Sage Research Methods

Research Design

Research Design

Introduction

This stage will:

- Explain the difference between planning and designing research
- Help you match your research design to the most appropriate research method(s)
- Allow you to distinguish between the different types of data that your research method(s) will generate

Research plan and *research design* may sound like interchangeable concepts, and some people do use both terms interchangeably, but each has a specific meaning in terms of social science research projects.

What Is a Research Plan?

This refers to the overall plan for your research, and will be used by you and your supervisor to indicate your intentions for your research and the method(s) you'll use to carry it out. It includes:

- A specification of your [research questions](#)
- An outline of your proposed [research methods](#)
- A [timetable for doing the work](#)

Your research plan can be, and usually is, modified as you do your research.

What Is Research Design?

The term "research design" is usually used in reference to experimental research, and refers to the design of your experiment. However, you will also see the term "research design" used in other types of research. Below is a list of possible research designs you might encounter or adopt for your research:

- Descriptive or exploratory (e.g., case study, naturalistic observation)
- Correlational (e.g., case-control study, observational study)
- Quasi-experimental (e.g., field experiment, quasi-experiment)
- Experimental (experiment with random allocation and a control and test group)
- Review (e.g. literature review, systematic review)
- Meta-analytic (e.g. meta-analysis)

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[MUSIC PLAYING] Geoff Payne, thank you very much for talking to me today. We're going to talk about research design and operationalization and I wondered first if you could introduce yourself. And after you've introduced yourself,

we can start with the first question. I'm Professor Geoff Payne. I teach research methods to students in sociology and politics at Newcastle Uni-

versity and I'm the author of Teaching Quantitative Methods and Key Concepts in Social Research, both of which

are published by SAGE. Thank you very much. So some of the key concepts-- let's assume that I am a new PhD student and I'm arriving for our first meaningful supervision. What are the key concepts of research design that I would be well advised to bear in mind as I start my study?

I think the problems that we face when any of us start research is thinking things through well in advance, rather than rushing into the project. And that applies whether you're talking about a PhD student or an experienced researcher or an online graduate doing a dissertation. It's very easy to be overcome by anxiety

because we don't know how research is going to go. We don't know whether the concepts are going to work. We don't know whether the methods we choose will deliver the kind of information that we want. And if you haven't much experience doing research, it is a really anxiety-ridden period. And the temptation is to rush into things, particularly if you have a supervisor looking over your shoulder, saying,

come on, get on. We've got to get things done. And if you do rush into things before you've thought them out, then you're laying out problems for later on. And so there is a stage in research, whether it's quantitative,

qualitative, deductive, or inductive, where we really have to sort of get out of our heads, Work it out on paper and pencil

before we get very far into the project. And that's why, very often, people who teach research methods talk about the research question. They want to try to focus on a very, very simple and short statement that summarizes what the research is going to be about.

I think that's sometimes an impossibility. You can't get it into one sentence or it becomes such a rambling sentence to do the job. So maybe there are several research questions which are all interrelated. So you might put in a research paragraph. But the whole point of that is to say in a very fundamental way, what is it you want to find out?

And unless you have that very clearly in your mind-- and don't conflate it with what methods you want to use. That comes later. But what is the theory, the concept, the idea that you're working on? And then, that will tell you-- hopefully once that's clear to you-- what kind of data you want, what you've got to generate,

in order to present that so it can relate to the theoretical issues that you're trying to tackle in research. So should I be thinking of doing my literature review before I

actually come to a decision about what methods that I will use in my study? I think that's the best way to go about it. I know we all go into research liking one particular style or method rather than another, that something's a bit better with us as people, just our personality. And all of us would have had research methods modules

in which one approach rather than another has been emphasized and we've been better at one rather than another. But I think if you start off thinking, I want to do a piece of research based around focus groups or social surveys, I don't think that you're going to be able to tackle the complexity of the concepts

and the ideas and the theories that you're actually trying to tackle. So getting the right amount of reading done gives you the ideas that you want to start with. And as you refine those and have a clear understanding of them, then you can decide what is the most appropriate data to collect and therefore what is the most appropriate method to access that data.

And so operationalization follows from that, the planning of the gathering of the data. And so tell me a little bit more about how that would typically unpack itself. I think if you look at operationalization, it depends what you want to do and that

will determine the form the operationalization can take. Let me give you

an example of social class. If I'm going to do social mobility research, which is an area where I've done a lot of work, then normally, I'm going to be using seven social classes in order to analyze mobility rates.

Part of that's convention. That is what is accepted lore. And sometimes, we do talk about three social classes. If a cohort compared results from several different studies, the class streamers may not quite fit. But if I do reduce them a bit, I can make comparisons, a service class, an intermediate class, a routine operatives

or manual class. And that may be enough but most of the time, I'm going to need seven social classes. So I have to decide which schema I'm going to use. I'm going to use cohort schema or I'm going to use the ONS socio and economic classification or whatever. And that in turn implies knowledge of the literature about why those

are good or bad schema, what the advantages and disadvantages are. And then, I'm going to have to ask questions about family background. So do I use head of household, which usually means male head of household, or do I have to include mothers because mothers have a huge impact on the educational aspirations of their children?

If I want to combine fathers and mothers, how am I going to do that? Whereas in the 1970s, we could go out and say, let's take head of house-

hold and it will be a male, end of story, we've come to realize that that is an inadequate framework and now I don't think anyone will set up

a mobility study which didn't attempt to draw on both the father and the mother. And I'd need to think about, is this a simple nuclear family? What if this is a step family? Who will I go to look at? So I have to work through and I don't like feeling in doubt. So I might start off by saying, OK, common sense says

use a standard schema. But then, I have to also think about how I apply it. And let me contrast that into any study of something like students' taste in music, in which class might be a factor but what about gender, age, ethnicity, which part of the country?

And in that case, social class is just one of many variables. So I don't need to go into so much detail in terms of operationalizing it and collecting data [INAUDIBLE]. For example, if I'm strict in terms of the number of questions that I can ask, then one way I find a social class problem, if it's not

a major issue, is I ask the post code of the student's home. I can then look it up on Acorn to see the type of neighborhood and that will give me an approximation of the social class. It won't be perfect but it's what the Higher Education Statistics Agency does rather than asking three or four

very

specific questions so that they can do a highly accurate class categorization because they don't need that level of accuracy. And so in a dissertation for an undergraduate degree, probably we don't have very many cases that she or he's looking at. But Acorn will allow you a few free go's to look up those post codes.

So it's a very easy way of achieving what we need for that level. Don't go and collect data you don't need. We haven't got enough time to do all that. That's where getting the research design, what do you want to study, what is it you want to find out, how are you going to define it, and then

what are the [INAUDIBLE] steps with your methods to naturally get it together. I think that's a really good and clear advice but it's also quite a methodological one, isn't it? And you're attaching at the end of your answer

all issues of the contingent time-related nature. And how do you value impact on our [INAUDIBLE], I wonder? Some students think you won't have long to get out a bit of data. What happens then? Well, just what I said at the beginning, time invested at the beginning is what's best.

Don't find yourself partway through a study and realize you've collected the wrong kind of data. And that is not just a technical issue but it involves around what you want to actually study and the kind of exclamatory relationships you're trying to establish with your data.

