SAGE researchmethods

Project Planner

Philosophy of Research

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This stage will:

- Explain the philosophy of research
- Provide an overview of methodology and methods
- Explain research traditions and different schools of thought

This section deals with the philosophy of research and research methodology. Methodology underpins all the work you do. These are important concepts which need to be understood, but they're one of the areas people find most challenging, so don't worry if they don't sink in right away. Read the section and see which concepts are familiar to you. Identify other things that are new to you—you can return to this section at any time throughout your project.

Why Do Research?

Research is used to find things out, reaffirm the results of previous work, solve new or existing problems, support existing theories, or develop new theories. A research project may also be an expansion on previous work in the field. In order to test the validity of instruments, procedures, or experiments, research may replicate elements of prior projects, or the project as a whole. The primary purposes of research are documentation, discovery and interpretation, or the research and development of methods and systems for the advancement of knowledge.

Research has one fundamental characteristic: It uses scientific methods to produce evidence and results. It does this by following rules, so that findings do not depend upon the personal views of the researchers.

The purpose of research is to:

- Review or synthesize existing knowledge
- Investigate existing situations or problems
- Provide solutions to problems
- Explore and analyse general issues
- Construct or create new procedures or systems
- Explain new phenomena
- Generate new knowledge
- …or a combination of any of the above!

(Collis & Hussey, 2003)

What's the Difference Between Methodology and Methods?

A method is a way of doing research, such as survey research, ethnography, documentary

research, or qualitative interviews. Methods are the techniques or procedures used to gather and analyze data related to a research question or hypothesis.

A methodology is the philosophical position which underpins our understanding of what we are doing when we generate knowledge about the world. Methodology is the strategy, or design, lying behind the choice and use of particular methods and links the choice and use of methods to desired research outcomes. Methodology is related to epistemology and ontology, and all of these concepts are sometimes referred to together as the philosophy of research or the philosophy of methods.

Transcript

00:14 Martyn Hammersley, thank you verymuch for spending a little bit of time talking to us.Nice to be here.And the question I wanted to ask youis, methodology-- who needs it?Yeah, well, I think that's an interesting question.Because I feel quite ambivalent about it.I think, from one point of view, you might say,

00:35 well, it's obvious that if you'regoing to do a piece of research then youneed to know quite a lot about particular methods,and you need to acquire certain sorts of skills, and so on.But I think there's a point beyond which it can actuallyget in the way and is actually a problem.I mean, the question you've got to ask, immediately

00:59 after "methodology, who needs it,"is, what do we mean by "methodology"?Because I think the trouble is that "methodology"can mean different things.I think the core meaning of "methodology"really is what you might call a sort of ongoing reflectivenessor thoughtfulness in doing research.That you need to-- obviously, there

01:20 are lots of decisions that are involvedin doing a piece of research, right from the startand right through to the end.And you have to make the best decisionyou can in the circumstances.But you have to be prepared to reflect on thatand think about the assumptions thatwere built into the decision that you made,what the consequences might have been,

01:42 what you could actually learn from that.It seems to me that that's the core of what methodology is.But, of course, when people talk about methodology,they're thinking very often about training coursesor even publications-- the huge literature on methodology.

02:03 So the question there is, well, what's the value of that?I think then you've got to say, well, what sort of contentare you thinking about?So, I mean, I tend to think in terms of at leasttwo sorts of categories.One is what you can call "methodology as technique,"which is very much about learning

02:23 about particular methods, learning particular skills.And that's obviously essential.But there is an issue about-- you know,given the huge range of different methodsthat are used in social science, how much of thatdoes somebody starting out on a particular project needto know?And I think you need to have an overview,but you don't need to have an in-depth knowledge

02:47 of the whole range.And I think there are dangers.I mean, there are dangers with the current pressuresto increase people's knowledge and skills in relationto quantitative method that I thinkthat I would prefer the emphasis to beon learning the logic and the basics,rather than learning sophisticated methods.

03:07 Because I think that's what's required.You can always learn sophisticated things later,if you've understood the basic logic.I think the logic, in one sense, is straightforward.But I think there are issues to think about, about what exactlyit is you do when you're looking for correlations, for example,I think.

