

Chapter 4 Designing the research

We do not undertake analysis of works because we want to copy them or because we suspect them. We investigate the methods by which another has created his work, in order to set ourselves in motion.

(Klee 1961)

4.0 Introduction

Several important factors have influenced the design of this research. Previous chapters have highlighted the contested nature of power and participation, the multiplicity of perspectives and understandings that stem from the position one has within the participatory activities, and the roles of individuals in their relationships with others. The attributes of participation and power have shaped the way in which this research was undertaken and the manner in which the data were interpreted. The research was also influenced by my values, interests and experience of NRM and agriculture in rural Australia. My interest in participatory processes led to a desire to explore the research topic and to understand the differing perspectives of those who were involved in resource management programs in the rangelands.

This research aimed to develop principles which would contribute to our theoretical understanding of power as well as contributing to the practice of participatory resource management in the rangelands. The research is grounded in experiences of those who are involved in participatory activities, without relying on predetermined hypotheses and frameworks — power emerged as a key issue for participants. As such, this chapter describes the inquiry process employed to understand different perspectives about power relationships in NRM and agricultural programs when communities participate.

Specifically, this chapter addresses the questions:

- What is the nature of social research?
- What is the research framework or philosophical approach?
- What theories guided choice of methods in the research design?
- What methods and tools were used for data collection and analysis?
- These questions are reflected in the following sub-headings of the chapter.

4.1 The nature of social research

The nature of social science research varies according to where scientists position themselves in relation to a few key principles. These relate to the nature of reality, the theory of truth, how knowledge is created, the aim of the research and the role of the researcher. The way we see the world (in terms of the nature of reality, or *ontology*) is related to our understanding of the way knowledge is created (*epistemology*). For the realists, reality exists independently of our knowledge of it — there is a "truth" out there, even if we cannot understand it. For those at the other end of the spectrum (constructivists), reality is "constructed". There are many positions in between. The aim of a research project, (its *axiology*) can also vary. The aim may be to explain

cause-and-effect relationships, to understand social life, to evaluate, or to change human life for the better. These principles, and the assumptions underpinning them, profoundly influence the way in which research is undertaken. These also affect where the research should begin.

The questions of where the research begins, and the way knowledge is created, characterise the difference between deductive and inductive research strategies. Deductive research begins with a hypothesis, and seeks to test if it is true or false in an unbiased manner. Hypothesis-testing is generally thought of as *the* "scientific" way of undertaking research. However, it is only *one* way of undertaking scientific research. Inductive research, on the other hand, seeks meaning in a situation without imposing the pre-existing expectations of a hypothesis (Blaikie 2000). Here, the research begins with observation and proceeds towards principles and theories, but ends with contextual knowledge, rather than universal, generalisable theory. In many cases such knowledge can be seen as being more valid as it is data-driven, rather than being driven by theory and hypothesis-testing (Patton, 1990; Lewins 1993). Flyvbjerg (2001) holds a similar view, pointing out that general, independent knowledge is not more valuable than concrete and context-dependent knowledge. These views are often seen as the division between the natural and social sciences, but they also serve to divide different forms of social sciences.

Social science is different from the natural sciences because the subjects of research are people — thinking human beings who are reflexive. This ability of people to reflect on their experiences influences the way they behave in the future (Giddens 1984, 1992, 1994). Humans have the ability to create, not simply to respond. Human behaviour does not follow natural laws but socially constructed norms; people think about and construct the norms of society that influence their behaviour.

The research process itself is an experience that can influence people's behaviour as well (Giddens 1984, 1994). People think about their experiences and integrate these into their attitudes and behaviours. A researcher may have no intention of using a research process that will influence people, but it is well recognised that the presence of research and researchers themselves does have an effect on communities (Easterby-Smith, Thorpe and Lowe 1995). The concept of reflexivity relates to another concept in social sciences, which Giddens (1984; 1993) refers to as the "double hermeneutic". Social science is really an interpretation of the preinterpreted. People interpret what they experience; and it is these interpretations that are communicated to social researchers. So it is with social researchers: they, also, interpret what is presented to them, using their particular world view.

In the social sciences, the philosophical and political background is important (Easterby-Smith et al. 1995). The assumptions about reality and the creation of knowledge profoundly influence the way data is interpreted, so it is important that the philosophical framework of the research, with its inherent principles and assumptions, be made explicit. Then the reader can understand the underpinning assumptions on which the results and knowledge claims are based. From this viewpoint, the framework for this thesis will now be made explicit.

4.2 Philosophical approach

The framework is variously referred to as the *philosophical approach*, the *paradigm* or the tradition of the research. Kuhn adapted the term paradigm to highlight that there are different ways of conceiving science. A paradigm can be defined as "the basic belief system or world view that guides the investigator" (Guba and Lincoln 1995 p. 105). Each paradigm (Kuhn 1970) or tradition (Rosengren 1989) is based on a set of assumptions that deal with first principles. The paradigm reflects the researcher's views of ontology and epistemology, as well as the goals or values underlying the particular approach.

The debate about paradigms flourished during the second half of the twentieth century, with challenges to the traditional Western scientific, rational, positivist paradigm (initially by Popper in 1961¹³ and Kuhn in 1970¹⁴; and later by such people as Blaikie 1993; Denzin and Lincoln 1998, 2003; Feyerabend 1978; Lincoln and Guba 1985, 2003). The alternatives to positivism and post-positivism are variously named phenomenology (Patton 1990), naturalistic inquiry (Lincoln and Guba 1985), postmodern paradigm (including critical theory), constructivism and participatory paradigms (Denzin and Lincoln 1995; Lincoln and Guba 2003), metasociology (Denzin 1989 p. 4), the new paradigm (Reason and Rowan 1981), or interpretive sociology (Habermas 1970). The constructivist paradigm is one of these alternatives.

Constructivism is appropriate for this research because of its ontology, epistemology and axiology. Firstly, constructivism's relativist ontology is based on the premise that reality is at least partially, socially "constructed". Our understanding of reality depends on our individual social and cultural circumstances; and for each of us, our social and cultural reality is "constructed" from our ideas and experiences. As Lincoln (1988 p. 23) said, "truth" is locally and politically situated: there is no absolute truth for us to understand, no matter how hard we

of natural and social sciences.

14 Kuhn (1970, first published 1962) considered that scientific progress was achieved through "scientific revolutions", during which the scientific community changes the way it views the world. Most "normal" scientific research is routine and relatively inflexible,

¹³ Popper (1961) asserted that the natural "scientific" methods could be used in the social sciences, despite different subject matter

search. Secondly, knowledge is also socially constructed, created from the context; it is "situated knowledge" (Haraway 1988). Therefore, knowledge is problematic and contested (Lather 1988), and is not universally generalisable; yet it is no less valid than generalisable knowledge. Thirdly, the aim of this research (axiology) is to better understand the nature of power relations in participatory land management. In view of these considerations, constructivism is appropriate for this research: the literature indicates that different people do have different perspectives about community participation and about power relations.

