functioning states conduct regular censuses of their population. Germany, however, does not for reasons derived from the abuse of census information by the Nazi regime. A census, usually decennial (i.e., conducted every ten years), remains the primary method by which states gain information about their populations. Censuses are conducted on a geographical basis and usually use the household (and non-household institutions) as the data collection unit. They collect information about individuals so they generate cluster information. Censuses attempt to count all relevant cases.

How Does a Census Compare With a Panel Study?

We can regard censuses as an equivalent to panel studies of geographical areas. Typically, aggregate data are made available for geographical entities, ranging upwards from a small spatial unit through a set of administrative levels up to the country as a whole. Censuses do measure repeatedly over time, despite the change in administrative areas over time. For example, there was a major reorganization of local governments in England and Wales in 1974 which radically transformed the boundaries of local authorities. However, it is often possible to trace geographies through time and thereby explore change in places over time.

Where Do I Find Information Relating to Censuses?

It is now common for census geography boundaries to be available in digital form which makes it possible to construct maps illustrating spatial differences.

Census data are comprehensive, although for all cases they are usually not as extensive in coverage as focused surveys. The typical form of presentation is of aggregate variables for geographical units but some national statistical offices now make available Samples of Anonymized Records (SARS) for micro-data at the level of individual and household. These very large samples have been extensively used in secondary data analysis, as have the aggregated data for smaller level census geographies.

Census data as secondary data sets are typically available to academic researchers from national data archives. Published data in tabular form and often in data set form can be obtained from national statistical offices.

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Search for resources about census research

What Is a Systematic Review?

A systematic review is a literature review focused on a research question that tries to identify, appraise, select, and synthesize all high-quality research evidence relevant to that question.

An understanding of systematic reviews and how to implement them in practice is becoming mandatory for all professionals involved in the delivery of health care. However, systematic reviews are not limited to medicine and health fields and are quite common in other sciences where data are collected, published in the literature, and an assessment of methodological quality for a precisely defined subject would be helpful.

Other fields where systematic reviews are used include psychology, nursing, public health, occupational therapy, speech therapy, physical therapy, educational research, sociology, and business and management.

How Does a Systematic Review Differ From a Literature Review?

In a literature review, we assess the relevance of the published research to the research question. A systematic review takes that a stage further. It employs de-

fined criteria to assess the actual quality of the research itself. The review then goes on to synthesize the findings of the research in order to generate an account of the present state of knowledge about the question. That account is based on the knowledge gained from the research which is considered to be of adequate quality.

How Is a Systematic Review Carried Out?

A systematic review aims to provide an exhaustive summary of current literature relevant to a research question. The first step of a systematic review is a thorough search of the literature for relevant papers. The methodology section of the review will list the databases and citation indexes searched.

Next, the titles and the abstracts of the identified articles are checked against pre-determined criteria for eligibility and relevance. This list will always depend on the research problem. Each included study may be assigned an objective assessment of methodological quality, preferably using a method conforming to PRISMA (the current guidelines) or the high quality standards of Cochrane Collaboration.

Systematic reviews often, but not always, use statistical techniques called meta-analysis to combine results of the eligible studies, or at least use scoring of the levels of evidence depending on the methodology used.

A systematic review uses an objective and transparent approach for research synthesis, with the aim of minimizing bias. While many systematic reviews are based on an explicit quantitative meta-analysis of available data, there are also qualita-

tive reviews which adhere to the standards for gathering, analyzing and reporting evidence.

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Read more about literature reviews

How Can I Carry Out Research Using Documents?

What Is a Document?

When we use documents as primary sources to tell us things about the social world, we engage in documentary research. Here the term “document” can refer to any source which has been created by human action so as to represent some aspect of the social world. Documentary research can engage with any or all of the following types of sources.

Written texts.

Examples of written texts that can be used in documentary research are:

- Inscriptions on monuments
- Government papers, including archived correspondence
- Newspaper and magazine articles
- Non-fiction books which are descriptive in form
- Written fiction, when it can be used as a way of describing a socio-historical context

- Private letters
- Emails
- Blogs
- Web pages
- Adverts
- Reports of commercial organizations
- Reports of charities
- Inspection reports
- Any archived material (e.g., business papers and records, which are accessible to you).

Visual materials.

Examples of visual materials that can be used in documentary research are:

- Paintings and other art works
- Film
- TV programs
- Video of any kind
- Photographs
- Graffiti.

Recorded sound.

Examples of recorded sound that can be used in documentary research are:

- Radio programs
- Music (with a focus on lyrics)
- Citizens band radio and other personal radio.

How Are Documents Used?

Documents are the traditional raw material of the historian. The newer forms of document from the media and web have become the raw material of cultural and media studies. They can be analyzed and interpreted by both quantitative and qualitative methods.

Example of Documentary Research

For example, in a study dealing with the development of owner occupation as tenure in industrial Tyneside in the 1930s, a researcher would read:

- Local newspapers, paying particular attention to adverts and stories about new developments
- The minutes and reports of local authorities, in relation to their role in supporting the development of owner occupation
- Local history pamphlets describing the history of particular local areas in the period
- Archive material from local building societies.

The building society archives would enable the researcher to construct quantita-

tive profiles of the kinds of people to whom loans were being made for different sorts of properties. The other material would enable the researcher to develop a narrative history of the process and of its social significance.

The research could be illustrated with:

- Images drawn from local photo archives showing the developments at the time of construction
- The researcher's own photos showing the same developments at the time of the research some 60 years later.

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What Are Participatory Methods and Action Research?

What Is Action Research?

The dominant tradition in scientific research of any kind has been one in which researchers do not actively seek to change that which they are investigating. Action research is any research where the opposite is done: That is to say, the researchers actively intervene in a context with a view to transforming it. Plainly, action research sits well with any social constructionist understanding of social reality.

In Which Contexts Does Action Research Usually Take Place?

The domains in which action research has been common are:

- Business
- Health
- Education
- Community development.

Action research in business and much of the action research in health and education has often been about innovation in organizational forms and practices. By contrast, community development-based action research has generally been participatory and bottom-up. However, this mode has also been deployed in health and education, particularly where health and education systems interface with wider society.

What Modes Are Used in Action Research?

There is no specific mode of action research and all methods have been employed. The exception is the controlled experiment. This is fundamentally antithetical to the methodological basis of action interventions which are free-flowing and not defined in advance. In experiments, the hypothesis is formulated, a protocol is developed to test it, and all interventions must stick rigidly to that protocol. In action research, the intervention goes where the action takes it and contributes to the forward development of the action itself.

What Are the Roles of the Researcher in Action Research?

Generally, in action research the researcher performs two intersecting roles:

- They do research for the action—service research where research skills and processes are used to obtain information relevant to the action.
- They evaluate the impact of the intervention both as it goes along and at its conclusion.

Of course, interim evaluations feed back into the action itself. The crucial evaluative mode in any form of action research is “process tracing.” Here this is not so much a retroductive task as one of keeping a careful log as the work goes on. It is necessary in final evaluation to look back through all processes. However, an ongoing attention to recording makes this much easier.

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> ELAINE HALL: So practitioner inquiry is not so much a method, although it's often associated with action research because action research is a common methodological approach within practitioner inquiry. Practitioner inquiry is about the practitioner, whether they're a teacher, a lawyer, a doctor, or a social worker thinking about their work in a very
>
> curious, but also a very systematic way. So it might be that it follows the

cycles of inquiry as in traditional action search. It might be something that looks more complex and organic from general tinkering in the classroom or in the office to something that's an in-depth case study or an autoethnography.

So practitioner inquiry is actually quite broad. Most of our work in practitioner inquiry has been quite closely allied to action research methods because we've been working with large groups of practitioners and providing a particular structure. KATE WALL: We're interested in practitioners who are questioning and wanting to think about how they can make their practice better.

And that's by inquiring into in depth either what's going on or what happens if I change something. And so you see different scenarios playing out and how they explore what's going on. And that's one thing about evidence and the evidence they can collect to know whether what they're doing is making an impact.

The most substantial project we've worked on for the last 10 years was a project called the Learn to Learn Project. And that was a community of inquirers, practitioner inquirers, that included mostly teachers but from nursery through primary, secondary, special Ed, FE, and HE. So

practitioners across the board all interested in learning and making better learners.

And what was fascinating was that that community of inquirers was very mutually reinforcing in exploring the learning and the learners and actually ended up with the practitioners exploring their own learning almost as much as the students in their care. So it was 10 years longitudinal study of everyone exploring.

And we explored too. So we were also exploring our own learning and the learners that we were working with. ELAINE HALL: So one of the key things about practitioner inquiry is that it's collaborative. One of our heroes is Lawrence Stenhouse, who says, people can think for themselves but not by themselves. And what we found is that networks and the kind of talk

that happens in networks particularly, if you've got very little context in common. You can't complain about the new assessments that have come in for key stage three geography if you're sitting next to somebody who teaches hairdressing and somebody else who teaches nursery kids. You have to talk about pedagogy. You have to talk about learning. And that means that the kind of depth and curiosity

gets opened up necessarily through that dynamic. And we learned such a lot about what we thought was important, actually being sort of academic noodling, really. Because what people actually were interested in emerged from those conversations. So that's the way in which we were forced into being like this even if we hadn't been up for that.

I don't think you can run that kind of a network without doing it. And Learning to Learn was so successful in terms of what we were interested in and enjoying it so much, that really almost everything else that we've been involved in since then has had something of that flavor to it. KATE WALL: I mean the anecdote that I gave of the power of that network was a nursery

teacher from Cornwall, so teaching three and four-year-olds standing in the lunch queue next to a chemical engineer from Newcastle University. And the chemical engineer was saying, do you know what? My postgraduates can't problem-solve. They come into my classes. They want me to give them all the answers.

And they don't think for themselves. And then the nursery teacher is saying, do you know what? My three and four-year-olds come into my class. They can't problem-solve. They come into my classroom. They've had

everything done for them by their parents. And so then they work together to come up with the scenarios of what they could do to make it better.

And the message take is learners look remarkably similar, whether they're three or whether they're doing their post-doctorate study. But exploring that together was a very productive space. ELAINE HALL: In a lot of learning situations,

portfolios of evidence are collected for assessment, for example. And it took quite a lot of convincing, I think, for some of the teachers in our project to recognize that these were data they were answering, not just attainment questions, but also dispositions questions. That learners' orientation to learning how they were feeling about themselves,

the complexity of the language that they were using in pieces of written work that were being stored, that might or not have been the criteria on which that piece of work was marked. But it could be used in a secondary analysis of children developing more science language, for example, the work of poor black, for example, looking at children's talk and writing

to see how those concepts get embedded. So it was very fertile. And we just think everything is data now. KATE WALL: We work hard to try to demystify the research process. That it is something that can be useful and

is not just for clever people in universities. That it's for clever people in schools and workplaces as well.

And there are useful tools that we can bring from academia into the practice, but they're also good practice tools that we can take into academia, which is why we've moved into visual methods. These are tools that primary teachers use all the time to get to elicit responses from children, and academia is just catching on with visual methodology.

So it's about thinking about tool evidence that will support their inquiry. What is enough evidence to convince you that you have found an answer to your research question? And that might be evidence that comes from a very traditional form of data, like an interview, a questionnaire. But it might also be evidence that is much more practice-based, so work samples, or mind maps,

or video of classroom lessons or practice. So, therefore, it's just trying to open teachers and practitioners' minds to it being something much broader and useful. Useful is the keyword in this to them in thinking about what they do every day.

What Is Participatory Research?

Participatory research is research where the subjects of the research are involved in the research process itself. This involvement may come at any stage. So, for example, patients suffering from a particular illness may be involved in the design and interpretation stages even of a randomized controlled trial testing the efficacy of a clinical intervention in relation to that illness.

This kind of user participation is increasingly common. Senior managers and/or professionals may be involved in research design and are even more likely to be involved in interpretation. This is often referred to as “co-production” rather than participation, but we can treat the terms as synonyms.

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> Melanie Nind, thank you very much for talking to me today. What I wanted to ask you is, what is participatory research? Depends who you ask, of course, and it depends who the research is with. But really, participatory research is developed as a way of doing research largely
>
> for people who have been considered voiceless, or powerless, in research. And it's about trying to enable people to participate more, and thereby have some more power in the researcher-research relationship. So often it's regarded as blurring the division between researcher and re-

searched.

And it's a field that isn't particularly mature. So some of the new developments of the moment are around doing participatory research for children, because people are increasingly aware of children being powerless and having not had a voice. And increasingly now with conventions for rights of children and things, having a voice.

But my own field is learning disabilities. And because there has been disability studies, and disability activists coming together for two or three decades now, the field's a bit more mature there. And the drivers for participatory research are very much around. There's a central mantra, nothing about us without us.

So it's this reaction to-- for years and years, people with learning disabilities have been researched. People have done things to them, on them, prodded them, poked them, talked with professionals about them, talked with families about them. But very rarely have spoken directly to them, and not really regarded them as holders of valid knowledge

in their own right. So participatory research turns that on its head, really, and says, you are a valued social actor. And what we have to do in our researching is enable you to be an active participant, for us to hear your

voice, gain your perspectives, access your world view.

But more than that, to involve you in the various stages of the research process. So often participatory research is regarded as people being involved in the decisions-- what's going to be researched, how, how we make sense of it, what we do with it at the end. There are overlaps. Overlaps with user-led research, overlaps

with emancipatory research, and that's the concept, really. That disabled people-- whoever it might be, it could be anybody in the margins, but that they're actually in control in the research process. Whereas participatory research is, you've got some decision making capacity in and all.

And some people will argue that the two are separate, and a lot of people will just say that it's part of the continuum. OK, so what kinds of research, or research designs, ought I to be thinking of, using participatory methods? You can use participatory in any design, in a way.

If you think of it as asking yourself the question, who is this research for? Or, who is going to benefit from it? What right have I got to do this research? If I'm doing this research, I should be doing it with you, rather than on you. That's the distinction-- with, rather than on.

And if I'm doing this research with you, what kind of questions do you want asked? What kind of research is going to make a difference to your life, and make your life better? And then, from that, the question obviously leads to what kind of design you want. So you do get people doing participatory research in any design whatsoever.

Having said that, obviously it lends itself to qualitative research. If you're already interested in getting an in-depth understanding of the way somebody views the world, then actually, enabling them to be an active participant in the research around that is a good way forward, you could argue. The other main designs where you might want to use this

is if you're concerned for change. There's a strong link-up between participatory research and actual research, or transformative research. So often we're not just trying to do research with people because that would be a nice thing to do, but actually because we consider that we've got some change agendas in common.

For me, I consider myself an ally to people with learning difficulties, learning disabilities. And therefore, I want to use the participatory research. Sometimes, not all of the time. But sometimes, to express that, being an ally. And to move forward something like access, or a key issue.

Are there subjects and designs that perhaps would be inappropriate for a participative approach? I don't think so categorically. I think sometimes, practises are inappropriate. It's inappropriate to have a main study, which is regarded as the real research, the real findings,

and a bit of participatory research on the side. Because that's totalistic, and this whole area is absolutely fraught with political sensitivities. That's a reason you might not want to go into it, if you're thinking about it. If you haven't got ample time for handling those political sensitivities, then don't touch it, because that's always the thing.

If you're participatory to some extent, somebody else is going to say that's not enough. Your participatory for one person is actually totalistic for somebody else, and you've really got to be able to feel comfortable with the decisions you've made about how participatory you can and want to be, and why. So, for me, this is totalistic on the side

of the main research. That's the inappropriate use of it. If we're going to be participatory, it should be because we regard the knowledge that we're going to co-construct and generate together to be valid knowledge. Can I ask a little bit about methods? What range of methods would I use

as a participatory researcher, or would my participants be using? Would

they just be the same set of data gathering methods that other qualitative researchers would use? All of those methods are used, but there's also a sense in which participatory research makes us be a bit more creative, and just push things a little bit

more to get engagement. So because we often do participatory research for people who haven't had a voice, sitting them down and doing an interview with them, they haven't go the experience, they haven't got the confidence often, or the skills to engage in that exchange. Whereas, actually, if we get a load of people together over some tea and buns, and we

have some fun and activities, and there were some drawing materials and art stuff, and this open, much freer response, then sometimes that can be more participatory. Sometimes methods, you've just got to be able to be willing to hand over a bit more control. So if you're doing a traditional method,

if it's going to be participatory, actually as a researcher, you've got to say, you have the camera. OK, more questions, what would you ask? If this was your project, what questions would you ask? And sometimes there are nice, structured activities you can do as well, to bring in engagement.

