

**Making sense of a wildlife tourism experience:
A study of guide-visitor interactions**

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Dedicated to Sam Ham, Paul Forestell, Doug Knapp, and Mark Orams: The unholy tetrarchy that inspired me to push through the boundaries of how interpretation is researched.



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The Morepork, or Ruru (*Ninox Novaeseelandiae*)

Abstract

Interpretation plays an important role in making visitors aware of the welfare and conservation status of wildlife when participating on a wildlife tour. Guide visitor interaction during wildlife tours provides the opportunity for guides to deliver information that educates and inspires visitors to think about what actions they can undertake for the welfare of the animal species encountered. There have been few empirical investigations of learning and behavioural change in the context of guided tours that include studies of the interaction between visitors and guide that is independent of the experience of the participants and/or use the experience of both visitors and guides. The rationale behind this thesis was to explore the relationship between instances of guide visitor interaction during wildlife tours and the personal insights and outcomes visitors gained from their tours.

The aim of this research was to better understand the role of the guides on visitors' experiences, and to gain insights into the nuances of interactions between wildlife tour guides and the outcomes of these experiences for the tourists. This research set out to explore what scenarios in guided wildlife tours facilitate visitors' receptivity for learning new information and to examine the role/s guides play in this learning. In order to achieve this goal the following questions were set:

1. Can visitors and guides identify a situation within a guided wildlife tour where visitors are most receptive to learning?
2. What are the factors within a guided wildlife tour that influence visitors' receptivity to learning?
3. Can visitors' receptivity to learning be discerned through observable behaviour such as visible signs of affect or curiosity on the part of visitors?

4. What level of interaction do visitors seek from guides in the learning process of a guided wildlife tour?
5. What role do guides play in the facilitation and enhancement of learning during the guided wildlife tour?

This research investigated the guided tour experiences of visitors on trips operated by two non-government organisations, Pacific Whale Foundation, Maui, USA and Supporters of Tiritiri Matangi, Auckland, New Zealand. The qualitative design of the research was influenced by Forestell and Kaufman's (1990) and Orams' (1997) models for interpretation, Burke's (1945) four tropes, and Flanagan's (1954) critical incident technique. Using narrative methods this research collected data through participation in and observation of wildlife tours and via in-depth semi-structured interviews with visitors and guides about these tours. The design of the interview process consisted of an in situ phase immediately after the tour, and a reflective interview held at a later date. A total of 10 separate case studies focusing on the events, commentary and conversations during tours were derived and analysed. The thesis found that guide - visitor interaction plays an important and influential role in shaping visitors' experiences during wildlife tours. Guides influence visitor experiences through provoking visitors to think about what they hear and see on tours in relation to their existing knowledge and experiences. The research proposes a new model of wildlife tours which emphasises the complex range of influences involved in guide - visitor interactions in wildlife tourism contexts. Those who believed they learnt something from their tours were able to identify instances of guide visitor interaction that created new insights for them about the places and wildlife encountered. Others enjoyed their experiences and attributed the role of guide visitor interaction to reinforcing what they already knew or what they already did.

Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma of a university or other institution of higher learning



.....

Jonathon Peter Spring

19th August 2016

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Abbreviations and acronyms

| | |
|-------------|---|
| AUT | Auckland University of Technology |
| BC | Before Christ (sometimes referred to as Before Common Era (BCE)) |
| Bl | Blow |
| CAWW | Cape Anne Whale-watch |
| CIT | Critical incident technique |
| DoC | Department of Conservation |
| FiNE | Field Trip in Natural Environments |
| GVI | Guide - visitor interactions |
| HIHWNMS | Hawaiian Islands Humpback Whale National Marine Sanctuary |
| HBW | Humpback whale |
| ISC | Inner social circle |
| LED | Lived experience description |
| LN | Lead naturalist (guide on a PWF tour who is responsible for leading the commentary) |
| n/a | Not applicable |
| NGOs | Non-government organisations |
| NPS | National Parks Service |
| OLBPC | Oamaru Little Blue Penguin Colony |
| OS | Ornithological Society of New Zealand |
| P | Pod |
| PA | Public address system |
| Pers. comm. | Personal communication |
| Pers. obs. | Personal observation |
| PWF | Pacific Whale Foundation |
| RA | Reply to Answer |
| RC | Reply to Comment |
| RAPB | Reasoned Action and Planned Behaviour |
| SoTM | Supporters of Tiritiri Matangi |
| Tiri | Tiritiri Matangi Open Scientific Reserve (Island) |
| US | United States |
| USA | United States of America |

Terminology

Agency: Sociological term for the thoughts and actions taken by people that express their individual power.

Appropriate conduct and inappropriate conduct: Perceptions from the participants that human-wildlife interaction was acceptable (appropriate) or unacceptable (inappropriate).

Attributes: Qualities that a participant associates with another person or animal.

Clarification: Explanation sought in relation to observed or discussed phenomena.

Equipping: Refers to the ideas expressed in participants' narratives where they suggest how instances of GVI aided them in orientating them to wildlife encounters or understanding meanings arising from their experience.

Evaluating (initial and revised): Interpreting information provided in relation to existing knowledge and new knowledge. If there is a sequence in the narrative where visitors appear to evaluate information, a proposition or an event more than once, the terms 'initial' and 'revised' are utilised.

Existing knowledge and new knowledge: Participant sharing information that is either what they were aware of prior to the observed tour (existing) or from that tour (new).

Existing knowledge/direct encounter interface: Refers to a passage in the narrative where participants appear to allude to existing knowledge in relation to a direct encounter.

Guided wildlife experience: The intersection between what visitors expect from a wildlife tour, the actual trip and their evaluation of it.

Guide-visitor interaction: The communication, verbal and non-verbal, between staff and visitors during a guided tour.

Human-wildlife interaction: Direct encounters between humans and non-captive animals.

Incident: An exchange of information between the guide and visitor during the guided tour. The incidents studied were predominantly connected to encounters with wildlife (pre-contact, contact or post-contact).

Integration: Information provided by participant appears to be either an integration of existing and new knowledge or a confluence of existing and new knowledge.

Interpretation: Utilisation of information in a manner that is tailored to specific GVI context. Associated with commentary by the guide during the tour in the field notes and also passages in their in situ or reflective interviews where they explain what they said to the visitor in relation to phenomenon related to their tour (excludes small talk).

Inter-species behaviour and intra-species behaviour: Animals interacting with animals from other species (inter) or animals from their own species (intra).

Naming species: Identifying individual animals through giving them the names of specific species.

Proposition (initial / revised): Information referred to in a way by the participants that suggest it is different in its formation in some respects to their existing knowledge (initial) or new knowledge (revised).

Restatement: Passage where participants re-state a piece of information they have attributed to another participant. The implication of this restatement is that it is evidence of guide visitor interaction (GVI).

Sight: The term used by MacCannell (1999) to describe the element in a tourist attraction that visitors want to visit, hence the term 'sight-seeing'. The other two elements are a marker and a visitor.

Site: The term used to describe the geographical space of a tourist attraction, hence the term 'site resources'. For Supporters of Tiritiri Matangi (SoTM) tours the site where tours occur is Tiritiri Matangi Open Scientific Reserve. For Pacific Whale Foundation Tours the site where tours occur is the Hawaiian Islands Humpback Whale National Marine Sanctuary (HIHWNMS).

Species behaviour: Describing the behaviour of an animal associated with a specific species.

Speculation: Interpreting visual cues that were witnessed during the guided tours observed in relation to species, inter-species and intra-species behaviour.

Visual cues: Describing the appearance or sound of an animal.

Chapter 1 Introduction

“The known is finite, the unknown infinite; intellectually we stand on an islet in the midst of an illimitable ocean of inexplicability. Our business in every generation is to reclaim a little more land, to add something to the extent and solidity of our possessions”. (Huxley, 1887, p. 204)

The purpose of this thesis is to provide insights into how guide - visitor interactions (GVI) during wildlife tours can play a role in the learning experiences of tourists. Learning in recreational situations such as a guided tour is an informal process, and is difficult to externally assess (Ham, 2007; Orams, 1997; Weiler & Black, 2015). This makes it challenging for guides and their trainers to distinguish between the useful and extraneous elements of GVI for facilitating learning (Knapp, 2007). Investigation into how visitors perceive ‘what’ was learnt on tour and ‘how’ is useful as it provides insights into the role visitors attribute to guides in the learning process.

I adhere to the academic conventions of using the third person throughout most of this thesis but there are sections where I use the first person to avoid ambiguity. The personal factors that shape my interest in GVI, learning and wildlife tours are discussed, and then an overview of the thesis follows.

1.1 A personal journey involving learning and wildlife tourism

My direct encounters with New Zealand’s last remaining native owl, the Morepork, or Ruru (*Ninox novaeseelandiae*) between 2003 and 2007 were pivotal moments for my ability to think more deeply about my own relationship with the natural environment. The first of these four Morepork encounters I experienced was contrived, and in a captive setting. The other three encounters were random incidents in nature reserves.

I had often heard but never seen a Morepork until 2003 when I participated in a guided performance at Auckland Zoo, Auckland, New Zealand. The show involved an owl flying around the audience in search for food. During the encounter, the audience was informed about what voluntary activities they could do at home such as not pruning trees during the breeding season. This advice was connected to the life story of the Morepork in the performance who was orphaned when the tree that housed its nest was pruned. The audience was also provided with information about how to get involved

with community-based conservation. Subsequently, I became a volunteer with the 'Ark in the Park' project, a mainland sanctuary in a regional Auckland park, that sought to restore the native ecology through pest management and translocations (Butler, Lindsay, & Hunt, 2014).

In 2005 as a volunteer for 'Ark in the Park' I saw a Morepork roosting during the day. I was off the track with a team monitoring poison-bait stations set up to control introduced pest predator species. This volunteer work with Ark in the Park encouraged me to visit other protected areas where I could see New Zealand native birds. In 2006, as a volunteer guide on Tiritiri Matangi Open Scientific Reserve (Tiri), Hauraki Gulf, a juvenile Morepork could be seen from a vantage point from the track. My last Morepork encounter was as a tourist at Kaharoa Conservation Area, Bay of Plenty in 2007. There I got to see a Morepork hunt in the wild. I was surprised that it preyed on moths. Even though I knew that bats were the only native terrestrial mammals of New Zealand I had a fixed pre-conception of owls preying on small mammalian species.

My four encounters highlight three possible scenarios of the beneficial dimensions of human-animal relationship in the context of tourism. The zoo experience illustrates what is achievable when wildlife species are in captive settings. The zoo activity was only possible because the Morepork used was an orphaned bird that could not survive in the wild. The training of 'wildlife' to perform is a complex issue but the experience motivated me to start my volunteer work for two community groups involved in ecological restoration of protected areas. This was because the zoo staff included in the show options for the audience to help conserve native animal species in New Zealand in achievable ways.

The second and third encounters were spontaneous encounters in protected areas during work and leisure. These experiences were the rewards stemming from a personal commitment to the stewardship of sites within my community where conservation, recreation and tourism occur simultaneously. The off-track activity of the second encounter did not contravene the regulation of the site because it was sanctioned pest control work. The fourth encounter was one of personal discovery during a domestic holiday where I visited a site that I guessed would give me the opportunity to hear the call of rare native birds. It was based on utilising my knowledge I had developed through my community conservation work to test my observation skills. These experiences in the space of four years of GVI with one animal species, amongst others,

took me on a journey of becoming aware of the special animals and places in my locale and my country. Consequently, I became involved in the conservation of New Zealand's native ecology in a way that is viable for many people living and working in a modern urban society.

The point of the above story is how a guided wildlife experience started a process that taught me I could contribute to conservation and also have encounters with wildlife that were personally significant. It inspired my own practice as a guide with the Supporters of Tiritiri Matangi (SoTM) at Tiri. I learned about academic models for effective interpretation (Forestell & Kaufman, 1990; Knapp, 2007; Orams, 1996), and I started to appreciate the different circumstances of volunteer and professional guides when it came to implementing training and assessing performance.

I became aware that the government regulations that governed SoTM tours meant that an optimal experience to protect natural resources did not necessarily provide an optimal learning experience. As I learned about interpretation at an academic level, I became aware that the concentration on one or two senses such as hearing and seeing birds on SoTM tours can create a repetitive process that may not be conducive to learning (Moscardo, 1996). In sum, it appeared to me that there were models of training guides that could be better than the training I received at SoTM. I wondered if I could utilise a PhD study to learn how to better train volunteer guides through comparing the tour experience of SoTM with others and then connecting these comparisons to the literature on how tour participants learn.

1.2 Definition of key terms

Guide - visitor interactions (GVI) is the term used here to describe the communication, verbal and non-verbal, between staff and visitors during a guided tour. Similar terminology has been used to describe communication between visitors and guides during tours (Pearce, 1988). The term 'human-dolphin interactions' has been utilised to describe encounters between tourists and dolphins during tours as well (Orams, 1995).

Visitor has been a term used in preference to tourist because it can "capture the findings of multiple studies as it is a term that encompasses but is not limited to tourists" (Weiler & Black, 2015, p. 17). This thesis uses the word guide as the descriptor for those who seek to broker, interpret, educate and otherwise facilitate interactions between fee-paying visitors and wildlife. I use the term fee-paying to indicate that the visitors (the research participants), or a member of their social circle, deemed that there was a

perceived value in paying for the presence of a guide when encountering wildlife.