So the most popular topic in recent years for undergraduate dissertations is eating disorders. Something like 10% of students want to do eating disorder research. And in fact, what they want to do is to establish their objection to the fact that the media present women's bodies in a very stylized way,

which emphasizes slimness and beauty, and that this in some way causes eating disorders in young women. And I think, A, that there is some plausibility in that, and B, I think eating disorders are a very important issue. But what comes out in research is on the one side, we've got literature that tells me about eating disorders

in a general sense. And then, I'll get an analysis of some media, some magazines or possibly television programs, possibly some interviews with some people who are experiencing eating difficulties, but the three aren't connected. If you're going to say that the media are causing

these disorders, then we have to find a way of showing that the media actually connects those people, that they've read those magazines. And

in fact, if you're talking about people who already experience eating dis-orders, then it's not today's media we need to look at. It's yesterday's. It's what happened earlier in their lives.

And we need to elaborate that really around is it just young women? Why is it young women? What about young men? What about older women? There are ways in which we should be exploring the relationship between the two. And again, if the media are behaving this way, as clearly they are, why are they? And this whole mass of research writing about media production, which tends to get

left out of this, who owns the newspapers? What do journalists do in their day-to-day business of filling the column entries? So unless you come back to the research question again and again, you've got to sort out that at the beginning. And then, you can look at the timeline of doing your re-search. And I recommend that people stop at the far end, the deadline.

Write off at least two weeks as slippage. Everyone gets ill. So build that in, bring your deadline back a couple weeks, and bring it back anoth-er week to allow for actually that extra bit of time for proofreading and checking on portion sentences, eventually. And [INAUDIBLE], that starts getting worried.

The timing begins to shrink back. But that's very important because doing

these plans of your timing serves to give you one, a certain flow in most [INAUDIBLE] force. You've got something to measure yourself up against

and that puts pressure on you sort of to help you get through what are actually quite complex steps in the research process. And too, in monitoring yourself, you can see whether you're ahead of the game or you're behind the game. It's not the timeline is absolutely fixed and I always recommend to my students

that they really do their time schedules, at least once and probably two or three times, taking account of how well they're doing and taking account that there's other things. It's not just planning out your research project on its own. You have to think about other things. You have to think about other things like Christmas and family holidays and having bits where you reward yourself

by having a few days off and not feeling guilty about it. You're not enjoying the time off if you feel guilty about it. But if you planned it as a reward for having achieved a phase of research, then you get so much more out of it. So it's possible to think of a calendar of months or years

and you can block in when you'll get most of the research phases done, a little during review. You won't finally finish the literature review but you'll

get right to the end of the project. But most of it you will do. You'll be adding that little bit and mostly, some stuff will come out. And getting a draft written-- I think

that's the other strong piece of advice. To write up research at the end is a terrible mess. No, you write it as you go. Draft it and re-draft it. It doesn't have to be perfect but get it together as you go along. And then, the business of writing

is part thinking, part understanding. The important thing is to write as you go along. You mustn't take the view that you can write it all up at the end. Writing the drafts is a way of thinking about what you're doing. It's making you explain it to someone else and putting it down on paper and that actually explains it back

to yourself and you begin to say, no, that isn't what I thought. Perhaps it's not as convincing as I thought it was going to be. And then, you're improving it and writing is not a single exercise. We write and we re-draft and we re-draft and we polish. And at the end, the challenge is, I say,

stop doing that and it's time to hand it in. And no one wants to let go of their cherished baby. Unless they're [INAUDIBLE] for SAGE, they're never going to go to council. [INAUDIBLE] [MUSIC PLAYING]

What Will You Emphasize in Your Research?

Research is a process by which we try to find things out about the social world. What you emphasize in your research, both in terms of how you do the research and what you eventually focus on when writing about the research, will depend on the sorts of things you are trying to find out. The research questions you formulate will be determined by the purpose of the research.

Questions to Ask to Determine the Emphasis in Your Research

Evaluation research.

- Did the intervention work?
- How did the intervention work?

Exploratory research.

- What is the nature of this part of the social world?
- What questions result from our conclusions about the nature of this part of the social world?

Explanatory research

- What has caused the phenomenon which has been investigated?

Action Research.

- How have we changed things as a consequence of the research?

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Thank you, Naomi Jones, for sparing some time to talk to us today. I wanted to ask you how I might go about designing policy-focused research. Well, that's an excellent question. Policy-focused research can be designed, I think, with several questions in mind. Firstly, what is it that you're trying to achieve?

What are the questions that you want to answer? Who are the audiences that you want to reach? What kind of policy makers do you want to influence and how do you want them to be influenced? What are they likely to do with the research that you've produced? How are they going to use it? How are they going to translate it into policy? I think all these questions need to be answered before you start designing any research.

It's quite common, in my experience, that people get very stuck into designing a methodology and deciding how they're going to approach a particular piece of research before asking what the purpose of the research is. So that's the really crucial thing, first off, is to ask yourself what is it

that I want this to achieve. And then set it out, designing something that can achieve that, realistically and pragmatically.

Very good. And typically what do people want to achieve by policy-focused research? What are the range of questions that are likely to be asked? Well, the fantastic thing about research is that, in the UK in particular, it has such a role in building an evidence base that allows policy makers to really transparently show

how they're using public money. So the pinnacle of good policy making is to say, well, let's take a range of evidence, some of which would hopefully need more research, and understand how it is that we can shape policies, answer questions based on this evidence. So I suppose the classic example that we would use at the National Centre for Social Research is

evaluation where we are evaluating how a particular piece of policy is working. So the government might set up a program directed at, I don't know, young people for example, and alongside that program would be a piece of research to evaluate how well it's actually working in practice. Now, that would serve several purposes. On the one hand, it acts as a

transparency tool.

It shows where the public money is going into that particular policy initiative. But also, depending on how it's evaluated, the research that we do can throw back questions about how it's working and help those policy makers, then, to reform the policy and reshape it and develop it over time so that it becomes more and more targeted.

What about, perhaps, the criticism that this is naive and that, in fact, rather than having evidence-based policy we have policy-based evidence? Well, I think that's-- I can understand where that criticism might come from. The challenge and the reason, I think, that sometimes comes to light is because there's a translation

job to be done between where researchers go out and get public views and turn that into research and then translate it into policy speak. So things do have to sort of be changed. We do that as research organizations. We go out and say, tell us what you're thinking, public. Tell us what you think of a piece of policy. Tell us what you need.

And then we translate that into a language that policy makers can understand. And I think that translation is really important but can sometimes

be misinterpreted as reshaping evidence to suit policy rather than actually drawing on hard, rigorous evidence-- which it is and should be. And it's also about how that translation is done so that evidence can be used in policy.

Because research is by definition very nuanced, public opinions are very nuanced, and often what policy makers want to work with, the kind of cold, hard facts, the kind of headline findings that easily, snappily put it into kind of white papers or other kind of papers that might support policy. And so we've got a translation job to do as researchers that takes that nuance

and uses it, but turns it into something that policy makers can understand and use and draw on. And that's where the real challenge is. And I can understand where the criticism can sometimes come from, but it does work and policy makers do draw on evidence an awful lot of the time. How do we evaluate big policy? I mean, if we're talking about something like education

policy, which may be changed by one government to another, that's an enormous thing to evaluate. What are your criteria for evaluating that?