03:27 The other problem with methodology as techniqueis that it can lead to rigidity.You know, if you read some of the booksabout research methods, they give a very cut-and-driedpicture of how you should do, say, grounded theory, you know.First you do this; then you do that.And yes, you need to know the basics about,you know-- this is what you have to think about;

03:49 this is a particular form of coding that you can use.But I think you have to be flexible,and you have to retain the element of reflexivity.The other kind of thing that you findwithin the methodological [INAUDIBLE] genrewould be methodology as philosophy.And that's obviously very important,

04:10 in terms of feeding this process of reflectionthat you need to think about someof the fundamental methodological issues.You maybe even read some of the philosophical literatureabout those issues.But, again, you can have too much of it.The methodologist philosophy can raise questionswhich are not necessarily important for how you're going

04:31 to do your particular project.They can also just confuse you, basically, and leave youin a quandary.And then you can end up spending your life reading philosophyrather than doing research.So I think there are pluses and minuses.So that's why I think "methodology, who needs it"is good, because it points to-- on the one hand,

04:54 there are things we need.On the other hand, there are dangers and potential problems.So is there a distinction between methodologyas technique and methodology as philosophy?I think there's a fairly clear distinction, yes.I mean, I think if you look at the different books thatare published, then you would probablybe able to categorize them, to a large extent,

05:15 into one category or another.I mean, there's lots of mixture, of course.But there's often a difference in emphasis.A lot of the literature mixes the two togetherand mixes it in a particular sort of way.That's useful and important.

05:36 You've got to think about, well, whatare the assumptions that are associated with this method?But the question is, well, how fardo we accept that method as it's specified, rather than thinkingnew ways to interpret it?Sometimes people talk about discourse analysis

05:56 in terms of five different kinds and you mustn't mix them.That seems to me to be quite the wrong approach.That yes, you need to understand the diversityof different forms of discourse and analysis.But you need to be prepared to be flexible and thinkabout how you might combine them or howone might inform the other.Equally, when people got forward particular methods

06:18 and draw on methodologies f philosophies to do that,they often talk in quite crude terms-- philosophical terms.So quantitative research is positivist.This kind of qualitative research is interpretivist,or it's constructionist, or whatever.All of those terms are contested termsand they're problematic terms.And rather than taking them at face value,

06:40 I think it's important to think about what they might meanand think about, you know, does quantitative researchhave to be positivist?And I think the answer to that is, not necessarily.But it depends on what you mean by positivist.I mean it's almost-- it's just an insult, now, really.It has very little standardized, agreed content.So, you know, what I think is crucial to methodology

07:04 is reflectiveness, is thoughtfulness, but,at the same time, doing research as a practical activity.So the thoughtfulness has always gotto be geared to what it is you'retrying to do in a particular project, what it is you'retrying to learn, you know, what method you're trying to learnin order to do something.And you can identify things that you

07:25 want to go and find out more about-- issuesthat you want to think more about.And you put those on one side, and you do that later.And you get on with doing research.But get on with doing your research-- that's fine,but leave places within it where therecan be a more reflective turn, where you can go backto some of those questions.

07:46 It's getting that balance that's important, I think.So are there communities that youhave in mind who are not being reflectiveenough about the process of researchand not thinking methodologically?I guess I could be thinking of government, as consumersand commissioners of research.Well, I think that what scope you

08:09 have for engaging in methodological reflexiveness--there is an awful lot, depending on the kind of researchthat you're doing.Certainly if you're doing researchthat is relatively short-term, fundedby an external body, somebody working within the [INAUDIBLE]commission, or something like that, where you'vegot a very specific task and you've

08:30 got to complete it within a short period of time.Seems to me the scope for reflectivenessthere is limited, both in terms of the timebut also in terms of what you can get away with, if you like.The task is defined by an external agency.Seems to me that the great value of academic researchis that you have more space for the kind

08:51 of methodological and theoretical reflectivenessand thoughtfulness that's necessary.Having said that, what counts as academic research-- you know,that varies a great deal.And increasingly the trend is mosttowards a well-specified focus to the research, identifying

09:14 what the impact of the project will be, and so on.And so I think that the pressures actuallyare on the space for methodological reflection.I think it's becoming harder and harder to engage in that.And it feeds on something which researchers themselves-- and particularly people just starting out doing research--

09:37 often feel, that if they start to engage in reflectionthey actually become scared about it,because they realize that there are questionsthey don't know the answers to.And they realize that there's literaturesthat are relevant to what they are doing that they don'treally know anything about.And sometimes the reaction to that is to say,well, I can't think about it.I can't think about that.I've got to focus on what I'm doing.

09:58 And there's an element of-- up to a point,that's a good reaction.Because, as I say, you've got to be pragmatic.Otherwise you'll end up being a philosopher.But I think you've got to try and resistthe external pressures to narrow the scope for thoughtfulnessand also your own-- if you have that sort

10:19 of emotional reaction, I think you've got to say,well, I'm just going to open this space a bitand just think about what I'm doing.And then I'm going to get back to it.I mean, other people have a different reaction.Some people actually want to spenda lot of time engaging in methodological or philosophicalreflection about what they're doing.And the opposite danger is [INAUDIBLE] there, you

10:39 have to say to them, well, yes, that's good, up to a point.But if you go much further with that,you won't be doing your project.You'll never get back to it.You'll never be able to complete.And the pressure on people to complete projects,now, is much greater than it was, say,when I did my PhD research, 30 years agoor something like that.