Weiler and Black (2015) have differentiated three types of people who can be covered in tourism contexts with the word 'guide'; 'tour guide', 'generalist guide', and 'specialist guide'. The guides involved in this research fit into the 'specialist guides' category due to the specified nature of the tour settings and the specialised knowledge they are expected to use. Although guides in one of the organisations involved in this thesis have the job title of 'naturalists' the term 'guide' is used to describe all the participants observed who had an official role in providing interpretive talks during the tours observed.

In different texts wildlife tourism, nature-based tourism, ecotourism, and sustainable tourism appear to either differ very little or greatly in their substantive meanings (Higham & Lück, 2002; Newsome, Moore, & Dowling, 2013; Orams, 2001; Wheeler, 2003). In this thesis, sustainable tourism describes management of resources involved in tourism development that ensures inter-generational access to both the resources and the benefits of tourism (Hall & Kearsley, 2001). Nature-based tourism refers to activities that are perceived to focus or occur outside of urban or rural settings (excluding parks). Ecotourism and wildlife tourism are sub-sets of nature-based tourism. Ecotourism is sustainable nature-based tourism, and wildlife tourism refers to tourism that involves visitors engaging in direct encounters with non-captive animals in their natural habitats, or in captive settings.

1.3 Research context

The overall goal of the research was to better understand affect, curiosity and learning in the context of specific individual interaction between visitors and guides during a guided wildlife tour. More specifically, within this broader research goal this research set out to explore what scenarios in guided wildlife tours facilitate visitors' receptivity for learning new information and to examine the role/s guides play in this learning. In order to achieve this goal, the following questions were set:

1. Can visitors and guides identify a situation within a guided wildlife interpretive experience where visitors are most receptive to learning?
2. What are the factors within a guided wildlife interpretive experience that influence visitors' receptivity to learning?
3. Can visitors' receptivity to learning be discerned through observable behaviour such as visible signs of affect or curiosity on the part of visitors?

4. What level of interaction do visitors seek from guides in the learning process of a guided tour?
5. What role do guides play in the facilitation and enhancement of learning during the guided wildlife tour?

The qualitative research process involves emergent design that recognises that alterations to initial plans and procedures may change after the researcher enters the field (Cresswell, 2013). In conjunction with answering the research questions, the PhD developed three themes and 10 sub-themes (see 3.7) to address the richness of the findings, and these are presented in Chapter Four.

1.4 Thesis outline

This thesis uses original field data collected from ten case studies of guided tours run by two non-government organisations based in New Zealand and in Hawaii, USA to investigate the role of guide - visitor interaction in supporting or facilitating curiosity and learning during a wildlife tour. The thesis is structured in six chapters. Chapter Two reviews the literature to contextualise the research into the current body of knowledge of guided tours in relation to tourism, sustainability and education. The strengths and weaknesses of published work connected to the research topic are examined to establish a gap in the knowledge about guide - visitor interaction in relation to guided tours, wildlife tourism, and learning. This chapter concludes with a summary of the gap in the current state of knowledge about learning and GVI during wildlife tours.

Chapter Three details the research design and methods used. The first section outlines the research questions. The second section justifies the use of a case study approach to conduct research into guide-visitor interaction. It also explains the context of the tour providers in the ten case studies and the two research sites where the fieldwork took place. The next section focuses on the research design and the philosophical underpinnings of the research process. The design and development of the research instruments are outlined in detail. This involves the strategies of participant recruitment, data collection and analysis. The research findings are presented in Chapter Four and report the themes and sub-themes that emerged from a cross-case analysis that identify and contrast the temporal, psychological and behavioural dimensions of a guided wildlife tour.

The findings are discussed in relation to relevant literature and theoretical considerations in Chapters Five. This discussion also considers the implications of a

shared experience and an individual experience in respect to the concept of awareness, the learning objectives of a tour and GVI. The potential phases of learning opportunities that can exist in a tour in relation to awareness of the targeted focus of the tour, and the facilitation of a shared learning experience are considered. The discussion concludes with a proposed model for wildlife tours as attractions.

The final chapter demonstrates the importance of this project and its contribution to the wider discourse on guiding as a form of holistic education on the conservation of a location's natural resources and visitor empowerment. It argues that this thesis provides new data that increase the understanding of guided tours as venues for learning and stakeholder empowerment. Limitations of this research as well as future implications emanating from the research are also discussed.

Chapter 2 Literature Review

“Wildlife management is comparatively easy; human management difficult”.

Attributed to Aldo Leopold (cited in Reynolds & Braithwaite, 2001, p. 31)

2.1 Introduction

The literature review creates the context for the research (Table 2.1). To better understand the roles that guides play in visitor interaction with wildlife this chapter reviews relevant literature beginning with an overview of guided tours, wildlife, ecotourism and sustainable tourism. It highlights the fundamental relationship between a guided tour and phenomena such as information sources, the location of the tour, and wildlife and their natural habitat. The review moves on to visitor management and indicates how it informs the nature and role of interpretation during a tour and what implications this has for visitors’ experiences. The discussion of key stakeholders is narrowed to the tourist and the guide to better understand how theories and ideas of education that arise from visitor management can be related to guided tours. Temporal, spatial and psychological factors in education will also be discussed from the perspective of participants on guided tours.

Table 2.1 Connection between literature review sections and the formulation of research aim and research questions

| Literature Review Sections | Connections to research aim and questions |
|---|---|
| Mediated tourism experiences in protected areas (2.2) | The context of a guided wildlife interpretive experience in protected areas where the guided tours researched took place. |
| Interpretation (2.3) | What is meant by a guided wildlife interpretive experience in the context of protected areas. Understanding the theoretical context of the facilitating and enhancing role of guides. |
| The visitor experience (2.4) | Examining the potential for tourists to actively participate and learn during tourist experiences. |
| Key stakeholders (2.5) | Identifying the two targeted population groups for the research. |
| Learning (2.5-2.8) | Understanding the different contexts of learning, the episodic nature of learning and the role attributed to affect and curiosity. |

2.2 Mediated tourism experiences in protected areas

The review of tourism literature for this study is in the context of understanding recreational activities involving direct encounters with wildlife in protected areas where income is generated from guided tours for businesses, governments or non-government

organisations (NGOs). ‘Mediated tourism experiences’ describes a collective feature in the literature review; the negotiation of cultural, geographic, legal and temporal spaces when trying to align tourism objectives with the conservation imperatives of protected areas. Three key ideas are explored in the following sections: wildlife as a tourism product, the insertion of an ethical framework to deliver the wildlife tourism product, and the integration of a scientific approach to align ethical concerns to long-term viability of that tourism product. The aim of this review is to develop a better understanding of three interrelated yet distinct areas of guided wildlife tours. Firstly, why wild animals are a focus when the visitor is purchasing tourism products. Secondly, how stakeholders have attempted to adapt wildlife tourism to manage perceived impacts. Thirdly, how empirical knowledge can be integrated into managing wildlife in a way that benefits all stakeholders.

2.2.1 Guided tours

Guided tours are one of the most consistently recognisable forms of tourist activity, stretching back into the historical records since the 5th century BC (Weiler & Black, 2015). Guided tours represent a mediated experience for tourists. They are visits to a place in the company of a person who can provide information to the visitor. The information sought by the visitor and provided by the guide has some connection to the place visited. Motloch (2001) defines a place as “the mental construct of the temporal-spatial experience as the individual ascribes meaning to setting through environmental perceptions and cognition” (p. 242). Information provided by guides can be stratified into three areas; data, which are “the transformation of factual information without comment or embellishment”; concepts, which are “higher level reasons, explanations and causes”, and finally, “abstract ideas or generalisations” (Kerry, 2002, p. 42). Therefore, a guide is an interlocutor who decides what parts of a place a visitor should see and then explains to the visitor facts or ideas about phenomena at a site (Dewar, 2000).

Olympia, Greece and Giza, Egypt have been documented as venues for guided tours since Herodotus. The ancient Greeks ascribed two functions to people who acted in the capacity of a guide to visitors to a place: orientation (*peregetai*) and explanation (*exegetai*) (Dewar, 2000). Unlike Giza, where the size of the Great Pyramids gave visitors some sense of perspective of what was important, the plethora of statues and plaques in ancient Olympia, Greece made guides seem indispensable for tourists (Weiler & Black, 2015). From Herodotus onward there have been questions about the

accuracy of guides' information (Dewar, 2000). Guides' stories were often more interesting than the versions that visitors received from other sources and "the fictions they created, the places they brought the visitor to, all found their way into the traveller's imagination" (Dewar, 2000, p. 176).

Other impacts that can be connected to sites where guided tours took place are the phenomena of souveniring and graffiti. Souveniring, a form of vandalism, refers to taking something such as a piece of a statue from the place visited as a memento (Beck & Cable, 2002; Harrison, 1982; Merriman & Brochu, 2006). Like souveniring, graffiti is an act making a connection to sites visited. It is a rich source of evidence for the history of travel (pers. obs.). The degree to which guides facilitate souveniring and graffiti is unknowable but as mediators between the visitor and the host, guides have always played a role in facilitating what was permissible, what was forbidden, and what could be negotiated in respect to the behaviour of visitors.

Tours also had an impact on local people. For example, work as a guide provided Māori, particularly women, an opportunity to share their understanding of the cultural and geothermal phenomena that motivated tourists to visit the Rotorua and Tarawera regions in Aotearoa, New Zealand (Dewar, 2000; McClure, 2004). These opportunities strengthened existing links between the local Māori, but the guiding also came with a price: At Lake Tarawera conducting of guided tours to places such as the Pink and White Terraces brought about degrees of disagreement and confrontation at both an intra- and inter-tribal level. The distribution of tourist income, the rights of access onto tribal lands, conspicuous consumption, and the consumption of alcohol were all contentious issues (Bremner, 2004). Tours also resulted in inadvertent damage to some sites; for example, Māori guided visitors through the limestone caves at Waitomo, New Zealand, for the price of a candle but those candles contributed to the damaging of the cave surfaces. As part of an overall response to the conservation of scenic sites, such as the caves at Waitomo and the geothermal areas of Rotorua, the New Zealand government took over the management of the caves and geysers from Māori in 1906 (McClure, 2004; Watkins, 1987).

Guided tours are often about phenomena at a particular place and are best understood by examining the context of the phenomena in relation to the site and the people connected to that place. Research confirms many instances of guides providing visitors with relevant information about, and facilitating awareness about specific conservation issues

about sites visited (Weiler & Black, 2015). However, it is important to remember that there is also a history of guides creating fictional narratives as well as engaging in, and encouraging behaviour that negatively impacts on places and their resources. The next section will consider guided tours in relation to wildlife.

2.2.2 Wildlife as a tourist attraction

Wildlife tourism refers to the facilitation of encounters between visitors and wildlife through businesses, government or non-government organisations (NGOs) to generate funds or meet policy requirements. These encounters can occur in in the wildlife's natural habitat, in captive environments such as zoos, or in settings that incorporate both natural and captive environments. A dramatic increase in guided wildlife ventures is a testimony to the perceived and real economic benefits of such tourism (Higginbottom, 2004; Newsome, Dowling & Moore, 2005) In order to understand the popularity of wildlife tourism, insights into what motivates visitor demand are necessary.

Tourist attractions have been studied from the viewpoint of a range of disciplines in tourism literature from visitor management to sociology. Tourist attractions have been defined as “a named site with a specific human or natural feature which is the focus of visitor and management attraction” (Pearce, 1988, p. 9). There are different approaches to conceptualise what a visitor attraction is, ranging from Gunn's (1997) tripartite attraction model and MacCannell's (1999) tourist attraction model to Leiper's (2004) integration of the former and Kotler's (1994a) adaptation of his ‘three levels of product’ model to tourist attractions (Table 2.2).

MacCannell's (1999) tourist attraction model consists of a relationship between a visitor, a sight, and a marker. A sight referred to any phenomenon at a destination that had been signified as worthy of seeing. Much of the fieldwork of MacCannell's (1999) seminal work *The Tourist* occurred in the 1970s when either going to the beach or sight-seeing were perceived to be the dominant tourist activities. In his sociological study of Paris as a tourist destination from the 19th century to the 1970s markers used by tourists suggest that a sight could be the Eiffel Tower or the dead displayed for identification at the Paris Morgue. A marker denotes an empirical relationship between the visitor and the sight. The marker is the information from varied sources such as people, literature or street signs that motivated the visitor to see the sight. Many tourists decided to visit the Paris Morgue because of entries about it in guidebooks such as *Baedeker's Guide to Paris and its environs* (MacCannell, 1999). His study of tourists in Paris involved

comparisons between pre-World War One tourist literature such as guidebooks with contemporary tourism literature to highlight changes and similarities in what motivated people to participate in sightseeing as an activity.