Well, I think the key thing is to be cutting it down into bite-sized chunks. So we wouldn't evaluate education policy as a whole. We'd evaluate one section of that policy.

So, for example, the government recently started rolling out free school meals program, the pilot. That's something that National Centre for Social Research is evaluating. So we're looking at how that's working in practice, what does it mean to those children that are receiving free school meals, what does it mean to the parents, and what it means in reality.

I think to do a good evaluation is to bring together a range of methods and to triangulate those methods. So qualitative methods, quantitative methods, looking at the views of lots of different stakeholders any programs. So an education program might have teachers, parents, pupils involved. Also a range of other stakeholders, including people in the government. And a good evaluation should be getting the views

and perspectives from all of those people and triangulating them, and bringing them together into central messages that the policy makers can then use. And what sort of evidence, then, do policy makers like to use? Well, as I say, policy makers like to use evidence that they can very quick-

ly lift out and put into short briefing papers for ministers

or that have hard kind of impact facts in them. So that's quite often statistical evidence, [INAUDIBLE] surveys for example. And it can be a real challenge because although that evidence is often available, as I say, public perceptions and views are often very nuanced in a way that policy can't always afford to be.

So there's a bit of a tension there. But more and more, I've found, policy makers are welcoming the more holistic type of evidence that applied research can produce, including that produced by qualitative research, which draws on people's kind of experiences and attitudes. And it's just about how you present that and being very careful not to get bogged

down in the detail of the methodology that you've used, but drawing out findings. And what policy makers really want as much as the evidence is some interpretation. So presenting the findings isn't enough on its own. What you really need to do is say, right, this is what we think the evidence means for this particular piece of policy and here's why we think it means that, so that you're helping them develop the next phase

and working with them. And the best synthesis of policy and research

is where the two come together and work together and say, right, here's the evidence. Here's what we need to achieve, here's how perhaps if we work forward together, drawing all we know from the data. And again, Naomi Jones. Thank you very much. Thank you.

How Does This Work for My Research Project?

Your research project can be categorized as at least one of the above types of research. You should realize that it is not the level of the research or the form of the final document which matters here. The research may be done for an under-graduate or Master's dissertation, for a research degree thesis, or as a piece of stand-alone research, whether pure or applied. What you emphasize in your project depends on the purpose or purposes of your research.

Which Methods Should I Use?

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[MUSIC PLAYING] In the 1980s-- early '90s on through the '90s-- there were a lot of what were known as the paradigm

debates, the idea that quantitative methods were associated with a positivist paradigm, a view of the world that says we can know what reality is, and we can measure it, and our measurements are accurate. This is the more qualitative approach that sort of was based on this idea that you interpret the world or you construct

the world around you. And that was a major issue. Then I think that's been fairly well resolved now, with people taking one or other of a more middle type view of either a pragmatist view of look, this works,

let's just do it. And that's not necessarily a philosophical pragmatism, it's just a day-to-day what works type of pragmatism. But based on experience this works, which does kind of have a philosophic-- a critical realist-type perspective, where you can sort of say, well, there is an absolute reality out there,

but we can't know exactly what that is. We have to construe it or construct it in some way. Each person sees it in a slightly different way, and this is affected by your social environment or culture or whatever. So that's one area that for some people is still a problem.

And then on a more practical level, the kinds of issues of skills, time, cost. If you're gathering data in more than one way, there's additional skills needed. There's additional cost involved. And so on-- additional time. Then you meet publication problems of space in journals

that-- you know, some journals that only allow you 3,000 words. And even with a little server you struggle to fit that in 3,000 words. So mixed methods becomes difficult. Students worry a lot, don't they, about justifying the methods that they use? And it might be reassuring to hear you discuss pragmatism.

Is that OK? Is it OK to have a pragmatic attitude to methodology? My approach to methodology is that I will use whatever method suits the question and the kind of data I've got available. So the two criteria are, what's the question I want to answer? What data can I get that's available? And I will base the methods I use

on-- I wouldn't call it methodology so much as the methods I use-- on that. And I guess you'd describe me as an eclectic methodologist. I read widely. I don't follow any particular theorist or approach. I read widely.

I do-- I'm not sure if this expression works in England, but-- the bowerbird approach of picking up whatever bits and pieces are helpful. So yeah. I guess we call that a magpie approach, but it's-- Oh, you call that a mag-

> pie-- --it's a similar thing, isn't it, picking different things eclectically?
>
> --and yeah, and just, this is an interesting idea. This is going to help me with this particular problem I have, or whatever. [MUSIC PLAYING]

The social sciences have a large number of possible research methods at their disposal. You can use these tools individually or in combination. If you combine them, you can combine them in different ways. You have to take some of the following key decisions.

How Many Methods Should I Select to Answer My Research Question?

- **One method**: Sometimes only one method will work. For example, if you are doing a randomized controlled trial, you will need to use quantitative methods which work for testing your hypothesis.
- **Different methods**: Often different methods can be applied to the same problem. You might use all of the possible methods, but that would be unusual.

Which Methods Do I Understand?

Understanding a method means knowing how it works and how you can use it to generate research output which you can use to answer your research question.

Understanding comes before competence. Sometimes people become technically competent without understanding—this leads to bad research!

Am I Competent in the Methods I Want to Use?

You should be basically competent in the methods you choose—you should understand the nuts and bolts of doing the work—before you actually start gathering the research materials. However, you can acquire a greater degree of competency while doing the first phase of the project. But you must build the time for doing so into your research plan.

Should I Use Multiple Methods and How Will They Work Together?

If you are going to use multiple methods then you must know how these methods will work together.

- **Using different methods to answer different research questions**

  Often you will use different methods to generate material which will answer specific research questions. For example, you might use [documentary methods](#) to establish the origins of a particular policy decision, [interviews](#) to find out how key workers understand the implementation of the policy, and a [social survey](#) to assess the views of those affected by the policy. You will need to work out how these elements relate to each other and how each contributes to the overall objectives of your research.

- **Using different methods in sequence**

  Sometimes, as in the example above, it makes sense to use different methods, one after the other. It is helpful to know about the history of the policy before interviewing the workers, and information you gain from them will help you frame your survey.

- **Using more than one method at the same time**

  Sometimes it makes sense to use more than one method at the same time. For example, you might be doing ethnographic research in a developmental context at the same time as you are using secondary data to describe that context. There is no right or wrong way here. You have to think through what will work for you.

Are There Any Traditional Methods in My Discipline?

You need to be aware of the traditional methods used in your discipline or field. This does not mean that you must use the traditional methods. But if you depart from the usual practice, then you must understand why and be able to justify it. Innovation is good—but it can be risky!

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[MUSIC PLAYING] Stephen Gorard, thank you very much for talking to us. My first question today is, how do I choose

between different methods? The standard answer would be on the basis of what it is you want to find out. It would be absurd to pick a method in isolation from what you're going to be trying to find out. So think of great questions. We know, in reality, that there's an intuitive process. You start with an idea, or a feel, or a theme

that you're interested in. And as you discover more about it, in fact, what you want to do changes slightly. So maybe your very last version of the research method questions will be towards the end of the project. Of course, if you change completely, it's a very different thing. But for the moment, assume that you're working on something. That you would pick the methods that would be most appropriate.