11:01 There was much less emphasis on completing with a specifiedtime.So we have more space for reflection.But it's important to keep that element open, as far aspossible, so that you can use methodological thinkingto improve the quality of the work that you're doing

11:24 and to think about what you can learnfrom what you're doing now for what you're going to do later.Thank you.Martyn Hammersley, thank you very much.

What Are Ontology and Epistemology?

Ontology comes from the Greek “ontos,” which means being, and “logos,” meaning study. It is the study of being. Your “ontology” is how you answer to the question: “What is reality?” It is important, because whatever assumption you make affects how you approach your research.

While ontology deals with the sets of philosophical questions which arise when we consider the nature of reality, epistemology deals with questions about how we understand reality—about how we can make knowledge claims of any kind. This word comes from the Greek “episteme,” which means knowledge, and “logos,” meaning study. It is the study of knowledge. Your “epistemology” is your answer to the question: “How can I know reality?”

Search for resources about ontology

Search for resources about epistemology

Do All Social Scientists Use the Same Methodology?

No, they don’t. There are two main philosophical positions, also called paradigms, underpinning social science research: positivism and interpretivism. One of the confusing things about learning about research is that the distinctions between these two are often over-emphasized or over-simplified. You’ll soon realize that many researchers do not strictly fall into one camp or another. So if you’re just starting out, spend some time reading about the terms and their definitions. Later in your research journey, you may be ready to reflect more critically on the differences between philosophical positions and where you stand.

Positivist social scientists use methods resembling those of the natural sciences as tools for understanding society. Positivism in the social sciences is usually characterized by quantitative

approaches which test hypotheses.

Interpretivist (also sometimes called anti-positivist) social scientists, by contrast, believe that because there is a fundamental difference between the subject matter of the natural and social sciences, the methods of the natural sciences cannot be used in the social sciences. The study of social phenomena requires an understanding of the social worlds that people inhabit; worlds which people have already interpreted by the meanings they produce and reproduce as a necessary part of their shared everyday activities. Interpretivists usually use qualitative research methods, such as ethnographic fieldwork or open-ended interviews.

In modern academic practice, researchers are often eclectic and can use multiple methodologies, for instance, by combining quantitative and qualitative techniques.

Search for resources about paradigms

Search for resources about positivism

Search for resources about interpretivism

Search for resources about mixing methods

What Other Terms Might I Encounter When Learning About Methodology?

Learning about theories of knowledge (epistemologies) and approaches to social science research developed from philosophical positions (methodologies) is often the most challenging part of learning about research methods. Partly, this is because authors, supervisors, and teachers can sometimes use terms differently or have slightly different explanations of what "realist" research entails, for example. Don't panic, just try to familiarize yourself with some of the key terms and definitions. Remember, you can return to this section of the Research Project Planner throughout your research to read about any of these concepts in more detail.

Some key terms you may encounter are listed below.

- Realism
- Critical Realism
- Instrumentalism
- Structuralism
- Post-structuralism and Postmodernism
- Phenomenology

What Role Does Theory Play in Social Science Research?

A theory can be described as a set of concepts and the relationships between them. There are a number of “levels” of theory which operate in the social sciences.

Grand theories (also called metatheories) are the broadest form of theory within a discipline and are sometimes referred to as conceptual frameworks or conceptual models. These broad, abstract theories are often useful as organizing frameworks for knowledge development, although they are not easily categorized as variables and therefore are untestable.

Middle-range theories are testable, although testing may require a series of studies that test specific concepts and relationships in the theory individually.

Micro theories, sometimes referred to as partial or situational theories, have the narrowest scope. Micro theories are restricted to a particular phenomenon or situation. Some social scientists have equated micro theories with research hypotheses because their narrow scope makes it possible for them to be tested with as little as one research study.

Search for resources about grand theory or paradigms

Search for resources about middle-range theory

Search for resources about hypotheses

How Do Theory and My Methodological Position Affect the Methods I Choose?
The way that you think about the nature of the world and the nature of truth will influence the methods that you choose to study the world and to generate knowledge. There are divisions across science as to the validity of different methodological positions. You are not likely to resolve these divisions, but you should be aware of them and be prepared to position your own work in relation to them. Ask your supervisor about their methodological position and find out about methodological traditions in your discipline. Knowing this will help you to critically engage with methodological issues early in your project.