We did them at the Research Methods Festival.

Often game type activities can be used, but it does depend, too, who you are trying to enable the participation of. In learning disabilities, one of the things that some of the groups have been doing is around ethics. Some people would say, people with learning disabilities can't be co-researchers, collaborative

in research projects, because how can they possibly get to grips with all of the nuances and subtleties of ethics. But some of the groups have actually sat down and looked at old research projects, and the ethical dilemmas in them. And through immersion in the research and the ethical dilemmas, people became participators,

formed their opinions, and gained knowledge and skills. So what can we get from participative methods that we wouldn't get from other methods? I think we get different perspectives. That's often what I've been looking for.

If I think of an example of my own research, my colleague Jane Seale and I did some work on, how can we better understand the concept of what access means for people with learning disabilities. And we could have done that just as academic researchers, probing. But we did it in a

very collaborative way.

We had a seminar series, almost like a series of focus groups that involved researchers, practitioners, and people with learning disabilities collaboratively pursuing that agenda. And together, going off down different tangents and deciding what was important.

And thinking about what topics would be good, like health or leisure, to pursue that topic. People suggested, people who might come in and stimulate our thinking. And because we did that in a participatory way, I think it was richer, certainly, than it would have been if it were

done in just academic researchers' perspectives. I think also what we gained from doing it in a participatory way. And lots of participatory researchers say this, that you actually learn to be a better listener, a more creative researcher. But I think often, usually, it's not what we gain,

but what we give in participatory research, because it isn't about actually researchers. Sucking these poor bodies dry of everything they can give us, and saying thank you very much, I'm off now to go and write my wondrous papers. It's actually through participating in this-- participatory research only works if everybody participates and is

going to get something from it. It doesn't have to be the same thing. The person with learning disabilities, what's the interest to them? Having a PhD thesis, or a journal article? But what they might want out of it is a better understanding of the world they live in. They might actually want to get something, change, or something else, some great participatory project.

So they'll know other things, like the group we're researching-- what people with learning disabilities did in the second World War. Well, I just think that's fascinating, because historians haven't been asking that. And professionals working with people with learning disabilities haven't been asking that, they've been asking what peoples' needs are, future oriented. And yet, here's these people saying,

we want to know about our history. And why were we so invisible? We don't want to be invisible. So it's about what you can give as well as what you can gain.

What Is Participatory Action Research?

Participatory action research involves the subjects of the research in all elements of both research and action. It is often conducted with reference to the Brazilian educator and philosopher Paolo Freire's notion of dialogical engagement. In ped-

agogical contexts, everybody, student and teacher, teaches, and everybody, student and teacher alike, learns. The same framing can be applied to the research process. Freire explicitly argues for just this sort of approach. Participatory action research is generally radical in orientation and concerned with the Freirian objectives of *conscientization* and *empowerment*. It is important that these are understood as something more than rhetoric on the part of professionals and academics. If these words are deployed, they have to mean something in practice.

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What Is Evaluation?

Evaluation is the process of finding out:

- If something has worked
- Why it has worked—if it has
- Why it hasn't worked—if it has not.

Evaluation Questions

An evaluation always asks the following questions:

- Did this thing work?
- If it did work, how did it work?

- If it didn't work, why didn't it work?

A good evaluation also asks:

- If it worked here and now, could it work somewhere else, and on some other occasion?
- If it didn't work here and now, might it work somewhere and on some other occasion?

Any evaluation must consider the context(s) in which the intervention(s) being evaluated took place. We need to know where and when it occurred. An essential part of any evaluation is to ask:

- Could we do this somewhere else?
- Would it work if we did?

What Is the Most Straightforward Form of Evaluation?

The simplest form of evaluation is the experiment. In the social sciences this is always in the form of a randomized controlled trial (RCT), where the hypothesis being tested is "did something work?" The trial is carried out by randomly assigning cases, to which the intervention might be applied, to groups. The intervention is applied to some groups but not to others. Any difference in outcome is then assigned, in causal terms, to the intervention. All other factors have been controlled for by the random allocation.

When Are RCTs Most Useful?

RCTs have their uses in contexts where we think causes are unitary and simple, and where we can control the context of the intervention in an appropriate way. This is often the case for drug testing, and for simple pedagogical innovations.

What Is the Drawback With Using RCTs?

The problem here is that the social world is not simple. That is, at the very least, an inevitable consequence of any social constructionist ontology. The agency of human actors matters in terms of how the world is. We must also take account of all aspects of context, including social structure. Moreover, not only is the world complex, but a lot of interventions are themselves complex.

What Is Meant by a Hierarchy of Evidence? How Do These Rate RCTs?

The Cochrane Collaboration, which focuses on clinical interventions and develops systematic reviews of their effectiveness, has promoted the notion of a hierarchy of evidence. This is topped by the meta-analysis of randomized controlled trials and descends through other evidence generated by other quantitative procedures and then through qualitative approaches. Very few social scientists accept this.

However, the Campbell Collaboration (named for the distinguished US evaluator Donald Campbell, who personally subscribed to a sophisticated scientific realism) has tended to argue in the same way in relation to the evaluation of complex social

interventions.

Many policy makers, especially in the public sector, favor RCTs but the evidence for their effectiveness in social science research, and in particular for their ability to generate transferable knowledge, is minimal.

Complex Evaluations

In a range of applied fields there has been a turn toward *theory based evaluation* and, in particular, evaluation based on scientific realist principles and *theory of change evaluation*. Both address the issues which derive from the complex nature of social causation and can be combined in practice.

Realistic evaluation attempts to identify complex causal mechanisms and generate accounts of how mechanisms work in interaction with specific contexts.

Theory based evaluation is a somewhat looser framing, but begins with the attempt to develop a coherent account of how the intervention might work taking into account “confounding factors”. The evaluation then takes the form of an attempt to understand how the intervention has played out in practice, with the confounding factors considered. This has in conceptual terms much in common with quantitative approaches which attempt to model causality, “partialing out” the contributions of factors other than the factor of specific interest. However, the approach tends to deploy qualitative approaches which either implicitly or explicitly depend upon *process tracing*.

We might consider realistic evaluation to require framing a theory of change in a particular way, although of course this is often done post facto in a retroductive fashion.

Process Tracing

To answer “How did it work? And if it didn’t work, why didn’t it work?” an evaluation must always engage in *process tracing*. The evaluating researcher has to generate a narrative (or narratives for multi-site interventions) about what was actually done.

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Search for resources about randomized controlled trials

Search for resources about process tracing

What Are Qualitative Methods?

Qualitative methods include any method which works with text, audio, or images. They do not generate numbers.

A key feature of qualitative methods is that our primary mode of dealing with them is interpretation. We are concerned with assigning meaning to the materials we have.

This does not exclude causal reasoning on the basis of qualitative materials and

we may very well proceed from interpretation through to causal account.

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> [MUSIC PLAYING] Well, I'll start with that I like to-- we like to-- recommend that the cultural questions are
>
> where we start, and the kinds of questions where you still need to identify ways in which the ways the complexities of the issues in the real world setting, and go from there to decide later what kinds of things to focus on rather than to take pre-ordained foci to decide
>
> to put into the research. So the exploratory approach is one of the ways that we advocate. Yes, we think that it qualitative inquiry is uniquely designed to, as Catherine mentioned, to explore questions where there is little known or to explore questions that may have
>
> been examined in other contexts with different populations. But you are exploring them in a unique setting. I think it's also important to note that when you're really focusing on the complexities of a particular issue or within an organization or within a structural group,
>
> that it's those complexities that qualitative methods really allow you to capture. One of my pet peeves is the research that's going on these days

and an incredible amount of federal money, state money going into how do you fix the problem of teacher quality and teacher

retention and not a whole-- and they're starting with things like salary and working conditions and school climate and all these things that come right out of the literature. Fine. But so many things about the complexities

of the work environment, about who the teaching profession-- what it's constituted from and how it's evolving aren't captured by looking at those pre-ordained variables. And for example, the blind part of not seeing

that huge percentage of the teaching profession is female, and what is that about? What does that say? How do women in the profession see these issues? And you can certainly put the variable gender in there, but how does it actually work out

as people go through their lives? How are they making meaning of being in this profession, while still having all the pressures of family and while having accountability dictates pressed upon them, and what does it mean for them? Because they are the predominant workforce,

so that's one of my pet peeves. I think another way of articulating what might encourage someone to consider using qualitative inquiry is when

you examine-- there's some beautifully done literature reviews that are actually organized the methods, the research

methods that are used to examine a particular topic. And when you look at those, it's very carefully done. The conclusions that emerge from ethnographic approaches and more qualitative approaches in general are typically very different than those that are derived from more quantitative methods.

And so it's that complexity and the meaning that people make of their lives and their circumstances that can really come through through qualitative methods. [MUSIC PLAYING]

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Use this checklist to decide if you should use quantitative methods.

What Is Observation?

Observation can be either structured or unstructured and can produce both quantitative and qualitative data.

Structured Observation

In structured observation, the observer stands outside the processes being observed and records in a systematic way, usually in relation to a previously estab-

lished coding schedule, the number and duration of aspects of social behavior.

Unstructured Observation

At its simplest, unstructured observation might be just the passive (and perhaps covert) recording of aspect and duration of behavior without any pre-coded schedule being deployed. The term can also cover ethnographic approaches involving some degree of participation in the social action being observed.

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Read more about structured observation

What Is Ethnography?

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> [MUSIC PLAYING] OK. Well it has, obviously, two slightly different meanings.
>
> Because on the one hand, of course, it can just be used as a synonym for qualitative research, and people will tell you they're doing an ethnographic study and then, when you talk to them, they're actually doing interviews. And in that sense, it's more like an anthropologist saying they're

doing field work where they would mean that they've gone to a field setting but they're collecting data in a much different way, so they might be taking photographs and drawing maps and observing

and doing interviews, things like that. In sociology and education and nursing and things, of course, when people don't go and live abroad in a strange field setting, they might use it just as a synonym for qualitative. Plus I'm concerned I would use qualitative research as the sort of global term that would cover everything-- focus

groups, documentary analysis, anything like that. And I would then use ethnography much more to mean observation. And I tend to use it rather than participant observation, because participant observation has that baggage that you're actually participating, and quite a lot of the time you're not. I mean, I've done a lot of research in schools, and you're not usually participating.

You're normally standing on the side [INAUDIBLE] pitch while everybody else is running up and down being yelled at. You're not usually going to kick yourself running up and down. And the more you participate usually, the fewer data you can collect. But I would use ethnography [INAUDIBLE] to mean something where it's primarily

driven by observation. And you might-- you probably would do other

things. I mean, you might collect documents and you might look at web-pages and you might have access to a Facebook site, or you would do some interviews. But the sort of predominant data would be field notes that you've written from watching.

So I'm always a bit thrown when people tell me they're doing an ethnography and then, when I dig down, they're actually doing focus groups, because I would call that qualitative research. I wouldn't call that ethnography. But if somebody had watched, oh, I don't know, 200 hours of nursing students and then they did some focus groups to get at some things they wanted to talk about,

I wouldn't be bothered if they called that an ethnography. But for me, it's being in a setting for a long period, and the predominant data form that comes out is field notes. So it's a bit like the slow cooking movement, for me. It's like the slow food movement. I think it has to be long.

You have to sit there long enough that people will start doing a special performance for you. They've sort of got used to you, and you've become part of the furniture. OK. Well, I'm a heretic, you see.

I don't believe in interviews. I don't see any point in doing interviews, because I think people will say anything. I've got relatively little interest in what people tell me. I like to see what people do. So I don't mean that in

a nasty way. I don't mean people lie to you deliberately or anything. But I don't actually think people know what they do.

Teachers will tell you it's really important that everybody in my French class gets to speak French. But actually, if you sit there for six months, you notice that only actually 10 people ever say anything in French. The other people never say anything. And it isn't that the teacher's lying, but we don't-- I'm just much more interested in what people

do than what they say, because I think in the long run that's more interesting, and probably more important. I mean, you get funny things. I mean, most PE teachers in schools don't know that most children move less in PE

than they do in an art class. They're actually standing still for longer, because they're queuing up waiting to do things or watching something being demonstrated. PE teachers don't know that. And their report, when they discover it, because if you sit there and watch PE lesson after PE lesson after PE lesson, you actually discover that the amount of time people are actually

taking physical exercise in a PE is surprisingly little. You've got a gymnastics lesson, and most people most of the time queue it to go over the vaulting horse. They might go over it three times in the lesson, but they've

queued for it for 20 minutes. But PE teachers don't know that, and they can tell you

what their aims for PE are, and they mean it and they think they're doing it. But that's not what's actually happening. It's obviously a terribly important thing,

and it's obviously a massive problem because you have to have got something in mind before you start. Because otherwise, you end up writing down nothing because you can't write down everything. And one of the things I think that-- that's where somebody like Harry Wolcott, who has actually tried to talk at some length about what

he does write down, is more helpful than sort of general advice. There are some-- and it obviously does depend a lot what you're studying. I mean, I've done a lot of research on things which are schools or higher education or classes in something. And I've got things I would always

do in there that I don't think would be appropriate in other places. But I mean, one of the things I always do is I always draw the setting so I can recreate it in my head. So I would draw the room. And if I were in here, I'd draw this room with all the exits and the entrances. And I'd write descriptions of what's hanging on the walls, and what furniture is there. And I would count the furniture. And we have to be in a room with several rows

of seats.

I would actually count the number of seats. And if there was something--a class going on in here, I'd actually count how many people were in here, and I would normally count by class, if you can tell it, but you can't always, but race and sex. And then I'd write notes about what people are wearing. So if it's a school, I'd be counting how many people are in uniform and who's in the proper uniform

and who isn't, and has anybody done anything about it. So I always describe what people are wearing. I try and get down as much physical detail as I can about those kinds of things. And then, if it's a situation where people are talking publicly, then I tend to switch to describing as much of the public talk.

But if it's something like a public library where people aren't talking, then I'd actually start writing notes on behavior. So I mean, if I was doing an observation in the library, I'd look and see how many people are reading a newspaper, how many people are on a machine, how many people are consulting on a catalog. And I'd do that kind of timed into it. So I might do it every 10 minutes to see how many of the people have come in to use a computer,

how long they've stayed there, for instance. Have they come in quickly to

look up one thing, or were they on for hours and hours and hours coasting through Facebook pages all day, that sort of thing. But one ought to have foreshadowed problems. It's no use doing field work if you don't have any hypotheses, any foreshadowed problems, which

shouldn't come from reading. One shouldn't go in with a blank mind. One should go in with some ideas. But the thing about ethnographic work is that if what you thought was going to be important turns out not to be when you get in there, you abandon it. And that's really the great strength about-- that's a great strength of qualitative research, of course, because you don't plow

on looking for something that you were told was important or you thought might be important. If it jolly well isn't when you get there, you don't stick with it, you drop it for what does seem to be important. But you do have to have quite a lot of confidence, of course, because you have to be brave enough

to live with what you think's turned out to be important, and then follow it. And that's why I think if you're a doctoral student, for instance, you really want to have a supervisor who understands that to whom you can report and say well, I know I thought it was really going to be all about this, but actually that doesn't seem to be happening at all. The thing that's actually

happening is this other thing.

You do need somebody more experienced to say OK, well, write some notes about why what you thought was happening isn't, and then look at what seems to be important in that setting, and document why you think so. But stay alert, because the other thing may actually be happening, you just haven't noticed it yet because people aren't talking about it.

