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Project Planner

Research Design: What Is Research Design?

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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)

Transcript

00:00 [MUSIC PLAYING]Geoff Payne, thank you very much for talking to me today.We're going to talk about research designand operationalization and I wondered firstif you could introduce yourself.And after you've introduced yourself,

00:21 we can start with the first question.I'm Professor Geoff Payne.I teach research methods to studentsin sociology and politics at Newcastle Universityand I'm the author of Teaching Quantitative Methods and KeyConcepts in Social Research, both of which

00:41 are published by SAGE.Thank you very much.So some of the key concepts-- let'sassume that I am a new PhD studentand I'm arriving for our first meaningful supervision.What are the key concepts of research designthat I would be well advised to bearin mind as I start my study?

01:02 I think the problems that we face when any of usstart research is thinking things through well in advance,rather than rushing into the project.And that applies whether you're talkingabout a PhD student or an experienced researcheror an online graduate doing a dissertation.It's very easy to be overcome by anxiety

01:24 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 choosewill 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, particularlyif you have a supervisor looking over your shoulder, saying,

01:46 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 outof our heads, Work it out on paper and pencil

02:09 before we get very far into the project.And that's why, very often, peoplewho teach research methods talk about the research question.They want to try to focus on a very, very simple and shortstatement that summarizes what the research isgoing to be about.

02:29 I think that's sometimes an impossibility.You can't get it into one sentenceor it becomes such a rambling sentence to do the job.So maybe there are several research questionswhich are all interrelated.So you might put in a research paragraph.But the whole point of that is to sayin a very fundamental way, what is it you want to find out?

02:50 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 ideathat you're working on?And then, that will tell you-- hopefullyonce that's clear to you-- what kind of datayou want, what you've got to generate,

03:11 in order to present that so it can relateto the theoretical issues that you'retrying to tackle in research.So should I be thinking of doing my literature review before I

03:31 actually come to a decision about what methodsthat I will use in my study?I think that's the best way to go about it.I know we all go into research likingone particular style or method rather than another,that something's a bit better with usas people, just our personality.And all of us would have had research methods modules

03:52 in which one approach rather than anotherhas been emphasized and we've been better at onerather than another.But I think if you start off thinking,I want to do a piece of research basedaround focus groups or social surveys,I don't think that you're going to beable to tackle the complexity of the concepts

04:15 and the ideas and the theories that you're actuallytrying to tackle.So getting the right amount of reading donegives 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 datato collect and therefore what is the most appropriate methodto access that data.

04:44 And so operationalization followsfrom that, the planning of the gathering of the data.And so tell me a little bit more about how that would typicallyunpack itself.I think if you look at operationalization,it depends what you want to do and that

05:08 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, whichis an area where I've done a lot of work, then normally,I'm going to be using seven social classes in orderto analyze mobility rates.

05:28 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 serviceclass, an intermediate class, a routine operatives

05:51 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'mgoing to use the ONS socio and economic classificationor whatever.And that in turn implies knowledgeof the literature about why those

06:12 are good or bad schema, what the advantagesand disadvantages are.And then, I'm going to have to ask questionsabout family background.So do I use head of household, which usually meansmale head of household, or do I have to include mothersbecause mothers have a huge impacton the educational aspirations of their children?

06:33 If I want to combine fathers and mothers,how am I going to do that?Whereas in the 1970s, we could go outand say, let's take head of householdand it will be a male, end of story,we've come to realize that that is an inadequate frameworkand now I don't think anyone will set up

06:53 a mobility study which didn't attempt to draw on boththe 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

07:14 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 somethinglike students' taste in music, in which class mightbe a factor but what about gender, age, ethnicity,which part of the country?

07:35 And in that case, social class is just one of many variables.So I don't need to go into so much detail in termsof operationalizing it and collecting data [INAUDIBLE].For example, if I'm strict in termsof the number of questions that I can ask,then one way I find a social class problem, if it's not

07:57 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 neighborhoodand that will give me an approximationof the social class.It won't be perfect but it's what the Higher EducationStatistics Agency does rather than asking three or four very

08:19 specific questions so that they can do a highly accurate classcategorization because they don'tneed that level of accuracy.And so in a dissertation for an undergraduate degree, probablywe don't have very many cases that she or he's looking at.But Acorn will allow you a few free go'sto look up those post codes.

08:40 So it's a very easy way of achievingwhat 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, whatdo you want to study, what is it you want to find out,how are you going to define it, and then

09:01 what are the [INAUDIBLE] steps with your methodsto naturally get it together.I think that's a really good and clear advicebut it's also quite a methodological one, isn't it? And you're attaching at the end of your answer

09:22 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 havelong 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.

09:43 Don't find yourself partway through a studyand realize you've collected the wrong kind of data.And that is not just a technical issuebut it involves around what you want to actually studyand the kind of exclamatory relationshipsyou're trying to establish with your data.

10:05 So the most popular topic in recent yearsfor undergraduate dissertations is eating disorders.Something like 10% of students wantto do eating disorder research.And in fact, what they want to dois to establish their objection to the factthat the media present women's bodies in a very stylized way,

10:29 which emphasizes slimness and beauty,and that this in some way causes eating disordersin 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

10:51 in a general sense.And then, I'll get an analysis of some media, some magazinesor possibly television programs, possiblysome interviews with some people whoare experiencing eating difficulties,but the three aren't connected.If you're going to say that the media are causing

11:15 these disorders, then we have to finda way of showing that the media actually connectsthose people, that they've read those magazines.And in fact, if you're talking about people who alreadyexperience eating disorders, then it's not today's mediawe need to look at.It's yesterday's.It's what happened earlier in their lives.

11:37 And we need to elaborate that really aroundis it just young women?Why is it young women?What about young men?What about older women?There are ways in which we shouldbe 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 writingabout media production, which tends to get

12:00 left out of this, who owns the newspapers?What do journalists do in their day-to-day businessof filling the column entries?So unless you come back to the research questionagain and again, you've got to sort out that at the beginning.And then, you can look at the timelineof doing your research.And I recommend that people stop at the far end, the deadline.

12:26 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 another week to allowfor actually that extra bit of timefor proofreading and checking on portion sentences, eventually.And [INAUDIBLE], that starts getting worried.

12:47 The timing begins to shrink back.But that's very important because doingthese 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

13:07 and that puts pressure on you sort ofto help you get through what are actually quite complex stepsin the research process.And too, in monitoring yourself, youcan see whether you're ahead of the gameor you're behind the game.It's not the timeline is absolutely fixedand I always recommend to my students

13:28 that they really do their time schedules, at leastonce and probably two or three times,taking account of how well they're doing and takingaccount 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 thingslike Christmas and family holidaysand having bits where you reward yourself

13:51 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 rewardfor 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

14:12 and you can block in when you'll getmost of the research phases done, a little during review.You won't finally finish the literature reviewbut 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 stuffwill come out.And getting a draft written-- I think

14:35 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 togetheras you go along.And then, the business of writing

14:55 is part thinking, part understanding.The important thing is to write as you go along.You mustn't take the view that youcan write it all up at the end.Writing the drafts is a way of thinkingabout what you're doing.It's making you explain it to someone elseand putting it down on paper and that actually explains it back

15:16 to yourself and you begin to say, no,that isn't what I thought.Perhaps it's not as convincing as Ithought it was going to be.And then, you're improving it and writing is nota single exercise.We write and we re-draft and we re-draft and we polish.And at the end, the challenge is, I say,

15:37 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]