

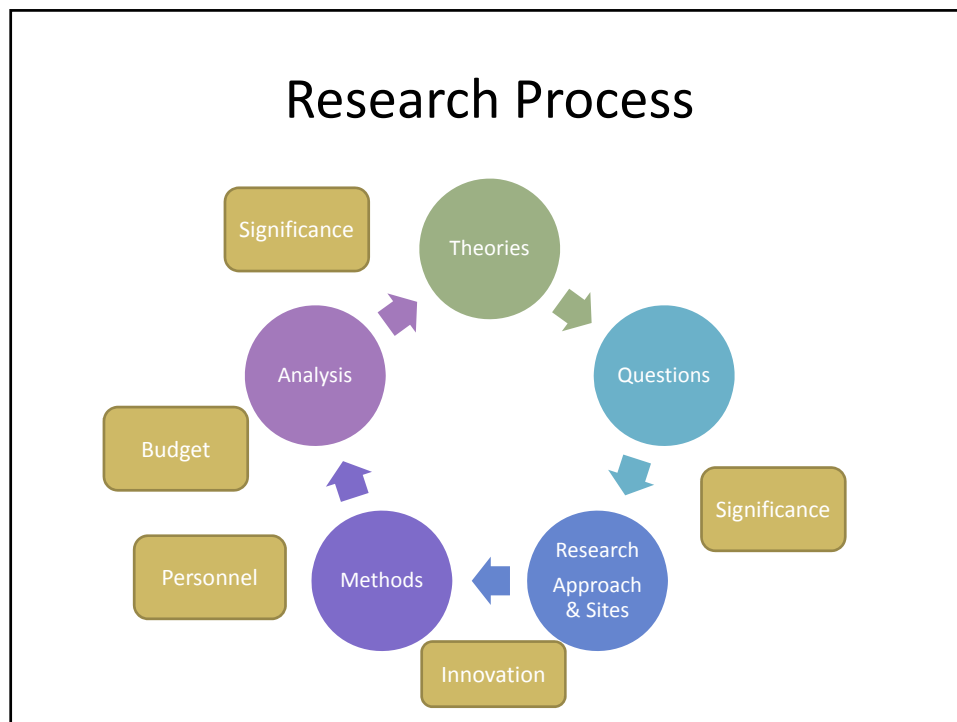
RESEARCH DESIGN ESSENTIALS

A travel through a research proposal and
research program

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Key Elements

- Conceptual innovation
 - Will it 'discover' anything new?
- Significance
 - Does it matter? To whom?
- Methodological rigor
 - Are we going to trust that its conclusions are valid?
- Rich, substantive content
 - Do you give the impression that you know what you're talking about?
- Respecting the process
 - Locating your work in disciplinary knowledge



Research Questions

- Narrow down your research questions
- Focus on theoretical concepts
- State your hypothesis
- Use the 'dunce at a party' test
- Find something memorable to impresses the assessor

Drought Project Example

An increasing number of people in farm households are leaving the land, but very little is known about where these departing farmers go or what industries and occupations they take up after farming. Do they stay in regional areas and continue working in agriculture-related industries, or do they move to cities and take up work in growing sectors of the economy? More generally, is this adjustment process restricted to rural industries and communities or is it producing structural changes across the economy? This project has been developed with the Victorian Government to answer these questions.

Approach & Sites

- Background the issues
- Provide a concise up to date summary of extant research that
- Leads to the research question, so that reinforces the significance of your question
- Who you cite is crucial
- Show how the experiences of the events, sites and people you aim to study shed light on theoretical currents
- Highlight the theoretical disjunctures that you question addresses
- Show how the project will advance theoretical understanding

Drought Project Example

Background section constructs a problem, a hypothesis and a program of investigation. The argument

1. Describes rural adjustment and its various expressions
2. Notes the tendency for extant research to focus on in situ strategies of continuing farms (the 'silo' of agricultural interests)
3. Indicates that the problem is bigger – its about the changing position of agriculture in the economy.
4. Invokes restructuring theory to refocus the issue.
5. Argues that the experiences agriculture will enable a reformulation of a spatially attuned restructuring theory

Then back to project:

1. Need to find out how extensive is the movement between farming and other sectors
2. Restate questions then frame research objectives

Drought Project Example

Frame the objectives so that they determine the research approach and methods:

The project will fill a major gap in knowledge by tracking the movements of departing farmers over five years. It will:

1. Record the extent of different adjustment actions, such as in situ restructuring and farm exit;
2. Provide an understanding of the constraints and opportunities that shape the decision to persist or quit;
3. Trace the destinations – both career and geographical – of exiting farm households;
4. Compare the fortunes of different sub-groups of farm households, defined by gender, location, life stage, financial resources, social ties and personal outlook;
5. Explore notions of what constitutes a successful outcome for the affected households, and for the men and women within these households;
6. Examine the characteristics of successful outcomes and explore gender differences in these assessments;
7. Assess the impact of current policies in promoting or discouraging successful outcomes;
8. Propose policy interventions that will increase the probability of a successful outcome; and,
9. Inform Victorian Government policy development at the whole-of-government scale.

