~ Chapter 3 ~

Research Methods

Chapter 3

Research Methods

3.0 Introduction

This chapter describes the methods and processes employed to undertake this research study. Patton (1990) suggests that the choice of methods for data collection should be closely related to the objectives of the research and its conceptual framework. Consequently, three prime data gathering methods were employed to build theory at the substantive level: policy/document and content analyses, questionnaire survey and focus group discussion/interviews. The first research objective (To identify the ways in which existing organisational policies and processes established the role and value of visitor education as an integral aspect of protected area management in Queensland) was addressed through policy/document analysis. The policy/document analysis approach allowed written documents, such as the 1999–2001 EPA Corporate Plan, the QPWS Master Plan Discussion Paper and the QPWS Interpretation and Education Strategy 2000–2002 to be systematically analysed to determine specific inferences and linkages. Inductive and deductive strategies were used to identify specific themes and to develop the lines of inquiry for the next two research objectives.

The second (To assess the extent that existing visitor education policies and processes were meeting the objectives of protected area management in Queensland) and third (To identify organisational barriers to the acceptance and use of visitor education as a park management tool) research objectives were addressed through the content analysis of internal documents and resources, and by survey questionnaire. The content analysis of internal documents and resources component also provided the basis to construct the questionnaire surveys and to test hypotheses concerning perceived barriers to visitor education in the QPWS. The use of questionnaires allowed interpreters and park managers in geographically dispersed locations to be surveyed. The use of questionnaires also allowed qualitative data to be collected through the use of open-ended questions. This was important in the context of the study, as it allowed interpreters and park managers to express their opinions and thoughts on the range of barriers affecting visitor education identified during the analysis of internal QPWS publications. Focus group discussion and informal interviews were also employed to further explore issues identified as a result of data interpretation.

Content analysis of internal documents and resources and questionnaire survey were also used to investigate the fourth and final research objective (To identify ways in which the acceptance and use of visitor education can be enhanced in agencies with a responsibility for protected area management). This combination of research methods allowed strategies that interpreters would support to be deducted from the data.

The remainder of this chapter describes the methods employed to undertake this research study. A rationale for each approach is outlined, along with details of information gathered. Section 3.1 outlines the conceptual process underpinning the research approach. It provides an overview of the research process and activities undertaken. An outline of the data sources used in this research is provided in Section 3.2. In particular, it describes the three sources of data and the methods used to obtain the data used in this study. Section 3.3 details the processes employed to ensure adherence to ethical procedural processes.

3.1   Conceptual process underpinning the research approach

This study was designed to contribute to two inter-disciplinary areas: protected area management and organisational management. To achieve this purpose, a multi-method approach was chosen, using case study incorporating document/policy and content analyses, questionnaire survey and focus groups/interviews to inductively build theory, through the quantitative and qualitative analysis of data. The case study approach was necessary to provide the context of the study and to allow the researcher to undertake an in-depth analysis within a particular setting in an intensive way, when little is known of the events being investigated (Maund 1999). This approach reflects what Strauss and Corbin (1990) refer to as a grounded theory paradigm, due to its emphasis on using "a systematic set of procedures to develop an inductively derived grounded theory about a phenomenon" (p24). The grounded theory approach also allowed the effect that social functioning had on the acceptance of visitor education as a park management tool and organisational performance to emerge.