Consequently, this research is exploratory and inductive. Constructivists argue that exploratory research does not assume that human relationships are the result of a causal variable and follow natural laws (Guba and Lincoln 1991). The idea of seeking to understand (*verstehen*) human activity (as opposed to *explain*), was seen as the fundamental goal of social research by the German founders of hermeneutics (Schwandt 2003 p. 295). *Verstehen* emphasises the human capacity to know and understand others through empathic reflection and interaction (Patton 1990 p. 57). Inductive research is more appropriate for this topic because it seeks to understand, without imposing pre-existing expectations.

However, theory-construction does not exist totally in isolation. As Lewins (1993 p.35) points out, all research, both inductive research and the traditional theory-testing approach, is to some extent "theory laden". The researcher's understanding of theory must influence the research process (see Chambers 1979; Connole et al. 1993; Lewins 1993). Several philosophical positions, including constructivism, soft sytems and critial theory acknowledge that the researcher is an actor in the social processes being studies (Ison, Maiteny and Carr 1997; Lincoln and Guba 2003). The researcher actively engages with people to seek understanding, rather than being a dispassionate observer, external to the context. As such, researchers influence, and are influenced by, the people with whom they engage — the interaction between researcher and researched influences knowledge creation, because values mediate inquiry.

One of the benefits of a constructivist approach is that the researcher actively seeks different views, not expecting that there is one "true" account of a situation. Constructivism is defined by its acceptance of multiple mental constructions of reality (Guba and Lincoln 1995; Denzin and Lincoln 1998). Multiple realities exist because the individual's understanding is bound by his or her own beliefs, values and context (Guba and Lincoln 1995). This is appropriate for an investigation of power relations, as people's perceptions of their own situation in relation to

in which critical discourse is abandoned. Anomalies occur that "require the world to be viewed differently" (Blaikie 1993 p. 107); this is when scientists move from one paradigm to another.

power actually influences how they exercise it. In essence, their perceptions can become self-fulfilling prophecies. This approach suggests that no one view of power or participatory land management programs or policy is deemed as "true". In this strength is also its weakness.

One problem with an absolute constructivist approach is its relativism. A relativist approach prevents the researcher from taking a stance or making any recommendations for policy. Relativists assert that there are no universal principles of truth; each reality is valid and true, and no one position can be recommended over another. However, a distinction can be made between different types of relativism — epistemic relativism and judgemental relativism. Epistemic relativism "identifies alternative forms of valid knowledge, and more importantly knowledge production" (Brown 1998 p. 11). This means there can be different views about the world, different ways of knowing the world; but this does not imply that one cannot choose between those forms of knowledge (i.e. we can choose one view as appropriate for policy formulation). By contrast, judgemental relativism claims that all forms of knowledge are equally valid and "we cannot compare different forms of knowledge and discriminate among them" (Brown 1998 p. 10). In this research, where power relationships are the topic of research, epistemic relativism treats different forms of knowledge and people's perspectives as valid. Then, this understanding can be applied to participatory activities and used to make recommendations for institutions using community participatory resource management approaches.

Several principles govern this research, as based on a constructivist paradigm. It is exploratory, seeking to understand the nature of power relations in community participation. Each person has a valid point of view, so the research design itself can be influenced by the participants, and not defined solely by the researcher. Thus the research process will be iterative and flexible. It is also participatory, which reflects my understanding of what participation should be — thus I will be demonstrating good practice for all participatory research in this work. Accordingly, I involved the participants in choosing the processes and the content — as is highlighted further in the discussion about the style of interviews (Section 4.5.1 *Data collection: Interviews*). Recognising that the research can influence the participation, I would hope that participants, particularly government officers, learn something from my work about the nature of power relations and participation.

Constructivist approaches frequently use qualitative data from conversations, because the *meanings* of the data are important, not simply the *measurement*, as is common in quantitative research (Van Maanen, Dabbs and Faulkner 1982; Lincoln and Guba 2003). Qualitative data are attractive because:

They are sources of well-grounded, rich descriptions and explanations of processes occurring in local contexts ... qualitative data are more likely to lead to serendipitous findings and to new theoretical integrations; they help researchers go beyond initial preconceptions and frameworks ... Stories have a concrete, vivid, meaningful flavour that often proves far more convincing to the reader, another researcher, a policy-maker, a practitioner, than pages of numbers. (Miles and Huberman 1984 p. 15)

These principles influence the choice of theory and govern the choice of methods used in the research. Some researchers adopt a strict adherence to one paradigm (Lincoln 1988) with appropriate methodology and associated methods; others adopt a more pragmatic position, believing that they can work with different philosophies, even if those philosophies are inconsistent with one another (Dick 2001). Lincoln and Guba (2003) suggest that qualitative research draws on many methods and approaches. As such this research is pragmatic, choosing methods from several approaches.

This research adopts an integrated approach, which is highly suitable for natural resource management. Flexibility is required, and different disciplines, such as ecology, economics and social sciences, need to be combined. However, research retains rigour when it respects the relationships between methodology and its underlying assumptions (Jackson 1997). Because of this, methods have been chosen so that the principles and intent of the methodology are consistent with the paradigm and the principles of this research.

4.3 Choosing the methods

This research needs to explore the interconnections within participatory resource management between, on one hand, the meanings and intentions of individuals and groups, and, on the other, power, institutions, practices and social relations. The methods needed to be flexible and responsive, to draw out concepts that people are not accustomed to discussing – power relations and community participation. An iterative approach was needed to check and elaborate on concepts which emerged from the process of the research, as is described in detail later (4.5 *Research process*: Figure 4.2).

The methods chosen needed to fit with the constructivist framework, and its principles and assumptions outlined above. Many of these principles of constructivism are found in other forms of research. To ensure some rigour, I have chosen only those methods that have come from approaches with principles consistent with my research (see Table 4.1). Methods were chosen from a variety of approaches such as grounded theory, action research and soft systems methodology; but I have not adopted whole methodologies.

Table 4.1 Consistency between methodology, principles and methods

Methodology	Principles consistent with my research	Methods and techniques adopted for this research
Grounded theory	Inductive, emergent, iterative Inductive and emergent research: • does not begin with pre-determined categories, preconceived ideas or extant theory verification (Glaser 1992 p. 15), • allows concepts to emerge from the data, • helps uncover social constructs not considered imagined, • allows people to speak about their own context, in their own words. (Refer also to Strauss and Corbin 1990, 1995, 1998) Iterative research entails refining the research collection on the basis of preliminary data.	This research did not begin with predetermined categories; the interviewees determined the topics discussed. My iterative process is illustrated in Figure 4.2. For example, after two interviews, I realised that power was likely to be an emergent issue; therefore I included Pretty's typology in the interviews (see Section 4.4 Developing the research questions).
Participative action research	Iterative, participative, context, social constructs. Participative research encourages modifying research methods according to participants' views. Learning by participants is encouraged as part of the research (Dick 1991; Greenwood and Levin 2003; Kemmis and McTaggart 1988)	My choice of methods was influenced by the preferences of participants — group interviews linked to existing meetings were the preferred research method in most districts. Feedback of the results to all participants encouraged learning.
Soft systems methodology	Iterative, context important, social constructs. Systems are seen as "constructs"; people view the same context in different ways according to their world-view and experiences (Checkland 1981, 1985a; Ison et al. 1997).	Rich pictures allowed the data to be put back together after open coding in the NUDIST computer program; by making connections between categories (Strauss and Corbin 1990).