What's in it for the industry partner?

A re-conceptualisation of the position of farming in the economy and regions i.e. To break with 'silo' thinking:

"Our approach might be clarified by applying the analogy of the river ... Rural and regional people are moved as if by the current of a river – the stream of their own history – toward their present unfortunate circumstances. They are constrained by the banks of the river. However, rivers can and do change their course when the currents are strong enough. A change in the course of the river does not happen by coincidence. It occurs when the stream is able to move the banks which direct it.

Gray & Lawrence (2001, after Metcalfe 1988)

This is why the project is 'significant' for policy.

Research Approach

- Begin with an argument about the methodological challenges of answering your research questions validly and reliably
- Discuss what is feasible practically (trade-off)
- Conclude that the methods you are going to propose will address the problem.

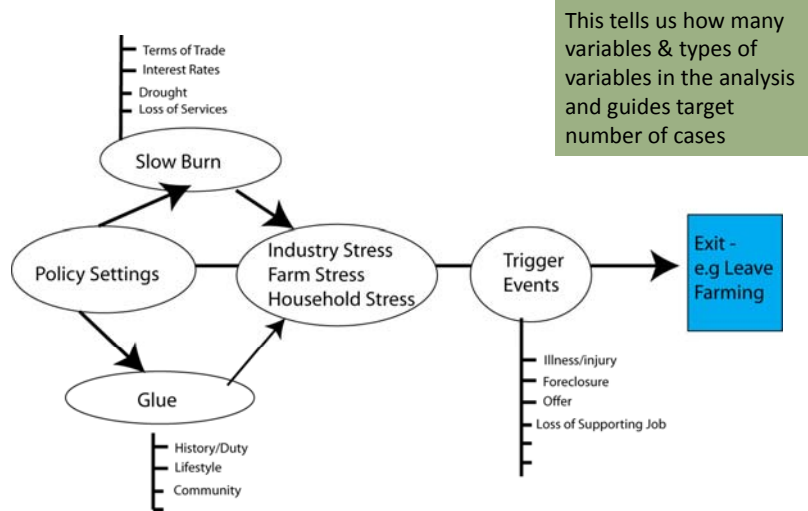
Drought Project Example

- We propose to apply the methods of labour market adjustment studies to the rural context
 - Job changes produce a sequence of impacts that are best understood as shifts in career trajectories;
 - Initial re-employment after job loss is seldom the final destination – people take 2-3 years to 'settle' in a new pattern.
- This has not been done before in agriculture
 - tick the 'innovative' box!
- We argue that understanding this process demands detailed engagement and longitudinal methods that track labour market histories
 - This foreshadow the big budget, as demanded by nature of problem
- We stress importance and uniqueness – e.g. this sort of information cannot be gleaned from Census or Labour Force data

Specifying Methods

- The aim here is to demonstrate technical mastery of the approach you are proposing
- Operationalise your hypotheses
- What you are going to do
 - Which sites? Why them?
 - What comparison groups? Why them?
- What data are you are going to collect? Why?
- How are you going to find research subjects?
- How many subjects?
- What depth of information from them?
- How you are going analyse the data?
- How you are going to know your findings are valid and reliable?
- Show how methods illuminate the question

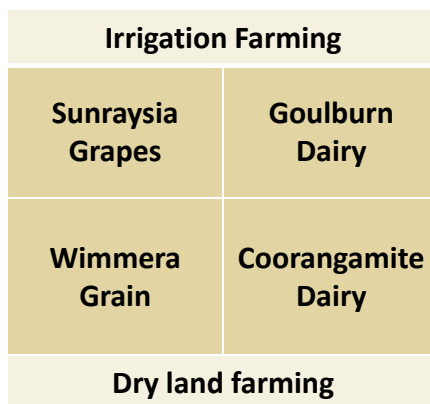
Model Analysis



Model Comparison Groups

Compare effect of water policy on irrigation areas for two different industries

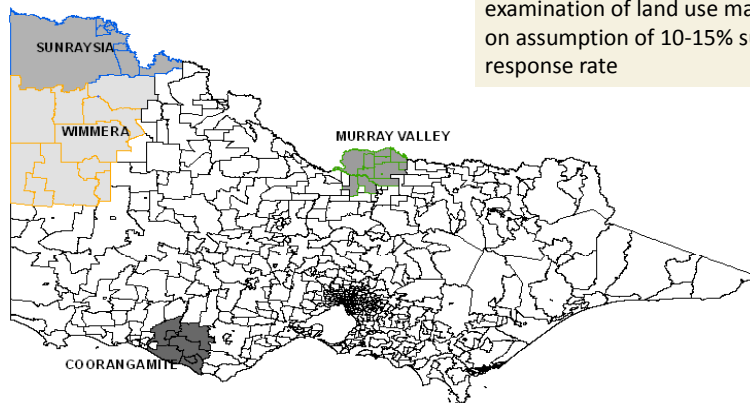
Compare effect of drought in irrigation and dryland farming