Table 2.2: Comparisons of visitor attraction models

| Model | Social dimension | Tangible dimension | Intangible dimensions | |
|--|--|--|--|---|
| MacCannell's Tourist attraction model | Human element (tourist): The act of sight-seeing generates the attraction | Sight: The phenomenon visited by the tourist | Marker: A piece of information about the sight that can empirically connect the visitor to the reason they visited the sight | Only marker specified in model |
| Gunn's tripartite tourist attraction model | Not specified in model | Nucleus: The focal features of the phenomenon visited by the tourist | Inviolable belt: Physio-psychological boundary of the nucleus that influences visitor satisfaction | Zone of closure: A conceptual device to describe the services that visitors may seek at a tourist attraction venue e.g. restrooms, souvenirs, food and beverage, and accommodation |
| Kotler's adaptation of his three levels of product concept to describe visitor attractions | Not specified in model | Tangible product: The focal features of the phenomenon that the tourist can comprehend through their senses | Core product: Information about the sight that can empirically connect to psychological reasons for the visit to the attraction | Augmented product: A conceptual device to describe the services are provided at tourist attraction e.g. carpark, food and beverage, disability access |

Sources: Gunn (1997); Kotler (1994a); MacCannell (1999).

The pulling power of a destination has long been an accepted way of understanding the interrelationship of tourism generating regions and destination regions in the context of push and pull factors (Weaver & Lawton, 2014). Gunn (1997) used the metaphor of magnetism to describe the pull factor of a tourist attraction (Leiper, 2004; Pearce et al., 2000). However the metaphor has been criticised as unhelpful as it does not identify an inherent quality such as magnetism that can explain what attracts visitors to tourist attractions (Leiper, 2004; Richards, 2002). Gunn (1997) appears to have remained silent on the criticism. His later works ascribe a level of agency to the visitor and the management of an attraction but are still vague in detail on the analogy of magnetism (Gunn, 1997, 2002). However, the notion of a pulling power still surfaces in how to

conceptualise attractions as Pearce et al. (2000) surmise that it is “desirable to suggest that attractions in a region might be thought of as analogous to a dynamic matrix of force fields affecting bodies with varying degrees of susceptibility” (p. 110) (Figure 2.1).



Figure 2.1: Pearce et al.'s force field and visitor attractions analogy

Source: (Pearce et al., 2000)

Kotler's (1994a; b) three levels of product model (core, tangible and augmented products) were adapted to conceptualise the tangible and intangible components that tourist attractions such as museums and theme parks offer visitors (Pearce et al., 2000; Swarbrooke, 2002). For museums, the core and augmented products sought by visitors consist of intangible ideas such as learning and entertainment. The tangible dimension includes processes that occur for the visitor at a site; that is, reading the provided material, seeing and hearing the exhibits and artefacts, and interacting with the staff and the artefacts. It is through the engagement of the tourists' senses that an animal becomes a tourist attraction. Potentially a tourist can see, hear, smell, touch or taste an animal during a guided tour. With Kotler's (1994a) model the tangible product conveys the same ideas as Gunn's (1997) nucleus and the augmented product the same as his zone of closure concept. It is the core product element that offers something different to Gunn (1997), and, to a certain extent MacCannell (1999). It has a similar quality to

MacCannell's (1999) marker element but cannot be so easily defined as piece of information such as a book or sign.

Gunn's (1997; 2002) tripartite definition of a visitor attraction explores the functions of a visitor attraction. The nucleus is defined by identification of the process of human attribution of place, a subjective concept whereby some aspect of a place becomes identified as a resource. The nucleus approximates MacCannell's 'sight' and Kotler's tangible product as it refers to what visitors apprehend through their senses; for example, a waterfall such as Niagara Falls or a migratory herd of wildebeests (*Connochaetestes spp.*) that act as a seasonal highlight for tourism in Kenya (Robinson, Lück, & Smith, 2013). In defining the nucleus Gunn (1997) focuses on the inherent qualities of the resources of a place that appear to inform the expectations of visitors. Gunn (1997) suggested that the sight and sound of cascading water represents the nucleus of a waterfall. On a whale-watch tour, the nucleus could consist of either, or all, the portion of the whale visible at the surface of the water, the sound of its exhalation or surface noises, and the sound of its calls through a listening device.

The inviolate belt is the expression of the sensitivity, fragility or robustness of the resource in question being utilised as a nucleus of the attraction (Gunn, 1997). The inviolate belt acts as a physio-psychological buffer zone between the visitor and the nucleus and "has a more powerful function than has been previously attributed to it. No nucleus can be without it. Its creation requires special sensitivity and creativity on the part of the designer" (p. 55). The inviolate belt also involves separating the nucleus from the amenities, infrastructure and superstructure that tourists rely upon and provide commercial opportunities for the host community, the zone of closure. If commercial or other activities occur within the space visitors believe should only be occupied by the nucleus it can negatively impact on visitors' experience. In a recent survey seeing the Pyramids of Giza while eating at the local Pizza Hut was cited as a reason for labelling them a disappointing tourist attraction (Cable, 2014).

Analysing the interface between visitors' psychological expectations of an encounter with wildlife and the physical nature of the setting where the encounter takes place is a recognised theme in wildlife tourism studies (Newsome et al., 2013; Smith, 2007). The use of moats with high walls on the visitors' side, instead of steel fences, is an example of such sensitivity in designing zoos. In the natural habitat of the animal, such design elements are more problematic when trying to create an authentic but 'safe' wildlife

encounter as “a person’s mindset or anticipation of an attraction has much to do with his reception or approval when the nucleus is reached” (Gunn, 1997, p. 55).

Pearce, Benckendorff and Johnstone’s (2000) view of the role of interpretation at visitor attractions has similarities to MacCannell (1999) on-site markers that visitors encounter while at the site. Pearce et al.’s (2000) overall discussion of attractions does not refer to MacCannell’s (1999) original tripartite model of visitor attractions. Their discussion of MacCannell (1999) relates to the staged development of an attraction that makes no reference to markers. So, their discussion of interpretation is independent of consideration of markers. Nevertheless Pearce et al. (2000) view interpretation as an integral part of visitor attractions: “The final element to be included in any analysis of attractions is the special role of interpretation. In Kotler’s terminology interpretation is a tangible product... in Gunn’s formulation it is an activity in both the ancillary [zone of closure] and core [nucleus] zone” (Pearce et al., 2000, p. 120). As both interpretation and markers are ‘media of information’ they should be seen as constitutive parts of the same element of the overall attraction.

Many species of wildlife can potentially be seen in a zoo or at a place that contains the natural habitat of the wildlife species. Wildlife can therefore be defined as the sight or tangible elements of an attraction, but questions may arise in defining wildlife in a zoo as a wildlife attraction. A zoo does not necessarily authentically represent peoples’ notion of wild in terms of the wildlife quality of animal species. For many a natural habitat setting often defines the animal as wildlife (Hughes, Newsome, & Macbeth, 2005; Newsome, Dowling, & Moore, 2005). In this context, the critical dimension is the concept of place-making; that is, the human attribution of place (Gunn, 2002; Motloch, 2001). While many zoos play an important role in the conservation and breeding of endangered wildlife species, seeing wildlife such as zebra in a place that represents their natural ecosystem appears to bestow an authentic dimension missing from a zoo setting. So, the qualities that the tourist attributes to the place where they see the wildlife – that is, whether it is a captive, human constructed setting or natural setting – are critical in understanding wildlife as an attraction.

Place in relation to wildlife tourism is a major aspect in understanding the relationship between the nucleus and inviolate belt when wildlife are an attraction. Places that are indicative of an animal’s natural habitat are often seen as a more authentic context for a direct encounter with an animal than a zoo despite the fact that the intrusion of humans

may impact on the setting (Higginbottom, 2004; Hughes, Newsome, & Macbeth, 2005; Schänzel & McIntosh, 2000). This has implications for the welfare of targeted animals and also on the perceived authenticity of the encounter. In natural areas, the inviolate belt may be informed by guidelines for conduct connected to relevant animals, plants or geographical features. For whale-watching tours protocols involving approaching animals, acceptable distances to animals and the number of vessels in proximity to animals are regulated in certain territorial waters (Gill & Burke, 2004; National Oceanic and Atmospheric Administration, 2016a, 2016b). Overall many whale-watching guidelines are voluntary (Finkler, 2014). A dilemma between what is desirable for interaction with a whale and what is ethically acceptable during the contact phase, potentially exists for every whale-watch staff and visitors during a direct encounter with whales (Higham, Bejder, & Williams, 2014a).

Humans appear to possess a strong affinity with wildlife (Johnson & McInnis, 2014; Orams, 1996; Reynolds & Braithwaite, 2001). As a consequence, wildlife constitutes a visitor attraction at a tourism level. Wildlife as a tourism attraction often revolves around the activity of wildlife viewing. A useful way to understand the concept of markers in relation to wildlife as a visitor attraction is to explore how humans perceive animals, and what insights markers uncover about why tourists pay to travel for an encounter with wild animals. Corkeron (2014) suggests that animals can be categorised into four distinct types based on the human response to them: ‘Nasties’, which are feared or loathed, and need to be culled; ‘lovelies’, which are animals that evoke reverence and affection in humans, and also a drive to conserve them; ‘commodities’, which are species that can be domesticated or harvested; and ‘irrelevancies’, which are those creatures that mostly escape our notice and subsequently evoke no specified response. Wearing, Stevenson and Young (2010) noted that the relationship between self and nature has been narrowed into three typologies: An anthropocentric position or ‘shallow’ ecology, the equality of all sentient beings that can experience pleasure and pain, and finally ‘deep’ ecology. Further development of such ideas can be understood through Kellert’s (1993) typology of biophilia values.

Kellert (1993) has developed a typology of values as a heuristic tool to hypothesise the human connection to nature in respect to how humans have adapted their relationship with their natural environment for survival and personal fulfilment (Table 2.3). Each of the nine values suggests individual human stances towards the perceived value of nature and how these values inform each person’s interactions with the natural world.

Some values relate to how humans use natural resources for personal needs such as sustenance, development of knowledge or ego enhancement. A ‘utilitarian’ or exploitative stance describes how humans make use of the natural world for personal sustenance or producing material cultural products (Kellert, 1993, 2014). The use of nature also acts as a means to strengthen social connections or interpret meaning about human existence (Kahn, 1999; Kellert, 1996, 1997; Wilson, 1984).

Table 2.3: A typology of biophilia values

| Term | Definition | Function |
|--------------------------|---|---|
| Utilitarian | Practical and material exploitation of nature | Physical sustenance/security |
| Naturalistic | Satisfaction from direct experience/contact with nature | Curiosity, outdoor skills, mental/physical development |
| Ecologicistic-Scientific | Systematic study of structure, function, and relationship in nature | Knowledge, understanding, observational skills |
| Aesthetic | Physical appeal and beauty of nature | Inspiration, harmony, peace, security |
| Symbolic | Use of nature for metaphorical expression, language, expressive thought | Communication, mental development |
| Humanistic | Strong affection, emotional attachment, ‘love’ for nature | Group bonding, sharing, cooperation, companionship |
| Moralistic | Strong affinity, spiritual reverence, ethical concern for nature | Order and meaning in life, kinship and affiliational ties |
| Dominionistic | Mastery, physical control, dominance of nature | Mechanical skills, physical prowess, ability to subdue |
| Negativistic | Fear, aversion, alienation from nature | Security, protection, safety |

Source: Kellert (1993).

Visitors have attitudes and values about wildlife that inform a range of expectations from wildlife tourism attractions (Shackley, 1996; Zeppel & Muloin, 2014). People are willing to pay third parties to ensure that they can get a wildlife encounter that matches their expectations, be it an intimate encounter such as feeding a dolphin, a ‘bucket list’ sighting of a rare bird, or the killing of a much-valued species (Braunias, 2007; Nelson, Bruskotter, Vucetich, & Chapron, 2016; Orams, 1995). Such values then inform what people expect from a direct encounter, and so, using this information, many companies throughout the world are tailoring and offering guided tours to facilitate a real experience matching those expectations, from walking amongst penguins in Antarctica to hunting lions in Zimbabwe. A guided wildlife experience is the term used to describe

the intersection between what visitors expect from a wildlife tour, the actual trip and their evaluation of it.

Gunn (1997), MacCannell (1999) and Kotler (1994) highlight how visitor behaviour at a tourist attraction constitutes a range of interactions at both a physical and psychological level for the visitor, and these approaches can provide researchers insights into the nature of wildlife tourism. Braunias (2007) suggests that the sighting of an individual bird outside of its recorded population distribution can make the site of the direct encounter a major attraction for ornithologists. The rarity of the sighting at that site rather than the endangered status of the bird species can then play a factor for motivating a segment of wildlife tourists to visit a destination (T. Cable, pers. comm., 5th April 2016; R.W. Butler, pers. comm., 14th February 2013).

The nature of contact between the visitor and the wildlife being observed in terms of intrusiveness for the wildlife is a key impact issue. Wildlife-visitor interactions can range from watching wildlife, spotlighting nocturnal wildlife, swimming with marine wildlife, touching wildlife, to feeding wildlife (Higginbottom, 2004; Orams, 2002; Rodger, Moore, & Newsome, 2007). Therefore, management of visitors' expectations in relation to the reality of the encounter experience needs to address how visitors' values and attitudes towards animals will inform their behaviour during direct encounters with animals.