Generally speaking, if you approach your research from a positivist perspective, you will use quantitative methods, which allow you to test a hypothesis. If you are approaching your research from an interpretivist position, you’ll usually use qualitative methods. This is a somewhat crude and over-simplified distinction, which is why it’s important to talk to other more experienced researchers about how they position their work to help you to think critically about where you stand.

Read more about different disciplinary traditions in relation to methodology

What's the Difference Between Qualitative and Quantitative Methods?

Quantitative research is characterized by the gathering of data with the aim of testing a hypothesis. The data generated are numerical, or, if not numerical, can be transformed into useable statistics. They are used to quantify attitudes, opinions, and behaviors and the aim is usually to generalize results from a sample to a larger known population. Quantitative data collection methods are more structured than qualitative data collection methods and sample sizes are usually larger. Common quantitative methods include surveys and experiments.

Qualitative research is primarily exploratory research. It is used to gain an understanding of underlying reasons, opinions, and motivations. Qualitative research is also used to uncover trends in thought and opinions and to dive deeper into a problem by studying an individual or a group, usually using unstructured or semi-structured techniques. The sample size is typically smaller than in quantitative research. Some common qualitative data collection methods include focus groups, individual interviews, and ethnographic fieldwork.

Search for resources about qualitative methods

Search for resources about quantitative methods

Are There Disciplinary Traditions I Should Know About?

You are doing research in the social sciences, but, as you know, there are a number of different social sciences which have different traditions and ways of working. It's important that you are aware of the research traditions in your discipline and understand the implications for your research.

Different disciplines may approach the investigation of the social world with:

- Distinctive theoretical foundations
- Specific programs or topics for research
- Particular research methods

Disciplines include, for example, Psychology, Sociology, Anthropology, and Political Science.

Of course, much research is also inter-disciplinary in its approach. For example Business, Education, Social Policy, or Urban Studies may draw on theories and methods from a range of disciplines.

While you will need to familiarize yourself with the research method currently used in your discipline, it's also good to know about some of the methods used in related disciplines. Here are some of the traditional approaches used in a selection of social science disciplines.

- Psychology: experimental work which generates quantitative data
- Anthropology: fieldwork based on ethnography
- Political Science/Politics: survey research

Many of these approaches have been challenged in recent years. When you come to write up your research, you may wish to do the same. You should also be aware that different research styles are favored in different countries. It is also common to deploy different methods in one piece of research—this is called the mixed-methods approach.

Search for resources about doing mixed-methods research

What Research Traditions Exist in My Discipline?
You may choose to work entirely within the methods and traditions of your chosen discipline or you may wish to challenge them. However, you should take time to decide which is the right approach for you.

1. Familiarize yourself with the traditions and methods of your own discipline/field. You can do this by talking to your supervisor or reading published research in your field.
2. Question whether the traditions or methods are appropriate for your research.
3. If you are comfortable with the tradition, work within it.
4. If not, decide how you wish to challenge the traditional approach. Think about how you will defend your decision when you present your research to others.

Search for resources about research traditions in different social science disciplines

Checklist: Things to Think About Before You Start Your Research
Here are some questions to ask yourself before you start your research, as you will have theoretical and practical things to work out.

- **Have you clearly worked out the general area you want to investigate?**
- **Are you interested enough in your area of research?**

  You will need the motivation to get started, keep going, and finish the job!

- **How have other social scientists addressed your topic?**

  You will need to use this knowledge to develop a set of researchable questions which will interest you and your future readers.

- **Can you get access to the field?**

You'll need to work out how easy it will be to get access to the people, the materials, and the social context you'll need to carry out your research.

- **Do you have enough time to carry out your research?**

  You'll need time to carry out your project, probably more than you think. You may find it helpful to look at times in the year when work or family commitments need to take priority.

- **Can you work out a timetable for your research?**

  At this stage it will be a rough plan, but you'll find it helpful to break your work into blocks.

- **Do you have all the equipment you will need?**

  Think forward to data collection and analysis and think about what equipment and software you'll need and whether you have access to it.

- **Do you require any money or funding to complete your research?**

  Find out if you will need to pay for resources, including the time of other people.

- **Do you have access to a library?**

  You will need to have easy access to an academic library to for your literature search. You should check that the library has access to the journal articles and other sources you are likely to need or are able to organize inter-library loans for you.

- **Will you have adequate support throughout your research project?**

  You'll need professional support and guidance from your supervisor and colleagues. Remember to keep friends and family in the picture, too, for practical help and support at home.