The study also incorporated three distinct, but connected stages: thesis development; investigation and evaluation; assessment and reporting (Figure 3.1). The thesis development stage established the research objectives and strategies to be employed based on the initial identification and refinement of the perceived problem(s) through the examination of relevant literature. The investigation and evaluation stage
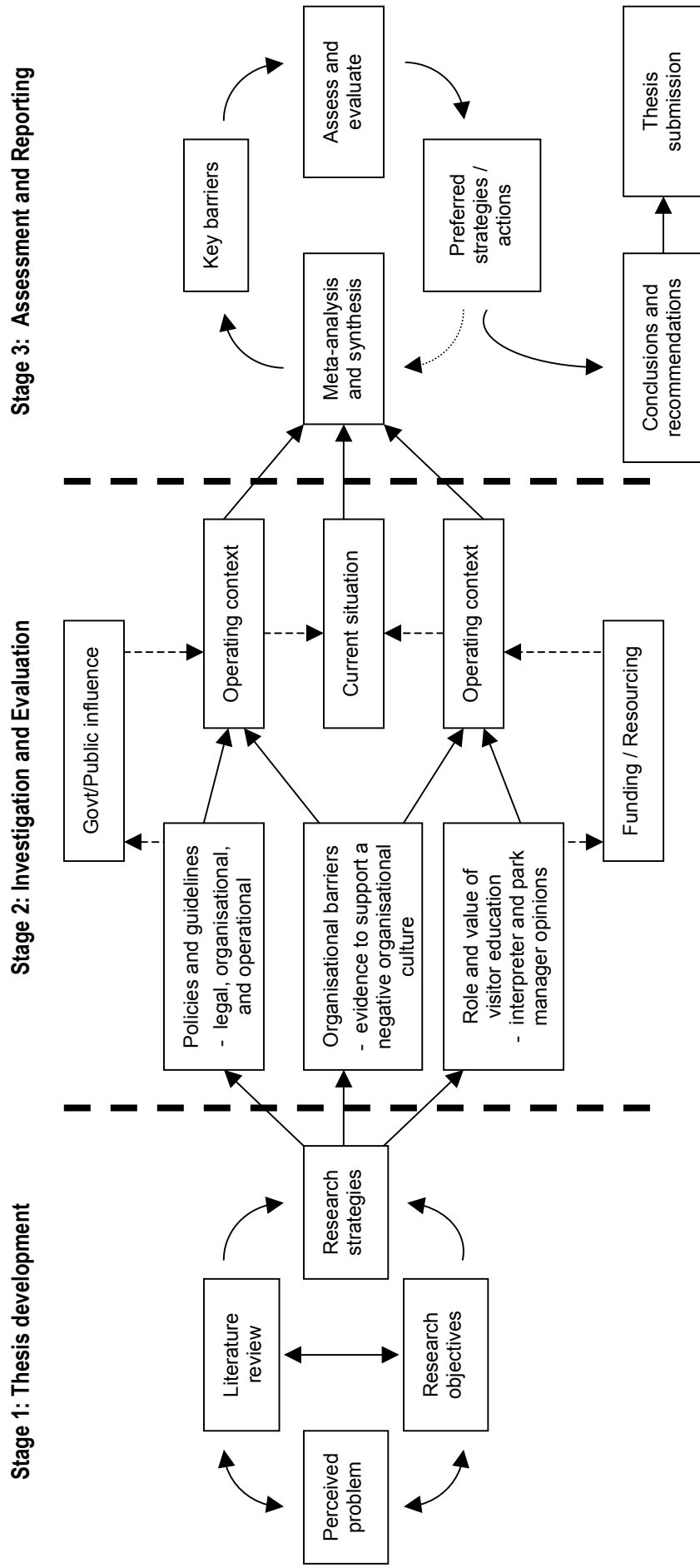
Stage 1: Thesis development

Stage 2: Investigation and Evaluation

Stage 3: Assessment and Reporting

Literature review

Research objectives

Perceived problem

Research strategies

Policies and guidelines
- legal, organisational, and operational

Organisational barriers
- evidence to support a negative organisational culture

Role and value of visitor education
- interpreter and park manager opinions

Govt/Public influence

Funding / Resourcing

Operating context

Current situation

Operating context

Key barriers

Assess and evaluate

Meta-analysis and synthesis

Preferred strategies / actions

Conclusions and recommendations

Thesis submission

Figure 3.1: Research process conceptual framework and activities undertaken

determined the operating context and current situation in regards to the role, value, acceptance and use of visitor education as a park management tool within the QPWS, through a critique of organisational policies and guidelines, and the questionnaire survey of interpreters and park managers. The presence of a negative organisational culture was also explored, as this phenomenon was raised in several internal QPWS reports and in conversations with QPWS interpretive staff.

The assessment and reporting stage used meta-analysis and synthesis to draw together and compare data collected and reported during the investigation and evaluation stage to identify the key barriers affecting the acceptance and use of visitor education as a park management tool in the QPWS. The key issues were then evaluated to determine the implications for achieving a revitalised visitor education capacity. The identification of interpreters' preferred strategies/actions to improve the value and acceptance of visitor education in the QPWS assisted in the formation of the recommendations presented in this thesis. The final stage of the study also allowed conclusions to be drawn and to provide an opportunity for areas requiring further research to be identified.