The process of constant comparison in the analysis phase is a focus of grounded theory (Fontana and Frey 1998; Strauss and Corbin 1990, 1998), and constant comparisons between the data and core concepts were used to add rigour and reliability. I did not use grounded theory methodology as I do not agree with its philosophy of realism, which maintains a stance of value-neutrality; however, its methods and principles do assist in uncovering social constructs. Social constructs are more likely to be uncovered when research is data-driven and context-dependent rather than hypothesis-driven or reliant on preconcieved ideas. Frequent comparisons between the emerging concepts and the data, as well as between the data from different interviews, further clarifies the meaning of ideas which emerge. These principles of emergent, context-dependent and iterative research link well with my choice of a case study approach, as this approach supports exploratory research — imperative where the context is important.

4.3.1 Case studies and case study selection

Aristotle could be credited with being the founder of the case study approach. He believed that the study of human activities cannot focus on universals; rather, cases and context were important in the understanding of human behaviour (Aristole 1976). Contextual, in-depth and qualitative data is gathered in this approach. Stories allow people to speak for themselves, and social constructs to emerge. Other criteria for selecting a case study approach are when:

"how" or "why" questions are being posed, when the investigator has little control over events, and when the focus is on contemporary phenomenon within some real life context. (Yin 1994 p. 13)

These conditions apply to the current inquiry. Several "how" questions are asked, including the primary question: *How do power relationships influence community participation in rangeland management?* ¹⁵ The context was real-life government NRM programs within the South West Strategy (SWS) region of the Queensland rangelands (see Figure 4.1).

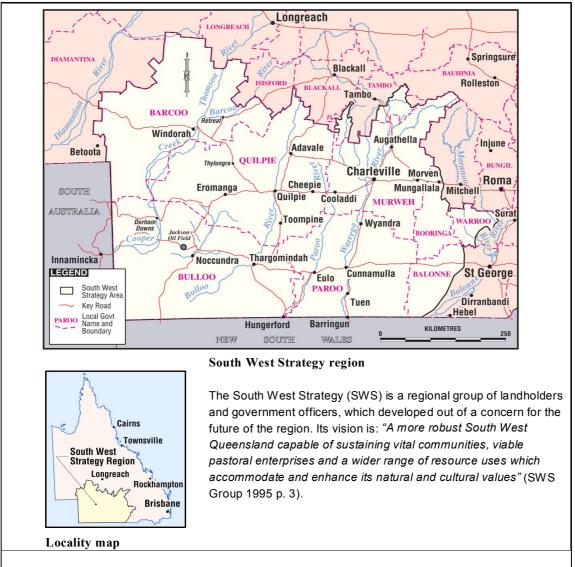


Figure 4.1 The South West Strategy region (maps produced by DNR&M)

This region was chosen because — using Miles and Huberman's (1994) terms — it was an *intense* case, a *politically important* case and a *typical* case (Table 4.2). Firstly, it could be considered to be an intense case because it was "information-rich" (Miles and Huberman 1994)

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¹⁵ Other "how" questions are: Question 2. How is power expressed by participants within participatory activities? and Question 3:How does power relate to the many other dimensions of participation?

in terms of community participation and power relations. It was also a *politically important* case because it was one that attracted attention (Miles and Huberman 1994). In the early to mid-1990s, the activities of the SWS Group were promoted as a good example of a community-driven program by the Commonwealth and Queensland state governments (DPIE 1995a).

Thirdly, this region was a *typical* case, according to Miles and Huberman's definition (1994), because "normal" types of community participation occur here, with most government NRM and agricultural programs "typical" for rural Australia. The region has many "average" characteristics for rangeland regions in Australia, as will be evident from the details of the environmental, socio-economic and cultural contextual data described in Chapter 5.

Table 4.2 Case selection criteria

Case type	Purpose
Typical case	Highlights what is "normal" or "average"
Intense case	Manifests a phenomenon intensely, but not "extremely" (an
	information-rich case)
Politically important case	Attracts attention (desired or undesired)

(Adapted from Miles and Huberman 1994 p. 28)

Case study research needs to balance the search for the typical, and what is generalisable, against the search for the particular. To do this, my research draws on the informants, as well as the various contexts (e.g. economic, social, cultural) and the historical background. The context of south-west Queensland, and a brief history of community participation in NRM and agricultural programs, are also outlined in the next chapter. The context for participation generally in Australia has already been covered in Chapter 2. A case study approach was appropriate for the in-depth analysis of power relations, and will assist in answering the research questions as outlined below.

4.4 Developing the research questions

Power was a dimension of participation which emerged in this exploratory research — rather than being a predetermined issue that I had originally set out to investigate. My initial research question was about how community participation in government-organised rangeland management activities could be improved. The secondary question was about which participatory methods were appropriate for which situations; but landholders whom I interviewed quickly told me I was asking the wrong question about which methods were "the best" — the more important questions were about *how* the participatory methods were implemented. The key concept that emerged from the grounded data as being vital for improving community participation was power.

The first indication of the importance of power emerged during the first two formal group interviews with landholders. Initial analysis of respondents' comments, and my own critical reflection, suggested that power underpinned many of their concerns about community participation. After these two interviews, I followed an iterative approach, and changed all further group interviews to include a structured discussion about power sharing. Pretty's typology was used because it defines participatory activities according to levels of power sharing in an agricultural setting (see Table 4.3).

Table 4.3 Pretty's typology

Types of participation (Pretty 1995b)	Explanatory notes — provided to interviewees (adapted from Pretty 1995b)
Level 1: Manipulative participation	Participation is simply a pretence, with people's representatives on official boards but having no power.
Level 2: Passive participation	People participate by being provided with information; which comes from external professionals rather than local people. Local people may be told what has been decided or has already happened; often involves announcements by project managers without people's comments having been listened to.
Level 3: Participation by consultation	People participate by providing information; they are consulted and answer questions. External agents define the problems and the information gathering process, and control the analysis. Decision-making is not shared, and the professionals are under no obligation to incorporate people's views.
Level 4: Participation for material goals	People participate by contributing resources of some kind. For example, landholders may contribute labour, machinery or land for scientific experiment in return for cash or other material incentives.
Level 5: Functional participation	Participation to achieve the goals of a project e.g. external agency wishes to reduce costs. People may participate by forming groups to meet predetermined goals. Participation is usually interactive and involves shared decision-making; but the major decisions are made by the external agency.
Level 6: Interactive participation	People participate in joint analysis and development of actions. Participation is seen as a right, not a means to achieve project goals. Groups take control over local decisions and determine how the resources are to be used, and have a stake in maintaining how the project operates.
Level 7: Self- mobilisation	People take initiative independently of external agencies. They may develop contact with external agencies for resources, seek technical advice when needed, and maintain control over all resources.