Now, that sounds basic and obvious. And yet, it's quite revolutionary. Because in Social Sciences, that very rarely happens. I'm going to give you an analogy. I've recently moved house. And in moving house, I wanted to buy a new one. In the UK, that basically involves getting a mortgage. And so I've been putting quite a lot of my money,

or promising a lot of my money, for 25 years, whatever, to a bank in order

to buy a house. So how do I go about buying a house? Well I went to visit it. I looked at the roots. I looked at the neighborhood. I looked at the cost of the loan, and how much the repayments would be, how much the insurance would be, and so on. And I synthesized all that naturally in my head. I came to the decision that this house was, or was

not, worth this amount of money. And in any skill or task that you or I do we will tend to behave in the same way. We will naturally collect all relevant data, synthesize them without concern-- we might be better or worse doing it-- but that's how we'll do it. And come to a decision that this worth it. This is cost effective. This is, whatever it is.

So when I'm doing Social Science research, I'm acting exactly the same way. What I find odd is that the same people who, like you and me-- if they were buying a house or booking a holiday, or looking after the health of their loved ones, would make rational decisions on the basis of all of the data available to them, naturally synthesized-- would suddenly say, Oh, I'm not that kind of researcher.

As a researcher, they would do the equivalent of saying, I don't want to know the price of the house because I don't do numbers. Or I'm not going to visit the house because I don't do that kind of work, and I don't do

in-depth work. I think if you think of it in terms of that analogy of buying a house or booking holiday, it's an utterly ridiculous thing to do. So you don't choose your methods beforehand, you choose the methods once you have the questions.

And once you have the questions, it's fairly obvious. If you're saying, has the extent of which children from poor families clustered in particular areas or particular schools, or are dealt with by particular hospitals, has that changed over time? You would have to collect numeric data about attendance at hospitals and attendance in the schools.

If you want to know, perhaps it has changed, why has it changed? Then you'd presume you'd have to do some observations, some historical documentary archival analysis. So the methods fall naturally, almost like ripe fruit, from a decent question. So how do we come up with decent questions? OK. That's a very interesting one. And it's one of those areas that is, I think,

currently underdeveloped in research methods training. There are a range of different ways of doing it. Most people, perhaps when they start with a PhD, perhaps just like yourself, what they will be doing is they'll have and area that they're really, really concerned about. We often come

with autobiographical reasons. I was particularly concerned with injustice

which I'd come across in my professional life. One thing, though, is to re-fine that by reading the literature and so on. The danger of reading too much literature is you may end up essentially just doing what everyone else does. The beauty of coming at things fresh, as you do when you start your PhD, is that's where innovation happens.

That's good. So, once I come up with a research question, then I have to devise a research design. And how am I to go about thinking about doing that? I guess you're going to repeat your answer in some ways, but-- I could say more which is that if developing such questions is

an immature area of research training at the moment. Research design is almost completely absent. It's the Cinderella of the research methods arena. There are courses being taught, results that's being published, and websites available which purport to be about research design, but are actually are not. So one of the key things for me about research de-sign

is that it is independent of any methods of investigation. Take a stereotone example like, longitudinal study? A longitudinal one where I'm

going to pursue a group of cases over a period of time. In my own field of education, I might be tracking some student through school or college and looking at some changes over time.

I could observe. I could use smell, touch, taste, numeric text data about them. The design you're following through time is completely dependent of the methods of data collection and analysis. So that what I would expect from the student would be the questions lead to the design, and also then to the methods.

But the design doesn't determine methods. So if you're going to do a round of a controlled trial, you could that by looking to see whether people say they are happier at the end of the intervention than they were at the beginning. It doesn't have to be complex, statistical analysis or anything like that. That's a very pragmatic approach to doing research and coming up

with research designs. And I guess that contrasts, doesn't it, with some people who seem to start with theory? And I wonder whether you could talk a little bit about that relationship. Two reasons for that. One would be the field in which I work. So education, like many in [INAUDIBLE] public policy is automatically an applied area.

So if you want in-house studies, or crime, or housing or education, you tend to be coming across as being [INAUDIBLE] a bit, genuine problems that real people have out there. So in a sense, theory, as I think you mean it, is not really relevant. The government wants to know if we pay adults to go to literacy evening classes,

if we give them incentive, will that improve their attendance and attention? It's a perfectly pragmatic question. And we as investigators will investigate it. There's not a huge amount of theory. Of course, if it does or doesn't work, we might then want to explain why incentives do or don't work. So that would be the first reason. The second reason is perhaps a bit more controversial. I would say there's lots of methods training

and a lot of methods advice being given by people who don't do a lot of research. There are people who become de facto methods experts, or deemed experts. And what I would advise all researchers to do is when someone wants to give you advice about research, is look at the research they've done themselves. Because if they know how to do research, they will have done it. And you'll be able to see the success of their approach

and what they've done. And I find it very disquieting when there are people telling us how we should do research, or if it is possible to do research

in a particular way, when they haven't actually tried it themselves. And I'm not going to name names, but there are some very high profile people who are deemed to be experts in method that tell us we must do it this way and that way and another.

And I've never seen an actual paper by them of any research at all. How does that come to be? Those are my two parts to the question. The third angle on it would be, yes of course, the theory can be important, I've investigated theory-driven approaches, but they don't tend to become pragmatic.

Because the theory, if it's a genuine theory, generates capital propositions such that, if you're looking at human capital theory, people will behave in a certain way and you can test that. If you test it and they don't behave in that way, then you've got some evidence supports your theory, but not

the right one. So it's not like you can have a theory which you stick to. So I'm not one of those people who has a theory like a religion. And I think there are people who look at research like that. I don't really understand how or why, don't really want to understand how or why. But, you do get that venerating some [INAUDIBLE] or something.

And actually, and often, enjoying what they call the conceptual loose-ness. So they can make it be like an inkblot test. You can make it fit al-most anything you want and call it a lens. I don't do any of that work, be-cause out there people don't want it. So theory is what we do at the end

or while we're doing our research? Theory will generate propositions to be tested. Obviously, everything is involved in theory. But I suppose I try-- I don't want to go into the details-- but I try [INAUDIBLE] three different types of theory. So there's the genuine theory which is to explore stuff, to explain it in a way that can help us.

Or help us to transport solutions from one area to another. Or to general-ize findings from one country or one sector to another. And the big ticket theory-- which is what I think of with religion, which is unaffected by data and I think would be not noticed if we simply eliminated it. So by that, you mean formal theory, or formalized theory?