3.2 Sources of data

The research documented in this thesis relied on data sourced from:

- publications and reports

- questionnaire surveys, and

- focus group discussion and interviews.

Each of these data components is considered in more detail below.

3.2.1 Publications and reports

Three public and four internal EPA/QPWS publications were used to identify the framework establishing the role and value of visitor education as a park management tool within the QPWS and the issues surrounding this aspect of park management within the organisation. These documents were also used to develop the two questionnaires and to provide a point of reference for this study. They also provided a focus for data analysis regarding the value and acceptance of visitor education within

the QPWS and allowed this investigation to determine whether the issues raised were localised, affecting a particular group of interpreters, or widespread.

The publications analysed were the:

- Queensland *Nature Conservation Act 1992*, which consolidates all legislation on nature conservation in Queensland;

- *Environmental Protection Agency's 1999 –2001 Corporate Plan*, which outlined State Government policy and strategic direction for the Environmental Protection Agency and the Queensland Parks and Wildlife Service in environmental protection and conservation management in Queensland;

- *QPWS Master Plan*, which provides directions and strategies for the responsible management of Queensland's parks and reserves for the next twenty years;

- *Interpretation and Education Strategy 2000–2002*, an internal document which outlined the Interpretation and Community Relations team's strategic direction for visitor education planning and delivery across the State;

- *State-wide Interpretation Workshop (9–12 March 1999) Report*, an internal document which overviewed the proceedings of QPWS State-wide Interpretation Workshop held in March 1999;

- *State-wide Interpretation Workshop (5–8 March 2001) Report*, an internal document which overviewed the proceedings of QPWS State-wide Interpretation Workshop held in March 2001;

- *Interpretation and Community Education Situation Report 1999–2001*, an internal document which summarised and assessed visitor education activities in the Queensland Parks and Wildlife Service between its formation in 1999 and the writing of the report in May 2001.

In addition, a further seven documents and resources that provided the means to implement the Government's visitor education strategic intent at an operational level were also analysed to determine actual content. These documents and resources were:

Documents
- *QDEH Policies and guidelines for interpretation and public contact (1994)*

- *QPWS Guidelines for On-park Interpretation (1999)*

- *ANZECC Best Practice in Park Interpretation and Education (1999)*

<u>*Resources*</u>
- *QNPWS Interpretation Manual (1984)*

- *QPWS Interpretive Planning Handbook (2001)*

- *Draft QPWS Sign Manual (2001)*

- *Draft QPWS Community and Education Manual (2001)*

Two methods of analysis were employed to assist the line of inquiry undertaken and provide the basis of the research questions being explored in this thesis: policy/document and content analysis. The aim of the policy/document analysis component was to clarify issues, alternatives, and consequences of organisational policy, with the intent of improving the basis of policy decisions and outcomes (Lynn 1980). In contrast, the content analysis component was used to make valid inferences from text (Weber 1985). Internal documents were analysed to determine the range of issues that formed barriers to the acceptance and use of visitor education as a park management tool in the QPWS. Each of these methods and their use in this thesis are explained in more detail in the following passages.

<u>Policy/Document analysis component</u>

Policy/document analysis is a field of social science research that embodies two disparate fields of research: literature that takes a pure maths or statistical approach to data analysis and literature embedded in the social sciences. Either field of research is valid depending on the nature of the inquiry and the preferred means of data arrangement: quantitative or qualitative. A qualitative approach was adopted for this study. This was to reflect Tribe's (1972) belief that public policy and policymaking should be founded on bodies of principle and values that people can commit to, rather than calculations and references to analytical frameworks. According to Lynn (1980) a qualitative approach also allows "complex issues [to become] more intelligible, the range of alternatives more appropriate, [and] the social consequences of each alternative more evident" (p5), thus allowing the political imperatives and social dimensions guiding the planning and delivery of visitor education activities in Queensland protected areas to be better understood.