I chose Pretty's typology of levels of power sharing over the other typologies related to power sharing because it was written in language that was designed for an agricultural or rural context. The typology and my explanatory notes for each level (Table 4.3) were presented at the end of the interviews to avoid any "contamination" of first part of the interview data with external ideas.

For me, "meaning is negotiated mutually in the act of interpretation; it is not simply discovered", as in the tradition of Gadamer's hermeneutics (Schwandt 2003 p. 302). As such, I used my discussions with landholders and government staff to try out my interpretation that power was an important issue. The typology stimulated animated discussion, which indicates

that this interpretation was relevant and meaningful to landholders. Participants found the typology easy to use, even though some wanted to adjust the wording (Box 4.2).

Box 4.2 Quotes supporting Pretty's typology

Wow, this is pretty spot-on. This 5 [level 5 of Pretty's typology] one, that often happens, like that water thing (much laughter) (Landholder from Group 10 16).

It's pretty good actually (Government officer from Government Group 1).

They make a lot of sense to me. The last one is the ultimate, but the second last one you've got to have (Landholder Group 6).

It's OK ... [but] I want to change the wording in 4 — [it is] not that landholders have no say in the experiment, because often they do (Landholder Group 3; Landholder Group 6 voiced a very similar idea).

Last sentence in 6 not quite right. I don't think people can influence direction of project. Goals are not set by local people at all (Landholder Group 2).

Because my hunch about the importance of power was validated, the research questions were then reformulated to reflect the focus on power relations in participatory rangeland management programs. The questions developed in this stage of analysis are the research questions for this thesis (as listed previously in Chapter 1). The key research question evolved from "how to develop participatory approaches to improve the sustainability of Australian rangelands", to "how power influences participatory approaches" (Box 4.3).

Box 4.3 Research questions

Primary research question:

How do power relationships influence community participation in rangeland management programs?

The secondary research questions are addressed in each of the following chapters:

1. What participatory processes are currently used by government in Chapter 5 rangelands programs?

2. How is power expressed by participants within participatory processes? Chapter 6

3. How does power relate to other dimensions of community participation? Chapter 7

4. What are the implications of power relationships for participation? Chapter 9

¹⁶ The coding system is explained in Section 4.5.2 Data analysis and interpretation: Coding the data and developing themes.

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The data was re-analysed to answer these research questions, and to seek meaning about power relationships. Different methods of data analysis were used, but were employed concurrently rather than sequentially, by (a) looking for emergent themes, (b) using theoretical frameworks to assist data interpretation, and (c) comparing the results with the literature (Dick 1997). The literature on power was reviewed at this stage, as it was impossible to foresee what specific bodies of literature would be needed before the key themes emerged. This approach is advocated for research which does not begin with predetermined theories (Denzin and Lincoln 2003). Although the order in which literature is introduced into this kind of constructivist research is different from that of other forms of research, the rigour of the methods is ensured.

4.5 Research process

The following diagram (Figure 4.2) outlines the steps in the research process. A key feature of this research was that it was iterative. I needed an emergent research design to allow people to speak about their own context, and to capture the complexity, rather than imposing predetermined categories for responses. An example of the value of this approach was the emergence of power as a central theme for the thesis.

This research commenced with a preliminary literature review, then based on this and my experience in participatory resource management, I undertook a pilot survey to test some preliminary ideas. This survey reinforced the idea that this research needed to be emergent. Difficulties in formulating pre-determined categories were obvious because of the multiple meanings attributed to the term *participation*, the complexity of goals of participation and the wide range of activities associated with participation. Participants needed to be able to express their ideas, and then I could examine the data for patterns and emerging concepts.

The key steps of data collection and data analysis are outlined in more detail in the following sections. The data analysis phase actually encompasses the coding of the data, the summarising of the data and the checking of these summaries with all of the interview participants. The subsequent phases are cycles of data interpretation, where themes are developed and reviewed in relation to the literature.

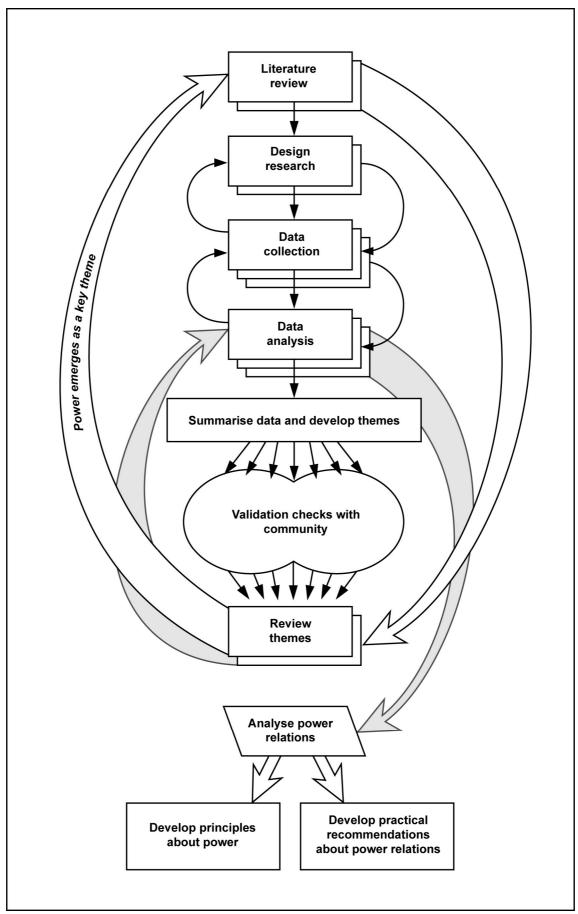


Figure 4.2 Flowchart of research process

4.5.1 Data collection

The data collection methods chosen were mainly qualitative and descriptive. Some quantitative data (sourced from secondary materials) are used to describe the context. The research methods comprised (a) secondary data, (b) participant observation, and (c) interviews. This PhD is based on a long period of secondary data collection and participant observation, but the primary data comes from interviews undertaken during an intensive period of research when I lived in southwest Queensland for several months in 1998–1999 (see Table 4.4 *Participant observation* and Table 4.5 *Diary of formal interviews conducted*).

Secondary data

Written materials were used to supplement the primary data that were collected. Materials included unpublished and internal government reports, consultancy reports, policy documents and formal, published literature. Most of the NRM and agricultural projects had internal progress reports, and some had published reports (e.g. Carman et al. 1998), public brochures and flyers (e.g. DPI 2000).

The literature review had two phases (see Figure 4.2). During the first phase, which occurred prior to the period of intensive data collection field work, the literature on participation was reviewed (Chapter 2). In line with an inductive approach, the literature search on the key emergent theme was undertaken after data collection and initial data analysis. Thus the second phase of the literature review was the literature review on power (Chapter 3), which was undertaken after power emerged as a key theme.

Participant observation

Observing participants was a fundamental aspect of this research. My in-depth understanding of the region allowed me to collect and interpret the data from an almost "insider" perspective. Of the three roles of participant observers described by Adler and Adler (1998 pp. 84-85), I was a "participant as observer"; that is, I was neither an "objective" observer nor an "existing member" of the groups I observed. As a "participant as observer", I was treated largely as an insider, participating in activities and discussions, but I was not a "core member". One grazier said that his group was "happy to help you get your doctorate, and keep your feet on the ground in the process". My stance also fits with Denzin's (1989) outline of characteristics of participant observation, where discussions were typically informal and open-ended.