I mean when people are using theories as lenses. But they're trying to use the cache that the word theory has as an explanation of a certain event. But not actually testing it, and not be concerned whether it works or not. But just using it, essentially just like an inkblot test. You can say, well, I'm going to use the concept of happiness,

or whatever it is, to help me explain these interviews. I think what [IN-AUDIBLE] I've never seen anything where if you eliminated that, it would make any difference to substantive findings in research. It worries me, I suppose, that it's a red herring. So if I'm at the start of my research career, then perhaps

the better thing I should do is to develop my own repertoire of skills in different forms of data gathering and data analysis so that I can adapt to different research questions. Would that be your advice? There would be an infinite number of ways that you could research anything. And you can't possibly in your last year, or six months,

whatever it is, to develop skills in all of them. I think you should-- I think we should all be hungry, to learn more. I mean, that's what we do. We start learning when we are finished. So I said yes, we should be looking for more. The main reason that I think we should be looking wide at a repertoire of skills, is as consumers of research, the key thing

is you're going to be reading and making critical judgments about existing research. How can you do that if you've got no idea what people have done? I mean they don't necessarily make it easy for you by explaining it well. But even if they do, if you've got no idea what an ethnography is, or

you've got no idea how you can do a [INAUDIBLE] test or whatever it's going to be,

how are you going to know whether or not what they've said makes sense? I can't understand a researcher who would suggest that they were mono-method or duo-method. We all have to have some under-standing of all of them. Because otherwise, what you're going to do with the stuff that you were reading about which you don't know? Are you go-ing to say, I will reject all of it because I don't do that.

Or I will accept all of it, which is really dangerous, isn't it? So as a critical consumer, I think we have to have all of that range, but when you come to do your more specific project, you are bound to do that skills in a par-ticular area, or one or two things. But then you might have a new project. What I'd like to see from researchers is that they build on the skills that they've got,

but perhaps each new project, they're going to invent a new method. I very rarely use an off-the-shelf design or an off-the-shelf method for any project. I mean, I very rarely use the same method twice because the situations don't recur. What you do is, you look at what's available and, perhaps, redesign, or redevelop stuff, or combine

two or more things to make an approach belong to this particular question. [MUSIC PLAYING]

Read more about [traditional disciplinary research methods](#)

How Can Social Theory Help Me Identify a Research Method?

What Is the Relationship Between Social Theory and the Methods of Social Research?

Social theory has implications for the research methods we use. Research methods can, in turn, inform the development of social theory. The relationship between social theory and research methods is called a reflexive or recursive relationship.

How Does This Relationship Affect the Method(s) I Choose for My Research?

Social theories generally are informed, often implicitly, by methodological positions. It is important to identify the methodological underpinning of any theories you engage with so that you can critically assess their foundations in terms of ontological and epistemological understanding.

If you are doing [empirical research](#) in relation to issues and questions developed in the theoretical traditions of your discipline, then you will often use the methods which have contributed to the development of that theory in the first place. But you do not need to. So long as you can justify your departure from tradition, it is often possible to gain important new insights by addressing central theoretical questions in a discipline in a new way by using untraditional methods.

Read more about [social theory](#)

Read more about [ontology and epistemology](#)

Who Will Benefit From My Research?

It may seem presumptuous at this stage of your research to think about the long-term impact your work may have. But it is important to take on board some of the key theoretical and ethical considerations raised by the question "Who benefits from what I have to say?"

Can Social Research Be Neutral?

Social research is seldom "neutral" in terms of its potential impact. This is because social research contributes to social knowledge, and social knowledge about the social world plays a part in making the social world the way it is—knowledge is *reflexive*.

The social sciences all accept that human social action plays an important part,

even the major part, in the constitution of the social world. They endorse an explicitly social *ontology*. So the descriptions and causal accounts we generate from our research have implications for how the social world will be in the future. That may seem a very bold statement. Should we really be thinking that our own piece of work matters to that degree? The answer is that it very well might and we always have to work on that basis.

Can Social Research Have an Impact on Social Inequalities?

Our world is not equal in terms of resources and power. Much of the work of the social sciences is concerned with describing those inequalities and attempting to understand their implications. The products of social research often have implications for those inequalities. *Feminist* and *Postcolonial* critiques of the social sciences have asserted that it is not only the products of research which have implications but also the way in which research is done.

Can Social Research Be Objective?

One longstanding position is to assert that social researchers must work objectively and regard their work as neutral and outside disputes about resources and power. Even if that position is taken, and many reject it, it remains the case that research can have social implications.

Does It Matter Who Benefits From My Research?

Considering who benefits is always important. By asking the question, we are considering what individuals, or groups of individuals, will gain or suffer from the results of the research. It puts the issues of inequality and the socially constitutive role of social research right at the front of our minds.

How Do I Match My Research Method(s) to My Research Question(s)?

The method(s) you use must be capable of answering the research questions you have set. Here are some things you may have to consider:

- Often questions can be answered in different ways using different methods
- You may be working with multiple methods
- Methods can answer different sorts of questions
- Questions can be answered in different ways.

The matching of method(s) to questions always matters. Some methods work better for particular sorts of questions.

Which Method(s) Should I Use to Test a Hypothesis?

If your question is a [hypothesis](#) which must be falsifiable, you can answer it using the following possible methods:

- An [experimental method](#) using statistical methods to test your hypothesis.

- [Survey data](#) (either generated by you or secondary data) using statistical methods to test your hypothesis.

Which Method(s) Should I Use to Describe a Social Context or Process?

If your question requires you to describe a social context and/or process, then you can answer it using the following possible methods:

- You can use data from your own surveys and/or secondary data to carry out [descriptive statistics](#) and numerical taxonomy methods for [classification](#).
- You can use qualitative material derived from:
    - [Documentary research](#)
    - [Qualitative interviews](#)
    - [Focus groups](#)
    - [Visual research](#)
    - [Ethnographic methods](#)
- Any combination of the above may be deployed.

Which Methods Should I Use to Produce Causal Statements?

If your question(s) require you to make causal statements about how certain things have come to be as they are, then you might consider using the following:

- You can build quantitative causal models using techniques which derive

from statistical [regression analysis](#) and seeing if the models "fit" your quantitative data set.

- You can do this through building [simulations](#).
- You can do this by using figurational methods, particularly [qualitative comparative analysis](#), which start either with the construction of quantitative descriptions of cases from qualitative accounts of those cases, or with an existing data set which contains quantitative descriptions of cases.
- You can combine both approaches.

Which Methods Should I Use to Produce Interpretive Accounts?

If your question(s) require you to produce interpretive accounts of human social actions with a focus on the meanings actors have attached to those actions, then you might consider using the following:

- You can use [documentary resources](#) which include accounts of action(s) and the meanings actors have attached to those actions. This is a key approach in historical research.
- You can conduct [qualitative interviews](#).
- You can hold [focus groups](#).
- You can do this using [ethnographic observation](#).
- You can combine any or all of above approaches.

Which Methods Should I Use for Evaluative Questions?

If your question(s) are evaluative, this could mean that you have to find out if some intervention has worked, how it has worked if it has, and why it didn't work if it didn't. You might then consider using the following:

- Any combination of quantitative and qualitative methods which fit the data you have.
- You should always use *process tracing* to generate a careful historical account of the intervention and its context(s).

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There are a number of considerations in research design process about the sample ethical considerations, et cetera. One of the big decisions interview researchers make is about the level of structure. So, in other words, to what extent, will the interview questions, sub questions, follow-up questions, be articulated in advance?

And, to what extent, will they be expected to emerge from the interaction of the interview? And there are deep epistemological and philosophical reasons why researchers choose one style or another. But for researchers using technology, there are additional things to think about.