In general, policy/document is used to analyse policy that is broad in nature (eg health, welfare, defence etc.) and the object of whole government departments (macro-level analysis); however, it can also be used to analyse policies and documents that support a particular function or service as part of a broader mandate (micro-level analysis), such as Corporate Plans, Strategies, Implementation Guides and Situation Reports, to provide a significant amount of information on the organisation and/or particular organisational function studied (Nakamura & Smallwood 1987). Organisational direction, priorities, procedures, lines of reporting and planned outcomes may be observed and analysed allowing the researcher to determine the actual performance of an organisation in relation to written documentation, thus allowing the culture of the organisation to emerge, especially in areas of bargaining, compromise, decision-making and implementation. In the context of this study, policy/document analysis was used to assist in the identification of:

- the role and character of government

- processes which shape the formation of policy to be understood, and

- factors affecting the implementation of policy to be recognised (adapted from Nakamura & Smallwood 1987).

Content analysis component

Content analysis is another social science investigative tool that can be used to determine the state of beliefs, values, and ideologies of groups or cultures through the comparative analysis of text (Weber 1985). Both qualitative and quantitative evaluations of text can be undertaken to determine content categories and/or draw valid inferences depending on the purposes for which this research method is being used. Weber (1985) makes a point by saying that "in order to draw valid inferences from the text, it is important that the classification procedure used be reliable in the sense of being consistent" (p12). That is, different people should be able to code the same text the same way to generate variables that are valid or representative of what is to be measured.

Weber (1985) concludes that there is no right way to do content analysis; each investigator must judge what methods are appropriate for his or her substantive problem. As long as the issues of consistency and reliability are addressed in the data-reduction process, valid assumptions can be drawn from the documents analysed. In this study, thematic text analysis was employed in the analysis of internal QPWS

documents. This was to allow specific themes relating to the reasons why the Queensland Government saw a need to revitalise the visitor education capacity of the QPWS and the recurrence of these themes across different documents to emerge. This form of analysis was in preference to semantic (the examination of sentences/clauses where themes are interrelated) and network (the location of themes and/or sentences within networks of interrelated themes) text analysis also available (Stone 1997).

The thematic text analysis undertaken allowed nine themes to emerge (refer table 4.1). These themes were used as a basis to construct the interpreter's questionnaire survey and the assumptions concerning existing barriers to the acceptance and use of visitor education as a park management tool. The results are reported in Chapter 6.

3.2.2   Questionnaire survey

According to Dillman (2000), self-administered questionnaires are an accepted social science research instrument. They are one of the oldest methods in the researcher's repertoire, and the method with which the general public is most familiar (Dane 1990). They are also an established method for gathering data from large and/or geographically dispersed populations where individual or community responses to a program, policy or issue are needed. And as all QPWS interpreters and park managers were to be surveyed as part of the data gathering process, a postal survey held a number of distinct advantages over other techniques of survey research. For example:

i.   A properly administered postal survey is a legitimate and effective means of research.

ii.   Postal surveys are considerably cheaper to administer and conduct than other forms of survey research.

iii.   Sampling is more accurate as specific individuals are targeted. (Telephone and interview surveys may fail to contact the targeted individual).

iv.   Postal surveys permit the respondent more time for thought, allowing answers to be more realistic than those given on the 'spur of the moment' during a telephone or face-to-face interview (Dillman 2000).

However, the researcher was also aware of the limitations of self-administered questionnaires. For example, Davidson (1970) notes that:

> *left to a respondent to interpret questions, record answers and return a questionnaire, the chances of getting the required volume and accuracy of replies are less* (than other forms of data collection) (p20).

To minimise limitations, research on questionnaire design (Davidson 1970; Dane 1990; Dillman 2000) was taken into consideration. To ensure accuracy of replies and encourage a high return rate, the survey was also designed according to the principles of social exchange theory regarding why people do and do not respond to surveys (Dillman 2000). Dillman (2000) refers to this as the Tailored Design Method. As a result, both questionnaires were produced as A4 booklets to present a professional image and to engage the applicant to take account of specific aspects of each survey and to better capitalise on the social exchange basis of response.

Each questionnaire had an identification number recorded on the cover to allow the receipt of the questionnaire to be recorded and to facilitate follow-up mailings to survey participants to maximise the response rate. The identification number was also used to send copies of the research findings to those respondents who requested them and to identify those respondents who wanted to be part of an interview or focus group to further discuss the issues identified by the survey. This was done to confer legitimacy on the survey (Dillman 2000) and to comply with the principles of ethicacy when undertaking questionnaire surveys as part of Griffith University's higher degree programme (Griffith University 2006d). In addition, the front cover was designed to ensure confidentiality of responses through its removal once received. This design feature also had the advantage of eliminating some response biases. For example, Dane (1990) notes that confidentiality allows respondents to be honest and in most cases frank in their responses – countering potential bias if respondents thought that their answers may be traced back to them.