There were two phases of participant observation. Firstly, I worked and lived in western Queensland on and off for about twenty years, and by observing participants in action,. Thus, I have grown to understand the various contexts, the culture, the language and the people.

Secondly, my participant observation focused specifically on participatory resource management and power relations during the past 10 years (Table 4.4).

Table 4.4 Participant observation

Phase 1: General observations of rural culture	and participatory proc	esses, including
SWS Board meeting	Charleville	17 Sept 1994
SWS Board meeting	Charleville	4 Aug 1995
SWS Board meeting	Charleville	11 March 1997 17
Phase 2: Commencement of specific research al	oout participatory pro	cesses, for example
Informal interviews with government staff in Charleville and Cunnamulla	Charleville and district	1–14 March 1998
Strategic Planning workshop (phase 1) e.g. Including informal interviews with head office representatives from state government NRM and Aboriginal Affairs departments	Charleville	18–19 Aug 1998
SW NRM meeting e.g. Including informal interviews with rural industry representatives and landholders	Charleville	20 Aug 1998
SWS Board meeting	Charleville	21 Aug 1998
Strategic Planning workshop (phase 2)	Charleville	19–20 Oct 1998
Safe Carrying Capacity team meeting	Charleville	22 Oct 1998
Informal interviews	Scrubby Creek Ball	14-15 Nov 1998
SWS NRM sub-group meeting	Charleville	19 Nov 1998
SWS Board meeting	Quilpie	20 Nov 1998
WAMP meeting	Charleville	6 Dec 1998
WAMP meeting	Cunnamulla	7 Dec 1998
SWS Board meeting	Charleville	14 Feb 1999
Informal discussions	Longreach district 18	June 1999
Another RPP region: Desert Uplands meeting	Jericho district	7–8 Feb 2000
Informal interviews, feedback and discussions about	Charleville and	20 Feb-25 March
my research results	Longreach districts	2000
Informal discussions and feedback re research results	Charleville, Longreach	14 Sept-6 Oct 2000
Informal discussions by telephone		Frequent on-going in 2001
Informal discussions about NRM & about my	Toowoomba and	June 2002
research results (plus on-going telephone contact)	Charleville districts	
Informal face-to-face and telephone discussions	Brisbane and	Jan, April and Sept
	Toowoomba	2003
Informal face-to-face and telephone discussions	Brisbane and Toowoomba	On-going in 2004

Participant observation was used in this research for two main reasons. First, it provided me with a description of the context within which community participation was undertaken, and ensured that this was up-dated. Second, it assisted in overcoming some of the problems that occur with interviewing, by clarifying the meaning that lay behind people's stories, and the importance that various phenomena had for them. Clarifying meaning is important because people's comments tend to reflect their beliefs, which can be inconsistent with their behaviour

¹⁷ From 1994 to 1997 I was worked on state government programs in south-west Queensland e.g. Feral Goat Management project.

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(Argyris and Schön 1996). The importance of emergent propositions, such as power being a key dimension of participation, were tested with participants. This is in line with Adler and Adler's (1998) point that participant observation initially is descriptive "focused observations", with the stages of observation forming a funnel "progressively narrowing and directing researchers' attention deeper into the elements of the setting that have emerged as theoretically and/or empirically essential" (Adler and Adler 1998 p. 87).

The benefits of this technique are that it (a) adds rigor when combined with other techniques, (b) has the flexibility to allow new data to emerge and yield deeper insights and (c) is unobtrusive. One of the key benefits in my situation was that my long-term participant observation of the SWS meetings allowed landholders and government staff to develop trust in me.

Interviews

Semi-structured interviews were the primary data collection method, which allowed for flexibility in the questioning schedule, as well as in-depth discussion. In this formal interview format, a list of discussion topics, rather than structured questions, was prepared (refer Appendix: *Questioning schedule*). The sequence was adapted according to the flow of the respondent's conversation; they chose the way the discussion went within the broad parameter of community participation within resource management programs. The questioning schedule was designed according to focus group process starting with broad general questions, and narrowing the focus (Krueger 1988). In line with qualitative data, the questioning line focused more on linking interaction patterns with the meanings that underlie behaviour, and less with recording the frequency and distribution of events (Denzin 1989 p. 158). This process helped to illicit open discussion where people's constructs about participation and power relations became obvious.

The advantages of semi-structured interviews are that these provide a rich source of data in a short space of time, thus being relatively cost-effective. People stimulate each other to recall experiences and debate different points of view.

An enormous amount of rich data was collected, even though all of the interviews were *one-off* rather than *iterative*. Ethnography favours interviewing respondents more than once so that rapport can develop and richer data can be collected. However, I had met many of the

¹⁸ Many regional staff are based in offices outside the south-west region, so informal discussions sometimes took place in their offices. Longreach is the regional centre for DPI; Toowoomba is the regional centre for EPA and DNRM.

landholders and government staff previously. Thus I was able to use common rural cultural protocols, which included being introduced by someone who knew me, rather than introducing myself. My familiarity with such protocols encouraged openness, honesty and deeper insights.

Developing *rapport* is recognised as being fundamentally important in social research, although it can have disadvantages. "Going native" (Fontana and Frey 1998) or "being captured" (Denzin 1989) can mean that the researcher will emphasise the perceptions of one group over another. As mentioned previously, I had some understanding of different viewpoints, having worked both in government and as a grazier. While I was empathetic and asked questions which showed an understanding of people's situations, I was particularly careful not to allow my feelings or beliefs to be the focus of discussion — I gave neutral responses, and asked questions, rather than voicing my ideas during interviews.

Selection of interviewees

Within the SWS region, sampling was purposeful, rather than random, as is common in case study research (Ragin and Becker 1992 p. 3). People were interviewed from a range of (a) NRM and agriculturally focused government-initiated landholder groups, and (b) from different districts across the region (see Figure 4.3).

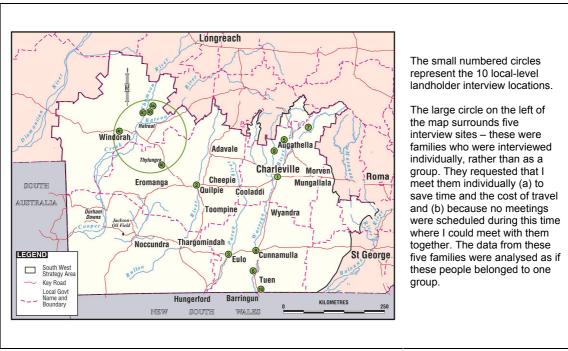


Figure 4.3 Location of landholders interviews (adapted by Hilliker from DNR&M map)

Local people did advise me about the meetings that would be appropriate for me to attend, both from their point of view and mine. I requested permission to attend all meetings, and received

(mainly) verbal and (occasionally) written, invitations. I also requested and received verbal permission to tape-record all of the interviews, which was done to ensure accuracy.