Factors such as visitors' values and the nature of the information that motivated them to participate in a guided wildlife tour are important in understanding how to manage such products; however, the customer is only one stakeholder of wildlife tourism. A discussion of ecotourism can aid in better understanding the values and roles of other stakeholders involved in guided wildlife tours. The next section, on ecotourism, gives insight into how stakeholders have attempted to adapt tourism to address expectations about the role of tourism and the implications of this for guided wildlife tours.

2.2.3 Ecotourism and guided wildlife tours

In tourism theory, ecotourism represents an attempt to construct a form of tourism that can be adapted to the environment and the fiscal, ownership and employment needs of the society it operates within (Fennell, 2008; Wearing & Neil, 1999; Weaver, 2008). The characteristics of non-consumptive wildlife tourism, where animals are not physically harmed or exploited, are closely related to ecotourism especially in relation

to the nature of conducted activities and steps undertaken to minimise on-site impacts on resources (Rodger et al., 2007). The characteristics of wildlife tourists such as whale-watch participants have been linked to ecotourists in respect to an interest in the animals and environments observed during a tour, and expectations that a tour will result in learning outcomes (Hearne & Salinas, 2002; Lück, 2003a; Orams, 1997).

Ecotourists have been differentiated from other tourists through their preference for outdoor experiences, a desire to share such activities with like-minded people, and an interest in fauna and flora (Fennell, 2008; Lück, 2003b; Orams, 1995; Weaver, 2008). Wildlife viewing is often a central feature of ecotourism products. A wildlife tourism product can be considered to be within the parameters of ecotourism if it adheres to the principle of adapting the product to the needs of the resources used (Fennell, 2008, Weaver, 2008). While a focus on animals connects an ecotourism product to wildlife tourism, it is more problematic to define how a wildlife tourism product is representative of being an ecotourism product rather than just a form of nature-based tourism.

The challenge for tourists is how they can judge the merits of the term 'ecotourism' in relation to a tour provider, through a subjective scale of measurement. The term greenwashing has been levelled at some self-styled ecotour operators (Weaver, 2008), leading to the notion that there are two different forms of ecotourism; those that are and those that are not. This questions the usefulness of the term ecotourism as a moniker of distinction. One way this has been addressed is to create a continuum where all nature-based tourism can be presented to the degree that they exploit and the degree to which they contribute to the resources, sites and communities utilised in the creation of the tourism product (Orams, 2001). The more responsible a wildlife tourism operator is, the more likely they can be labelled as an ecotourism operator. Ecotourism Australia (2015) in its accreditation process goes so far as to distinguish between ecotourism and advanced ecotourism as labels that recognise different achievement levels of responsible contribution by tour operators.

Research on nature-based and ecotourism operators suggest that while the market for nature-based products is large, ecotourists, as a defined market, are much smaller than the actual demand for specified ecotourism products. Thus, for wildlife tours, the interest for a visitor in a wildlife component does not necessarily equate with the same

visitor's concern about the ethical or educational components attached to the product (Beaumont, 2011).

The advertising and purchasing of a guided wildlife tour implies to the customer the provision of a mediated encounter with the targeted wildlife that provides another dimension to the experience. An educational element has been noted as a key feature in definitions of ecotourism (Fennell, 2008). Typically this has been in the form of an informal environmental education programme (Lück, 2003a, 2015).

While ecotourism is an attempt to minimise the harmful consequences of tourism development through adaptation of the venture to the site, it can still result in negative impacts on both society and the environment, regardless of size or scale (Fennell, 2008; Weaver, 2006). There has been scepticism expressed about the extent to which tourism can be changed and adapted to benefit the environment and host community. There are also questions about the extent to which tourists will base their consumption patterns on altruistic concerns (Wheeller, 2003). However, Zealandia (formerly Karori Wildlife Sanctuary) and Tiri in New Zealand are examples of tourism acting as a catalyst for developing community initiatives and benefiting the ecology of each site (Galbraith, 2013; Higham & Lück, 2002; Orams, 2001).

The premise of ecotourism is essentially the development of a model of tourism development that can act as an alternative to the unintended consequences of mass tourism (Jafari, 2003; Weaver, 2008; Weaver & Oppermann, 2000). Adapting tourism products in response to the perceived or empirically investigated needs of communities and places is primarily a philosophical concern about the role of tourism in the human and natural world. Thus, an initial focus on small-scale tourism operations when ecotourism was first proposed to devise business practices at sites where there is inadequate science-based understanding of the relationship between tourist activities, communities and site resources. A focus on small-scale operations does not negate the possibility of ecotourism operations being any less exploitative or destructive as mass tourism operations (Orams, 2001), nor does larger scale tourism necessarily contradict ecotourism principles (Lück, 2002).

Ecotourism can be said to inform the concept of a guided wildlife tour in respect to understanding the extent that the wildlife experience is non-exploitative, and provides an educational context to the tour participants. In this context, the role of interpretation is about influencing visitor behaviour. Furthermore, a guided wildlife tour is a form of

ecotourism if it provides some level of benefit at a site level, at resource level and at a community level. The next section looks at the relationship between guided wildlife tours and sustainable outcomes.

2.2.4 Sustainable wildlife tourism

Any form of tourism that does not incorporate sustainable tourism practices is exploitation (Hall & Kearsley, 2001). Sustainable tourism has been defined as a scientific approach to understanding how to minimise the negative impacts and increase the benefits of tourism through knowledge of the peculiar characteristics of each site (Wearing & Neil, 1999; Weaver, 2008). Tourism is largely the behaviour of a minority of the world's population, and either confined to wealthier sections of most societies or common among regional blocs such as Europe (Weaver & Lawton, 2014). The merging of wildlife and ecotourism is not enough to achieve equitable distribution of financial benefits and the protection of natural resources with the addition of sustainable development criteria (Dobson, 1996). Sustainability has to be incorporated into tourism planning to ensure that economic development “meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development (WCED), 1987, p. 8). Whereas there was a precautionary approach in ecotourism to the size of small-scale operations in order to reduce the negative impacts associated with mass coastal tourism, sustainable tourism represents an approach to integrate scientific knowledge with ethical and moral concerns about tourism practice (Weaver, 2006).

The focus of tourism researchers in developing sustainable tourism practice is to ensure that long-term tourism is viable in an economic macro-environment where exploitative practice is financially rewarded and legally condoned. One method in changing the way humans can appreciate a pristine natural world at an economic level is by assigning value to ecosystem services. ‘Ecosystem services’ are defined as:

The benefits people obtain from ecosystems, and they are produced by interactions within the ecosystem. Ecosystems like forests, grasslands, mangroves and urban areas provide different services to society. These include provisioning, regulating and cultural services that directly affect people... some ecosystems are local (provision of pollinators), others are

regional (flood control or water purification), and still others are global (climate regulation). (Millenium Ecosystem Assessment, 2005, p. 3)

Guided tours can act as a mechanism to support the sustainability of a site and its resources (Weiler & Ham, 2001). Linking sustainability to the outcomes of a guided tour is about problematising the role communication plays in the management of resources, and charting the gap between where communication can work as a management tool and the role communication plays in satisfying customers. Making visitors on a sustainable wildlife tour aware of the relevance of the relationship of the place visited and its ecology to their everyday lives is a challenge. However, such actions create the potential for tours to act as part of a community's learning infrastructure, a term that describes the resources available to the public for informal learning (Falk, 2001). Infrastructure is a term that relates to phenomena that facilitate certain activities. Educational infrastructure is a concept used in informal education literature to understand the resources that are available in all forms of education and that can support the agency of individual citizens in their learning (Falk, 2001).

In the knowledge-based economy learning is valued as a creator of economic capital. At a national level the development of learning infrastructure is an intrinsic platform for economic growth. A nation's well-being depends on its commitment to supporting institutions such as museums, libraries and visitor centres in protected areas as these represent the foundations of a knowledge-based economy (Falk, 2001). The value we place on those institutions and the learning they foster is often commensurate to what we value as necessary at a societal level: "Infrastructure investments help provide structures, create conditions, and develop capacity that are prerequisite to the functioning of daily life" (Falk, 2001, p. 11).

Scientific and educational literacy are dependent on educational infrastructure that is made up of more than just physical resources and "can be thought of as an interwoven network of educational, social and cultural resources" (St. John & Perry, 1993, p. 60). Much of the information that forms the basis of an interpretation programme at protected natural areas is based in science. Direct encounters provide opportunities to observe the natural behaviour of animals, opportunities which are mostly not possible in captive settings such as zoos.

Ornithology illustrates the type of educational infrastructure that can inform free-choice learning. Ornithology is the study of birds. For some it is predominantly a scientific activity and for others the science merges seamlessly into a hobby. Concepts such as taxonomy and distribution are key components of ornithology, both as a science and a hobby; for example, ornithologists will note the sighting of a particular species of bird in the context of its rarity (its population status) or the location of the sighting in relation to that species' natural distribution (Braunias, 2007).

While at a tourism level, cetacean-based and avian-based tourism are both significant, the infrastructure of free-choice learning in terms of ornithology is more accessible in European-dominated societies due to ornithological-based groups. Braunias (2007) spoke of his experience as a member of the Ornithological Society of New Zealand (OS), which was founded in 1940. OS provides members with its journal, *Notornis*, runs field trips and also holds;

monthly meetings, where notes and observations are shared, and a guest is introduced to give A Most Interesting Talk [author's capitalisation], [and] members contribute to core activities – bird-banding, wader counts, bird distribution, constant monitoring of migratory habits, and beach patrols to count and sometimes collect dead birds. (Braunias, 2007, p. 44)

Weiler and Black's (2015) dimensions of the contribution of tour guiding to sustainable tourism is a useful tool by which to categorise the findings of research on the relationship between tour guiding and sustainability. In their review of the corpus of published empirical research on guiding, Weiler and Black (2015) concluded that research had demonstrated a link between tour guiding and enhancing visitors' valuing and understanding of the tour site. Tour guiding also contributed to influencing and monitoring visitor behaviour on site and fostered post-visit attitudes and behaviours.

Weiler and Black's (2015) discussion on tour guiding's contribution to sustainable outcomes suggests that the willingness of visitors to protect the cultural and natural resources at sites where tour guiding occurs is dependent on the visitors' understanding and appreciation of both the tangible and intangible qualities of the resources they encounter. A major concern is that much of the empirical knowledge accumulated about how tour guides enhance visitors' understanding and valuing of a site and its resources

relate to the visitors' self-perceptions of outcomes and it is difficult to develop a more holistic approach to how tour guiding influences the visitors' understanding of the cultural and natural values of the site visited (Weiler & Black, 2015). Guiding is perceived by visitors to influence their understanding and valuing of a site but there is still a gap in understanding the extent to which guiding actually influences "a visitor's understanding at a site's natural and cultural values and thus contributes to sustainability" (Weiler & Black, 2015, pp. 78–79). A better entry point to understanding the role of guiding is to consider outcomes from tours in relation to visitors' on-site experiences of their tours.

2.2.5 Summary

Recent discussions of ecotourism and other alternative forms of tourism reflect a growing recognition and understanding of how the business of tourism can undermine the qualities valued by stakeholders about the resources used for tourism at destinations. This suggests that the value concept connected to the notion of resources needs to be widened, shifting from the simple rubric of supplier, customer, shareholder and tax gatherer to understanding the range of affected stakeholders in the utilisation of resources such as wildlife. Ecotourism as a concept is about adaptation of the service product in a way that can realise profit and satisfaction for provider and customer while also providing protection of the resource and incentives for the local community.

Sustainable tourism applies available scientific knowledge to the development of the service product. Furthermore, it is about considering a precautionary approach to economic transactions and physical interactions with wildlife and the ecosystem services of the places they inhabit. In the context of GVI during sustainable wildlife tours the guide theoretically operates within guidelines that can restrict opportunities for contact with wildlife. This could have implications for how the guide can facilitate or enhance outcomes arising from the tour such as learning. Such issues are best understood when it comes to exploring the use of guided tours as a visitor management strategy.

2.3 Interpretation as a visitor management strategy

Sustainable visitor management reduces the negative impacts of visitors on the resources that they and the host community utilise and ensures that visitors have a satisfactory experience that may influence demand and empower local people (Robinson et al., 2013). Visitor management can only be understood in the context of a

place and the perceived qualities of that place as a visitor attraction; that is, the place's nucleus or nuclei (Gunn, 1997). At one level, visitor management is about defining the extent and nature of the inviolate belt and zone of closure around the nucleus of an attraction.

Gunn (2002) explored the concept of scenery to demonstrate how human societies can change their perception of what qualities of a thing constitute a resource. In medieval Europe forests were places outside of civilisation “filled with demons and were of no value until felled for settlement and agriculture. Not until painters and writers in the nineteenth century romanticized nature did vistas of landscape become scenery” (p. 229). How resources such as forests or scenery are managed involves a complex interaction between the local and national communities, government, visitors and businesses: “Resources such as water, forests, and wildlife are basic to many attractions across diverse cultures. However, government policy, economic changes, and access and market shifts can elevate or lower the value of such resources as destination factors” (Gunn, 1997, p. 66).