I don't know, if you were doing something like a school setting where you've got new pupils coming into a new school, the teachers will very often have a philosophy where you've got to sit on them till half term to show them who's boss. Don't smile till Christmas, that sort of thing. And that might have been your foreshadowed thing. But when you get in there, you may actually find that staff are so bothered by the fact

that the children seem to be so cowed and terrified by the new school that they're not actually doing that at all. They're doing quite other things. They're doing warm, cuddly things to try and get the children relaxed so they can start to learn. So you'd have to abandon your thing that you were studying, don't smile till Christmas, because actually-- and the teachers might still be saying in the staff room

that that's what they were doing, because that's how they'd front up to their colleagues. But you could see in the classroom they were actually

trying to do something completely different, because they'd found too cowed, the drama teacher can't get anybody to act and the PE teacher can't get anybody to go on the vaulting horse, and the rugby teacher can't get anybody to throw the ball with any force because they arrived so scared and cowed that they're not

settling in into pupil roles. So it might be the teachers are still telling that they don't smile till Christmas because you have to show them who's boss, but actually their own classroom behavior would belie that. And you'd have, then, to focus on what was actually happening. But you do have to be-- when you're more experienced, of course, you trust yourself to know.

When you're a beginner, of course, you sometimes don't have that kind of courage, which is why I'm always very jumpy about people trying to do qualitative research with a supervisor who doesn't do it themselves and doesn't know what it's like. It's not that they haven't read the books, but if they haven't had the embodied experience of actually doing it, I always worry that they

don't know-- I mean this stuff is done on high degree students. The thing that science students say a lot is that what they can't tell is whether a line of experiments are actually going to generate usable findings, or whether

they're going to be a waste of time. And senior experienced scientists

say that's what they know. They can look at what a student's doing and after three weeks or something say, this isn't going to work, change this. And that's the major thing students rely on with supervision. Well, I think exactly the same thing is true in qualitative research. It might be true in quant, too, but I don't know enough about that. But in qual, I'd say that's why it's jolly difficult to be

a doctoral student if you haven't got a supervisor who's experienced enough to be able to say yes, that sounds right. Follow that idea, because that seems to be what's important to the people in the setting. Because it's not what you think, it's what they think's important. And you have to be able to kind of spot that and go with it.

And that's something you do-- well, I think it's a measure of confidence, really. I mean, if I'd go into some new setting I don't know anything about, I would obviously do reading and I'd have foreshadowed problems. But once I got in there, if it turned out that all my foreshadowed problems weren't right and that's not what's important in the setting, I would do-- I would be very comfortable about just

abandoning them and going with the flow of what the data are telling me. But you do have to-- the other thing, I think, it's not only what you write

down, but you do have to know that you have to write it up into a much more expanded version immediately, and you have to interrogate what you get every single day

to see what it is telling you. And it's no use writing field notes that you don't then do the extra work on because A, you can't read them. I mean, inevitably they're illegible in about 48 hours and you can't remember. But secondly, if you don't keep interrogating them, you may miss the fact that they're not

telling you what you think they might be telling you. So you have to keep beating yourself up by looking at them and what are they telling you. Because otherwise, you tend to see what you thought was there and not what's actually there. And that's one reason why I count quite a bit, because I'm always worried that I'm

going to be looking at the starry person, the noisy person, the person who's the teacher's pet, and ignoring the six quiet girls at the back. And therefore, you've got to force yourself-- I know I keep talking about classrooms. I've done a lot of classroom work. And you have to keep forcing yourself not to be distracted by the naughty boy who's always in trouble.

You've got to keep scanning and looking to see what everyone else is doing. And if you don't write the notes up and then force yourself to read

them critically all the time, you don't spot when you're not doing it properly. And that's a big danger, because the more you don't spot what

you're actually looking at, the more likely you are to think you're seeing what you thought you'd see and not the sort of rich detail of what's actually there. But that's another reason why I think it has to go on for a long time, because I think it takes quite a long time to get embedded. And that's, of course, why a lot of people like interviews, because you can do a lot quickly.

You can hit and run. It's like a drive-through McDonald's. It's not like proper research, because you can capture a lot of data and then run away back to the university. And I'm very unhappy about that. I think one should be in the field setting for a long time until you've really kind of got it. Because that's the anthropological training,

of course, you know, the idea was you go and live in it. But life's not like that for everybody. [MUSIC PLAYING]

Ethnography is made up of “ethno”—people or folk—and “graph”—something which is written. It is most clearly defined by its purpose: to deliver an account of the socio-cultural context studied, and to offer an explanation for the social action which happens in that context.

When Is Ethnography Used?

The technique originated in anthropology, although we can also see something like it in the older tradition of “Oriental Studies.” It has been widely deployed by sociologists, particularly in studies of work and of urban life. It is now very widely employed in studies in health, particularly by nursing academics. Ethnographic approaches underpin the empirical content of actor network theory and are common in social studies of science and technology in general.

What Explanations Can Ethnographic Research Give Us About the Social World?

An ethnographic approach can involve a variety of methods as techniques, but always includes detailed observation of the actual social behavior of social actors in a particular social context. This observation leads to an explanation of the actions.

These explanations may be:

- An interpretation of people’s actions in terms of the meanings they themselves attach to those actions (this follows Weber’s idea of *verstehen*)
- A functional understanding of actions in terms of the contribution those actions make to the integrity of a social system
- A mixture of both approaches.

Although there has been a historical tendency for ethnography to engage with what were seen as stable and relatively unchanging social systems, ethnographic

approaches have been deployed in contexts of rapid social change.

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> [MUSIC PLAYING] Well, for the most part, I would say I do what is called feminist qualitative research. And that's because I use a feminist standpoint
>
> or feminist perspective to begin to design qualitative research projects and qualitative research studies. So the actual studies may not necessarily involve always the application of feminist ideals or principles, but they begin from a kind of a feminist questioning or a feminist perspective.
>
> Generally, I am interested in a range of subjects and a range of social phenomena. And I am almost always interested in how gender relations, the experience of being a gendered subject, can be better understood in some contexts. So I would, so I do research on gender in the military.
>
> And so I would ask questions about how does gender work in this particular context or this particular space? And what are its effects, or what are its impacts? I don't know-- I have a kind of eclectic hybrid kind
>
> of definition of ethnography. And I guess I have a couple of things that I

think should be part of it, part of the definition, and part of carrying it out. The first is that I think ethnography should be something intensively or deeply embedded and embodied. So the first is that one has to immerse,

as a researcher, as an ethnographer, you have to immerse yourself in some context. And generally, it's embodied, in the sense that the researcher needs to put themselves into that context in some intensive way. It doesn't necessarily mean that you have to be physically taxed as part of it.

But you have to be yourself in the research frame. The other aspects of ethnography are to do with what the purpose of ethnography is, what you're trying to get out of that type of research methodology. And so I think that it has to be focused, to some degree, on depth of experience, so that would be depth of experience

of whatever your research participants might be, the meaning-making that they, that individuals or communities give to those experiences. And also, I think that there needs to be an observation of these experiences

and these meaning-making practices over a considerable, temporal period. So that would be the last thing, would be that there has to be a signif-

icant and intensive engagement over a period of time. I've done research in a number of Global South contexts

and a number of post-conflict contexts. So I've done research in India and Ghana as the non-conflict or non-post-conflict contexts. And then I've done research in Kosovo, in Cyprus, in Liberia, and in Haiti.

And the field work that I did in India, which was where I first began doing field work, formed the basis of my PhD work. And I'm still very interest-- and I've done some work more recently to sort of follow that up. But it hasn't involved extensive field work in India.

And then more recently, I've been doing work in peacekeeping missions or post-conflict contexts. So that's what's taken me to those other places. I found the difference between India as a field site and has a place-- the difference between India and Liberia,

for example, in West Africa, so substantially different that it changed, again, my whole perception of field work. So I think ethnography provides you with an opportunity to say something qualitatively rich and complex that you

might not be able to say with other methods. So for example, if you do

a questionnaire, or even a survey, you will tend to focus on patterns, or breadth, or particular numbers, or statistics, for example. And then you might not be able to, for example, gauge someone's experience.

So one area of research where you need both types of research might be something like domestic violence or interpersonal violence. So you would want to have numbers so that you could have policymakers respond to levels, or incidents, or patterns in certain areas.

But you would also want the policies and the responses to that particular set of experiences to be quite sensitive. So you would want a whole series, I think, of qualitative insights into the complexities of those experiences. So for example, people might say, well,

I wish I had more places to go to seek support. And I would like these places of support to be of this particular kind of-- you know, to offer these particular kinds of things, which you might not be able to get from a survey. Or people might not want to disclose certain things

in a survey, which they might want to disclose to an ethnographer that they trusted and had built rapport with. So I guess, of course, it depends on each individual project, but the embedded part is that you

can be symbolically embedded. So you can be, you know, you could be mapping or collecting information about the symbolic significance of certain kinds of words, terms, images. But the embodied aspect of the ethnography requires you to be really present.

And I think that's potentially the space where new forms of ethnography challenged my definition. So for example, virtual ethnographies or ethnographies carried out via video or Skype might add another dimension, where you're not able to embody yourself in the same kinds of ways.

But if you think about day-to-day practice in ethnographic work, it would be, for example, waking up in a community, so seeing people in the morning, interacting with people in the morning, in the afternoon, in the evening. I think a famous ethnographer, Luis [INAUDIBLE],

once said that, you know, ethnographic-- he criticized an ethnographic project that tried to examine the experiences of homeless people that was structured around a nine to five observation. So he said, you know, well, if the majority of people's

traumatic experiences and problematic experiences take place at night when it's the unconventional part of the working day, then if you're only observing between nine to five, then you're going to miss out on a lot. So

I think the embodiedness is also being physically present over whatever is the significant cycle of the day that

is required for your specific project. In another context, it could also mean, if you were doing something like doing an ethnography of a particular form of dance or a physical fitness program, then you'd probably ideally want to embed yourself

and embody yourself in that practice. So that might mean taking up dance yourself and participating, or being at least in the spaces that those kind of bodily practices are taking place in very close proximity.

Well, I think one of the key contributions to debates in ethnography has been by feminist researchers in particular. And I think one of the points that they've raised is how qualitatively different it has been to be a woman field worker, a woman researcher,

and then further still, to be a feminist researcher, how challenging that has been in many different contexts. So I think it raises all kinds of questions that probably anthropologists, sociologists, geographers, and so on, have been grappling with but hadn't necessarily framed through an explicitly feminist

lens. So one of those issues, for example, was power relations in the field. So quite a few feminists challenged the idea that doing research was this neutral sort of space, and that relationships between researchers and the research

could be equalized if you were just friendly enough and you intended well. So they challenged that. And I think more recently, the reflections on ethnographic work have now returned to this issue of, well, what about the researcher themselves and their experiences of sexism, racism,

in the field space by participants, by gatekeepers, by others around them? So I think there's been a lot more focus on what it is to be a female or feminist researcher in the field. [MUSIC PLAYING]

What Issues Should I Be Aware of in Ethnographic Research?

In ethnographic research, the researcher will probably have to become part of the context which is being investigated. This raises issues about the methods involved in this research, and the recording of the events which are observed. There are also particular ethical and access issues to be dealt with.

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So my name is Jamie Lewis. I'm a SAGE postdoctoral research associate here at the School of Social Sciences at Cardiff University. Essentially, I'm a sociologist and with a particular interest in the sociology of biomedicine. Some of my work relates to developments

and social and ethical implications in genetics, genomics, stem cells, and bioinformatics. And bioinformatics-- a glib definition of it is biology on computers. So I'm interested in science and technology and some of the ethical and social implications of developments in those areas. Loosely based, you could divide my work

into science and policy, which is very much where I would use more interview methods and documentary analysis. I'm interested in the public understanding of science. But I'm most interested in science in practice. And it's here where I would use a much more ethnographic approach, looking at how science is done in the every day.

So ethnography comes from perhaps the Greek words "ethno" meaning people and nation, and "graph" meaning I write. It involves some sort of heavy commitment into researching and observing cultures and groups

of people. Often, ethnographers spend weeks upon months, sometimes years,

in a particular research setting. Ethnographers look at social phenomena. They don't necessarily test hypothesis as you would in perhaps other types of methods. It's very much dynamic and contingent, often used in what Glaser and Strauss would call a grounded theory approach. Ethnographers tend to write extensive field notes.

It involves direct participation and observations of a particular field or setting. It's particularly difficult to date the start of a process or date a beginning. So professional ethnography, I think,

you can turn to the start of the 20th century and anthropologists like Malinowski and Mauss, who studied tribes in the Pacific, particularly the Polynesian and Trobriand islands, where they were interested in aspects of exchange-- how tribes exchanged, how they communicated with one another,

and aspects of currency between these tribes. From the 1920s and 1930s, then, we saw the rise of the Chicago School in Chicago, which was very much interested in urban ethnography and examining their neighborhoods and their streets. A lot of people from sociology but also

criminology working in those fields.

In the 1950s and '60s, you had some eminent ethnographies of Asylums by Erving Goffman and someone like Julius Roth in TB. But it wasn't until probably the 1970s that you had the rise of the laboratory ethnography. And some of the standout ethnographers of the time

would have been people like Bruno Latour and Steve Woolgar's Laboratory Life. Harry Collins, Sharon Traweek, Karin Knorr Cetina, and Mike Lynch-- and these social scientists were studying in laboratories-- diverse laboratories, from biomedical laboratories to physics laboratories.

Of course, people were studying the social and the historical in science before this. In the 1950s and '60s, people like Robert Merton looking at the social aspects of science, and Thomas Kuhn looking at the historical aspects of science. But it was probably in the 1970s that we saw this sort of more anthropological and sociological type of laboratories.

So I've done quite of bit of ethnographic work in laboratories. In particular, I've spent time in a stem cell laboratory doing cutting edge research on Huntington's and Parkinson's disease. These scientists were using fetal tissue to look at potentially creating a sort of tissue transplant

for people with Huntington's and Parkinson's disease. I spent a year in the laboratory there. And I'm particularly interested in the everyday practice of science. So people that are some removed from science sometimes seeing it as very exciting, as very discovery. But I'm most interested in the mundane, the every day work of scientists, how they overcome the uncertainties

and ambiguities of their practice. Much of this is quite boring. It's quite repetitive. But that is what science is. And without laboratory ethnographies, we wouldn't get at this. So I'm interested in how scientists interact with the technologies, the equipment, and regulation, how they interact with one another, and not

just the exciting aspects of science. I've also done other sorts of ethnographic approaches. I wouldn't want to call these laboratory ethnographies because they're not necessarily true to the conventions of ethnography of observation and direct participation. But I've spent time at a psychiatric genetics laboratory. In fact, I've spent much longer time there, but much of my work

there has been much more interview-based. And I've actually worked closely with the center on other projects. But spending time in that labora-

tory has certainly influenced my analysis of the interviews. Ethnography is hard. You have to be very committed to do ethnography.

It involves a lot of energy and a lot of time. But although it's hard, it's the most rewarding social science method around. And there's a Eels song which says "life is hard and so am I." I think ethnographers have to be hard. But, as I said, I think there are some big rewards from it. I remember the first day that I went to the laboratory

and I got access through their PI, the director of the laboratory. And I punched in my card, as I was given the security card. It went up a few floors. And I came into the laboratory. And the laboratory itself, as you open the door, is open plan. And there's a table, and then there's offices around the table, which a lot of the people

would stay in. And behind the table, then, was this sort of false wall whereby you get some of the laboratories-- the histology lab, the cellular hoods, leading onto the GMP suite and then downstairs would be the animal house. So I've already done a presentation to the laboratory explaining who I was and to perhaps get rid of any worries anyone had.

As I turned up, there were people sitting on the table having tea and coffee. I opened the door, walked into the laboratory, and everyone went

from the table, went into their offices, and shut the door. So I'm standing in the middle of this laboratory with everyone looking at me, not really knowing what to do. I went to go to speak to the PI. But the thing about PIs is that they're very busy people.