Existing meetings associated with projects were used (see Box 4.4), rather than organising meetings especially for this research. The rationale for using existing meetings where possible was that (a) participants requested this approach, mainly to reduce the cost; (b) I had a "captive" audience; and (c) it was administratively easy for me to organise. One exception to using existing meetings occurred in the far west of the region, where landholders asked me to interview small family groups or individuals on their properties. Because property sizes are larger in the west of the region, travelling time increased and contributed to there being only limited occasions for meetings.

Box 4.4 Key projects related to NRM and agriculture in south-west Queensland

South West Strategy — Aimed to achieve "a robust south-west comprised of a responsible community, viable progressive rural and urban businesses in a carefully managed resource base that attracts people to live, work and visit" (SWS Strategic Plan 1995).

FutureProfit — Aimed to enhance skills; increase people's ability to cope with changes in enterprises. These training courses for groups of landholders often incorporated property planning, but also others skills such as computer programs.

Bestprac — Aimed to improve production and economic aspects of grazing enterprises; based on action learning.

Safe Carrying Capacity — Aimed to objectively estimating long term grazing capacities of properties. Bore Drain Replacement (BDRP) and Bore Capping programs — Aimed to improve utilisation of water resource, particularly in the Great Artesian Basin; promotes better control of water for feral animal control, improved stock mustering and reduced erosion.

Landcare — Aimed to encourage land users to take responsibility for local problems and work together on a group basis to improve land management practices; promoted participatory resource management.

Feral Goat Management — Aimed to improve management of feral goats; ascertain the costs benefits of different control measures.

Water Allocation Management Program (WAMP) — Aimed to develop plans to ensure sustainable use of water resources.

National Park Planning — Aimed to develop realistic, achievable plans of management for national parks.

Community Nature Conservation — Aimed to integrate nature conservation principles and practices with property management; aimed to assist in facilitating long-term social and environmental change.

South West Counselling Service — Aimed to assist farm families and small businesses to achieve their goals; to build robust, resilient communities; to provide support at times of emotional and psychological trauma.

(Government internal reports, brochures, informal discussions with government staff)

The groups chosen for interviews were both typical cases and opportunistic cases (Yin 1994: see previous Table 4.2 for definitions). Landcare, Bestprac, FutureProfit, Bore Drain replacement

project and Safe Carrying Capacity, as well as the regional scale groups of the SWS such as the SWS Board, are typical groups in the Australian rangelands (see Box 4.4). Opportunistic groups included those projects which operated at the time of this research, but are not on-going. These included the projects Nature Conservation Planning, Total Grazing Pressure, and Feral Goat Management. My choice of groups was checked with government officers in Charleville and Brisbane, as well as landholders in south-west Queensland.

The key criteria used to decide when to stop interviewing was when information had become "saturated" and no new information was being discovered (Dick 1991; Glaser and Strauss 1967; Denzin 1989). The issue of the sample being statistically representative of the whole population was not as important as obtaining a deep understanding of the complexities of participatory processes and power relationships. During this enquiry, interviews were conducted with over 100 people from different groups (see Table 4.5); Morse (1994) suggests that 30–50 individual interviews are appropriate for context-bound research.

Table 4.5 Diary of formal interviews conducted

Groups interviewed	Number of people	Date
Ten landholder groups were interviewed at the loc	cal scale, (see Figure 4.3	3 for locations):
Landcare group (representatives from 6 Landcare groups around the region)	13	Sept 10, 1998
Rural Industry group: United Grazier's Association (also a Bestprac group)	6	Sept 16, 1988
Nature Conservation group	10	Sept 18, 1988
SCC group: family group	3	Oct 26, 1988
SCC group: family group	2	Oct 27, 1988
SCC group: family member	1	Oct 28, 1988
SCC group: family group	2	Oct 29, 1988
SCC group: family group	2	Oct 30, 1988
Safe Carrying capacity project	4	Nov 3, 1988
Bestprac group	11	Nov 5, 1988
Bestprac group	12	Nov 9, 1988
Total Grazing Pressure group	6	Nov 16, 1988
Feral Goat project: group 1 (DPI interviewer ¹⁹)	4	Nov 16, 1988
Feral Goat project: group 2 (DPI interviewer)	5	Nov 18, 1988
	Total: 81	
Two landholder groups were interviewed at the re	egional scale:	
South West Strategy Board	14	Nov 19, 1988
SWS NRM group	9	Nov 20, 1988
	Total: 23	
Three government departments were interviewed	in Charleville:	
DNRM government group	9	Nov 30, 1988
DPI government group	12	Dec 1, 1988
EPA government group	6	Dec 2, 1988
	Total: 27	

Groups were checked in terms of the types of landholders, and their gender, to ensure some balance. The gender ratio within interview groups reflects the usual Australian population that has approximately equal numbers of women and men. Landholders who attend government NRM and agriculture programs include individuals, family groups and company managers. My interviews show a bias towards individuals and family groups. The company managers tend to participate in their own NRM and agriculture programs, rather than participating in government programs. Aboriginal groups and mining companies were also poorly represented — likewise because they rarely participate in government NRM programs. For Aboriginal groups, poor representation also reflects the limited extent of land owned or managed by Aboriginals in south-west Queensland. Poor representation of these groups is really a statement about the programs I chose to study, rather than a limitation of my research methods.

Techniques

My understanding of rural language and rural culture meant that I was able to build rapport easily with groups. To encourage people to stay for my interview, I provided afternoon tea, lunch, or drinks and "nibbles", depending on what was appropriate. Landholders said that they appreciated this gesture.

The interviews incorporated specific tools to enhance their effectiveness, including *funnelling* and *critical incident technique*. Funnelling (Dick 1998; Minchiello et al. 1990) meant that the questioning strategy was ordered with general questions first, and more specific questions later in interviews. This meant that specific questions or probes could be devised to explore emerging themes and be easily inserted at the end of interviews.

Critical incident technique was used to illicite data about specific relationships; for example, I asked respondents for examples of power relationships in projects with which they had personally been involved. According to Argyris (1993) the value of Critical Incident Technique is that it captures actions taken, rather than statements of intended action in response to hypothetical situations; it is *theory in use*, or what people actually did, rather than *espoused theory*, or what people thought they would do. Critical incident technique is commonly used to expose the assumptions behind the people's comments, especially when the technique is used to explore and improve one's own professional work (see Newman 1987, 2000; Dick 1991). While I did not discuss the difference between *theory in use* and *espoused theory* (Argyris and Schön 1978, 1999) during the group interviews, I did review respondents' comments during analysis,

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¹⁹ Because I established these two groups during my work in south-west Queensland, I considered it unethical to interview these groups myself. I instructed an experienced facilitator from DPI to undertake the interviews for me.

and used only comments about actions, rather than intentions. The methods used for this data analysis, and the interpretation of results, are reviewed next.

4.5.2 Data analysis and interpretation

The aim of the data analysis in this thesis was to understand the nature and importance of power relationships within community participation, and to develop ideas about power relationships that may have theoretical and practical outcomes (see Figure 4.2). The analysis process was iterative, for example, data partially analysed during the collection process, then allowed for modification of the data collection techniques.