Visitor management is a response to the vagaries of market and government interest and decisions about the resources of a place at a given time. A key issue for wildlife and host communities is making sure the practices of the moment result in both short-term and intergenerational outcomes. In conjunction with both regulation and physical management strategies, education strategies can reduce the possibility of illegal activity. The use of education strategies has been highlighted as an important tool that can result in wildlife tours that contribute to the conservation of marine species such as sea turtles (Wilson & Tisdell, 2001).

Interpretation refers to informal education that occurs in settings where visitors are made aware of the intrinsic values of the resources of the site and its overall relationship to human experience (Ham, 1992). A direct experience may refer to a visit to a nature-based site and/or a wildlife encounter (Forestell, 1993). Non-personal interpretation covers media such as signs, panels, brochures, dioramas and audio-visual material. Face-to-face interpretation describes a direct experience at a site where a designated person talks to visitors (Weiler & Black, 2015).

The term ‘interpretation’ was first used in relation to guiding by Enos Mills in the early twentieth century (Beck & Cable, 2002; Sharpe, 1982a; Wallin, 1982). Beck and Cable (2002) noted close parallels between Mills’ opinions on guiding and the principles of

interpretation developed by Tilden (1977). Tilden (1977) views interpretation as an art whose aim is to stimulate interest in site resources. An ideal interpretive experience adds something to a visitor's appreciation of the resources encountered. If the perceived importance of the resources is related to natural history, then the interpretation may be informed by natural sciences such as geology. From a management perspective, an early objective of interpretation was to reduce the practice of visitors taking mementos such as stalagmites (Beck & Cable, 2002; Harrison, 1982; Merriman & Brochu, 2006).

Interpretation over the years has been divided into separate fields by the perceived dominant quality of certain resources at the site (Beck & Cable, 2002). Natural heritage has been used to define areas that are ecologically or geologically significant but also have a special significance to the history or identity of contemporary society. The cultural heritage of indigenous people is often intrinsically connected with the natural world (Keelan, 1996). The antecedents of interpretation as a practice in the United States has been connected with indigenous peoples' use of storytelling to explain natural phenomena and the human relationship with the natural world (Merriman & Brochu, 2006).

Interpretation is a cornerstone of the ecotourism product (Weiler & Davis, 1993). A significant proportion of ecotourism operators in the United States and Canada use interpretation (Fennell, 2008). Guided commentary involving natural history of the animals, the interpretation of sighted behaviour, and the fielding of questions is a feature of many whale-watch tours in Hawaii (Shapiro, 2006). Visitors on New Zealand marine mammal tours sought educational material about the relevant animals, the environment they inhabit and associated human impacts (Lück, 2003a). However, education as a part of such tours is not common in other parts of the world (Shapiro, 2006).

2.3.1 Information and interpretation

A central tenet in the discourse about interpretation is its relationship with information. Interpretation relies upon information and without information interpretation becomes simply a form of entertainment (Beck & Cable, 2002). Tilden (1977) stresses the connection but also the distance between interpretation and information. This is articulated in the second of his six principles about interpretation: "Information, as such, is not interpretation. Interpretation is revelation based on information. But they are entirely different things. However, all interpretation includes information" (p. 9).

A dominant view in interpretation studies is that in an interpretive talk the visitor will only be receptive to the information being conveyed if it is mediated. Information may be mediated by tying it to key messages, combining tangible and intangible concepts, or by using emotional and intellectual connections (Beck & Cable, 2002; Ham, 1992; Ham & Weiler, 2002; McArthur & Hall, 1996; Smaldone, 2006; Tilden, 1977). A feature of nature-based interpretation is to mediate scientific information to audiences who may have only a cursory level of scientific knowledge (Benton, 2007; Ham, 2013; Sharpe, 1982a). How the information is structured or what objectives it seeks to achieve depends on site management policy and the level of discretion management gives to individual interpreters (Brochu, 2003; Ham, 1992; Knapp, 2007).

2.3.2 Relationship between behavioural change and interpretation

Two key reasons for providing education on guided tours in protected areas are visitor management requirements and the expectations of visitors. Education is an important part of visitor management in protected areas in order to ensure compliance with rules and avoid scenarios where enforcement is necessary. Visitors connect wildlife tourism with learning, and educational outcomes for visitors are cited as a benefit of participating in marine-based wildlife tourism (Andersen & Miller, 2006; Zeppel & Muloin, 2008).

Three factors are important for ensuring that guided tours foster conservation messages; business philosophy, education programme design, and the role of the guide/interpreter (Higham, Bejder, & Williams, 2014b). The tour provider exercises control of an education programme in terms of its overall design, funding, and implementation. It also determines the priority placed on learning in terms of both funding and the organisation's focus. Museums and protected areas such as wildlife sanctuaries have a conservation focus. Managers design their educational goals to highlight the stewardship role of both staff and visitors, both on and off site, in relation to the resources experienced. If tour providers are concessionaires in a protected area, they are expected to educate their customers about the standards of on-site behaviour, such as not smoking or feeding wildlife. For this to occur, guides need to assess whether the motivations and expectations of their tour group complement or conflict with site management objectives.

Tilden (1977) introduced the idea that “the chief aim of interpretation is not instruction but provocation” (p. 32). He differentiates interpretation from guided talks that relay

information as interpreters attempt to make topics relevant to visitors' life experiences. Tilden (1977) emphasised the need to create a connection between the visitor and on-site resources through deepening the visitor's knowledge of the site. This suggests that learning during a tour may arise from an affective relationship between the visitor and the resource interpreted (Ham, 2007). The United States' National Parks Service (NPS) uses interpretation programmes to explain its work and to foster appreciation and protection of on-site resources (Beck & Cable, 2002).

Ham and Krumpal (1996) provide an approach to addressing behavioural change in an interpretation programme that considers the following dimensions; audience (on-site visitors, local communities, or remote audiences), targeted behaviour in terms of location (on site or off site), and time (short term or long term). Ham and Krumpal (1996) consider behavioural change through interpretation in the context of the theories of 'Reasoned Action and Planned Behaviour' (RAPB). RAPB theories state that behavioural intention is affected by three constructs; attitude towards behaviour, subjective norm, and perceived behavioural control (Ajzen, 1992; Fishbein & Manfredo, 1992). These three constructs are controlled by three respective sets of salient beliefs; behavioural beliefs, normative beliefs, and control beliefs. Content and delivery of content through different interpretation media can attempt to change behaviour through thematic interpretation. Thematic interpretation focuses "communication content on the primary beliefs salient to the targeted behaviour" (Ham & Krumpal, 1996, p. 18).

One of the challenges of face-to-face interpretation is that every individual participating in a trip has a set of beliefs, attitudes and interests that can be fundamentally different to the other people participating in the trip (Beck & Cable, 2002; Ham, 2013). Guides need to be familiar enough with their content to allow them to be flexible in its delivery. This is important in dynamic situations such as wildlife encounters where the timing and likelihood of a contact period can be unpredictable (Forestell, 1993).

2.3.3 Interpretation goals

In the interpretation literature, a wide range of goals has been associated with the use of interpretation at visitor attractions. Most of these goals can be grouped into four distinct areas; connecting visitors to resources, influencing visitor behaviour, developing environmental literacy and promoting economic goals (Benton, 2009). Research into interpretation is concerned with assessing whether outcomes related to the four areas

identified by Benton (2009) have been fulfilled (Figure 2.2). From these studies recommendations and strategies have been proposed to make interpretation programmes more relevant to achieving these goals. However, there has been little systematic study of GVI from both the perspective of the guide and the visitor in understanding how exchanges between the guide and the visitor contribute to learning outcomes from visitation to an attraction.

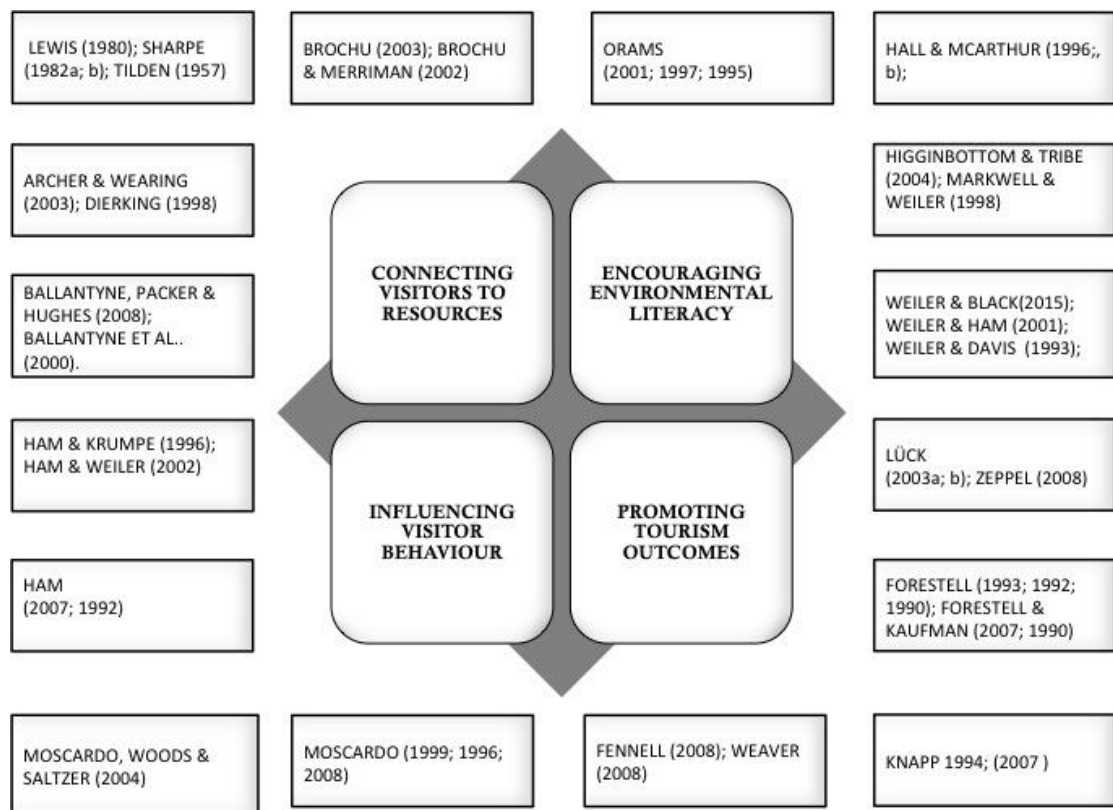


Figure 2.2: Interpretation literature and Benton's (2009) Four Conceptions of Interpretation
Source: Benton (2009)

Knapp (2007) is cautionary about expectations relating to the role of interpretation in facilitating behavioural change, particularly because of the short duration of most interpretation experiences. He suggests a model to develop interpretation based on three sets of goals which are hierarchical (Figure 2.3). These are entry-level goals such as awareness of the site and environmental sensitivity, then ownership goals that allow the visitor to consider issues relating to resources at the site, and finally empowerment goals that promote responsible environmental actions. Knapp (1994) developed the goals and their framework for environmental interpretation through research in both interpretation and environmental education.



Figure 2.3: Knapp's Goals for Environmental Interpretation

Source: Knapp (1994)

Each of the goals received at least a 2-1 majority approval by a panel of 13 interpretation specialists. One of the central questions raised was what medium could be used effectively to achieve at least one if not more of the goals. The inclusion of these goals in any face-to-face interpretation experience would be determined by the duration of the experience and available knowledge about the audience.

2.3.4 The role of the interpreter

Face-to-face interpretation differs from other types of interpretation. The personality of the guide plays an important role in the guided encounter and can either enhance or detract from the guided tour (Beck & Cable, 2002; Ham, 1992). Visitors have expectations of guided interpretive experiences in respect to the knowledge base of the guide and their own learning, as well as the perception that a guided tour will increase their opportunities to view wildlife (Newsome et al., 2005).

A central issue in interpretation studies has been the mediating of information provided to the visitor through techniques and narrative devices that make the information relevant to the phenomenon visitors are experiencing and also to the visitors' life experiences (Beck & Cable, 2002; Ham, 1992; Tilden, 1977). The benefit of face-to-face interpretation compared with other types of interpretation is that it provides an unconstrained dimension of interaction where the guide can respond immediately to visitors' needs (Brochu & Merriman, 2002; Ham, 1992). Based on Ham's (1979) research on 'rewarding interpretation' from both visitors' and guides' perspectives, Ham and Shew (1979) stated that interpretative training "should emphasise the need to

involve visitors in interpretation by relying more heavily on two-way interaction and de-emphasising the standard lecture approach” (p. 42).

Guides provide a model for visitors in understanding how to engage with phenomena on tours (Forestell & Kaufman, 2007). Guides can demonstrate appropriate types of behaviour such as staying on the track, and not attempting to touch or feed wildlife. This modelling of behaviour can have an impact on a visitor’s experience and qualify the other aspects of the tour. Lück (2003b) noted that the actions of staff on New Zealand-based dolphin tours in stopping their vessels and picking up rubbish affected one participant’s perception of the trip:

The staff knowledge and interaction was wonderful. If the plastic bag had not been retrieved that would have been what I remembered most about my experience, but you went back... I remember your wonderful care for the dolphins and other wildlife. (p. 163)

The potential for guided tours to act as an intermediary to achieve site management goals and visitors’ goals is not always fully realised as “past research suggests that while interpreters desire successful programs, they may not correctly identify visitor responses that result from experiences at an interpretive talk or employ techniques effective in eliciting desired responses” (Machnick, Wright, & Hammitt, 2006, p. 509). Guides have been found to be deficient in advocating environmentally responsible behaviour to visitors relevant to the site where tours take place (Randall & Rollins, 2009).