Compare irrigation and non-irrigation dairying

Control Group:
No climate change effects

Sample Areas

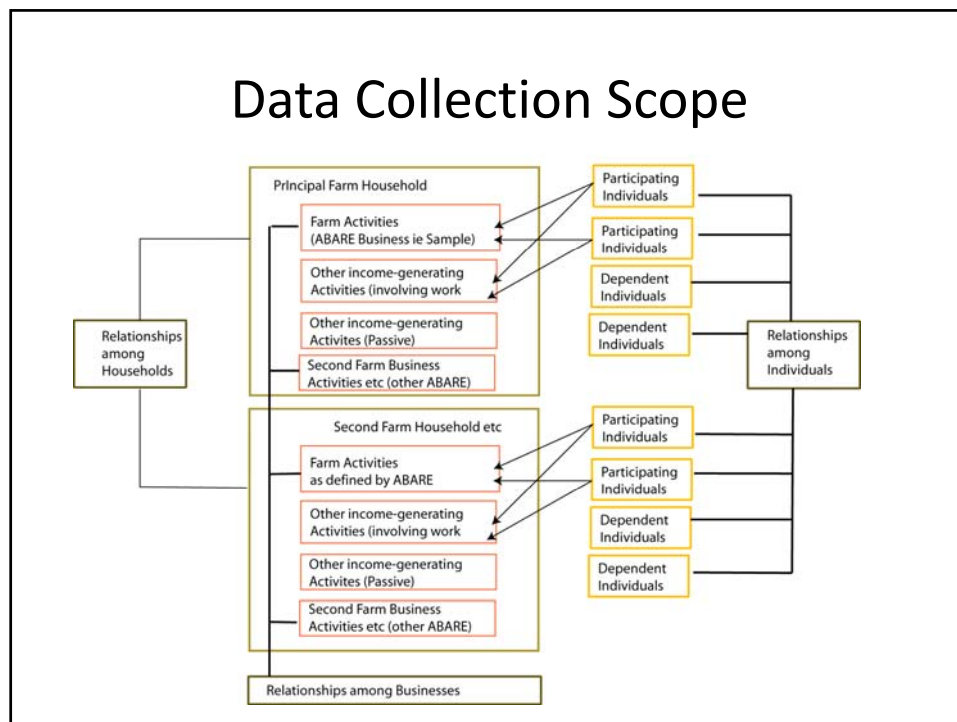


Size of sample areas determined from ABS Data on farm numbers and examination of land use maps based on assumption of 10-15% survey response rate

Drought Project Sampling

- Random sample of farms and farm exits by sampling from Tax Office ABN records (complete list including cancelled ABNs)
- Stratified sampling by industry and location with comparison groups designed to maximise difference
- Multiple units of analysis – place, farm, individuals within farms

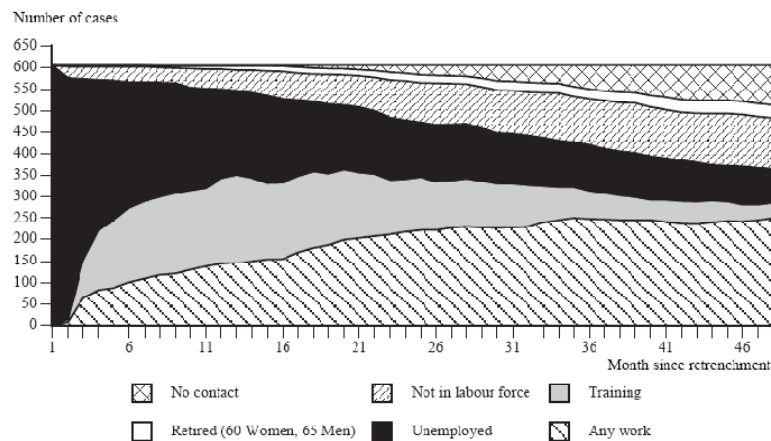
Data Collection Scope



Analysis

- Model outcomes using time based logistic regression with 'person-months' as unit of analysis (method is detailed in Weller and Webber 1999)
- Logistic Regression assumptions need 5 cases per cell, so we need 480 (120 per area)
- Assuming exit rate of 20% that should generate about a 100 exits to follow up
- Complement quantitative data with life history interviews

Longitudinal Analysis of Outcomes



Source: Weller and Webber 1999

Budget and People

- The budget then lists the costs of doing what you say need to be done
- The people have the skills and time to do what you say needs to be done
- The people have track records in the things that you say need to be done
- No free riders!
- No gratuitous budget items!

Finally, Tone

- Respect its explicit and implicit rules of academic discourse
- Respect colleagues
- Respect others' ideas theories
- Tone, tone, tone
- Remember, the reviewer is your peer!