Three stages of interpretive analysis can be distinguished. The first stage categorises the raw data; the second undertakes comparisons and develops themes; the third stage develops a deeper understanding of the key issue in this research: power relationships. The research questions address the third stage of analysis, as power is the key issue of this thesis. Theoretical frameworks to assist data interpretation are used in Stages 2 and 3, while the literature is compared to the results in Stage 3, as is explained in the following sections.

Coding the data and developing categories

Confidentially is important when the data are being encoding. I verbally assured all participants of individual anonymity. This required special care, because in this region, merely stating the district from which the information was collected, or the type of group (e.g. Landcare) would have been sufficient for others to be able to ascertain the identities of those who made the comments. Landholders who attend government NRM meetings in south-west Queensland are a small segment of the population, they tend to be well known and it is easy for local people to identify others from their comments. As protecting the identities of the subjects is fundamentally important (Adler and Adler 1998), comments in this thesis have been identified with symbols, rather than by the type, or location of the groups, as below:

Landholder groups: local level (e.g. Landcare)
 Landholder groups: regional level (SWS Board, SWS NRM group)
 Government group
 Govt G 1 - 3

The first stage of analysis involved coding, using the qualitative data analysis software program NUD.ISTv.4 (Non-numerical Unstructured Data Indexing, Searching and Theorising version 4: Richards and Richards 1998; referred to as NUDIST). This computer software helps the researcher to manage complex narrative data sets to produce "thick descriptions" (Geertz 1973; Richards and Richards 1998). The NUDIST computer program is merely descriptive and does not set the parameters for analysis, which requires the interpretive skill of the researcher.

However, it does have a methodological basis that is compatible with grounded theory, as the code-and-retrieve method supports theory analysis (Richards and Richards 1998).

NUDIST was used for content analysis, as a system of storing and grouping quotes from the transcribed interviews. Quotes were assigned to categories or nodes according to their attributes, and the nodes were given descriptive names (Table 4.6). Strauss and Corbin (1990) describe this stage as *open coding*. Continual reflection on the data and the categories helped to check for similarities and differences as new data from other interviews was examined, thus allowing the themes to emerge. This constant comparison aimed at consistency and minimum bias in coding (Strauss and Corbin 1990). The coding process did not fully alleviate the confusion inherent in large amounts of rich data at this stage; consequently, a further tool, *rich pictures*, was used.

Table 4.6 Examples of NUDIST Categories

Category/Node	Description	Examples of concepts and quotes
Government_by landholders	Comments about government staff and services, by landholders	 Facilitators role was to keep the meeting from "getting sidetracked". Desirable characteristics included "someone enthusiastic, someone that's a good listener can communicate well, is energetic, and not an overbearing personality". Attitude important. Arrogance and people who think they know everything can mean "the whole thing would break down they're not coming to drive us."
Government_by government staff	Comments about government staff and services, by government	 "Not going to share any information, not going to tell you anything about where things are or what they've seen or that sort of stuff. It makes it very difficult to operate with them and it requires a lot of skills to get anything out of them if they've got that attitude." "Facilitator skills and community skills are the real constraints. On the technical skills, generally we don't do too badly with that stuff."
Landholder knowledge_by landholders	Comments about landholder knowledge, by landholders	 "They [government staff] are inclined to talk down to you all the time as if you are from out of space; they have it all up here, they are real super intelligent and you are a nut." "Lot of people don't feel they're valued or think that they haven't got anything to offer."
Landholder knowledge_by government staff	Comments about landholder knowledge, by government	 Group 3 acknowledged that landholders and government needed to work together as neither understood all the issues; e.g. "they're seeing what we're doing as a value and we're acknowledging their knowledge and expertise as well." However, landholder knowledge was not always considered valuable: "Why have the landholders been asked about what should and shouldn't be kept standing in south-west Queensland? Why did anyone assume they would know?"

Developing themes using rich pictures

During the second stage of data analysis, the text narratives were explored for underlying meanings, patterns and relationships. I developed links between the categories by drawing rich pictures. Rich pictures are a creative non-linear tool, which uses key words and connecting lines to focus attention on the real issues, and form associations between concepts (Buzan and Buzan 1995; Rico 1983). Rich pictures are sometimes referred to as "mind maps" (Buzan and Buzan 1995) or "cluster maps" (Rico 1983). Mind maps have stricter "laws" governing their structure, while rich pictures and cluster diagrams are more fluid. The key advantages are that (a) the researcher can view a great many elements all at once (Buzan and Buzan 1995 p. 164), and (b) new conceptual frameworks can be created, within which previous ideas can be reorganised (Buzan and Buzan 1995 p. 154). The disadvantage is that a false consensus can develop, as people succumb to the pressure of group norms and do not express their own individual ideas. Nonetheless, this tool assists with rapid integration of data and formation of new concepts.

I prepared rich pictures for several of the focus group interviews, and some for some combinations of interviews; for example one mind map was prepared about landholders ideas to quickly formulate the common themes (see example in Figure 4.4). This rich picture represents a summary of the key themes from landholder comments made about participation during interviews. Many of these themes are related to power, and are discussed in this thesis. Examples of where the themes are discussed in the thesis are indicated below.

Theme	Related section of thesis
Depends on personality	6.4 Micro-political power
	6.4.2 Focus on the individual
Government not listen	6.1.1 Whose knowledge is valued
Over-consultation	6.5 Paradox of participation
	Box 6.16 Over-consultation and under-consultation
Cost of participation	7.1 Context
	Box 7.2 Landholder comments about the cost of participation
Government language hard to	2.3.6 Capacity: Rural community capacity
understand	7.3 Scale
Government not understand	Box 6.2 Government lacks empathy

(themes listed are in the rich picture, clockwise from the centre above the word "participation")

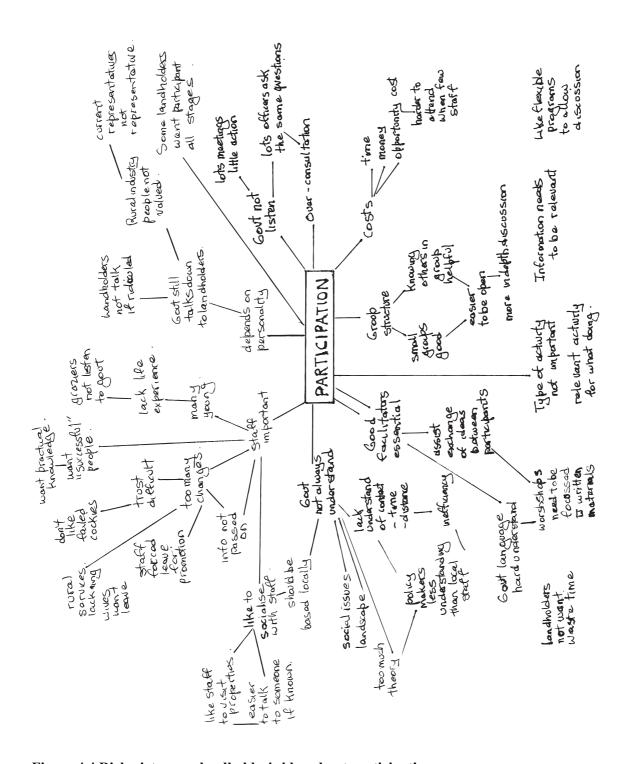


Figure 4.4 Rich picture on landholder's idea about participation

The process of interpretation from the rich pictures was iterative, with further categories developing at the same time as the broader themes formed. Questions that guided my interpretation included:

- What subject matter is common to all respondents, and what is different?
- When is this issue important, and what is the strength of feeling about the issue?
- How do respondents' comments relate to deeper issues, and what is the underlying meaning?