In empirically based research literature, the role of the guide is often considered as a constituent of a total interpretation programme from the perspective of experts and/or visitors while the perspective of the guides is mostly left out (Knapp, 1994; Lück, 2003b; Machnick et al., 2006; Orams, 1995, Ryan & Dewar, 1995). The communication process between interpreters and visitors has been empirically researched through observation and the use of questionnaires at heritage tourism sites (Ryan & Dewar, 1995). Observation has been used to evaluate and test for variation in the communication competence of the interpreters, and questionnaires. This can establish a relationship between the variation of the communication competencies of guides and

memory retention of respective visitors (Ryan & Dewar, 1995). However, such research is mostly silent on the perspective of the guide.

2.3.5 Interpretation research

Research into ecotourism and wildlife tourism has increased the empirical knowledge of the role of interpretation in terms of learning outcomes and the overall visitor's experience (Ballantyne et al., 2008; Lück, 2003a; Orams, 1995, 1997; Zeppel, 2008). However, there are still calls for the need to increase the empirical base that informs the theoretical principles and models of interpretation (Ham, 2004; Knapp, 2007; Larsen, 2004; Weiler & Black, 2015).

A challenge for interpretation research is that there is a divergence in the needs and interests of potential audiences. Research into issues in interpretation at an applications level is often published in internal reports and technical proceedings (Vander Stoep, 2004). Research into guided tours works best when it finds common ground between stakeholders such as the academic community, interpreters and interpretation planners (Wagar, 1982).

There have been few empirical investigations of learning and behavioural change in the context of guided tours that include study of the interaction between visitors and guide that is independent of the experience of the participants and/or use the experience of both visitors and guides. Those that include both the experience of visitors and guides notice divergences in the perspectives of the experience between visitors as a group and guides as a group (Ham, 1979). This can make it difficult for the researcher to contextualise the observations of the participants. When the use of observation in face-to-face interpretation research has occurred it has mostly been used in conjunction with questionnaires and surveys or where the information stemming from the field notes were not shared with the participants (Andersen & Miller, 2006; Lück, 2003b; Mayes & Richins, 2009; Orams, 1995; Stamation, Croft, Shaughnessy, Waples & Briggs, 2007). Observations are useful as they do provide needed context but without sharing such observations with the participants the opportunity is missed to create a richer picture of what occurred by investigating to what extent a researcher's observations relate to a visitor's experience. Empirical investigation of these factors derived data based on the perspective of either visitors or guides but rarely both. Few studies contain data about the behaviour of the wildlife observed on the tour or independent reporting of the teaching of guides in relation to the outcomes of such empirical investigation. Learning

is a personal and individualised experience and trying to understand when, where and how a learning experience commences for a visitor participating on a tour and how a researcher can attempt to measure such learning are complex issues (Weiler & Black, 2015). Thus, a major gap exists between what is claimed by some and assumed by many as an important part of the learning process during guided wildlife tours and what has been empirically tested. As a consequence, a number of authors have been calling for more empirical research that tests and informs the theoretical principles and models of interpretation (Ham, 2004; Knapp, 2007; Larsen, 2004).

2.4 The visitor experience

Visitor experience as a concept has been utilised to discuss the service-based nature of tourism products and trends in the relationship between suppliers and customers of tourism products. Visitor experience also relates to the commodification of cultural and natural resources, planning frameworks for managing resources, visitor usage of sites, and tourism research.

In visitor management, visitor experience is a concept used to analyse site resources and existing visitor usage to determine a range of potential visitor experiences available. From this the implications of such use on the resources and other stakeholder activity is considered (Newsome et al., 2013).

Visitor experience as a concept in wildlife tourism has been a means of narrating the relationship between visitor expectations and the reality of their consumption of wildlife tourism products.

Shackley (1996) notes a tension for visitors between the perceived benefits they gain from mass tourism at destinations where it occurs and its impact on their experience. While visitors have concerns about the intrusion of crowding and its associated noise and spoiling of the visual amenity or the naturalness of the site, they also expect cheap, convenient and comfortable access through the provision of facilities and infrastructure that afford a high level of safety.

Reynolds and Braithwaite (2001) identify six factors that are instrumental in understanding the possible range of richness and quality of a wildlife experience for people; authenticity, intensity, uniqueness, duration, species popularity and species status. They also identify four experience scenarios that can be discerned through understanding the trade-off between the experience sought by the visitor and the effect

it may have on wildlife. High effect/high enthrallment scenarios such as a personalised expedition to hunt a rare or endangered species could be perceived to be a higher-quality experience that came at a cost that may be acceptable for the consumer but unacceptable for other stakeholders. Vicarious experiences ranging in intensity from reading a book to a virtual reality experience could be judged as a valid experience, which also does not impose a cost on the species. This may be highly acceptable to other stakeholders (Weaver & Lawton, 2014).

Physical boundaries such as platforms, transportation or submersible cages demarcate the space between the visitor and the animal and may impact visitors' perception of the richness and intensity of their tours. Psychological boundaries that may dissuade the visitor from moving outside a defined physical space such as a designated path are valuable because they have no potentially negative effect on the wildlife, unlike a physical barrier. A problem with pathways for avian species is if the path is situated close to ecologically significant sites within the area of the tour (Bennett et al., 2009; Lindsay, Craig, & Low, 2008). Psychological boundaries may also be influential even when there are no physical boundaries (Moscardo, Woods, & Saltzer, 2004).

Visitor experience as a tourism concept has been informed by different approaches such as Pine and Gilmore's (1998, 2011) experience economy, and the transactional nature of tourism and the implications it has for commodification of culture, nature and public places (O'dell, 2007; Richards & Wilson, 2007). Pine and Gilmore (2011) argued that, to stay viable, businesses need to shift from a strategy that focuses on a finished product to a strategy that sees joint participation with the visitor in the production of what is sold and consumed. Customer service should be the focal point of a business in the twenty-first century, with attention given to the continual refinement of the product based around the realised and potential experiences of what is consumed.

Pine and Gilmore (1998) emphasise the uniqueness of each experience for a visitor from a service-based product, in that no two people can have the same experience:

Experiences are inherently personal, existing only in the mind of an individual who has been engaged on an emotional, physical, intellectual, or even spiritual level. Thus, no two people can have the same experience, because each experience

derives from the interaction between the staged event (like a theatrical play) and the individual's state of mind. (p. 99)

In detailing the potential of service-based products to provide satisfying experiences for visitors, Pine and Gilmore (2011) schematically represented four potential realms of experience for any service-based product; these four realms are situated on axial continuums that consider the extent of a visitor's active and passive participation or mental and physical involvement in the consumption of a service-based product (Figure 2.4). The four realms of experience are the quadrants that are delineated by the continuums. The extent that visitor experiences are associated with these four realms is based on the extent that visitors are passive or active in experiencing a service is in terms of their mental or physical activity.

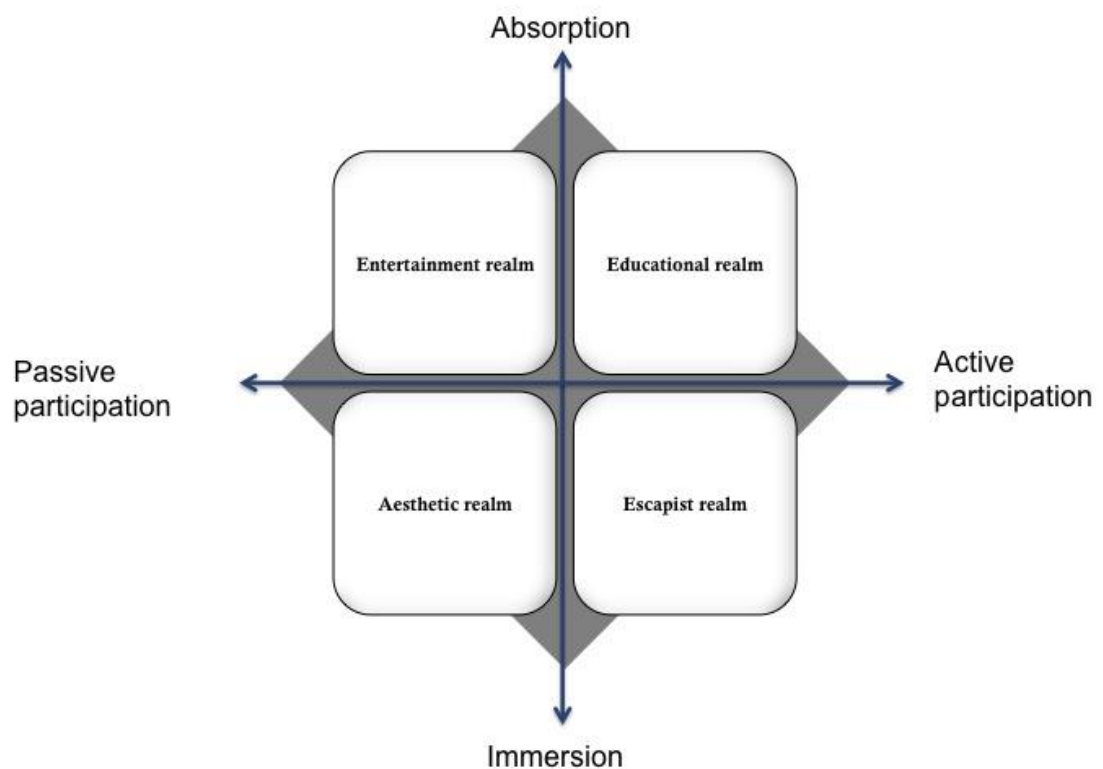


Figure 2.4: Pine and Gilmore's Four Realms of Experience model

Source: Pine and Gilmore (1998; 2011).

Pine and Gilmore (2011) do not comprehensively define the nature and boundaries of each realm. Instead they use analogies such as the cast and crew and audience at a theatre performance. The entertainment realm is informed by passive participation and by intellectual involvement of listening and seeing whereas the educational realm

involves active participation on the part of the visitor such as thinking. The aesthetic realm is suggested as being an immersive experience where the visitor is mainly passive while the immersive experience of the escapist realm involved the visitor being active in the environment; swimming rather than just floating on the water.

In the tourism literature, Pine and Gilmore's (1998) work has been criticised for its emphasis on the economics of an experience, and its lack of discussion on consumers as the co-creators of the experience or the agency of other stakeholders outside of owners and customers (Richards, 2001). However, the realms of experience model can give insights into how visitors negotiate meaning from their interaction with the tangible and intangible elements of the places they visit.

The realms of experience model would suggest that the more visitors immerse themselves in a guided wildlife tour, such as a scuba diving-based tour or an experience tagging penguins in a nesting colony, the more visitors inhabit an alternative reality to their everyday life. In contrast, the more the setting emphasises visitors as members of an audience, such as a ringside seat at an Orca performance at San Diego Sea World, the more passive visitors are in respect to physically or intellectually engaging with their experience. While the 'ringside seat' experience could arguably be said to be no less enjoyable, it is more an entertaining experience rather than an educational or immersive experience because the visitor is restricted in their physical interaction with the objects in the space where their experience occurs.

Visitors whose values and attitudes in relation to animals connect to ecologicistic-scientific attitudes in Kellert's typology may take a more active mental approach to the tour and would be actively involved in the learning process, regardless of the role of the guide in facilitating this (Table 2.3). However, the relationship between visitor motivation, entertainment, education and accrual of knowledge is not always clear-cut. For example, Lück (2003a) described how, on the same wildlife tours, more tourists recognised that their tour resulted in an increase in their knowledge about wildlife than characterised the tour as educational. This suggests a complex relationship exists between education and the accrual of knowledge for some tourists on guided wildlife tours.

Tourists motivated by the escapist dimension of a wildlife tour may want an experience that provides opportunities for active physical involvement in the tour space, such as snorkelling or coming into contact with the animals. This may relate to 'dominionistic'

aspects of peoples' personalities (Kellert, 1997). One experience that researchers have connected with tourists is the identification of themselves as explorers, seeking to be the first or only tourists at a site (Plog, 2004; Winter, 2007). The pioneer type of experience that some visitors seek may have consequences for sites that have not been modified to accommodate tourists (Järviluoma, 1992; Lück, 2003b). Such tourists may seek to isolate themselves from the rest of the group in order to have an experience that conforms more to their expectations.