The *QPWS Interpretation and Education Staff Survey* questionnaire asked interpreters about their knowledge and use of the *QPWS Interpretation and Education Strategy 2000–2002 (I & E Strategy)*, and their opinions as to the status of visitor education in the QPWS. It contained a selection of short answer, Likert scale and attitudinal questions. In total, 28 questions were asked. The QPWS RIC, SR and DM (Ranger In Charge, Senior Ranger and District Manager) questionnaire asked park managers about their knowledge of the *I & E Strategy* and their support for visitor education as a

park management tool. It also contained a selection of short answer, Likert scale and attitudinal questions. In total, 17 questions were asked. These questionnaires are included as Appendix 1 and Appendix 3 respectively.

To ensure that questionnaire design and structure would allow useable data to be obtained both questionnaires were pre-tested prior to distribution. Dane (1990) considers this aspect the most important phase of questionnaire survey research as it allows the researcher to gauge respondents' understanding of survey instructions and questions. Three QPWS interpreters and one ex-QPWS interpreter provided feedback on the Interpreter questionnaire while 5 park managers (1 District Manager, 2 Senior Rangers and 2 Rangers-in-Charge) provided feedback on the Park Manager questionnaire. This process resulted in the rewording of some questions in both questionnaires that were considered ambiguous by the reviewers. Discussions with my principal supervisor, and a refining of the research topic, meant that a number of structural changes were also made to the questionnaires prior to distribution to survey participants.

Interpreter questionnaire: distribution and return

The QPWS interpreter survey was conducted over a 3-month period from 30 August – 24 November 2001. In total, 51 interpretive staff (45 females and 6 males) were surveyed. To maximise questionnaire return rate, six complementary phases described by Dillman (2000) were employed:

- A brief *pre-notice letter* that was sent as an email to all interpretive staff by the QPWS Interpretation and Community Relations team group leader. It noted the value of the questionnaire as a mechanism to improve the planning and delivery of visitor education activities within QPWS, and encouraged interpreters to complete it when it arrived.

- The *questionnaire mailing* included a detailed cover letter asking for their assistance and explaining why a response was important.

- An *email introduction* informed participants of the imminent arrival of the questionnaire and that the author would personally ring them in the next few days.

- A *telephone conversation* was used to introduce the author and answer any questions the participants had about the questionnaire or the study.

- An *email reminder* asked about progress in completing the questionnaire and reinforced the importance of their input to provide a genuine picture of the role and value of visitor education in QPWS.

- Finally, a *telephone reminder* again encouraged participation (as a final attempt) to provide a comprehensive response to the issues affecting the planning and delivery of visitor education activities within QPWS (Table 3.1).

Table 3.1: Interpreter survey phase dates and questionnaire return response

Survey phase	Date	Questionnaire return (n=51)
pre-notice letter	09 Aug 2001	
questionnaire mailing	30 Aug 2001*	
email introduction	03 Sep 2001	12%
telephone conversation	06-07 Sep 2001	40%
email reminder	30 Sep 2001	23%
telephone reminder	22-24 Oct 2001	8%

* Initial mailout was delayed due to my Interpretation and Community Relations team contact officer being on recreation leave and the relieving officer not wanting to approve the mailing of questionnaires until my contact's return. Permission was sought from a more senior person to proceed with mail out as planned. However, 10 days were lost waiting for approval.

Forty-three interpreters returned their questionnaires for analysis (Table 3.2). However, one questionnaire was found to be incomplete and was thus considered unusable in this study. Therefore, data analysis is based on a return rate of 82 percent from the targeted survey population. Thirty-seven (88%) of the 42 respondents were female.