And you might get access to the laboratory through the PI, but they're likely to not be in the laboratory itself because they often go to conferences or meetings elsewhere. So I spent the first hour of my ethnography standing around, pretending to read brain magazines from the shelf behind, going to the toilet quite

a few times to the point that I think they thought I had a bladder issue--and whilst everyone else was watching me. And the one thing I learned from that was that you might get access to a laboratory, but you haven't necessarily got access to go and speak to people. One of the tips I would give anyone doing this is to find yourself a buddy.

As I said, your PI will be your access point, your gatekeeper, but your buddy is your main day-to-day person. It's always useful to pick a buddy who's perhaps the leader of their social activities, the tea person, because they're likely to be very sociable and likely to know everyone else and introduce you to everyone else. My second tip is only a short tip, but

it's to remember that science is often mundane.

It's very repetitive. And you're there to look at, observe, and analyze everyday life. Scientists, when they've agreed to observe you, want to show you something exciting and new, something out of the ordinary, something unusual. That's fine. But you also want to get at the every day-- what they usually

do. So it's always a difficult sort of negotiation between the scientists and yourself as to getting at what they do day-to-day. And that would be my second tip, is to make sure that you get at the mundane as well as the out of the ordinary. My third tip, again, relates to some experience I had, is that when I entered the laboratory I was often

seen there as an auditor because I was there writing about the work they were doing. What was quite obvious to begin with is that people don't like you standing there with a pen and paper writing about what you're doing. I think everyone feels uncomfortable in that situation. So try to find some legitimate spaces whereby you can write down your field notes. Actually, in doing work on scientists

or working in the area of academia, you do find these legitimate spaces. And they may be in meetings and conferences where everyone else is

writing. They may not be writing the same things as you, but they're writing about something else. So again, that would be a third tip that I would have, is store those things in your head and when you get the opportunity, when everyone else is writing, you can write down

your field notes. My fourth tip is that perhaps start using the language of the scientists. So what I mean by this is when I said I'm going back to observe what they were doing, as mentioned, they perceived me as an auditor. I never thought about using the language of shadowing, because of some dark connotations of what shadow is. But actually, scientists--certainly the biomedics

understood what shadowing was where junior doctors would shadow surgeons, for example. So in explaining that I was there to shadow them, they seemed to feel more comfortable with me being there and why I was I was doing. My fifth tip is about building rapport and not to be afraid to have a laugh with the people you're studying. If you are relaxed, the more relaxed they will be.

And the more relaxed they will be, the more they will start to talk openly and with you. So the odd joke here and there, and sharing it with people, and to show that you're not a robot, you are a human being as well as

an instrument of method will allow the people you're studying to be more open and frank with you.

My sixth tip is not to be afraid to ask stupid questions. Sometimes as social scientists, you fall into the hierarchy of disciplines and think that a biomedic or a scientist is more important than yourself and that your question might be deemed to be stupid. But stupid questions reveal interesting answers. I got some of the more interesting answers

from questions I wasn't sure whether to ask or not. And the likelihood is if you ask it, someone else would've asked it before. So my sixth tip is don't be afraid to ask stupid questions. My final tip is to remember that the laboratory is not just the four walls and the building. Sometimes you want to follow the phenomena outside the laboratory, whether that's into the conference setting where scientists

do a lot of their work, or whether it may be into a clinic, for example, if they're biomedic scientists, or elsewhere. So it's just remember that the laboratory is more than just the four walls of a building. You also get that sort of extended laboratory where a lot of science is conducted.

What Are the Different Types of Ethnographic Methods?

The participant observer.

Some authorities contend that the only proper method for ethnography is participant observation. The researcher(s) immerse themselves in the social world of the actors and establish the nature of that social world by learning to be part of it. At the same time they must maintain sufficient distance to remain objective social scientists.

The continuum of participant observation.

Certainly ethnographic work should include participant observation of some sort. The role of the observer can be positioned along a continuum from:

- **Complete observer**
  The observer is usually covert and very unobtrusive.
- **Observer as participant**
  The researcher engages in the social action and is open about their status as researcher but maintains outsider status and functions primarily as observer rather than constitutive actor.
- **Participant as observer**
  This research can be covert or overt. Often this mode is deployed by people who are doing ethnographic work in a context to which they themselves belong. For example, healthcare professionals observing health care practices when they are working alongside colleagues. Ethically this is usually overt.

- **Complete participant**

  The observer “goes native”—engaging in the world being observed to a full extent. This often happens as part of an action research project which is directed toward some form of social transformation. The action researchers are part of, and frequently initiators of, the transformative process.

The term “continuum” indicates that these are fuzzy rather than sharp categories. Actual ethnographic roles may vary along the continuum during any actual research process. It is, however, useful for researchers to be aware of the actual role they are playing at any time and to record that role accurately. The form of engagement you choose has consequences for the social action being observed.

Other Methods Used in Ethnography

Researchers engaged in ethnographic work generally employ a range of other methods, both quantitative and qualitative, to supplement and inform their observational strategies. These could include:

- qualitative interviews
- documentary research
- the use of secondary data to describe the context
- structured survey research
- the creation or secondary use of visual images.

Recording Ethnographic Research

When doing ethnographic work, it is important to maintain a record of what has been observed. This is best done on a daily basis, and usually falls into three stages.

- **Ongoing notes**
  These can be made in writing or by audio recording. A camera/phone may be used to record images. There are ethical issues here.
- **Journal**
  In private time, when the observer has withdrawn from the context being observed, they should write up a journal account of:
    - The social processes observed
    - The researchers engagement with these.
- **Field notes**
  The journal will be the core of the "field notes" which are the raw material for subsequent analysis and interpretation.

Ethical Issues in Ethnographic Research

Observer effect.

Usually social researchers want to minimize the impact of their roles and actions in the field being observed. They want to record and understand it as it would be without their presence.

Participation as a researcher in social action means that the whole context of and set of processes involved in that social action are changed. It is important to minimize the impact so far as that is possible. It's equally important, both in recording observations and in subsequent analysis and interpretation, to take full account of the observer's impact on the field. Reflexivity is an essential aspect of any social research, but this is particularly the case for ethnographic work.

Access.

Gaining access is a particularly important part of the research process for ethnographic researchers. Sometimes research will be done in the researcher's own social world. When entering a new social world, researchers often have to rely on gatekeepers who "allow them in." The relationship with the gatekeeper(s) is important and has to be clearly understood and documented as part of the whole research process.

Informed consent.

Obtaining informed consent is a much trickier business in observational studies than in more structured forms of research. The general rule that no consent need be obtained to observe people in contexts where they would be expect to be observed by others anyhow, is helpful. However, ethnography may move in a covert direction even in relation to observation of what would normally be private behavior, including deviant behavior. Important research, particularly in criminology and related fields, has been done on this basis. Researchers should consult relevant

ethical codes for guidance here.

Access to the research field, generally including research access to the researcher's own work contexts, usually requires the obtaining of ethical consent from some formal body, for example a health ethics committee. This correctly requires the development and implementation of some process for obtaining the informed consent of those who will be observed.

What Is Autoethnography?

Autoethnography is a form of self-reflection and writing that explores the researcher's personal experience and connects this autobiographical story to wider cultural, political, and social meanings and understandings. It differs from ethnography—a qualitative research method in which a researcher uses participant observation and interviews in order to gain a deeper understanding of a group's culture—in that autoethnography focuses on the writer's subjective experience rather than, or in interaction with, the beliefs and practices of others.

Search for resources about ethnography

Search for resources about autoethnography

How Do I Collect Data Using Interviews?

Interviewing is the process of asking someone (sometimes more than one person)

questions in order to obtain information from them.

Quantitative Interviews

Quantitative interviews take place in order to construct data. We do this in surveys administered by interviewers, where the questions are put in precisely the same way to all respondents. Generally we also have a pre-determined set of possible answers and have constructed a set of codes corresponding to those answers.

Qualitative Interviews

Qualitative interviews can be:

- **Structured**

  In structured interviews, the interviewer works through a set of pre-determined and standard questions and the interviewee answers in natural language with the answer being recorded.

- **Semi-structured**

  In semi-structured interviews the interviewer has a set of topics to work through in the interview but not a set of standard questions. The interview flows like a directed conversation and works through the set of topics. The interview is recorded.

- **Unstructured**

  In unstructured interviews, the interviewer introduces the topic in general terms but the interview then flows like a natural conversation.

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Conversational interviewing is a label that my colleague and I, Michael Schober applied to a collection of interviewing techniques that are, in some ways, alternatives to standardized survey interviewing. So it's important to talk about what we mean by standardized survey interviewing. This has been well documented, but I'll try to summarize.

The idea behind standardized interviewing is to make the survey interviewers not a part of the data. To remove the survey interviewers from the data collection process beyond asking questions and possibly probing for additional information.

And there are statistical reasons for this and operational reasons for this. And the statistical reasons for this are that the extended interviewers vary in the way they ask questions. They can affect the answers. This is the belief, anyway. And the operational reason for doing this

is that if the survey interviewers are required to read the questions exactly as worded and adhere to the script, it makes for a shorter interview. And essentially, it enables the researchers to derive more data for a fixed cost, because interviews are shorter.

And to the extent that time is money, more interviews can be conducted for a fixed cost. So that's standardized survey interviewing. So interviewers read the questions exactly as worded. If respondents ask for more information-- standardized survey interviewers are

required to administer what are called neutral probes, or non-directive probes, in which they'll repeat the question. Maybe ask for the information, the answer, in a different form, like, I need a number. Or they'll say something like, whatever it means to you. If the respondent says, what do you mean by household's expenses, the interviewer

will say, whatever it means to you. Our thinking, Michael Schober and me, is that this may introduce some comprehension problems in which respondents don't understand the question as intended. If the interviewer's not able to explain what was meant by the question, and so that

even though explaining what was meant by the question might require some different wording between one respondent and the next, because one respondent might get clarification and another respondent might not. The advantage of that is that all respondents, or at least more respondents, will understand

the question as intended. What I guess I didn't say is that the idea of re-

moving the interviewer from the data collection process as much as possible is associated with the idea of data comparability. So that if every respondent is administered exactly the same question, exactly the same stimulus,

the thinking is that the answers will be comparable. And any differences between the answers are not due to differences in wording, but are due to actual differences in respondents' circumstances. Our thinking is that if interviewers are not able to explain what the question means,

it's possible that respondents will interpret the same words in different ways. And so by allowing interviewers to explain what was really behind the question, using whatever words they think are necessary, should promote uniform comprehension. That is, all respondents should, or at least

more respondents should, understand the question in the same way. So in some sense, conversational interviewing is promoting standardization at a deeper level. It's promoting standardization of interpretation, as opposed to standardization of words. It's still quite difficult though then from, say, qualitative interviewing? It is because conversational interviewing

is quite different than qualitative interviewing. Because it is aimed at pro-

ducing quantitative survey estimates in a way that are consistent, reliable, valid. In fact, the idea is that it goes one step further than standardized survey interviewing, because not only does it produce reliable results,

hopefully, but also more valid results. So the idea is that standardized survey interviewing may be producing the same answers from one administration of the question to the next. If you can imagine the hypothetical reinterview in which you give the respondent an amnesia pill and they don't remember the prior interview.

They should give you the same answer each time you administer the same question. But that doesn't mean they're giving you the correct answer. They might be giving you the same wrong answer, repeatedly, but yet it's reliable. The idea is that conversational interviewing should give you, not only reliable answers, but more valid answers, because respondents are giving you the same correct answer from one administration to the next.

But to go back to your question, this is different than qualitative interviewing because the questions are scripted. In our implementation of this, and this is just one implementation, we require the interviewers to read the

questions exactly as worded and then use whatever words they think might be necessary to make sure the respondents understand

the question. So it's very much in the spirit of standardized survey interviewing. [INAUDIBLE] qualitative survey estimates. So how would you go about asking a question? Can you give me an example of how that would-- Sure. Just like a standardized interviewer, a conversational interviewer might say did you have any expenses for household furniture

last month? And if the respondent says, well, I purchased a widescreen television, is that household furniture? A standardized interviewer would say, let me repeat the question, or, whatever it means to you. A conversational interviewer would say, well, in our survey, widescreen televisions don't count as household furniture

because we have another category for electronic appliances, and that's it. And a conversational interviewer could read the entire definition, which in some studies, particularly the more complex government surveys producing official statistics,

the definitions can be paragraphs long. So a conversational interviewer could read that verbatim, or could select out the relevant part of the definition, given the respondent's confusion. So the respondent might be

confused about what one part of the question means, but not the entire question. Or what one aspect of a concept [INAUDIBLE],

or one aspect of a concept but not others. But in fact, if respondents don't ask for clarification, it's possible that a conversational interview would be indistinguishable from a standardized survey interview. However, the way we've implemented this is that the interviewers can initiate clarification.

So they can say, and by the way, by household furniture, we mean the following. Or an interviewer can say, you seem a little confused, based either on nonverbal cues that the respondent might display over the telephone, or even the respondent's facial expressions. We haven't explicitly trained interviewers

to pick up on these cues. Because our thinking is that if the interviewers are aptly attending to these cues, they won't be really listening to the content of what the respondents say. But we've observed that interviewers are actually quite sensitive to cues, we call them cues of uncertainty, or indications

that there's some comprehension difficultly, like these "ums" and "uhs." So if the respondent is disfluent in answering the question, the conversational interviewers tend to offer clarification, and it helps. It improves

accuracy by different measures. And in the one study we've done with face-to-face interviews--

most of our studies are over the phone-- interviewers are sensitive to-- well, we've looked at one visual cue of respondent comprehension difficult which is called gaze aversion. The respondent looks off into space, or looks away from the interviewer while answering. And conversational interviewers are sensitive to this, and they offer clarification and it seems to help.

So your original question here was what would the delivery of a question be like with conversational interviewing, and I guess the answer is it really depends on how things go and how things unfold. So if the respondent has difficulty, it's going to look a lot different at a standardized interview.

But if the respondent exhibits no evidence of difficulty, doesn't ask for help, an the interviewer doesn't believe there's any difficulty, the two kinds of interviews would look quite similar. And so the transcripts themselves will look similar between standardized and the conversational interview. You're not getting more from the conversational interview. Right. The idea is that, at least as we've implemented this,

both types of interviewers use the same questionnaire. Now, the conver-

sational interviewers really need to be well versed in the definitions behind the concepts. Actually, it's been very low-tech. We've done this with paper questionnaires, primarily. Or the questionnaire may be on the computer,

but the interviewer will have a sheet of paper with definitions on it. The definitions, whether it's standardized or conversational, in production interviews, because we've mostly done experiments, the definitions should be easily accessible from the questions themselves.

So if it's on a computer screen, they should be available with a click, something like that. But in fact, the conversational interviewers will probably become so familiar with the definitions that they don't need to consult them. So yes, it really is the same questionnaire/script in either case.

So the standardized survey interviewers in our studies, and in practice from what we understand, will be very familiar with the definitions, they just don't typically use them. The idea is that they can use the definitions to evaluate the completeness of an answer, but they don't actually

provide the content of the definitions to respondents in the strictest form of standardization. So I should say that much of what we have looked at in most of our studies we're comparing the strictest forms of standardized

interviewing to what we call conversational interviewing.

In practice, there's really a range of interviewing that goes under the name standardized interviewing. So that when we describe these studies to practitioners, we'll often hear, but gee, we do standardized interviewing and our interviewers provide definitions to respondents. Our interviewers will clarify the questions as needed. And our response typically is, well,

that's not actually the strictest form of standardization. That's orthodox standardized interviewing. It may promote more accurate data and we applaud that. But that actually departs from the spirit of standardized interviewing in that the wording is not identical from one respondent to the next

if interviewers are providing clarification for some respondents and not for others. Very briefly, if I'm an individual researcher, if I'm a doctoral student, this sounds to me like it's quite achievable for me to do without a team. Would you agree with that? Without a team? Yeah. Well, I would say yeah, it is achievable for a low budget

independent researcher to the extent that standardized interviewing is, because the techniques are roughly comparable in itself. If a study requires that the sample is large enough that a team of interviewers is re-

quired to do standardized interviewing, then a team of interviewers

would be required to do conversational interviewing. So it's really not a matter of the technique, I would say. Certainly, a doctoral student doing his or her own research would be in an excellent position to oversee a team of interviewers using conversational interviewing or use the technique him or herself.