Let me give you an example. If I am conducting an interview using a

text-based technology, either using a mobile device, instant messaging, or texting in a virtual environment, then I might want to think through my questions in advance very carefully and break the questions into smaller

questions because I don't want the interviewee to get bogged down trying to type long responses. I want to keep that flow back and forth of give and take. On the other hand, if I'm using a technology, like video conference or meeting space where we're

using audio and perhaps even a webcam, then a more unstructured approach might work well because the technology allows for more natural kind of a conversation. But, then, I would need to make some decisions about how I want to present myself as a researcher.

Do I want to be on camera? Do I want the research participant to see me either making an introduction or throughout the entire interview? If I'm going to be on camera throughout the entire interview, then, again, I would need to be somewhat prepared because I don't want to be looking down or looking away from the camera

and kind of breaking the connection with the research participants. So the decisions about the level of structure in the interview, while rooted in the methodology, have other implications when you're thinking about the

design for an online interview.

[Search for resources about hypothesis testing](#)

[Search for resources about causality](#)

[Search for resources about interpretation](#)

[Search for resources about evaluation](#)

[Search for resources about process tracing](#)

Why Does It Matter Which Method(s) I Use?

There are a number of choices to be made about your methods. But it does matter which one(s) you use. Here are the main reasons:

- The method(s) must be capable of answering your research question(s).
- Different disciplines and fields privilege the use of particular methods. This may be important for you.
- You need to use methods competently. You should choose a method you are already competent in. Or you should choose one which you can acquire competence in before you use it in your research.

What Kind of Data Do I Want to Generate?

The two main types of data are:

- **Quantitative data**
- **Qualitative data**

Quantitative Data

Quantitative data are numerical. The numbers are attached to cases and they describe variable attributes of the cases. We make these data by measuring. Different types of quantitative data are:

Micro-data.

Micro-data refer to the original data which describe specific cases.

Aggregate data.

Aggregate data refer to the averages computed from micro-data which describe some larger set to which the original cases belong. The most common form of this is aggregate data for geographical areas. For example, the unemployment rate for males of working age in a certain state or county. Note that the original micro-data are nominal. That is, males of working age are or are not unemployed. However, the aggregate measure is continuous, a percentage which can vary between 0% and 100%. Aggregate data are a form of micro-data which describe not the individual but the larger entity, in our example the state or county.

Cross-sectional data.

Cross-sectional data refer to data collected at one specific point in time.

Longitudinal data.

[Longitudinal data](#) are collected for the same cases at multiple points in time. We can use such data to trace the trajectories of the cases through time. For individuals and households, longitudinal data are typically collected through panel studies in which the same cases are revisited at regular intervals and data are collected from them. One example is the cohort studies in the UK where a panel of children are studied through their life course, beginning at birth. Census data can be drawn together for different census years to create a longitudinal data set for geographical areas.

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[MUSIC PLAYING] I'd like to thank you very much for joining us. It would great if you could just briefly introduce yourself. My name is Heather Laurie. I'm the Director of the Institute for Social and Economic Research at the University of Essex. I'm a sociologist by background, and I've worked for many years

on some of the major longitudinal studies within the UK. Fantastic. So perhaps we could just start with you explaining what exactly a longitudinal survey design is. Well, a longitudinal survey is one where you follow

the same people over time. Most surveys that are done are cross-sectional.

So they take a sample of people at a given point in time, and they interview them once. So that's just a cross-section of the population at that particular point in time. A longitudinal study takes that same sample of people, but then it goes back to the same people continuously over a period of time.

Designs vary. Some surveys will go back every year and interview people. Some surveys may go back every two years or even at longer intervals, every four or five years. So it just depends on the design of the survey. So the main purpose of the longitudinal survey is so that we can measure change over time.

What we're looking at and the dynamics of change as people move in and out of different circumstances across the line, of course. [MUSIC PLAYING] Can you just explain some of the advantages that are going to come with using this kind of data.

Well, the main advantage is this ability to look at change over time. So what you're looking at is the antecedent of events that happen in people's

lives-- their family background, their education, their health when they're younger. You can then track these processes

across the life course and see people's outcomes later on. So there's been an awful lot of research, for example, looking at children's family background and their educational outcomes and then the subsequent effect on their labor market outcomes and lifetime earnings. So you can follow these events right across people's lives.

So that's the major advantage of the longitudinal data. And are there any limitations to using this type of data? Well, the limitations of using any data is just what's contained within the data. Any survey will never collect all of the information

that you might want to use in your research. But most of the large surveys do collect a lot of information that will be useful across a range of different types of research projects. One of the other limitations, I guess, is just that you really do have to get to groups with these sorts of data. They are quite complex. They're large data sets.

If you think you have a survey that's got say 10,000 people in it, and you then interview them every year for 10 years, you've got an awful lot of

cases. You've got an awful lot of variables that you have to manage and understand how to use. So it's always very useful to go on kind of training course, familiarize yourself with the analytic techniques that

can be used for longitudinal data, and also understand how to manage the data to help you when you're carrying out your analysis. [MUSIC PLAYING] Are there any top tips for students

who might be trying to engage with this type of data for the first time? Well, I guess my top tip first would be to look at the questionnaires. Questionnaires that are used in these surveys are a great way of understanding what's actually been asked of respondents. What questions were asked, and what

were the potential responses that people could give? So I always think that's a really good place to start. Once you've got a bit of a sense of what the content is, you then need to look at the design of the study and decide whether or not that is the design that you need for your particular research questions. So for example, you might want to use a panel data

set such as the British Household Panel Survey or the New UK Panel Survey called Understanding Society. So that's a survey where we go

back every year and interview people on an annual basis. Or you might want to use one of the cohort studies, one of the British Birth Cohort studies, which are a fabulous data resource.

But their design is slightly different, because they take children who are born in a particular year and a particular time, and then they just follow that same cohort of individuals over time. So they're slightly different signs, in that one has the whole population in the sample and other just has one age cohort in the example.

So it really depends on the research questions that you want to answer as to which data source is best for you. And the best way to get to know them is to talk to people who have used them. Talk to people who may have used them, who understand the data sets, their advantages, their disadvantages, how they can be used. And that's a quick way of getting

to understand how you might be able to use the data. [MUSIC PLAYING] Can you just talk me through some of the key issues somebody designing this kind of study should bear in mind? Well, when you're designing any kind of a study,

I think the main thing is to be really clear about what the focus of the

study is. Be really clear about what your research questions are and the type of data that you are you going to need in order to answer your research questions. Once you've got that clear in your mind, the rest of it follows more easily.

So for example, you would want to think about the type of data that you want. Do you want to collect qualitative data? Do you want quantity of data? Do you want cross-sectional data? Do you want longitudinal data? There are a number of questions that you might want to ask yourself about what the design of the study is that you need in order to answer your research questions.

And that design will be driven by those research questions. So that's the first thing, I think. And then once you get down into the detail of actually designing the study, you start to get into the details of, well, what are you actually going to do? What sample do you need? How are you going to recruit your sample?

What sample size do you need? And, again, these are all things that will be driven by your research questions. You'll get down to things like, what's the content? What kind of content do you need for your particular

study? You might be doing a quantitative survey, so you'll have a questionnaire of some kind.