The fundamental theme of participatory rangeland programs that emerged was power, as outlined previously (Section 4.5 *Developing the research questions*). The third stage of the research develops a deeper understanding of this key issue, which is the topic of the results chapters 6, 7 and 8.

4.6 Ensuring rigour and ethics

A debate still rages about how to evaluate qualitative social research in the era of constructivism, postmodernism and poststructuralism. Several authors refer to a crisis of validity (Denzin and Lincoln 1995; Gergen and Gergen 2003). At one extreme, there is the belief in objective truth; at the other extreme is the belief that "anything goes" (Gergen and Gergen 2003 p. 1031). Neither is appropriate, and the question of validity needs to be reframed.

Responses to this dilemma have evolved over the years. Guba and Lincoln (1995) developed four tests relevant to constructivism that mimicked the modernist tradition (see Table 4.7 below). These tests are not always appropriate because of the underlying assumptions. For example, one of the most commonly used ways of checking dependability is to use multiple sources of data, or *triangulation* (Blaikie 1995; Denzin and Lincoln 1998; Dick 1993; Patton 1990). Triangulation can mean multiple sources of data or multi-method approaches, but it can also mean multiple researchers or multiple theories (Denzin 1989 p. 236). This concept has been borrowed from the natural sciences and assumes that there is a truth that can be verified by examining three different perceptions of that reality. This is inappropriate in a constructivist paradigm, where multiple realities are valid. However, multiple sources of data can provide a dialectic (Dick 1993) providing an interplay between conflicting points of view.

In this research I looked for *disconfirming evidence*, rather than simply accepting the patterns we expect in social behaviour, as recommended by Dick (1991). Looking at the detail, the "one-off" comments, as well as the holistic system also helps guard against this problem (Miles and

Huberman 1984). In this research, the principle of looking for disconfirming evidence was used on both the data collection and analysis phases.

Table 4.7 Parallel tests of validity

Constructivism		Positivism
Credibility	Parallels	Internal validity
Dependability		Reliability, in the sense of stability
Transferability		External validity or generalisability
Conformability		Objectivity

(Adapted from Guba and Lincoln 1995 p. 114)

As the post-positive paradigms and qualitative research have become more accepted, it has been recognised that these paradigms have axioms that are mutually exclusive to positivism. As such, the forms of evaluations need to be fundamentally different. Qualitative research is recognised as generating a richer and more nuanced account of human experience than is possible in quantitative research (Gergen and Gergen 2003). Lincoln and Guba (2003) reframed their ideas about validity, and proposed *interpretative rigour*, which relies on community consent and defensible reasoning. Emerging innovations about how to evaluate constructivist research include reflexivity, multiple voicing and representation. Closely related to these questions is the notion of "situated knowledge" (Haraway 1988). A level of self-exposure is required in reflexivity. Consequently, I began this thesis with a statement about my background: the Prologue. My experience of rural life allowed me to develop "wise principles" about what was happening and what could be done to manage power relations in participatory land management. Hillier (2002) and Flyvbjerg (2001) discuss the importance on phronesis²⁰ or wisdom in research, which is based on experience.

This thesis has used multiple voices — employing direct quotes from the members of various landholder groups and three government departments — to provide a rich array of perspectives and interpretations of community participation and power relations. A university colleague who observed some of the landholder interviews was surprised at the level of honesty and forthrightness of the participants. This occurred only because of the on-going relationships and rapport I had developed with these people. Another researcher expressed this very clearly, and I have adapted his email to reflect my own circumstances and position:

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²⁰ Phronesis is the integration of technical knowledge and practical wisdom. It requires experience, and relates to particular circumstance, rather than being concerned with universals (Flyvbjerg 2001 p. 58). Hillier refers to phronesis as "prudence" or practical reason and wisdom. Ife (1995) says that wise research incorporates understanding, awareness, experience, learning from others and intuition.

I come not as an "objective" outsider, but as a fellow [grazier] who shares some of the life experiences of my respondents. I do not claim that this grants me "insider" status into this community. But I do claim that those shared experiences enable me to bring to this work a comparative perspective that is implicit, intuitive, and informed by my own identity and positionality. (Adapted from Yen Espiritu's email cited in Gergen and Gergen 2003 p. 1033)

Insights such as these are traditionally diminished, but such positions are privileged over other renditions, for they enable a richer and deeper understanding of the realities from the perspectives of the "insiders". Greater depth and "thicker" descriptions increase validity (Adler and Adler 1998 p. 88). Landholders in south-west Queensland are unlikely to share some of their views about power relations with a complete "outsider"; they would continue to "play the game" and tell the visiting government officials what they want to know.

In terms of ethics, I requested permission to attend meetings and to use quotes from people. As mentioned previously, I was particularly careful with confidentiality. In addition, written summaries of the interviews were sent to all participants, for checking. I discussed the results in detail with some government officers and some landholders — about six of each. These "member checks" allowed the results to be redefined to incorporate the actors' reactions (Reason and Rowan 1981; Dick 1997). In my research, the member checks revealed excellent internal validity. This was probably because I had discussed tentative results with government staff and landholders while going through an iterative process of data analysis; by the time the written summaries were prepared I had, in effect, already undertaken member checking.

4.7 Conclusions

The new forms of social science, based on the assumption of "situated knowledge", are more appropriate for understanding the nuances and complexities of human life. This research is framed within the constructivist paradigm, as it aims to understand power relations within community participation.

Power emerged as a key theme during the research, rather than being the predetermined topic. This demonstrates the iterative and flexible nature of the whole research process. This type of research recognises that the experience of the research process influences both the researcher and the researched. As Flyvbjerg (2001) argued, experience is integral to developing wisdom, rather than being concerned only with universals.

The importance of context was highlighted in this chapter. Contextual, in-depth "thick" descriptions, primarily based on qualitative data, allow social constructs to emerge. Yin (1984)

states that case studies are appropriate for research questions beginning with "how". The focus on "how" questions and contextuality, and echoes Foucault's writings on power relations, as discussed in Chapter 3.

Aspects of the context were the reason this case study was chosen in south-west Queensland. The case was politically important at the time, because it attracted attention and was heralded as an effective example of community-driven rural reconstruction and NRM programs. The detailed reasons for this case being information rich (intense), and typical of the Australian rangelands are outlined in the next chapter, which focuses on the context of south-west Queensland.