Because it really does require a familiarity with the subject matter that typically a team of professional interviewers might not have because they're reading from the script. A doctoral student might be so well versus in the subject matter. Typically, a doctoral student knows

his or he subject matter better than anyone in the world. When it comes time to develop a dissertation, they are the world's expert on that. So I'm thinking that it's this kind of expertise that's required to write the definitions of the concepts being investigated in the question. So yeah, but I think that this would be well suited to someone

doing doctoral research.

There is a continuum through these three types of interview. Any part of a qualitative interview can be located somewhere on that continuum.

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[MUSIC PLAYING] First I'll define the terms. When I'm talking about online interviews in real time,

I'm referring to synchronous, rich media technologies that allow for multiple channels and immediate feedback, and allow the interviewer to create a sense of presence. They integrate audio, visual, and text

types of communication, and allow for recording or archiving of the entire interaction. So the two main reasons why someone might use these kinds of technologies-- the first is to study internet behavior. So the internet is the subject of the inquiry.

And if I'm interested in the behaviors and the attitudes and responses and experiences of people, and participating in online events and communities, et cetera, then studying them in that environment would make sense. And conducting interviews in a similar kind of space would be appropriate.

But with the advent of these kinds of rich media technologies, the internet becomes a visually rich and highly interactive place to meet research participants and to talk about anything related to the lived experience. So

while one size doesn't fit all, and no one style of interview would

fit for all kinds of research, certainly, with these kinds of tools, there are a lot of kinds of interviews that could be productively conducted online. [MUSIC PLAYING]

Recording Interviews

Text.

The product of interviews is always language-based, usually a text created by the transcription of a recording, or the writing up of notes. Increasingly, people work with the sound recording and may:

- Take notes from the recording
- Transcribe only segments of the recording
- Use sound editing equipment to take “sound bites” as a basis for quotation.

Technical aspects.

Ideally, with the interviewee’s consent established in advance, the whole process should be recorded either:

- As a sound file, using a good standard digital recorder and saved for listening and transcription

- As a video. This takes more effort and the process is more intrusive, but it does allow us to review the non-verbal elements of communication and interaction.

Ethical Issues

Informed consent.

Informed consent is usually obtained when the interview agrees to give their views on the condition of anonymity, unless the interviewee gives specific permission for their anonymity to be waived.

On the record.

When interviewing informants in a position of power and authority, researchers sometimes adopt the journalistic practice of regarding all statements as “on the record” unless the informant specifies in advance that they are “off the record.” If interviewing under this protocol, informants should be advised of this protocol before the start of the interview.

Read more about informed consent

What Are Problem-Centered Interviews?

This term refers to a combination of the research objective and the frame of mind

of the interviewer rather than a specific interviewing technique. Here the interviewer begins with a theory-derived problem as the rationale for the interview but remains open-minded and allows the interview to develop in ways which go beyond the original framing.

What Are Oral History Interviews?

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> [MUSIC PLAYING] My name's Joanna Bornat, and I'm emeritus professor at the Open University. I'm Jenny Harding, and I'm professor of cultural studies and communications at London
>
> Metropolitan University. For me, it's about interviewing people about their past, about their experience, and so involves the past, involves the memory. And it's also about interviewing people who might not be in the mainstream of history, so they're outside somehow
>
> for whatever reason. It might be class, might be gender, might be origin, might be sexuality. Yes, definitely. It's inviting people to talk about the past as they've lived it, to reflect on and say what it meant,
>
> so it's very much about meaning and making sense of experience. And that's its distinctive quality and character. It's about history. It's about hav-

ing an understanding of the past, which has been lived as an experience. It might not be a whole life experience.

It might be an aspect of someone's life which is of interest. It might be some particular experience they've lived through, some epoch, some event they participated in. So it may not be their whole life, but we might need to understand that in terms of their whole life. So we're not getting people to tell their life story just for the sake of their life story. There may be more to it than that.

I don't know. I think a lot of people use the two terms interchangeably, and I certainly have. Now having been involved in oral history projects and with the Oral History Society and teaching oral history, I then set up an MA in life history research, and part of that was I felt it was the broader term, but I

might be wrong about that. No, I think you're right, and I've used the term interchangeably as well. But I do like to get a sense of history as somewhere else in terms of what we're researching, and I tend to think that oral history, with its connotation of being told, being spoken, tends to convey that more

strongly than the life history. But it's maybe just my personal take. It depends where they're coming from. Biographical is a kind of generic term

in some ways, which envelops oral history, life history, love stories, written accounts as well. But if we're talking specifically

about biographical interpretive method, then we're talking about something that has a quite distinct methodology all of its own. So there is a-- yeah, there's a sort of genus really of projects or approaches, rather, which start with the self, which one would describe broadly as biographical. Well, I think there are a lot of similarities

between-- we might disagree on this-- but I think there are similarities between oral history interviewing and call it unstructured or semi-structured qualitative interviewing. And I think it's partly about the context and partly about the questions that you're perceiving, but also, as Joanna said earlier, about memory and memory being the sort of centerpiece

of oral history interviewing. So we are interested in how memory is a process or a process of making sense of experience, of generating meaning, looking at how people reflect on the past, and how they interpret it. And that's the focus.

And yeah, there may be quite a lot overlap with other kinds of interviewing. I mean avoid direct questions. Avoid questions which ask people to remember dates or specific issues. There's a surprising number of people who can't remember the day they were married, for example, and if

you can't remember that suddenly, it throws you. It's disempowering. So I think asking people more generally,

how did you feel about, or do you remember when sort of, which is a less direct. You want them to describe a particular situation or a particular aspect of their early life. You might draw a contrast, possibly, with today's practices.

It might be something simple like how people had a bath on a Friday night. You're not going to ask them how poor or rich their family were, but you might ask them questions which tells you about the quality of the environment they lived in. You might not ask them how much their husband's wage was, but you might ask them something about the kind of food they ate

or the food that was on the table or where they did the shopping. And I think there are ways around understanding the materiality of people's lives without asking very direct questions, which require specific answers, which they might find challenging, although it's always difficult to know what will be challenging to someone. Hm.

I guess that's also being aware of the social relation that are involved in all, or rather, the social production of memory as we talked about earlier. Just being aware of those differences and not trying to back people into

a corner as well.

Make them feel-- Yes, they can be-- --like you're being critical. Sorry. Know that social production memory is very important to the oral history interview, because actually there's two people taking part, and as interviewers, we bring our own interests. We bring our own backgrounds into that interview. We bring our own images that how people see us and hear

us is going to affect how they respond, and that sort of habitus, as it's being called, is part of the baggage that we bring, and we need to be aware of that in ourselves, I think, as interviewers. Yes, it's possible to ask somebody to talk about photographs or ask them to bring along something

from a particular time, some memento, something that they have, talk about a document or a photograph and build on that. And I think that certainly helps people get going or connect with the past, but I don't think it creates greater reliability if that's what you mean, because the charge

that some memories are less reliable as a source for history or a source of information I think has been rejected, because people say, well, so is a document really stable? How stable is that? That's open to many interpretations,

and also the point about oral history is not to-- it's to look at how things are remembered, the meanings that might be attached to them. There are other ways of finding out about particular events as well, other sources of information. So oral history, it's trying to understand

the past, a certain aspect of the past, or aspects of the past. It's not the only way of approaching the past. And you can corroborate through maybe other interviews, other sources as well. And while it's true that many oral historians feel that meaning is what we're seeking,

and often that myth will tell us more about someone or some group's understanding of the past, it's also true that there are some communities which rely heavily on them in order to prove, for example, land rights in Australia and North America. And oral traditions there have extraordinary importance

so that memory is relied on for its accuracy or certainly its reliability there and a recall of things of significance to that community. So I guess we do accept that memory can be fallible, but we do know that there are ways in which it can be tested against other sources.

But we also do value memory for what it tells us about people today and about the people who tell us things about themselves.

What Is Oral History?

Oral history is the process of establishing historical information, not by consulting written or other documents, but by interviewing informants and drawing on their memories of the past.

Traditional Practices

Oral history has long been practiced by historians through interviewing powerful members of various elites in order to establish their recollected versions of specific historical events in which they played a role.

Popular History

Oral history interviewing has now become an important method in “popular” or “bottom up” history from “below” in which “ordinary people” are interviewed. They describe both events and the ways in which they lived their lives in the past.

Radio Journalism

An important pioneer of oral history interviews was the radio journalist Studs Terkel and his style has been widely adopted as a format for such interviews. It involves respect for the knowledge of the informant, careful probing, and light direction. This is essentially the standard semi-structured interviewing approach.

When Do Oral History Interviews Work Best?

In general, people have a better recollection of routine processes in their lives than of specific events. Their attitudes to these processes now will be a function not just of experience then but of life experience since.

Useful Additions to Oral History Interviews

Oral history is a very powerful approach. It can be combined with documentary methods. Documents, images, and sounds (e.g., workplace noises or music) can be used to stimulate memories and form the basis for conversation.

Physical artifacts, such as tools or old domestic appliances, have also been used in this way. Muscle memory, especially of repetitious domestic or workplace tasks, can last a lifetime!

Search for resources about oral history interviews

What Are Life History Interviews?

The objective of a life history interview is to construct an account of someone's life. There is a considerable overlap between oral history interviewing and life history interviewing.

In life history interviewing, the interviewer attempts to reconstruct the whole of the life course of an individual or set of individuals, rather than focusing on particular events or experience of processes in that life. It is a very powerful method, and has been used in the construction of individual biographies, and in the generation

of collective experiences, for example in feminist research.

Technique

The life history interviewing technique is usually a mix of semi-structured and unstructured approaches. Life history interviews can:

- Take a long time
- Be conducted over several sessions
- Elicit strong emotions.

The Role of the Interviewer in Life History Interviews

Emotions.

The researcher needs to be aware of the possible effect of the process of interviewing their respondents as events and experiences which have been suppressed come back to life. The author as a child saw his very self-possessed and normally calm grandmother break down in floods of tears when recalling the death from diphtheria of her three-year-old son some 50 years earlier.

Therapeutic interview.

There is an overlap of approach between the life history interview and the therapeutic interview, particularly in relation to the way the latter is deployed in psychoanalytic practice. However, it's important to remember that the objective is different. Therapists are concerned with helping people to resolve personal difficulties. Social scientists, while always having to treat people in a decent and straightfor-

ward way, are concerned with the production of knowledge.

Search for resources about life history interviews

What Are Focus Groups?

Focus groups are groups of people brought together by social or market researchers to discuss a topic in a way which resembles a natural conversation. The technique was pioneered at the US Bureau of Applied Social Research and has been widely used in marketing research. Focus groups now form part of the repertoire of qualitative research approaches across the social sciences.

How Are the Groups Made Up?

Group size is normally between six and twelve, although smaller groups are used. Typically, conversation is recorded with the consent of the participants, sometimes in video form. Groups may be “created”—they consist of members who are strangers to each other and are brought together by the researchers. However, they may also be pre-existing groups asked to discuss a topic or set of related topics.

How Are the Groups Managed?

Groups are generally led by a moderator who gets things going. The format may be semi-structured or unstructured, as with qualitative interviews. In the former,

the moderator pushes the group through discussion of a pre-set list of topics. In the latter, the general topic is introduced and then things flow from there without specific direction.

Sometimes two researchers attend the group, one to moderate and one to act as a passive observer or recorder. One method sometimes used to force discussion is for two moderators deliberately to take opposite sides on an issue. However, most social science focus groups are not “side focused” but rather are concerned with eliciting views which have the status of “information.” That is, they allow researchers to access what people know about their social world and how they feel about aspects of that social world.

How Are the Groups’ Proceedings Recorded?

Typically, groups are audio recorded, which enables the construction of transcripts which can be interpreted and analyzed in the same way as other qualitative textual materials.

Video recording has the advantage of allowing researchers to observe, record, analyze, and interpret the non-verbal elements of communication among group members.

What Other Stimuli Can Be Presented to Focus Groups?

It is possible to get a focus group discussion going by presenting members with images (or sound recordings) either as single images or in the form of a video.

For example, in his study of the social implications of the end of coal mining in the North East of England, Byrne and Doyle (2005) used photographs and paintings of underground coal mining and the surface aspects of the industry presented as a small exhibition. Group members were given time to inspect the images and then in discussion asked to respond to them in terms of the meaning of the images for them. They were also asked for their views on the implications of a profound socio-industrial change. Particularly useful were “very slow movies”—that is, images of a particular location taken at time points many years apart.

What Are Remote Focus Groups?

Normally, focus groups are conducted with participants in face-to-face contact with each other in the same location. But it is possible to conduct focus groups by tele-conferencing, including visual tele-conferencing.

It is also possible to construct analogues of focus groups using group discussions on the Internet. This is somewhat different since the immediacy of a normal conversation is not possible. That said, group discussions on the Internet are a real social form in themselves. Therefore, constructed discussions replicate a new form of interpersonal communication in the same way as a traditional focus group replicates a conversation.

Search for resources about focus groups

Reference

Byrne, D. S., & Doyle, A.(2005). The visual and verbal – the interaction of images and discussion in exploring cultural change. In C.Knowles& P.Sweetman(Eds.), *Using visual methods*(pp. 166–177). Abingdon: Routledge.

What Is Visual Research?

Use of Visual Materials by Social Scientists

Social scientists increasingly are using visual material to conduct their research, which fall into three categories:

- Images which already exist, which can be treated as primary sources
- Images which the researchers create themselves
- Images created by other social scientists can be regarded as a special form of secondary qualitative material.

Images are inherently qualitative. However, as with any qualitative source, measurement can generate quantitative information from them. There are three key elements to which users of visual images must pay attention: content, context, and technical matters.

Content of Images

Different types of images.

- Still images

- Moving images
- Moving images with a sound track
- Filmed/video non-fiction
- Filmed/video fiction.

Questions to ask about content.

- What is in the image?
- What can we see from its contents which tell us something about the social world?

Reality and representation.

All elements of the image content should be considered.

- Films can be considered both as a part of reality in their own right and as representations of other aspects of social reality.
- Still images likewise can be considered both as representations, re-presentations, and as aspects of reality.

Links to other disciplines.

- Media Studies is concerned with the use of visual images as things which are part of the social world and as things which represent the social world.
- The traditions and techniques of Art History can also be useful.

Context and Visual Research

Context refers to:

- The whole set of processes by which the image was generated
- The sets of social relations surrounding those production processes.

Social scientists have generally appreciated the significance of context in relation to images produced by others. However, they have sometimes neglected the reflexive requirement to consider the context of their own production of images. But this is just as important!

Technical Matters

Techniques.

The actual technology of image production, cameras of whatever form, can be used by social scientists to make their own images. Those working with images, and particularly moving images, may find it useful to develop a working knowledge of what can be done with editing tools for video and film. Attention to the processes by which images have been edited for production is of course a vital aspect of establishing the context of the images.

Sources of images.

The Internet has changed this enormously. We have Internet archives of images of all kinds which can, with careful attention paid to issues of intellectual property

in the form of copyright, be useful for us. We are very likely to have to pay for the reproduction of any image to which copyright applies. But interpretation of any image is free. The Internet itself is of course an enormous source of images—Facebook pages, porn, publicity sites, the list is vast.

Search for resources about visual research

Checklist: Are Qualitative Methods Right for my Research Question?

Here are questions to ask yourself when deciding if you should use qualitative methods.

- **Do I want to understand ongoing social action in a particular social context?**
- **Do I want to elicit people's views about their own social context and actions within it?**
- **Are textual descriptions and/or causal accounts an appropriate way of answering the research questions I have set myself?**
- **Can I gain access to:**
    - The social context(s) in order to carry out observational work?
    - Relevant social actors in order to conduct qualitative interviews and/or focus groups?
- **Am I competent in (or capable within my timetable of becoming competent in) both the doing of qualitative research and the management**

and interpretation of the products of that research?