So you'll want to think about the questions you want to ask. How long can that questionnaire be? Are those questions good questions or are they ambiguous poor questions? So there will a lot of issues around content. And then there's a lot of other things to think about it terms of what do you actually do with your data once you've collected it? It's all very well going out and collecting a lot of data,

but whether it's qualitative or quantitative, quality of data, you will need to have it transcribed and need to be able to code it up in some way, possibly using some software. Quantity of data, you need to be able to process the data. It needs to be in a database that enables you to do some statistical analysis. So there are lots of down-line sort

of things that you need to think about, and it's very helpful to think about those at the start, not just leave them to the end, because you always find when you get to the end, oh, I didn't realize something in particular that then causes a problem. So you want to think about the whole life cycle of the process in one and then follow through

to what you're actually going to do with the data. How are you going to analyze the data? Think about the data you need for your analysis in the design stage, because once you've collected your data, it's a bit too late to turn around and say, oh, I wish I'd asked about X and I haven't. So you need to think about all of those things while you're going through the whole process.

So my main tip would be have a very clear focus, don't try and do too much in any one study, keep it feasible, and think about the whole life cycle of it, right through to the analysis, and if you're collecting data for a funder, for example, think about how you're going to promote that research once you've actually

completed it. [MUSIC PLAYING]

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[MUSIC PLAYING] BREN NEALE: Longitudinal research is a form of social inquiry that is conducted through, or in relation to, time.

And what is important about that is that time isn't just the medium through which we do the research. Time is an important dimension of inquiry in its own right. So what we're doing is engaging with concepts such as social change, how change is created, and causes and consequences of change.

It's also about continuities. It's about transitions and causality, and so on. And I think a nice shorthand way of thinking about longitudinal research is that what we're doing there is turning a snapshot of social life into the movie of social life.

INTERVIEWER: So how would that differ, for instance, from, say, historical research? BREN NEALE: Well, the historical is part of it, actually. And if I can come on and talk about difference of forms of this research, you'll see how important that is, because it's a very important part of it. Yeah? So if I think about the different forms

of longitudinal research, for a start, we have a qualitative dimension and a quantitative dimension. We start with the quantitative. What we're doing there is we have our large cohort survey studies. And in those, we are creating very big pictures of social change. We are engaging with the

broad social trends

going on in society. We're understanding what change is happening. OK? Quantitative researchers tend to work with a particular view of time. They're concerned with duration, sequence, and so on. They're particularly concerned, for example, with the spells of time that individuals spend in a particular state.

For example, the amount of time that people might spend in the state of cohabitation, or the state of unemployment. So through quantitative longitudinal research, these are large cohort studies. We get a particular kind of movie, to go back to that movie metaphor. The kind of movie that you get is your birds eye view, your long shot,

in other words, your grand, epic movie. And that's a very important movie to have. Now, if you think about the qualitative side of things, that produces a very different kind of movie. What you're doing is qualitatively engaging in time. It's looking at what happens on the ground and the interior logic of people's lives

and how they unfold. So, for example, you might know that people move from A to B, but qualitatively speaking, what you want to find out is how

that transition happens. What causes that journey from A to B? And what is the experience like, as you go along on the ground? So in other words, the process becomes just as important

as the outcome. The journey is just as important as the destination. So again, when you're working qualitatively through time, you get a very different kind of movie. It's the intricacies of people's lives, the twists and turns in the storyline on the ground. So what you end up with is your up close and personal movie. And in fact, both are very important,

and some of the best research brings those two kinds of movie together. INTERVIEWER: So what can longitudinal research tell me that, perhaps, other social research methods can't? BREN NEALE: OK. I think it's a very compelling and powerful form of doing research because it produces very distinctive forms of knowledge, in a circumstance where we

are facing rapid social change. It's only through time that we can understand how change is created, and lived, and experienced. In fact, it's only through time that we can understand the relationship between human agency, that capacity to act, to interact, to influence the shape of a life, and wider social structures in society.

It's only through time, in other words, that we can grasp the relationship between the micro and the macro, the personal and social, or between biography and history, because the relationship between those is essentially dynamic. So we need time to enable to see how these processes work out.

So through this method, we're actually able to address some of the real, grand challenges in social science today. And just to paraphrase something that Barbara Adam said-- and she's one of our celebrated time theorists-- when we start engaging with time, we quite simply see everything in a completely different way.

INTERVIEWER: So does that mean, if I am a new researcher at the start of my research career, and I'm interested in studying time and studying longitudinal change, does that mean that it's going to take me a long time? Do I have to be doing my research for 10, 20, 30 years? BREN NEALE: Well, that's one way of doing it. But in fact, there are many different ways

of engaging with, and making use of, longitudinal research today, particularly in the quantitative frame, but also now in the qualitative frame. There

are very rich datasets being produced, which are archived and available for reuse. And we have a growing field of secondary research,

secondary analysis, which runs alongside primary analysis. And it's a growing field, because it's very important we make use of these data. We can address new research questions, look at things differently through the lens of time. So that is what I would do. I would encourage re-searchers to think about the use and reuse of these rich data

sets that are now in existence. There are now new resource discovery tools to enable researchers to see what data sets are available, how to access them, thematic searching available. And there are new courses available to develop skills in secondary use. So I think that's the-- really, more of a shorthand way into making use of this new researcher.

INTERVIEWER: So plausibly, then, if I'm a PhD student, and I've got, say, three years to complete my doctorate, I can still do a longitudinal study? BREN NEALE: Absolutely. And in fact, if you're working in a qualitative frame, you can for sure do longitudinal research, because it depends what kind of research question you're asking. You can work very inten-sively, and track somebody through a particular transition, say, a journey

into parenthood,

or their journey through a particular hospital process. And that doesn't need to be over years. That can be a quite intensive tracking. Although obviously, if you can track people over further periods of time, then the historical value of what you do then becomes much more evident. IN-TERVIEWER: Are there problems, though?

With every method there are certain problems, whether they're theoretical or practical. What might be the problems with longitudinal research? BREN NEALE: Well, there are certainly challenges. In terms of practical challenges, for example, when you're out in the field and working qualitatively, we talk about sample maintenance. But in fact, what you're doing is maintaining relationships, sometimes over many years.

The ethics of doing that are quite a challenge to get right. When you're working longitudinally, you build up huge data sets. That data has to be managed. When you're analyzing that data, what you have to do is work it in a number of different dimensions. You have your repeat cross-sectional data that you analyze at each point in time,

and you're creating case studies that run through time. And then you're

trying to do an iteration between the two, so that you can see where lives diverge or converge. So you need to allow plenty of time for analysis. So the only thing is that this research is never really quite finished. There's always a sense that you're going to be out in the field again, finding out the next stage of the story.

And researchers sometimes find it difficult to find an ending for the research. There are three different kinds of research design. The first is a prospective tracking of people. And what you're doing there is following them in real time, as their lives unfold. Qualitatively speaking, we call that walking alongside

of people. So that's a little bit grandiose, but that's what we're trying to get at. And then you can see in real time about how their lives are actually changing, or not-- and that's the prospective. We then have retrospective designs. And when we do retrospective research, what we're doing

is creating a life backwards. And this is an important point. We live our lives forwards, but we can only actually understand a life backwards. So we create a life history which enables us to see the journey that somebody has been on to reach this particular point in time.