Shackley (1996) questioned whether the mountain gorilla tour in the Parc National des Volcans, Rwanda, represents the ideal experience for a wildlife tourist. The strategies utilised by the tour operators to habituate the gorillas to humans created an immersive experience as the gorillas appeared to be oblivious to the presence of tour groups. Furthermore, the physical effort required at an individual level for tourists to get to and be in the gorillas' habitat appears to create escapist and aesthetic dimensions to the experience. And finally, an entertainment and educational dimension appears to be created through the nature of the interaction with both the animals and guides:

The visitors felt part of the gorillas' environment, and members of the gorilla groups thought nothing of pushing a human visitor out of the way to reach a tempting bamboo shoot. Visitor group sizes were small... and the guides and guards helpful and well informed. (Shackley, 1996, p. 63)

It is difficult to separate the mental and physical dimensions of visitors' experience during a wildlife encounter although some researchers differentiate between emotional and intellectual experiences (Neil, Orams, & Baglioni, 1996). Some tourists may have a negativistic attitude towards animals based on fear and may require more input from the guide in respect to their safety (Forestell, 1992; Kellert, 1996). Some tourists may have emotional expectations of a wildlife encounter that emphasise the humanistic dimension of the relationship between animals and humans; for such tourists, a wildlife encounter may be about psychological fulfilment. Swimming with marine mammals has resulted in strong emotional responses from tourists in relation to the targeted species (Zeppel & Muloin, 2014). This suggests that immersion in the animals' environment and a lack of any barriers, both of which enable the tourists to be within close physical proximity of the animals, are desired features of wildlife encounters for some tourists because close proximity enables the tourists to realise their emotional expectations.

Attempts to improve visitors' experiences can affect wildlife through modification of their behaviour due to habituation with human beings (Lindsay, Craig, & Low, 2008). Interpretation has been advocated as one of a number of complementary strategies that can contribute to a sustainable form of wildlife tourism (Ham & Weiler, 2002; Zeppel, 2008). One of the ways interpretation can do this is through the provision of information to the visitor that addresses the implications of the visitor's behaviour on the animals observed.

The novelty of a new setting increases a person's knowledge of it much more than exposure to images of it, while familiarity of a new setting helps the person cope with formal learning assessments (Roggenbruck, Loomis, & Dagostino, 1990). Studies on situated cognition suggest that new knowledge is often grounded in the setting where it occurred for the learner and may not be easily transferable to new settings (Koran, Willems, & Dunckel, 2000). An important component in the wildlife experience is the level of control maintained by the operator in the visitor-wildlife encounter (Reynolds & Braithwaite, 2001). While in an outdoor setting most other forms of interpretation such as written signs are static with little interactivity, face-to-face interpretation provides visitors with the opportunity to interact with staff for personally relevant information about what they are experiencing (Brochu & Merriman, 2002).

Orams (1995) has analysed interpretive services at the island resort of Tangalooma, in Queensland, Australia, where visitors can hand-feed wild bottlenose dolphins. He has found that the sessions that included interpretative services result in less negative human-dolphin interactions and increases visitors' awareness on conservation issues compared with the feeding sessions without interpretation. Shackley (1996) considers similar tourist experiences involving feeding dolphins at Monkey Mia, in Western Australia. As with Tangalooma, feeding has modified dolphin behaviour, but overall Shackley (1996) concludes that;

...the programme had contributed tremendous insights into our understanding of dolphin family life as well supporting an entire tourist industry. The opportunity to interact with a completely wild animal is extremely rare but even in cases where such interaction is slightly staged it may provide the very highest quality of experience. (pp. 61–62)

Pathways and the use of structures such as hides are also management strategies to control the level of impact visitors have on the site and on its fauna and flora (Orams, 1995).

2.5 Guided tours and key stakeholders

Academic production of knowledge is a process involving but not limited to the development of theoretical knowledge and empirical knowledge. There is a large body of theoretical knowledge of guided tours and their role in human society dating back to the earliest cultural commentators such as Herodotus in 5th Century BC (Dewar, 2000; Weiler & Black, 2015). Much of this knowledge was based on anecdotal conversation, observation and secondary sources. Interpretation and tour guiding have a rich history of philosophical inquiry about the nature and purpose of the discipline in matters such as its relationship with information, instruction, learning, advocacy and civil society. It is only since the late twentieth century that a scientific approach to the production of knowledge about guided tours has taken place. Observation-based research on guided tours is primarily focused on ethnographic study. Critiques of such studies question the extent data obtained could be accepted as valid in the context of whether researchers are considered an insider or outsider by the research participants (Spring, 2015).

Empirical research on interpretation and learning during wildlife tours has mostly concentrated on the perspective of one of the human actors in the research: visitors (Andersen & Miller, 2006; Lück, 2003b; Orams, 1995; Schänzel & McIntosh, 2000). There have been studies on guiding that include the perspectives of both guide and visitors in the fields of interpretation (Ham, 1979) and anthropology (Salazar, 2008) but these studies focus on visitors' preference and globalisation, respectively. A study of learning on a guided tour can be better informed when it shares the perspective of the actors involved in the process; that is, the visitor and the guide.

2.5.1 The guide

Guides are either a part of a team who help facilitate the actual tour or are the sole representative of the agencies and organisations responsible for the management of the visitors. The roles of guides in nature-based tourism have been conceptualised as falling into three spheres. Tour management is where the focus of the guide is on organising and entertaining the group. Experience management involves the guide focusing on individual behaviour through acting as a group leader and a teacher. Finally, resource

management is where the guide acts as a motivator and interpreter in connecting the tourists to the ecological features of the host site (Weiler & Black, 2015).

Guides can use the opportunity of seeing and identifying wildlife as a catalyst to provide information about how to act in the presence of wildlife. They can also elaborate on how visitors' on-site and off-site behaviour may impact on the wildlife (Ballantyne et al., 2000; Forestell, 1992; Orams, 1997). Research on guided tours has reported outcomes relating to influencing and monitoring visitor behaviour. In comparison studies involving research on the presence and absence of guides in measuring outcomes related to visitor-animal interactions at the same site, studies have found that guides had an impact on the reduction of non-compliant visitor behaviour such as touching, and the reduction of reactionary behaviour on the part of the animals observed (Boren, Gemmell, & Barton, 2008; Orams, 1995). Guided tours contribute to outcomes that foster post-visit attitudes and behaviours but Weiler and Black (2015) note with caution the potential bias of self-reporting on the part of the visitors in many studies in respect to visitors off site behaviours before and after a tour. This makes it difficult to assess to what extent a guided tour may have reinforced existing pro-environmental behaviours rather than stimulated new ones (Weiler & Black, 2015).

While Powell and Ham (2008) point to guided commentary as a variable in visitors' stated pro conservation behaviour when pre and post visit intentions were measured, Stamation et al. (2007) found little change in visitors' reported environmental behaviour six months after their tour. While overall the findings suggest that any change in respect to guiding's impact on fostering post-visit behaviours is relatively small or not clearly documented and a gap exists between the good intentions of visitors and the pro-conservation actions they self-report.

One challenge noted by Weiler and Black (2015) is "the antecedents of, and pathways by which guiding contributes to any aspect of sustainability – that is why and how guiding does and does not foster specific sustainable outcomes have been virtually ignored in research on tour guiding" (p. 86). While it has been proven empirically that learning occurs during guided interpretive experiences, the notion that there are particular phases during a guided tour when visitors are receptive to learning is largely theoretical. Hrycik and Forestell (2012) identified distinct temporal phases during guided whale-watch tours connected to changes in visitors' attention through studying the nature of questions asked throughout the tour but did not connect such phases to

specified learning outcomes arising from the tours. This receptivity to learning is said to be identifiable through observable behaviour such as questions asked, and has been classified as encompassing differing levels of curiosity, affect or emotional arousal. This study recognises that learning is not the only outcome of a guided tour, and that visitors may have a satisfactory experience without learning occurring. This highlights the need for the guide to be able to recognise possible cues for when visitors may be receptive to learning and then to tailor their delivery to the specific needs of the individuals rather than assuming that everyone in the tour group is there to learn.

How guides manage the expectations of visitors with their own, as well as site management expectations, has implications for the success of the interpretation programme in achieving management objectives and visitor satisfaction (Brochu & Merriman, 2002). Quality factors that can affect the richness and intensity of the visitor experience on guided wildlife interpretive experiences are authenticity, uniqueness, duration, species popularity, and species status (Reynolds & Braithwaite, 2001).

When each visitor's movement is individualised, as in a walk or swimming or on a kayaking trip, then the guide has an especially important role in the safety management of their group. Safety can be in terms of proficiency in moving in the space – for example, ensuring each visitor is competent at paddling their kayak – and also includes safety in terms of human-wildlife interactions. Although sites for tours are chosen because of the predictability of the presence of a target species at the site (Reynolds & Braithwaite, 2001), each encounter with an individual animal is inherently unpredictable and the guide has to determine to what extent the setting is safe for the continuation of the tour (Pastorelli, 2003).

Guides have manipulated the natural behaviour of wildlife through provision of food and the use of technology to gain close access to targeted species (Orams, 2002). In the context of sustainable tour guiding, guides, as guardians of wildlife and the site, can mediate human-animal interaction to ensure that the animals can continue to perform their natural behaviour (Higginbottom, 2004; Weiler & Black, 2015). A major issue when it comes to tours involving observing nocturnal activity of animals or animals moving from one geographical feature to another is whether the presence of humans may influence the behaviour, including movement, of the animals (R. Ballantyne et al., 2000; Moscardo et al., 2004). Human influence potentially has major ramifications for the animals' activity budget and safety. At sites such as the Oamaru Little Blue Penguin

Colony (OLBPC), New Zealand, the use of sodium lights ensures that the penguins can return to land with minimal disruption from the watching visitors as this orange light is out of the range of the penguins' vision (Higham & Lück, 2002).

Guides facilitate a range of wildlife experiences for visitors in protected areas from hunting to wildlife viewing (Newsome et al., 2005; Rodger et al., 2007; Shackley, 1996). Hunting of apex predators can result in population decline and affect the distribution of other species in the same ecosystem. However management strategies can be developed that allow for hunting of apex predators that effectively manage wildlife populations and distribute economic benefits of consumptive wildlife tourism more equitably (Balme et al., 2010). In countries where introduced species have disrupted the ecological balance of native animals and plants guided hunting tours can contribute to conservation management strategies (Lovelock, 2003) However negative social connotations connected to hunting can impact on tourists' perception of the commitment of the host community to animal welfare (Lovelock, 2003; Reis & Higham, 2009). Such issues highlight the complexity of the role of guides when it comes to interpreting the specific circumstances of each site and the relationship between the welfare of individual animals and the protection of the overall ecological system such animals inhabit.

Finally, if the aims and goals of the guided tour require visitors to conform to behaviour standards on site and possibly adopt new behaviours off site, then the teacher aspect of their role requires guides to pass on the information in an educational way; that is, to contextualise information in a manner that would make it more likely for visitors to enact the desired behaviours (Ham & Weiler, 2002).

2.5.2 Visitors

Visitors to protected areas range from members of neighbouring communities, domestic tourists, and international tourists (Hall & Page, 2006; Newsome et al., 2013). The needs of visitors may vary from having their physical comfort and safety met to having a space for personal reflection and sharing some time with members from their social group (Dierking, 1998; Weiler & Davis, 1993). Learning and the exchange of information have been identified as important constituents in a visitor's overall experience during a guided tour (Brochu, 2003; Forestell, 1993; Lewis, 1980; Lück, 2003b; Orams, 1995; Pastorelli, 2003). Nature appreciation involves some aspect of nature being the subject rather than just the setting: "Nature appreciation is always

centred on the experience of a particular object or event: the tall grass prairie, a woodland trail, waterfalls... or a species of squirrels” (Pepi, 1994, p. 6). On a wildlife tour, a visitor’s satisfaction is in part based on the wildlife they expect to see (Newsome et al., 2005).

A visitor’s experience may be enhanced by close contact with wildlife (Lück, 2003b; Zeppel, 2008). However, guides are also aware that such contact can be dangerous for visitors as well as harmful to wildlife in relation to modification of their behaviour. Feeding by visitors and other habituating factors are impacts related to wildlife tourism (e.g. Orams, 1995, 2002; SoTM, 2009). For example, Ballantyne, Packer and Hughes’ (2009) study of turtle watching at Mon Repos in Australia showed that for many visitors the most important dimension of the experience was that there was minimal impact on the turtles during the encounter.

The needs and expectations of the visitor are an important dimension to understanding what influences visitors’ receptivity to minimal impact messages. Maslow’s (1987) hierarchy of needs suggests that a person’s receptiveness to learning new knowledge that does not relate to their immediate welfare will not occur unless more utilitarian needs are first met. In the context of interpretation and the visitor’s experience, factors that visitors first need to deal with are related to orientation, physical comfort and safety. Once these needs are met, the visitor then becomes receptive to learning about issues relating to the site’s phenomena (Brochu, 2003).

Media such as television influence visitors’ expectations of an interpretive experience (Markwell & Weiler, 1998). Archer and Wearing (2003) state that tourists “bring with them their own set of beliefs and ideas about nature. These ideas and myths have been strongly influenced by the images and myths created, transmitted, represented and reinforced through various forms of popular culture” (p. 10).

Through exposure to the media, people have become more aware about responsible environmental behaviour that people can adopt at both an individual and collective level to protect wildlife and their habitats. However, many of these messages have been delivered in the context of a direct experience that confers human values or characteristics to individual members of a wildlife species, or human-wildlife interactions that are neither safe nor sustainable for either humans or wildlife. Joy Adamson, David Attenborough, Gerald Durrell, David McTaggart in their accounts of conservation advocacy or raising public awareness of individual species interweave

their messages with direct experiences of wildlife that cannot be legally replicated by tour operators in protected areas. These writers often refer to situations where they personally put themselves in danger (Adamson, 1960; Attenborough, 1980; Durrell, 1960; McTaggart, 2002).