What Are Quantitative Methods?

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[MUSIC PLAYING] LUKE SLOAN: My name is Dr. Luke Sloan. I'm a senior lecturer in quantitative methods at the School of Social Sciences, Cardiff University. I'm also Deputy Director of Cardiff Q-Step which is a center of excellence in quantitative methods

teaching. So I first became interesting quantitative methods in my final year of my BSC Politics at University of Plymouth, actually. Up to then, I hadn't had much exposure to it. But there was a third-year module which was on polling and opinion polls. And I remember we had to do a group project.

We had to do a survey. And my group decided to basically survey students on campus and see if they recognized key members of the cabinet at the time. And that was very interesting. But the real thing that got me involved was that we had to have a solution for several people all putting in the survey data at once. And I created an Access database. And I kind of got hooked from there.

Once I realized that I could do this stuff and it was a fantastic solution, I kind of kept picking and picking away and got more complicated. And from that point on, I did my masters in social science research methods, was introduced to SPSS, and the rest is history. I think quite a few people are a bit scared about studying

quantitative methods. Maybe they've had a bad experience with math at school. But the thing I would say is that you don't have to be a mathematician or statistician to be able to study quantitative methods. A lot of it is about the logic of analysis-- so understanding what a sample is and what a population is, understanding that when the Daily Mail says there are 20,000 Syrian refugees coming into the UK,

that's actually a small proportion compared to the number of people displaced. So it's about being critical and being questioning about the data, and understanding where it's coming from as much as it is about maths itself. There's no doubt that being able to do quantitative matters increases your employability. That's the whole point of the Q-Step initiative. It is a response to employers' needs,

that students are graduating from social science degrees without being able to analyze quantitative data. Now, that's not say that qualitative data isn't important. It's just that lots of people seem more prepared-- they find

that easier to do. And often it's much more complicated than they think it's going to be. But nevertheless, the perception of quantitative methods is that it's difficult, and therefore, people don't engage.

But actually, the ability to analyze data in a report, and to critically evaluate it, and then to present the information back, is integral to any job that anyone's going to do in the public or private sector. I would say it's absolutely essential to be able to do this kind of stuff. Hence all the curriculum development we do at Cardiff, and all the other Q-Step centers do, on quantitative methods.

In the 21st century, it's incredibly important to be able to understand and critically evaluate data. The work I do with my research is using Twitter, for instance. And I've recently published some work on predicting election using Twitter. I'm doing some work with some colleagues in computer science on understanding criminal activity and seeing if people tweet about lower-level crime disorder in areas in which crime is high.

But the point is that to be able to do this kind of work, to be able to ask those questions and investigate those new topics, you need to have an appreciation of the basics of quantitative methods and understand what quantitative data is actually telling you. So although it may be challenging and a bit scary at first, being able to do this stuff opens up a wealth of

possibilities into the world of big data, Twitter, Facebook,

and all the sort of networking stuff-- which I think, actually, students are really interested in. But again, without the foundations, they can't embark upon that type of study.

Quantitative methods are methods which generate numbers from a research process. The foundation of any quantitative method is always measurement. How we measure is fundamental to any quantitative method.

Types of Quantitative Methods

Experiments.

- **Variation**
  In experiments using variation, we do something to some cases and see what happens when we do it. We create variation.

- **Probabilistic experiments**
  In the social sciences our experiments are always probabilistic in form. This means we do something to one set of cases (the treatment group) and do not do it to another set (the control group). Then we compare differences between the groups. Very seldom will we get a constant result from the treatment group in contrast with the control group. We do not get determin-

istic outcomes. Instead we get probabilistic outcomes with a difference in proportions with a given outcome between the two groups.

- **Random allocation**
  Random allocation is the method of controlling for extraneous variation other than the variation we create.

Surveys.

When doing survey research, we do not create variation but observe variation which already exists in the world across a range of cases.

Equation-based simulations.

When creating equation-based simulations we create artificial worlds in a digital computer and drive them forward through time on the basis of the development of sets of equations describing aspects of our artificial world.

What Can We Do With the Numbers Generated From Quantitative Methods?

- We can use quantitative methods to describe variation in the world.
- We can use quantitative methods to make causal statements about the world.

Interpretation of Quantitative Data

Numbers never simply speak for themselves. We always have to interpret them. They require a double process of interpretation:

1. The first part of this is the interpretive element in operationalization. We have to interpret the world in order to produce rules for measuring aspects of it.
2. The second is the interpretive element in relation to our findings. We have to understand what the numerical findings mean as description, as the basis of causal statements, or as both.

Making Causal Statements on the Basis of Numbers

We can make causal statements by testing hypotheses, when we are dealing with simple causation. We can also make causal statements by constructing models, when we are dealing with multiple causation. (This is causation where more than one causal factor is at play).

There are two important things to remember when making causal statements on the basis of numbers:

- **The fallacy of affirming the consequent**

Just because our numbers generate a result which is compatible with our hypothesis, we cannot assert that we have “proved” something. The results may have been “caused” by something completely unknown and/or unconsidered. As Karl

Popper (2002) asserted, we can fail to disprove but not prove.

- **Correlation is not cause**

Just because two sets of numbers relating to a supposed cause and an effect are systematically associated, or correlated, this does not demonstrate causation. Something completely different may be at play. Quite often there is something causal to both the supposed causes and the effect.

For example, there is a high correlation between the tonnage of ice-cream eaten by Australians on any given day and the numbers of Australians attacked by sharks on that day. We cannot infer that eating ice-cream causes people to be attacked by sharks. The reality is that a hot day causes people to eat ice-cream *and* to go into the sea at beaches where sharks can attack them. The apparent correlation we started with was spurious in relation to cause.

Search for resources about quantitative methods

Use this checklist to decide if you should use quantitative methods

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Reference

Popper, K. (2002). *The logic of scientific discovery*. London: Routledge.

How Can I Use Secondary Quantitative Data in My Research?

Where Do I Find Secondary Quantitative Data?

There is an enormous range of secondary quantitative data available to social researchers. Most of this can be downloaded from the web. It is now far more usual for researchers to use these resources than to carry out very expensive and time-consuming surveys on their own account.

What Forms Do Secondary Quantitative Data Take?

Secondary quantitative data takes the following forms:

- **The product of large-scale surveys**
  This data can be produced either via sample-based studies or censuses. In most cases the sample size for these surveys is so large that any estimate of a population value which is substantively interesting is likely to be statistically significant so the difference between samples and total coverage in a census does not matter. However, if using sample data, then significance checks should always be employed.

  The surveys may be:

  - **One off**: a single survey for a special purpose.
  - **Regular and repeated**: surveys which are done at regular time intervals and cover the same core topics on each occasion. It is common for special topics to be covered in depth at irregular intervals. This kind of survey allows for studies of change over time on the basis of aggregate data.

- **Panel studies**: the same set of cases is surveyed on a regular basis and the same core topics are covered on each occasion. Again, it is common for special topics to be covered in depth at irregular intervals. This kind of survey allows for studies of change over time on the basis of micro-data.

- **The product of administrative processes**

  Very large amounts of data are generated by routine administrative processes, for example the processing of social security benefits. Since this is now typically done through electronic means, data for cases are recorded and organized in survey format. These kinds of data can often be accessed by researchers.

How Are Secondary Data Sets Organized?

Most secondary data sets, whatever their origins, are organized as flat files. That is to say, all the data relevant to each case are organized as a line in a spreadsheet for that case. Some data are organized in the format of a relational database where information, for example about households, can be related to information about individuals in that household. This may be done through a dedicated relational database or through merging flat files containing information describing the different levels.

What Issues Arise When Using Secondary Data Sets?

Statistical issues.

- The achieved representation of the population if the data are derived from a sample. Always check how the sample was designed and the achieved response rates both for the study as a whole and for variates of interest to you.
- The operationalization of variates through the combination of question and coding frame. Always examine these carefully so that you fully understand the actual nature of any data you work with.

Ethical issues.

- **Anonymity**

  Usually secondary data sets are fully anonymized and informed consent has been established in the original data collection. Therefore, ethical issues seldom arise.

- **Big data**

  As the use of big data obtained by mashing administrative and other data sets becomes more common, there are substantial issues in relation to the consent of those who are described by the data. Data protection issues do not really arise with conventional anonymized secondary data sets but are very likely to arise with big data.

How Do I Find Secondary Data Sets?

The easiest way to find secondary data sets which may be of use to you is to enter appropriate search terms in a generic search engine such as Google. These are very good at locating data sets. They often do so more quickly than, for example, the search facilities of national statistical offices.

Search for resources about secondary data

What Is Structured Observation?

Structured observation is a type of observation where the observer records specific elements of behavior among social actors in numerical form.

How Are Structured Observation Records Kept?

Records of structured observation are kept by means of a coding scheme. Usually elements are recorded as specific acts. These include acts of communication and social interaction. The numbers of the acts and their duration are recorded in code by the observer.

How Is Structured Observation Conducted?

Structured observation is usually conducted under laboratory conditions. The observer often stands outside the context of the action, sometimes watching from behind a one-way mirror.

Search for resources about structured observation

What Is Survey Research?

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[MUSIC PLAYING] Hi, I'm Patrick Sturgis, and I'm Professor of Research Methods at the University of Southampton. Survey methods is the study of populations

by means of drawing samples from populations. And populations can be very broadly defined. We tend to think of populations in terms of the population of people in a country, but it could be the population of fish in the sea, population of trees in a wood, pebbles on a beach, anything. But the big key principle is that we

can draw smaller subgroups from the total population, which are then easier and more cost-effective to you measure. And we can then make what we call inferences. We can talk about the characteristics of the whole population just on the basis of this smaller

sample. So that's the kind of the key idea behind survey research. And the history of survey research goes back a long way. If you think of the Bible, Jesus was on his way, in his mother's tummy, to be measured as part of a census. So if you like the idea of measuring populations

systematically counting-- and usually for the purposes of taxation-- goes back a long, long way, even before the time of Jesus. But the more modern-- how we think of surveys in the modern era probably can be traced to the sort of mid-late 19th century, when a lot of people were becoming interested,

for a variety of reasons, in issues of poverty and equality and so on. There was a lot of concern with the situation of the working classes-- particular in Britain, actually. And there were people like Charles Booth, Seebohm Rowntree, who were kind of dissatisfied with what you'd kind of think of as anecdotes about the poor

and so on. And so what Booth, in particular, set out to do was to go out and actually make systematic measurements on whole tracts of London. And this is what he did. He sent out interviewers to knock on doors, ask people questions, and then recall this all systematically and produce these wonderful maps that you can still

see in the British Library, political, economic, science. So these are kind of the pioneers, started systematically measuring things that characterized populations. And then, following that sort of early development, there was growing interest-- again, now moving over to the US particularly-- in measuring audience perceptions of radio shows,

of TV shows, cinema, and so on. Because, of course, there's an advertising premium for getting audiences, getting particularly wealthy audiences, and so on. So this became more and more important to understand who was listening and what they're paying attention to-- and so development further of polling methods.

And this-- in the early days-- was quite rudimentary in terms of how we would do surveys now. But the-- probably one of the most important developments was by a chap called George Gallup, who still has a polling company named after him now.

And he very famously got the election forecast right in the 1936, presidential election between the Landon and Roosevelt, where a very successful, at the time, magazine, called The Literary Digest had 13 million readers,

and it sent out cards asking them to say who they were going to vote for. And they called the election heavily in favor of Landon. And Gallop, using a more systematic method of drawing a small sample, but one which kind of closely matches the population, called it for Roosevelt. And the rest

is history. That was a very clear, prominent example about how it's not so much the size of the sample, it's how well it matches the population. And so those were some of the key early developments. Well, if your target

population is pebbles on the beach, it's very easy. Because pebbles on the beach don't

say no when you pick them up-- well, not in my experience, anyway. But where it's much harder is in the real world, when your sample is of human beings, and they're busy, they're not in, they've got better things to do. And so you do not get everyone who should be in the sample to give you an interview.

So non-response is there a particular threat to being able to make accurate inferences. I actually am quite an advocate of not rushing into doing your own data collection as the first thing that you do, because I think you can learn a lot about how

to do surveys, how not to do surveys, by looking at surveys that have already been done and done to a high quality. So I think that's one of the things that I would advise students to do who are interested in doing survey research would be, rather than rushing out-- as I often see students do, sort of write the questionnaire and send it out

as quickly as possible-- is to spend time working with an existing survey, looking at the documentation. And it might sound a little boring, but it's certainly good preparation if you are going to go and do your own data collection. So what kind of surveys would you suggest people take a look

at? Can you give-- Well, I mean, surveys are quite country-specific, right,

in terms of how we draw samples. I was talking earlier about drawing a random sample of people from the whole population. Now, how do you do that? Well, in some countries you've got lists of every individual. You've got a population register. We don't have that in this country. We have a list of addresses that the post office puts letters

through the mailboxes of. So we need to draw our samples differently, and that tends to be true in different countries. So what I say is really based on what you are doing in the UK, and most of the big surveys will be done, broadly, along the same procedures, in drawing the sample broadly

in the same way. So you could go to the UK Data Service and download a survey data set and all the documentation, and you'd probably get it a good idea of how to do a survey to high standard. I think, having said that, there are

surveys that perhaps have more engaging content than others. You might be more interested in something like the British Social Attitudes survey, which asks a random sample of the British population their views about kind of contemporary issues and questions that are kind of political con-

troversy, like immigration and attitutes to gay and lesbian people

and so on, how that is changing over time. So I think a lot of students, especially in social sciences, would find that particular survey quite interesting. And, of course, many others.

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[MUSIC PLAYING] I'm with Jorg Blasius. Jorg is professor of sociology at the Institute for Political Science and Sociology at the University of Bonn in Germany. He's in conversation with Katie Metzler, commissioning editor for research methods at Sage.

Could you start by briefly explaining what the typical steps are in designing and conducting a survey? Yes, sure. At first you need some kind of theory. And usually, you have a kind from the social sciences. Or I do a lot in urban sociology. And that's the first step. And then you need a research question. For example, you work on gentrification in this area.

And you'd like to see something-- what are the changes in the community and the people. And I just have [INAUDIBLE] in this area, which we call dwelling planning. And when we follow the dwellings instead of the peo-

ple, we say, OK, let's see the changes within the flats,

in the dwellings, to see what's going on in the area. So the theory comes from gentrification. And then we have to search for the dwellings. And [INAUDIBLE] dwellings, we started with a random sample from the Statistical Office in Cologne to get a random sample of the persons.

So the first step and the first way was dwellings in a certain area where we think gentrification will happen. The next step for the second wave , we follow the dwellings. If people moved out, the new people in the same dwelling were interviewed. Now, we've got money for the third wave-- did not conduct it yet. [MUSIC PLAYING]

Once you've collected your data, what are the next steps in terms of making sense of that data? Yeah, it first depends what kind of data I have collected. For example, if I have collected the data face-to-face, then I have to check if the data are fabricated. Fabrication could be done by the interviewers. It could also be done by the institutes, which are copy-and-paste procedures.