These aren't either-or methods, because very often the best research does both. It will look backwards and forwards in time, and track people as you go along. The third way of doing this research is what's sometimes called repeat cross-sectional research, but I think an easier way to think of it is revisiting studies. And in that frame, what you're doing

is following up a particular community, or an organization, or an institution, to see how it might have changed over many years. So you're not tracking the same individuals, and that-- there's a new big growth in that style of research, which is very powerful. And to give you some examples, there's a study in the UK

which is based in the Isle of Sheppey-- famous study, carried out by Ray Pahl. And researchers recently have gone back to revisit that particular study to see what's happened in the Isle of Sheppey since the original research was done. Another example-- Julia Johnson's work at The Open University in the UK. She has followed up on the work of Peter Townsend--

his study of The Last Refuge, which is a study of residential care for older people. So she's not studying the same people. She's looking at the in-

stitutional changes that have gone on. So these are very important methods for working through, time and again, with time. [MUSIC PLAYING]

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OK. So qualitative longitudinal research brings together two key terms-- qualitative and longitudinal. Longitudinal research, I think, generally refers to exploring phenomena over through time. And it very much involves privileging temporal processes.

So for instance, we might think about social mobility as a longitudinal concept, whereas social class would be a more static concept. We might think of careers as a longitudinal concept, whereas a job is a more static concept. The qualitative elements relates to the kinds of data

that we are collecting or using. So whereas quantitative approach would always seek to collect data that could be turned into numbers-- so quantified-- a qualitative approach would seek to capture data that has meaning in its own terms.

So that might be images. It might be peoples. It might be interviews. It might be observations. It might be soundscapes. That's one of the things that we're collecting a lot at the moment, is just these ambient sounds that characterize a particular setting or place.

So it could be, in a sense, qualitative could be almost anything, whereas quantitative is always number, ultimately. Saying that, the distinction between qualitative and quantitative is not one that we would be obsessed around.

And so there's a lot of linking of quantitative and qualitative research in this area. So if qualitative research can be pretty much anything, that means, obviously, everything is data. So what data do you use to inform qualitative longitudinal research, in particular?

And how to do you collect that data? OK. Well, I think as a sort of [IN-AUDIBLE] particularly the named kinds of research design, there was a sense that qualitative longitudinal research really was repeat interviews. So the notion that you would go back to someone, perhaps annually, and ask them a set of questions again.

Quite similar to the quantitative design. But I think increasingly, we are

moving away from the notion that qualitative longitudinal research is a research design, to think about it more as a sensibility. It's a particular approach where there's a privileging of time as a sub-analytic focus.

So you might be able, for example, to do qualitative longitudinal research in the course of PhD over three years, partly because you're attending to temporal processes. So you don't have to do a 10-, 15-year study in order to have a longitudinal quality. So it's a bit more about what you're attending to than necessarily having that repeat

waves of data collection. So for instance, a revisiting study could be a longitudinal project. Or an archival study, where you go into an archive and look at material, or you redeploy material, reuse archive data in new ways and new settings.

They may all be seen as longitudinal and qualitative.

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Qualitative Data

Qualitative data refer to all the forms of data which are not quantitative. We cannot use mathematical techniques to describe and analyze this sort of data. The main

form that these data take is text: Data are written up using language. There is an increasing use of non-textual data in the form of images and audio recordings. Typical sources of qualitative data are:

- Documents of all kinds
- Transcripts of, and/or notes taken, in interviews and from focus groups
- Notes written up on the basis of ethnographic observation.

Audio recordings other than transcripts from research are a form of document in the same way as written documents and can be analyzed and interpreted in the same way. Video recordings may have an audio component which we can handle in the same way but they, along with all other images, contain visual information which we have to process differently.

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> [MUSIC PLAYING] GRETCHEN B. ROSSMAN: Catherine's and my work over the years in designing qualitative research
>
> has really examined the whole issue of developing a qualitative design. So when we're asked how might someone consider incorporating active messages into a design, the first question that comes to my mind is are qualitative methods the overall design?

Or is the researcher considering integrating qualitative into some kind of a mixed-methods design? So that's kind of question number one. And we believe that the research question should really

drive the consideration of qualitative methods. CATHERINE MARSHALL: Right. And what people over the years have really enjoyed about our book is the way that once one says that the research questions require a qualitative approach, then we give some

almost step-by-step approaches to saying, OK, once you've got that match, then whether for the whole study as in an ethnography, or for parts of the study, as in mixed methods, in the qualitative component of your study, there are all these issues to deal with. And you must look at all of them in the proposal.

And while you might make some changes along the way, you're going to need to think, in the proposal, about access. You're going to need to be-- how do I get into the setting where I need to see the rich mix of the way things work out in the real world?

How am I going to get people to allow me there? How am I going to project myself-- because I'm the research instrument. So how do you I design, in effect, a role that will allow me to gather data over X amount of

time in that setting, or that range of settings?

How am I going to manage ethically? And that will vary from different times in the study to different sites in the study. Thinking ahead about, even at the proposal stage, being able to say, I think that these

are the kinds of things I'm going to be dealing with in managing the masses of data I'll be collecting in the real world. And even some early-on approaches to analysis. And so people, over the years, have really found it useful to have it very concretely laid out

in our book, Designing Qualitative Research. And it gives me great satisfaction that people use us as guidance. GRETCHEN B. ROSSMAN: One of the things that we have also focused on is the complexity of the various methods that have been written about and used

that come under this broad umbrella, qualitative inquiry. And so incorporating various kinds of qualitative methods into a research design can be done in very creative sorts of ways. So one might have designed a longer-term ethnography. And that could be punctuated, if you will,

with a series of phenomenologic in-depth interviews, or with a more personal narrative inquiry approach. So there are lots of complexities that

go into the thinking around how you want to use qualitative methods. Are they appropriate? Do they make sense? And do you, in fact, have the personal dispositions,

if you will-- CATHERINE MARSHALL: Yeah. GRETCHEN B. ROSSMAN: To make it all work. CATHERINE MARSHALL: That's a biggie. GRETCHEN B. ROSSMAN: Yeah. CATHERINE MARSHALL: That's a biggie. [MUSIC PLAYING]

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Should I Use One Method or Multiple Methods?

You may use just one method. Or, you may use multiple methods which generate different kinds of data which you have to manage in different ways.

If you use methods which will generate both qualitative and quantitative data, this is often referred to as [mixed-methods](#) research. It is important that you think carefully both in advance and through the research process about how you are going to integrate what you find from the different approaches and from different forms of data.

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Checklist: Questions to Ask When Deciding On a Method

Here are seven questions you should be able to answer about the methods you have chosen for your research.

- **Does your method/do your methods fit the research question(s)?**
- **Do you understand how the methods relate to your methodological position?**
- **Do you know how to use the method(s)**
- **If not, can you learn how to use the method(s)?**
- **Do you have the resources you need to use the methods? For example:**
  - statistical software
  - qualitative data analysis software
  - an adequate computer
  - access to secondary data sets
  - audio-visual equipment
  - language training
  - transport

    You need to work through this list and add anything else that you need.

- **If you are using multiple methods, do you know how you are going to combine them to carry out the research?**
- **If you are using multiple methods, do you know how you are going to combine the products of using them when writing up your research?**