Table 3.2: Interpreter questionnaire distribution and return (category x region) (n = 40)*

Region	Regional/District staff (AO & PO positions^)		Field/Interp Centre staff (OO & TO positions^)		BFP interp staff (AO & FE positions^)		Percentage Return
	Sent	Retn'd	Sent	Retn'd	Sent	Retn'd	
Head Office*	4	**2**					**50%**
Southern*	6	**4**	18	**14**	5	**5**	**79%**
Central	2	**2**	1	**1**			**100%**
Northern	8	**8**	4	**4**			**100%**
Percentage Return	(20)	**80%**	(23)	**83%**	(5)	**100%**	**82%**

* Table does not include questionnaires sent to or returned by Graphic Artists (some TO Positions)

^ AO = Administrative Officer; PO = Professional Officer; OO = Operational Officer; TO = Technical Officer; FE = Field Employee

Analysis of interpreter questionnaires was based on the following three categories:

- Regional/district interpretive positions (e.g. AO and PO positions);

- Field/interpretation centre-based interpretive positions (e.g. OO and TO positions); and

- Brisbane Forest Park interpreters (e.g. AO and FE positions).

Graphic Artist responses were analysed separately due to the nature of their work roles. However, as they are an integral part of the Interpretation and Community Relations team their responses are included as part of the overall interpreter results. The Brisbane Forest Park (BFP) interpreter category acknowledges the views of this group of interpreters as a distinct entity, and reflects the fact that BFP interpreters had only recently became part of the QPWS Interpretation and Community Relations team[8] in July 2001.

The categorisation of data into three main groups provides an analysis based on the divergent work roles of QPWS interpreters and the differing opinions that these groups

---

8 The Forest Management group of the Department of Natural Resources, which included forest interpreters and BFP interpreters, officially became part of the Queensland Parks and Wildlife Service in July 2001 as part of the Queensland government restructure that commenced in April 1999.

of interpreters may have. Data analysis based on regional distribution was considered (refer table 3.2). However, the small number of respondents from the Central region and Head Office meant that the extrapolation of results would be inappropriate.

Park manager questionnaire: distribution and return

The QPWS park manager survey was also conducted over a 3-month period from 7 March – 13 June 2002. All QPWS staff directly involved in a park management managerial role were sent a questionnaire for completion. In total, 160 park managers (155 males, 5 females) were surveyed. Similarly, complementary phases described by Dillman (2000) were employed to maximise questionnaire return rate:

- The **questionnaire mailing** included a detailed cover letter asking for their assistance and explaining why a response was important.

- A **mail reminder** asked about progress in completing the questionnaire and reinforced the importance of their input to provide a genuine picture of the acceptance and use of visitor education as a park management tool.

- A final **mail reminder** again encouraged participation to provide a comprehensive response to the acceptance and use of visitor education to manage park-based issues. As an additional incentive a *Robert Timms* coffee bag was included to allow those still to respond an opportunity to have a 'coffee break' and complete the questionnaire (Table 3.3).

Table 3.3: Park manager survey phase dates and questionnaire return response

Survey phase	Date	Questionnaire return (n=160)
questionnaire mailing	07 Mar 2002	48%
mail reminder	05 Apr 2002	24%
final mail reminder	17 May 2002	12%

One hundred and thirty-four surveys were returned for analysis. Questionnaire returns were more-or-less evenly spread across regions and park manager category (Table 3.4). Data analysis is based on an overall return rate of 84 percent from the targeted survey population.

Table 3.4: Park manager questionnaire distribution and return (region x category)

Region	Rangers-in-Charge (OO positions^)		Senior Rangers(AO positions^)		District Managers(AO positions^)		Percentage Return
	Sent	Retn'd	Sent	Retn'd	Sent	Retn'd	
Southern	45	**39**	18	**13**	9	**7**	**82%**
Central	21	**17**	8	**7**	6	**4**	**80%**
Northern	34	**30**	14	**12**	5	**5**	**87%**
Percentage Return	(100)	**86%**	(40)	**80%**	(20)	**80%**	**84%**

^ AO = Administrative Officer; OO = Operational Officer

Data analysis was based on the following three categories:

- Rangers-in-charge (OO5–OO7) positions.

- Senior rangers (AO5) positions; and

- District managers (AO6) positions.

The categorisation of data into three main groups provides an analysis based on the divergent work roles of QPWS park managers and the differing opinions that these groups of managers may have. Data analysis based on regional distribution was also considered. However, this was discounted due to the potential for regional inferences to be drawn. The following section provides a description of the data analysis methods employed.

Questionnaire survey data analysis

A process of data preparation was undertaken prior to entry onto a Microsoft® EXCEL spreadsheet. This included editing and coding of data. The editing of data involved the checking of each questionnaire to ensure it had been filled out properly. This task was to identify whether the respondent had failed to answer (or had incorrectly answered) any question, or had written an ineligible answer to an open-ended question (Horneman, Beeton & Hockings 2002). The coding of data involved the grouping and assigning of numeric codes to the various responses to a particular question. For

open-ended questions, thematic text analysis was used to develop a list of responses. Each response was then assigned a numeric code.