Just in the new book I wrote where we have a lot of copy-and-paste in [INAUDIBLE] survey for example. Nobody would expect it. But [INAUDIBLE] survey contains a little more than 1,000 things. Wow! That seems like a lot. In several countries. Yeah, if you do the interviews by tele-

phone,

you also have to think about how many interviews. A single interviewer who sick-- if they've got fatigue with the telephone, and you make it faster and faster, you get duplicate responses. Or the simple response structures-- with the 10-point scale, for example, you just say, 10, 10, 10, or 5, 5, 5, and 10, 5, 10, 5, 10, 5,

such kind of simple structure. And all it is not good for a survey. It's decreased the quality of the survey. And it's seldom discussed, but you have to check it. You should screen the data if you really can use them or if you have responses, any kind of simple structures in it, which is done by the interviewer,

or by some respondents, or by the institutes. [MUSIC PLAYING] So what's some of the key strengths of using surveys in social research? Yeah, you need surveys in every kind of life,

you need to know what a population is thinking about. If you have the election studies is a good example, you'd like to know why people elect a certain party. What are the advantages of single candidates? And if you'd like to know another example, if you go back urban research, why do people live in a certain area, what they like,

what they dislike. Or you'd like to know something in lifestyles. You'd like to know certain lifestyles. If you go to marketing research, you can combine with the lifestyles people hold. You can combine with media data-- what kind of program they watch, what kind of artists their prefer, what kind of actors they like. You can choose them and combine with the products

And then you have a combination of preferred actors, of movies, of lifestyles, that you know what kind of actors should wear, which clothing, and which [INAUDIBLE]. Should it be a flat? Should it be outside in the [INAUDIBLE] area? And then you can show these people. And you can make commercials for your product

in marketing research. So do you think the benefit of surveys is in measuring attitudes at large is that part of the-- Yes, yeah. Is that a key strength? It's one of the key strengths, yes. And what kind of attitudes and opinions at large is. And so you want with surveys large samples as opposed

to smaller samples? Not always large samples. It depends what you call large samples. Is 1,000 a large sample or is it a small sample? And is it a [INAUDIBLE] samples? Yes. But in some cases, you ought to do some qualitative research service when you'd like to get some ideas on it? You

have to ask before you start to conduct a large set of data.

You may do some quantitative research. And there are some areas where you need expert interviews if you ask politicians, for example. It's also nice to do some kind of qualitative research and to have small sample. If you talk about drug abuse, you will not get a large sample. You have to ask single people. I'm sure this will be qualitative.

So usually, or in most cases, I prefer quantitative research. But there are other people-- and there good reasons to use qualitative research. It depends on the question. It depends on the question, yes, on the research question. [MUSIC PLAYING]

So what does non-response mean in reference to survey research? Non-response is often called-- is a measure of the quality of data. I have non-responses. What is the quality of data? But I don't think that is true. Because if you push people to ask something, they give some kind of arbitrary answer. If they don't understand the question, which often happens,

don't push them. It's not really meaningful to have an answer if they have no opinion about a topic. So non-response is, yeah, on the one hand, you don't like it. And sure, you should avoid non-response. But mainly, you should avoid by using simple questions. For example, in the ISSP and

other studies,

we use data from political efficacy and trust. They are very complicated questions which we have a [INAUDIBLE] election [INAUDIBLE] in the US, in the UK, in Germany, and all countries. They are very, very complicated. And if you think about it. It's old stuff. If you think about [INAUDIBLE] look or Edwards who wrote books in the '50s.

They said, don't ask these kind of complicated questions. They gave clear and common diction of questions. They are not more than eight words-- no negation, nothing like this. And if people answer, even if they get to forced to answer on this, this quality will go down. So non-response is better in some cases to easy questions.

Go back to the '50s. Or you'll find it in any introduction to survey research. [MUSIC PLAYING] You've written a book published by Sage called Assessing the Quality of Survey Data. Could you explain what you mean by survey data quality?

Yes. survey data quality for all data contains substantive and non-substantive variation. Substantive variation is the variation you are interested. You are looking for the research question. And people have different opinions on nuclear power and have different political attitudes.

There's the substantive part which people really [INAUDIBLE]. On top of the substantive variation, you have non-substantive variation. And sure, we are not interested in non-substantive variation. Non-substantive variation combines all kinds of responses. For example, acquiescence, disacquiescence, extreme point

responding, mid-point responding, hidden non-responses. And the quality-- if you have a high quality data sphere, you have to try to avoid non-substantive variation. You can't avoid it. But you can decrease the number of non-substantive variation and use simple questions. For example, according to old literature such as [INAUDIBLE]

Edwards, [INAUDIBLE] recommended it, which is very important to read this. You have this in all kinds of survey research-- an introduction of survey research. But how to understand if you have the ISSP you have other very important studies [INAUDIBLE] as [INAUDIBLE]. [INAUDIBLE] questions like political efficacy and trust

questions. And they are so complicated. People will not understand you have a huge amount of non-substantive variation, which stressed your data. And the solutions are wrong. Another way of non-substantive variations are simple response structures. People don't think clearly about their answers.

> They just say 1, 1, 1, 10, or if you you have a 10-point scale, you don't differentiate or you could differentiate. Non-substantive variation is also informed by the interviewers, because if the interviewers are too fast, and aren't interested in the people, and the respondents go faster and faster. They don't allow you enough time to give an answer
>
> to think about just write down-- OK, 10, 10, 10. And this is a case of non-substantive variation you try to avoid. [MUSIC PLAYING]

Surveys are a method of establishing existing variation across variates of interest in populations of cases. Surveys measure this variation for each of the cases, either for all cases in the population it can access in a census, or a sample of cases.

Surveys therefore generate a data matrix where the rows contain the values for each individual case and the columns describe the variates. Each cell in the matrix is the value for a specific case on a specific variate.

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> [MUSIC PLAYING] Hello, I'm Peter Lynn. I'm from the University of Essex, where I'm a Professor of survey methodology. I'm primarily interested in all aspects of how we design surveys and collect survey data.

So how did you get interested in surveys? I first became involved in surveys when I was an undergraduate, and I was stimulated by a second degree module we had on social statistics. And we had a guest lecturer, Denise Lesley, who worked at what was then known as Social Community Planning Research an organization in London and did lots of interesting social surveys.

And I was so interested in what she was telling us about that I went and approached them and asked whether they had any summer jobs for students. And I ended up working there between my second and third years as an undergraduate, and then subsequently got offered a job, and that's where I started my career. That's fascinating. That's a really good story. So did you do survey research all the way

through your undergraduate, post-graduate, and PhD research? Well, my undergraduate studies were primarily statistics, but also including computing in economics. So actually, surveys were a very small part of that. We just had one module on social statistics which include surveys but also other things. So I didn't actually begin to specialize in surveys

until I started my working life, and then I did both a Masters and PhD after I'd already started working and then specialized in surveys. So what is a survey? Can you give us a quick definition? And also, what sort of data

is collected by a survey? So a survey is really just a structured way

of collecting standardized information about some population that we're interested in studying. So really, a survey can be on any topic and can help us to understand any kind of social phenomenon if it's designed appropriately to collect the right kind of measures from a sample of the right kind of people.

So what sort of data is collected by a survey? Surveys collect all sorts of data. So in the UK, we have lots of long-established, large surveys with particular focuses. So we have the British Crime Survey that collects data all about victimization and trends over time in a way this is not affected by, for example,

changes in the way that police record statistics. We have the Family Resources Survey that collects data about people's income. We have the Expenditure Survey which, on the other hand, looks at how people spend their money. All kinds of different topics are studied by these kind of ongoing regular surveys. But then we also have one-off specialist surveys

when somebody wants to at one moment in time study a particular phenomenon, and they just carry out a survey that's tailor made for that purpose. So you're speaking about some of the existing surveys, and would you suggest students use existing surveys? And what are the challenges

and benefits of using existing survey data in your own personal research?

Well, certainly in the UK we are very lucky that we have a lot of existing survey data that contains a wealth of information of different kinds that students can use in their own studies, so there's a lot to be gained from taking advantage of this kind of data that would be far too expensive and impossible for students to collect on their own.

On the other hand, learning the skills of how to collect one's own data is also important, and there's certainly a place for carrying out one's own small scale surveys on specialized topics. Is there a challenge or an issue around interrogating existing data sets using new questions? Is that what data sets are for?

Or is there a limit to the kinds of questions you can ask a certain data set? Well, there are some survey data sets that were designed in the first place to answer very specific types of questions or provide very specific types of statistics, so they're quite tightly focused on particular issues. And a lot of researches have already

researched those issues, and it may be that those data sets have more limited mileage for further research. But, there are also lots of large, complex data sets in the UK that are specifically designed to be a research

resource and have a wealth of information in them that is untapped,

and there's a lot that one can learn from using those. So I think the potential is enormous, but one has to identify which are the data sets that really contain the kind of information that might address a particular research question. Can you give any international examples of similar sorts of data sets that are there and available to be interrogated?

Well, one of the most rich types of survey data set, I believe, is the Household Panel Survey. They were these surveys that follow a large sample of individuals over time, interviewing them repeatedly within the household context, so you understand the influence of other people

in the household on a wide range of topics. And there are now probably about 10 of these in different countries around the world using very similar methodologies and similar other questions. So one can carry out some quite advanced, quite interesting cross national comparisons of some of these dynamic longitudinal processes using these Household Panel Surveys.

Where would you access surveys of that kind? So the starting point in the UK would be to go to the UK Data Archive and find out what data sets they have available. So they have available the UK Household Panel Study, and they will be able to tell you how to get hold of the comparable

data sets

from other countries that you can use in conjunction with that. And similarly for the other surveys. The European Social Survey is another good example, which is also held by the Data Archive and has data from 30 something different countries using a standardized questionnaire once every two years. [MUSIC PLAYING]

What Do Social Scientists Use Surveys for?

Surveys are the primary method though which the social sciences generate quantitative data. This is done through a measurement process which combines questions asked in a survey instrument, normally described as a questionnaire, and a coding scheme, which specifies possible answers to those questions.

The combination of a question and a coded answer set constitute an operationalization of the variate. *Sample design* and *questionnaire design* are both crucial processes prior to the implementation of the data collection phase in any survey.

How Are Surveys Carried Out?

Surveys can be done in the following ways:

- **Face-to-face**: When an interviewer collects information from a respondent.
- **Postal**: Where a questionnaire is posted to respondents who fill it in and

post it back.

- **Internet-based**: Where the survey instrument is generated on the web, normally sent to respondents as a link in an email, filled in by the respondents, and the data are automatically collected by a web survey package.
- **Telephone**: Where the interviewer telephones the respondent and conducts interviews over the phone connection.

How Do Surveys Create Quantitative Data?

Surveys create quantitative data from the combination of questions and coding as a measurement device, created by the researcher(s), and the relevant knowledge held by the informants. The result is the creation of numerical data from the information held in the natural language of the informants.

Search for resources about survey research

What Are Face-to-Face Surveys?

A face-to-face survey is conducted by a trained interviewer who speaks directly to the informant. It is generally regarded as the gold standard in survey research.

How Is a Face-to-Face Survey Carried Out?

The interviewer works through a data collection instrument, and takes the respondent through the questions in a systematic way. This is now usually in electronic form on a laptop, which enables the immediate recording of the responses by

wireless link or email. Where appropriate, the respondent is shown a range of possible responses, either as a computer image or on a card, and asked to choose among them.

What Are the Difficulties of Doing Face-to-Face Surveys?

- **Cost**: This is often the most expensive method of generating data.
- **Contact**: Interviewers can pursue respondents but multiple attempts to do so very much increase costs.
- **Interviewer bias**: Interviewers can be trained to be as neutral as possible but respondents still respond to social cues in an interview situation. They may construct answers in a way which is conditioned by their view of the interviewer.

What Are the Advantages of Doing Face-to-Face Surveys?

- Interviewers can probe to develop appropriate answers.
- The identified case is interviewed. You know you are getting the case you want.
- Response rates are high if recalls are funded. (But this is expensive.)

How Does a Drop-Off Survey Work?

In a drop-off survey the data collector leaves an interview schedule with the respondent(s). They usually self-complete, although the data collector may help with

this process when returning to collect the completed schedule.

This approach is commonly used by census enumerators. It is slightly cheaper than the direct face-to-face interview but does not normally allow for probing. It can generate responses which are not completed by the individual themselves, for example from individuals in a multiple-person household.

Search for resources about face-to-face surveys

What Are Email Surveys?

Email surveys have been rendered redundant by the development of web survey tools. If you can send an email, you can include a link to an online survey. This is much more convenient for a respondent to answer and allows you to collect data without working through a set of emails.

What Are Online Surveys?

Why Would I Use an Online Survey?

The development of web-based survey tools (Bristol Online Surveys, Survey Monkey, Checkbox, Qualtrics, etc.), which allow a respondent to complete responses by clicking on an online form with data directly collected by the tool, make online surveys an inexpensive and convenient way to collect information.

How Are Online Surveys Distributed?

Typically, the survey instrument is distributed as a hyperlink in an email sent to potential respondents. Often an incentive is offered to participants, usually in the form of entry into a raffle of respondents for a prize.

What Are the Advantages of Using Online Surveys?

- They are cheap.
- Data are directly processed into data storage.

What Are the Disadvantages?

- Online surveys are only useful for populations which have ready web access and email accounts. The ages and income levels of your respondents may be relevant factors here.
- If sent through an email system, you can be reasonably sure that the person completing the survey is your target, but you cannot be entirely sure.
- Response rates are relatively good, but not as good as for face-to-face or drop-off approaches.

Search for resources about online surveys

What Are Telephone Surveys?

How Have Telephone Surveys Been Used?

Until the relatively recent past, telephone surveys could be carried out by contacting the chosen informants directly, without prior notification.

In many countries, this approach is now almost wholly useless when contacting members of the general public because of a resistance to cold calling, and a wholly justified suspicion of cold callers who claim to be conducting surveys.

However, mobile surveys are on the increase, especially in places like Africa, where the vast majority of people have a mobile phone but may not have a computer to complete a web survey.

What Is the Best Approach to Contacting Informants by Phone?

Telephone surveys remain a very useful technique if properly handled for collecting information from expert informants about a topic of serious interest to them. Cold calling is not recommended here. The following sequence is recommended:

1. Contact the respondents in advance by mail or by an email coming from a reputable address, e.g., a university or other reputable research organization.
2. Explain the purposes of the proposed interview.
3. Supply either a whole schedule of questions or a reasonable summary of the interview schedule contents. This can be particularly useful when you need your informant to look up information in records and/or documents in

advance.

4. Request an appropriate time to telephone, indicating accurately a range of durations for the interview process.
5. Follow up at least twice if there is no response to initial contact. It may be appropriate to make these follow-up contacts by telephone.
6. Telephone as agreed and complete the interview.
7. Response rates can be good if the process is handled carefully.

Search for resources about telephone surveys

How Do I Design a Questionnaire?

Designing questionnaires and data collection instruments is a craft rather than a science. It is also a task which is better performed by a group of people, even if others are involved only in critical feedback, than by an individual. Good questionnaire design is essential when conducting surveys.

The wording of your questionnaire and the design both matter. There are many examples of informal questionnaires (e.g., “What is my fashion style?”; “What personality type am I?”) on lifestyle magazine pages and online. More formal, directed questionnaires can be found on job application webpages for supermarkets and high street stores. It may be worth browsing these to investigate both wording and design.

Things to Think About When Designing a Questionnaire

Know your informants.

Tailor the instrument to the kind of informant you want to get information from. Professional informants, responding to subjects on which they are well informed, are different than the general public.

Simple is always better.

Keep the questions short. In each question, deal with only one topic.

Avoid ambiguity.

You need to be sure that the words you choose mean the same to all your respondents. For example, the word “fair” in asking people to assess their health as excellent, good, fair, poor, or very poor would work since fair is a term used clearly in relation to health states.

However, if you ask people to rank the quality of teaching as excellent, good, fair, poor, or very poor, then “fair” might imply “fair-minded; treats all students equally.” Try your questions out informally. Then be prepared to adapt your language after you pilot your questionnaire.

The answer format matters.

When it comes to actually laying out the instrument as a piece of graphic design, you will have to include answer sections. Obviously there is a difference between open-ended questions, where the respondent can provide an answer in textual form, and the closed question.

There are also different kinds of coding approaches for closed answer sets. There is a difference between asking respondents to “tick all that apply” and asking them to rank things in terms of importance to them. Constructing nominal data is more straightforward than constructing ordinal data. So, you should make the answer format fit the kind of question asked.

Do not ask leading questions.

Always make the question as neutral as possible. For example, the Scottish National Party was not allowed to make the 2014 referendum question: “Do you agree that Scotland should be an independent country?” This is a leading question!

Order in coding of answers can matter.

One way to control for this in a large survey is to vary the order in which choices are presented while keeping codes constant.

Always pilot your data collection instrument.

Generally, pilot questionnaires include more open-ended questions since one of the purposes is to establish the range of answers as a basis for developing a coding frame. But always test the questions as far as you can. Piloting will also help you to assess whether any of your language is ambiguous.

Include the category “other.”

When you present respondents with a list of choices always include the category “other” and allow space for respondents to write in what “other” means.

Search for resources about questionnaire design

What Is Social Network Analysis?

Social network analysis is a method for exploring the relationships among social entities. It is often associated with a view that a focus on relationships is crucial for understanding the social world.

Social Sciences and Social Connections

Social scientists have long had an interest in social connections. For example:

- The study of kin relationships is a staple of anthropology
- Studies of power elites have been important in Sociology, Political Economy, and Political Science
- Contemporary social and economic Geography regards the nature of connections among places as fundamental to any spatial social science.

How Can Social Networks Be Represented?

- Social networks can be mapped with a pen and paper and the making of diagrams of connections is a fundamental part of the approach. This is a

particularly useful way of using visualization in social science. The networks can be represented in a way which is immediately accessible to others.

- The mathematical approach of graph theory has been deployed as a way of representing social networks in a formal fashion. Graph theory is a way of representing the relationships among pairs of objects, which are understood as nodes, and the connections among them, which are edges. Graph theory underpins several of the available computer packages which can be used in social network analyses, including Netminer and Pajek.

What Other Uses Can Be Made of Social Network Analysis?

Social network analysis is widely used commercially. It has become a fundamental tool of police and security agencies that use it to identify networks of criminal connections or potential terrorist networks. In principle, this is done on the basis of network analysis of metadata. However, recent revelations from whistle-blowers indicate that the content of electronic communications has also been accessed on the basis of preliminary network analyses of connections.

Search for resources about social network analysis

What Are Experiments and Quasi-experiments?

Why Do Social Scientists Conduct Experiments?

Experiments and quasi-experiments make interventions to see if they create specific changes in social entities. They are designed to test the view that the intervention will make such a change. The notion of causation, which underpins these approaches, is simple and singular. The potential cause is the intervention. It either will or will not achieve the intended change.

How Do Experiments Work?

The essence of all experiments is the idea of control. In bench experiments this is achieved by a physical intervention in which all other potential causes of change are held constant and only the possible causal factor is allowed to vary. Here the experiment is able to access deterministic cause—if the hypothesis being tested is correct then the effect will hold always and everywhere.

This kind of control is not possible in the social sciences. Nor is it possible in most biological science and all biomedical and agricultural science. Instead, experiments in these fields have to work with a probabilistic conception of change in which potential causes do not hold always and everywhere but are more likely to hold than not.

The Randomized Controlled Trial

The essential form of experiments in the social sciences is the randomized controlled trial (RCT). They work like this:

- Cases are allocated to either intervention or control groups

- The intervention is applied to the control group
- Subsequent outcomes are compared using statistical techniques to establish if there is a statistically significant difference between the intervention and control groups.

It is very important to note that the differences are not likely to be evident for all cases. RCTs can only establish statistical probability of cause across large numbers of cases. They can never demonstrate cause for a particular individual case.

Why Is the Number of Cases Important When Conducting Experiments?

In an RCT the control lies entirely in the random allocation of cases. There should always be enough cases in both the control and intervention groups for there to be valid application of statistical techniques dependent on the law of large numbers. There should be at least 40 cases in each group.

This is quite possible in pedagogical and biomedical experiments where very large numbers of cases may be accessed. Indeed, it is conventional in biomedical work to conduct meta-analyses of separate RCTs and combine data from them so the number of cases in the combined set can run into the tens of thousands.

Unless an adequate number of cases are accessed, it is not possible to carry out proper experiments in the social sciences since it is not appropriate to deploy tools of statistical inference in interpreting the findings of the research.

Quasi-experiments

Quasi implies something like an experiment which is not quite an experiment. The term “quasi-experiment“ is often used to describe research which investigates outcomes in relation to interventions where the intervention has not been induced by the researchers.

For example, some police forces adopt a “caution but not prosecute” approach to the personal use of recreational drugs. Others adopt a prosecute approach. If there is available data on drug-related crime in the areas concerned, then researchers might draw inferences about differences in those rates which assign cause to the difference in policing practice.

Any experiment which does not achieve the strict protocol of an RCT cannot be more than a quasi-experiment.

Experiments and Causality

A crucial limitation of any causal account generated by an experimental method is that the account is probabilistic. This means that no valid inference as to the causal effect can be drawn for individual cases, only across large numbers of cases. Likewise the causal logic is simple: there is one cause and only one cause.

Both of these limitations have led many social scientists do dismiss the value of experiments. In particular, the approach of analytic induction was developed as a qualitative alternative which addressed the complexity of the social world. This

has much in common in terms of causal logic with realist approaches and overlaps with the causal logic underpinning grounded theory.

Search for resources about experiments

Search for resources about randomized controlled trials

Search for resources about quasi-experiments

Checklist: Are Quantitative Methods Right for My Research Question(s)?

Here are six questions to help you decide if quantitative methods are right for you.

- **Can I address my research problem(s) through measuring variation?**
- **Can I measure variation through any of the following methods:**
    - An experiment or series of experiments
    - An original survey or surveys
    - Obtaining secondary data based on a survey or surveys done by others
    - Through developing an equation-based simulation (or simulations) which is based on calibrated measurements from the social world
- **Can I operationalize the variation of interest to me in a way which enables me to generate meaningful numerical data?**
- **Do I understand the mathematical methods which are necessary for me to be able to use my numerical data in answering my research question(s)?**

- **Do I understand the forms of statistical inference which must be applied if my data have been generated from a sample or samples?**
- **If I want to make causal statements on the basis of my data, do I know how to do this?**

What Are Mixed Methods?

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> [SOUND EFFECTS PLAYING] How would you define "mixed methods research" for any student who's not encountered the approach before? Well, most people define it as a combination of quantitative and qualitative methods.
>
> I tend to avoid those words because I don't think you can make that clearer distinction between those approaches. I have a quick review of a survey, for instance, as being a fairly qualitative method. It just uses numbers instead of words to record answers. So the boundary is not clear, and so I'm not so insistent
>
> as others would be of having to have both qualitative and quantitative. I just say it's a combination of either different types of data, different types of data sources, or different kinds of analyzes in order to develop an out-

come that is integrative

so that they have to be interdependent with a common purpose-- and the integration is critical. So those sources or those analyzes must become integrated. That's so that you achieve something more than you would if you just did each separately.

So what does "integration" mean in that context? Well, it really is that interdependence and bringing the two together in mutually-informing ways to produce some sort of outcome that would be difficult to do just with one or the other method. So how does your definition of "mixed methods"

differ from that of others? Well, it's mainly that I'm not so insistent that it has to be a "qual" and a "quant" method-- that it could be two methods that people might call "qual" or two methods that people might call "quant." Yeah. OK. How did you become interested in mixed methods?

I think I always have been-- right from almost in undergraduate days and certainly my Ph.D. thesis, which I did in the '70s, was mixed methods. And then I wouldn't necessarily have called it that thing, but I certainly would now. It's "mixed methods action research."

And it's like-- it was a bit radical in psychology at the time. [CHUCKLING] But-- yeah. So I've otherwise taken the approach of using whatever data

I can get hold of to help answer the question that I want to answer, and I'm not worried about whether that's text or numbers

or qualitative or quantitative. So that's always been the case, and I did a lot of evaluation work in the '80s that always used multiple methods or mixed methods. And then in the '90s, when computer programs became available for qualitative methods, and that's when I really got in more heavily

into the qualitative side of things. And almost immediately, I started experimenting with trying to take data out of the qualitative program and use it in a stats program and to combine at least the demographic-- if not, other data-- quantitative data in with the qualitative.

So I was doing that about from-- you needed three, which really wasn't set up for it. So it would have been early '90s or early to mid-'90s, I was trying that. Formally, I didn't really gotten on to the mixed methods literature until late '90s.

I think, at that stage, I was very busy and not reading as much and just didn't discover that formal literature where there were all paradigm debates and things like that. I was just doing it. I was fairly oblivious to things like paradigm debates at that stage.

So then I spent a couple of weeks, in 1998, at University of Nebraska with John Creswell, who introduced me to the mixed methods literature. And from there, I got to know Jennifer Green and Valerie Caracelli, who had written some of the key articles

at that time. And then I started reading much more widely with the various theorists as a background to mixed methods. Yeah. It was sort of an accidental start in that sense. So what was the part about your research questions

that you felt demanded a mixed methods approach? I was doing a lot of evaluation work, which necessarily involves process as well as outcome, and so they require an understanding of how people experience things and what actually goes on.

So you're using data that is not necessarily numeric. And I think also just the complexity of social issues requires-- more often than not-- at least multiple methods, if not that sort of more integrated type

of mixed methods.

Why Are Mixed Methods Useful?

It is possible, and often desirable, to bring a mix of qualitative and quantitative methods to bear on a research problem. The idea of triangulation means that we

are more confident about our knowledge claims if we make them on the basis of more than one mode of inquiry. The term “triangulation” comes from land surveying where we fix the position of any point by constructing a reference to two other points whose position has already been established. In social science we don’t have other calibrated points. But we believe that if different approaches give us the same sort of account of reality then this makes our account more likely to be an accurate representation of context, processes, and structure.

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> [MUSIC PLAYING] I think, first of all, we need to start with the idea that it's a methodology that's fairly new, about 20 years old.
>
> The work of several people back in the late 1980s, early 1990s really began our thinking about how we would bring together quantitative and qualitative research and integrate the two approaches. What's given rise to this recently would be that this becomes a methodology that
>
> has wide applicability. It brings in both the quantitative and the qualitative researchers. It spans across different disciplines. It spans across different countries as well. Certainly, we're at a point where qualitative research has

become recognized as a more legitimate approach to research. And I think quantitative researchers realize that so that now bringing together qualitative or quantitative makes sense. I think it's a very intuitive way. In fact, I write about this. I use the global warming documentary by Al Gore

to point out how he uses both statistical trends, as well as personal stories to weave together an entire documentary about global warming. So I see mixed methods as a very intuitive way.

I had a physician write to me once who asked about how to describe mixed methods research. And his view was, think about it as a soccer or a football game, where you've got both the color commentator that gives the detail of individual lives,

and then you have a play-by-play commentator seated right next to each other, and both of them together provide a commentary about the game of soccer. I think what we're seeing today is mixed methods is spanning across a number of disciplines, a number of fields, especially in the social sciences

and the human sciences. In the social sciences, we see social workers, marketing researchers, communications specialists, educators, sociologists, psychologists all beginning to think about how they might integrate

both quantitative and qualitative data

in a single study or in a program of study in the mixed methods design. And we also see around the world an increased interest in mixed methods research. The international mixed methods conference began out of the United Kingdom and England. There's a lot of interest in Europe,

a lot of interest in South Africa, interest in Indonesia, Japan, and many of these countries are becoming very interested in mixed methods research. So it's been described as the third methodological movement. First, we had quantitative.

Then we had qualitative, and now we're moving on to mixed methods research as the third movement. Some of my graduate students gravitate to mixed methods research, because they see it as the latest methodological approach. It's an approach that's often used

to study complex problems in our world today. The federal government in the US is promoting mixed methods research by encouraging more projects that integrate quantitative and qualitative data. So the way I describe it is we have here a fast-moving train,

and I'm running alongside beside it trying to keep up, trying to keep

abreast of all the developments that are going out through different disciplines across different countries in the world. [MUSIC PLAYING]

When Can I Use Mixed Methods?

Most methodological positions, other than crude positivism, allow for the use of multiple methods of inquiry which may generate different forms of data. Practical issues in the use of mixed methods are:

- **Timing**: Do we use methods in sequence or deploy them at the same time? We may do both of course.
- **Compatibility of data**: Descriptive quantitative and qualitative data can be easily used together. But it is harder, though not impossible, to deploy qualitative and quantitative materials together in making causal statements.

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[MUSIC PLAYING] One of the questions I often get is when should a person

choose a mixed methods approach versus the quantitative approach or,

perhaps, a qualitative approach? This is a good question, and I think it's taken a lot of years to get some clarity about how we might answer this. And I'll attempt to talk about it here today.

First of all, I think that mixed methods is useful, but either quantitative or qualitative data alone does not give a full understanding of the problem. So by using mixed methods approaches and integrating the two approaches to data collection--

quantitative and qualitative-- a person develops a more complete understanding of the research problem than either one by itself would net. So we know that quantitative research can give us the broader trends, the broader generalizations, the specific variables with a large population,

but we know that qualitative, too, can give us the more detailed views of individuals, participants, their voices and within the setting which they engage in the problems. So bringing both of them together gives us a better understanding. I think a person also uses mixed methods when they have a skill

level in both quantitative and qualitative research, so they can bring the two together. This requires taking coursework or gained experiences in quantitative research and gaining experiences or taking coursework in

the qualitative areas as well.

There are kind of a number of key characteristics I think of qualitative research to lend this to be an ideal design. First of all, a person needs to have both a quantitative and a qualitative database. And I think both databases need to be gathered and used in a fairly rigorous and persuasive way.

Then both databases are integrated together. They're brought together in a mixed methods study. Now the integration can either be merging the two databases, actually bringing them together so that they provide one common voice in understanding the problem, or it might be connecting the databases.

For example, I'm going to do a survey research followed by a focus group. Another way to think about these two databases would be that one could be a more supportive database embedded within a larger study. So we have qualitative data, for example, flowing into an experimental project.

So integrating the two databases is a key concept. Further, there's philosophical assumptions that are behind doing any form of research, and there's a number of writers who've talked about the philosophical ideas in

mixed methods research. And also, there are specific designs that have emerged.

So some of the designs that I've written about and talked about are a convergence design, where you merge the two databases, an exploratory sequential design, where you might start qualitatively and follow up quantitatively. We might reverse them, where we begin qualitatively

an exploratory sequential design, and then follow it with quantitative data. Or we might embed one form of data into another, such as a qualitative database into an experiment. We're also getting today a number of studies where people are gathering both quantitative and qualitative databases,

bringing them together, integrating them in some form, but casting them within a larger theoretical framework. So for example, we can do a feminist mixed methods study, where we're gathering both forms of data and using a feminist lens throughout our entire project. Or another form that's emerging that's very interesting now,

and that would be what we call a multi-phase project, where the first project might be quantitative, the second qualitative, the third quantitative, the fourth qualitative. We've got a number of projects flowing across time

in the longitudinal design, where we are linking these different phases--

a multi-phase mixed methods design. So we're thinking in terms of designs. So these are some of the central characteristics in choosing the design-- having a study where more than just quantitative or more than just qualitative can help us best understand the problem.

Integrating the two forms of data, pursuing both forms of data in a rigorous and a persuasive way, thinking about how we might link those two forms of data, and also how we might give priority to one versus the other, using philosophical frameworks, and then also considering that there are multiple design

possibilities that have emerged now, so we can label our mixed methods design. We can draw a visual picture of it. We have a notation system for it. These are some of the developments that have emerged in mixed methods research.

Examples of Deploying Mixed Methods in Sequence

Perhaps the most common way in which mixed methods are deployed is in sequence. For example:

- Quantitative methods might be used to establish patterns in data, and in

particular to identify interesting categories of cases. We might then address representative examples of these categories through qualitative inquiry.
- Qualitative inquiry might raise questions as to the general applicability of our description of cases and we could then deploy survey methods to assess these.

Search for resources about mixed methods.

Checklist: Are Mixed Methods Right for My Research Question?

Here are five things to ask yourself when deciding if you should use mixed methods.

- **Would my knowledge claims be stronger if I can "triangulate"?**
- **Can I move from quantitative exploration to qualitative interpretation?**
- **Can I move from qualitative exploration to the construction of:**
    - either generalizations through quantitative exploration
    - *or* the construction of quantitatively founded causal statements?
- **Will I be able to use the data generated by different methods in synthesizing a coherent overall understanding of the issue(s) I am going to investigate?**
- **Will I use methods:**
    - In sequence?
    - Simultaneously?

- Both?

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