Data entry simply involved the transferring of coded data from the questionnaires directly onto an EXCEL spreadsheet. However, once entered, a process of data cleaning was undertaken to identify data that were out of range, logically inconsistent or had extreme values (Horneman, Beeton & Hockings 2002). This was to ensure data consistency and validity.

Quantitative and qualitative analysis of the data was undertaken. In the first instance univariate analysis was undertaken of interpreters' and park managers' completed questionnaire surveys to determine relationships and trends present within individual questions through the evaluation of percentage distributions. Microsoft® EXCEL's PivotTable facility was then used to reorganise data for a more detailed (bivariate) analysis. This function was typically used to determine response rates between different categories (i.e. between the three groups of interpreters and between the three groups of park managers) and to make generalisations about the sample populations (Horneman, Beeton & Hockings 2002).

Both questionnaires contained a number of open-ended questions, allowing both groups of respondents to answer the questions in their own words. Categories for these responses were designed once all surveys had been read. In some cases, where multiple categories were identified, similar categories were grouped into themes to enable simplification of analysis. This is a recognised method of analysis for qualitative data (Patton 1990). Coding responses enabled the qualitative data to be represented quantitatively in graph form and allowed a more consistent and systematic comparison of responses between interpreters and between park managers. While the method of analysis is closely aligned to content analysis (Patton 1990), the codes used emerged from the data itself rather than pre-determined categories.

Anecdotal comments made by respondents were also reviewed and assisted in interpreting the data analysis methods employed. Some written responses and comments have also been used to provide emphasis to the findings of data analysis and to draw on the richness of the qualitative data gathered through the survey questionnaire process. The subjective responses of interpreters and park managers are also likely to be based on years of personal and field-level experience, providing an insight to the issues being investigated not normally obtained from the quantitative

analysis of data. Where used, written responses have been coded to provide authenticity and to provide a level of anonymity to the respondent (Griffith University 2006d). The results of the questionnaire surveys of interpreters and park managers are included as Appendix 2 and Appendix 4 respectively.

3.2.3 Focus group discussion/interviews

Focus group discussions are typically used when respondents consist of a specific group chosen for their familiarity with the research topic (Dane 1990). The purpose of the focus group discussions was to clarify particular QPWS interpreter questionnaire results. Initial data interpretation had revealed mixed messages that did not support assumptions identified in the literature. The focus group discussions were to determine whether there was confusion among interpreters when answering some questionnaire questions, and/or to reveal that the three groups of interpreters (regional/district interpreters, field/centre-based interpreters and BFP interpreters) surveyed held divergent views on some issues. Berg (1998) states that this research approach allows data collected to be corroborated, ensuring validity and reliability of results.

Interpreters who indicated on their completed survey that they were willing to participate in an interview or part of a focus group to further discuss issues raised in their survey were contacted and informed of the topic areas to be discussed (Griffith University 2006e). This resulted in a plan for two focus group discussions, one in South-East Queensland and one in North Queensland. The focus group discussions aimed to qualify factors affecting:

- the delivery of conservation education activities within QPWS

- work relationships and the perception of a negative organisational culture; and

- the knowledge of and use of specific QPWS interpretation and education resources.

The South-East Queensland focus group discussion was conducted at the Bardon Centre on 18 April 2002. Seven interpreters attended (four regional/district interpreters, two field/centre-based interpreters and one BFP interpreter). Discussion centred on the outcomes of the interpreter survey and the anomalies identified in the data during data interpretation. The focus group session was tape recorded for later analysis to determine possible reasons for the apparent divergent views held by

interpreters. (Refer Appendix 5 for the topics of discussion and questions posed). However, while all participants contributed to the discussion, the researcher felt that some participants where being cautious in their involvement. Consequently, the researcher felt that the value of the discussion group to resolve the differences of opinion evident in the data was limited as it did not allow all participants to talk openly and frankly about the alleged differences of opinion. As a result, and in consultation with the researcher's principal supervisor, a decision to cancel the remaining focus group discussion was reached.

An alternative source of data verification was obtained from one or more unstructured interviews with individuals who were known to have had a long association with the fields of park management and visitor education in the QPWS. A mix of individuals was chosen to represent the divergent views that may have been held by interpreters and the groups of people who were surveyed. These people included:

▪ an ex Director of Brisbane Forest Park

▪ the Senior Ranger from Main Range National Parks

▪ an ex Ranger in Charge from Cooloola National Park

▪ the Senior Interpretation Officer, Interpretation and Community Relations team, Head Office

▪ the Senior Conservation Officer, Interpretation, Boonah District; and

▪ the Interpretation and Education Ranger from Moreton Island National Park.

The author knew all interviewees. It is therefore acknowledged that there may have been some unintentional bias involved in their selection and the ensuing discussions that were held. For this reason care was taken to exclude from analysis personal opinions and unsubstantiated facts put forward by the interviewees. The aim of the interviews was to extract objective (albeit qualitative) observations on the role, value, acceptance and use of visitor education as a park management tool in the QPWS. The Focus Group questions (Appendix 5) were used as the basis of the unstructured interviews[9] with these interviewees. In this way it was possible to add context to some of the findings observed in the data.

---

9   The structure of the interviews was free-flowing to allow discussion of the Focus Group questions and to explore some of the reasons for the apparent divergent views held by interpreters observed in the data. Some notes were recorded in a research diary and later used to provide context to the findings reported in this thesis.

3.3   Respect for participants and their anonymity in this research study

This research, like many other forms of human research, would not have been possible without the involvement and cooperation of many participants. Ensuring privacy was essential to gaining their support and in some cases obtaining frank replies to survey questions. Clearance to undertake this research was sought through Griffith's research ethics committee with an undertaking to respect and ensure the rights and privacy of participants (Griffith University 2006a; 2006b; 2006c; 2006d; 2006e; 2006f).

In practice, any proposed use of identifiable information must be considered in terms of whether it compromises the ethical principle of respect for a person or persons (Griffith University 2006c). The *Commonwealth Privacy Act 1988* and the *National Statement on Ethical Conduct in Research* (1999) guide the conduct of human research. Ordinarily information needs to be de-identified; personal-identified information can be used only with prior consent (Griffith University 2006b; 2006c; 2006d).

As case study formed an important research strategy in the conduct of my research, access to QPWS staff and specific unpublished internal documents was through several layers of permissions. Mr Bob Speirs, Director, Parks and Wildlife Management was informed of my research and intention to survey QPWS staff by internal correspondence (Appendix 6). This communication subsequently allowed access to QPWS interpreters and park managers as part of the two questionnaire surveys undertaken. Ms Pamela Harmon-Price, Senior Interpretation Officer[10], Interpretation and Community Relations team, kindly provided access to many of the internal reports analysed as part of this study. Past and present QPWS staff approached as part of the unstructured interview component participated on the understanding that any use of information directly attributed to them would be through informed consent (Griffith University 2006f).

Access to completed questionnaires was controlled to protect the confidentiality of participants (Griffith University 2006c). No person except for myself had access to these questionnaires. However, to ensure coded questionnaires and associated re-identifiable data were not accidentally (or purposefully) accessed by an unauthorised person the data key was always stored in a separate location to the completed questionnaires.

3.4   Summary

This chapter has outlined the data sources and research methods used to undertake the study. A 'Grounded Theory' approach underpins the approaches adopted. This was to inductively build theory through the quantitative and qualitative analysis of data. The use of case study was to better understand the issues relating to the implementation of policy, the affects of a negative organisational culture and the achievement of visitor education outcomes in an organisational setting.

The nature of the study also dictated that data would be collected from two primary sources – publications/documents and organisational employees. Consequently, four methods of data collection were employed: policy/document analysis, content analysis, questionnaire survey and focus group discussion/interviews. The use of policy/document analysis and content analysis allowed publications and documents that establish the framework and means for visitor education as a park management tool to be analysed and deductions drawn. The use of questionnaire surveys allowed data to be collected from two distinct groups of geographically dispersed employees – QPWS interpreters and park managers, while focus group discussion/interviews allowed inconsistencies in the data to be better understood.

---

10 Pamela Harmon-Price was the designated contact officer during the course of my study. Pamela became the Manager of the Interpretation and Community Relations team approximately mid-way during this study. For simplicity she is referred to as the team leader throughout the thesis.