Visitors' expectations of a direct experience are framed not only by the operator but also by the media. The challenge then is to understand how to create a direct experience for the visitor that manages visitor expectations and works within a framework that is safe and beneficial for both the visitor and the wildlife (Lück, 2003b). Visitors' expectations about their guided wildlife experience are also informed by the values and attitudes they associate both with nature in general and in respect to an encounter with that specific animal (Orams, 2002; Reynolds & Braithwaite, 2001). Profiles of nature-based tourists have suggested that a range of visitors participate in tours involving direct encounters with wildlife (Fennell, 2008; Newsome et al., 2005). In studies of the relationship between ecotourists and ecotourism, the spectrum of motivation ranged from accidental to committed ecotourists. Accidental ecotourists are those who have not intentionally purchased a guided wildlife tour for its ecotourism or sustainable tourism credentials; for such tourists, the fact that the operator adhered to sustainable principles is circumstantial. At the end of the spectrum of demand are committed ecotourists, those who want the tour operator to provide a product that delivers sustainable outcomes (Beaumont, 2011; Sharpley, 2006). For some visitors, sustainable wildlife tours may represent an inconvenient choice that conflicts with their expectations of the experience. Others are prepared to self-police their own actions and also want the tour operator to police group actions and behaviour when it comes to wildlife encounters (Pers. obs.).

Some tourists' participation on a tour may be more a reflection of their commitment to members of their inner social circle than a desire for a guided experience. This has been a feature in understanding segments of the heritage tourism market (Timothy & Boyd, 2003). Such people are perhaps comfortable with playing a passive role in respect to their own participation in the tour.

2.6 Education

Although a wide variety of definitions of learning exist, Orams (1995) identifies three key characteristics: "Learning involves some change in behaviour, second that the change is relatively stable over time and third that the change is a result of some experience" (pp. 40–41). An important aspect of learning is that it relates to a specific

subject: “Learning is always the acquired knowledge of something, and we should always keep in mind what that ‘something’ is” (Marton & Tsui, 2004, p. 4). The dimension of learning that this study focuses on is learning in relation to the experience of a guided wildlife tour. The something involved in learning outcomes of tours are as varied as the stakeholders of wildlife tourism.

As a topic, education mostly appears in literature on guided wildlife tours in relation to visitor management, business operations, perceived learning outcomes, and visitor satisfaction. In these subject areas, education associated with interpretation through management-centred rather than visitor-centred definitions of interpretation emphasise this link (Moscardo, 2008). This section seeks to explore how education is developed at a provider level and the issues that underpin the creation of education for a guided wildlife tour.

2.6.1 Theories of learning

Educational theory consists of two components; a theory of knowledge and a theory of learning. Theories of knowledge diverge to the degree that knowledge is seen as existing independent of the learner. If knowledge is independent of the learner, then learning occurs as an intellectual process, whereas if knowledge only exists within a person’s mind, then knowledge is a phenomenon constructed by the learner (Hein, 1999). Discussion of learning entails a debate about whether learning is a process of internal development or is formed through external intervention. A key feature in many theories of learning is about the agency of the learner. Is the learner manipulated in their interaction with the world during the learning process? Or does interaction with the world involve autonomous decision-making by the learner in the accumulation and refinement of their knowledge? The key point is the extent to which the learner learns or the learner is taught (Dewey, 1986). General aspects of any model of learning have to do with functional acts in the processes of learning; remembering, discerning, interpreting, grasping or viewing (Marton & Tsui, 2004).

Orams (1995) notes three categories of modern theories of learning: conditioning theories, observational theories, and cognitive learning. Conditioning theories of learning explain how an individual’s behaviour is a learned response to external actions that affect them directly. Observational theories of learning explain how an individual’s behaviour is a learned response to observing the actions of others in situations they can, to a degree, re-create. Cognitive learning theories are about the transformation of

existing and prior information by an individual into mental models (schemes) that organise knowledge in relation to what the person evaluates as being the key features of that knowledge.

2.6.2 Contexts of learning

Three contexts are essential to understand learning; the physical, the personal, and the sociocultural (Falk & Dierking, 2000). In his discussion of how to devise a model of learning for school children, Hattie (2009) notes how conceptualising human existence as that of three worlds – the physical, the subjective, and the world of ideas – can aid in understanding different contexts of educational achievement. This section seeks to connect ideas about learning in spaces that act as tourist attractions with learning in spaces such as schools. Learning achievement attained of the physical world is surface knowledge (Hattie, 2009). Advanced organisers and orientation, design, reinforcing events, and experiences outside museums are key factors to facilitating learning that engages with the physical world (Falk & Dierking, 2000; Ham, 1992). In order to make sense of surface knowledge, visitors need advanced organisers that can conceptualise the provided knowledge. Hooper-Greenhill (1999a) was referring to the concept of advanced organisers when she argued that museum curators need to furnish visitors with an opportunity to familiarise themselves with adequate mental models that are relevant to the key phenomena of an exhibit: “If science exhibits depend on the concept of gravity, we need to be sure that visitors know what gravity is. If they don’t, an introductory exhibit exploring the concept must be provided” (p. 143).

Falk and Dierking (2000) state that “learning is a dialogue between the individual and his or her environment through time” (p. 236), and just in the way advanced organisers help link visitors to past experiences, the facilitators of learning have to provide a level of follow up for visitors in respect to the experience. Visitors can then actively reflect on and engage with ideas and information accumulated. The subjective world in respect to learning achievement is the thinking and the development of deeper understanding for the learner (Hattie, 2009). Motivation and expectations, prior knowledge, interests and beliefs, and choice and control are key factors of the subjective world that influence learning (Falk & Dierking, 2000).

The approximation of expectations and the reality of the experience are critical for learning to occur. Intrinsically motivated learners achieve desired outcomes more frequently than successful learners who feel compelled to learn (Falk & Dierking,

2000). Visitors' motivations and expectations are connected to their pre-existing, interests and beliefs, and given that these vary at the level of each individual, learning in any public space will always be deeply personal. Providing visitors with choice and control is a challenging dimension to creating learning experiences for activities such as guided wildlife tours. Like museum visits, tours are free-choice learning settings (i.e. informal learning) where visitors and/or the organisations that facilitate their trips set the learning agenda. Falk and Dierking (2000) argue that museums cannot offer autonomy to visitors in terms of choice and control in their learning. The sustainable practice of guided wildlife tours may preclude choice and control for the visitor in terms of their 'ideal experience of a wildlife interaction'. Therefore, designing the visitor experience is pivotal in being able to ascertain a balance between visitors' needs and resource protection. Management can enrich the experience in other ways if visitors' autonomy is constrained in respect to interaction with phenomena.

Educational achievement in relation to sociocultural contexts is linked to the means by which learners construct knowledge and form reality for themselves. Such achievement is in relation to the surface knowledge attained of the physical world and the thinking strategies and deep understanding attained from the subjective world (Hattie, 2009). Orams' (1995) categorisation of modern theories of learning relates to the different contexts of learning discerned by Hattie (2009) and Falk and Dierking (2000). Conditioning theories of learning note how teachers can utilise the physical world to coax behavioural patterns from the learner. Cognitive learning is about the subjective world in which stimuli for learning are internal. Knowledge formation and behavioural change occur through the negotiated incorporation of new information into existing schemes of knowledge.

Falk and Dierking (2000) identify two key factors in the sociocultural context that influence learning; intra-group sociocultural mediation, and mediation facilitated by others. Tour participants have the ability and/or the propensity to socialise with others. Such socialisation is facilitated by the fact that people often are with members of their own social circle: that is, with friends or family. Learning can be stimulated through social interaction as "all social groups in museums utilise each other as vehicles for deciphering information, for reinforcing shared beliefs, for making meaning" (Falk & Dierking, 2000, p. 138). The role of a 'knowledgeable other' can also play a major social role in learning. These are people who are perceived to have relevant knowledge

or experience, and who are in a position during the learning process to share information (Falk & Dierking, 2000; Vygotsky, 1978).

The contexts of learning – that is, the different worlds we inhabit – exert a powerful influence on learning:

Our own position in history, our own culture, affects meaning, as meaning is constructed in and through culture. Perception (what we see), memory (what we choose to remember) and logical thinking (the sense we choose to attribute to things) differ culturally because they are cultural constructs. (Hooper-Greenhill, 1999b, p. 13).

An important context for both the processes and outcomes of learning is passion which “reflects the thrills as well as the frustrations of learning – it can be infectious, it can be taught, it can be modelled, and it can be learnt” (Hattie, 2009, p. 23). Thus conditioning, cognitive and observational theories have relevance when planning for educational outcomes for guided tours.

While research of guided tours indicates that some visitors perceive that they have learnt during their tour, other visitors do not explicitly associate learning with the tour experience (Weiler & Black, 2015). Each individual is different and factors such as their previous experiences means that the physical, sociocultural and subjective contexts of the specific tour experience may not predispose every visitor to learning. Moscardo’s (1996) ‘mindful visitors’ concept draws on Langer’s (1991) theory of mindfulness to explain how the space and setting of a visitor attraction have an impact on the educational content of interpretation at a visitor’s attraction. If the settings and interaction contexts of the space and content of a visitor attraction have high levels of familiarity and predictability to a visitor, the experience may not be conducive for learning and behavioural change. In one aspect, this suggests that the experience creates exposure to information that can be seamlessly assimilated into a visitor’s schemes of existing knowledge that already inform their behaviour. For a guided wildlife tour to foster learning, the experience needs to create a degree of disequilibrium that leads to accommodation of information that the tour provider deems to be relevant. Equally, information used in a tour has to be packaged in a way to reduce the likelihood of visitors rejecting it.

2.6.3 Formal education, pedagogy and assessment

Formal education is a term used to describe the learning that occurs in institutions such as schools (Falk, 2001). It also is connected to learning where outcomes are assessed against a set of standards formulated around learning objectives and where the standards have some form of legal sanction in respect to the awarding of certificates that recognise learning achievement (Floberg, 2015). The purpose of this section is to examine how studies in formal education can shed light on the role of guides in relation to assessment, teaching, and learning outcomes.

While it is an aspirational goal that learning occurs on sustainable wildlife tours, learning is not a compulsory activity. In formal education environments, every individual participant's learning achievement is measured, whereas during guided wildlife tours in protected areas, compliance to behavioural norms is monitored through evidence-based assessment. As a recreational activity, guided tours are not typically connected with assessments of demonstrated knowledge or behaviour-based outcomes that can be specifically related to the guided tour itself. If the visitors do not demonstrate desirable behaviours such as staying in designated zones (for example, on the path), and desisting from illegal behaviour such as the feeding of wildlife, then the wildlife are potentially at risk. Penalties such as fines have only a retrospective impact. On tours where transport acts as a platform for viewing wildlife, the focus is on the operator to ensure on-site behaviour compliance; for example, to avoid potential collisions with animals such as whales (Gill & Burke, 2004).

Pedagogy is the art of teaching and has been defined as involving "being able to take the part of the other, being able to judge the success of achievement and being able to adapt the intervention according to a perception of its value to the cause" (Marton & Booth, 1997, p. 167). Teaching involves intentional intervention on the part of the teacher to facilitate cognitive change for the learner. A teacher is required to know the learning objectives, the success criteria for the learner, and sufficient awareness of the learner's understanding of a specified learning event. The teacher must be familiar with relevant content to ensure that the act of learning provides "meaningful and challenging experiences in some sort of progressive development" (Hattie, 2009, p. 23).

Critical pedagogy seeks to identify the link between pedagogy and culture by focusing on how meaning is constructed: "what the categories of meaning are, and what beliefs and values students bring to their encounters. Critical pedagogy recognises that people

‘write’ meaning rather than just encounter or receive it” (Hooper-Greenhill, 1999b, p. 22).

Education in terms of guided wildlife tours appears to be linked to the wise use of resources and the extent that such resources should be conserved for their perceived inherent values; therefore, the use of resources as a tourist attraction is restrained. Pedagogy in respect to the training of guides then is ensuring that the site resources are utilised for learning insofar that the learning that occurs does not have a negative impact on the resources. The learning that can occur for the visitor is to a degree constrained by the need to ensure that their learning does not compromise the resources of the site.

Hattie (2009) refers to studies of outdoor adventure programmes to note four dimensions of excellent teaching practice that are applicable to all learning contexts. Firstly, a temporal dimension exists that, in the earlier stages of the learning process, involves the planned and intentional transfer of experiences, knowledge and decisions modelled by teachers; in the later stages of the learning process, the focus shifts to the students demonstrating some level of proficiency in the activities modelled by the teachers. Secondly, goals have to be both specified and challenging. Learning scenarios are structured to situate goals in a way that the learner shares a commitment with the teacher to reach those goals. Thirdly, there is incremental increase of feedback during the process of learning. The goals direct the attention and effort of the learner in a manner that makes the learner aware and keen for feedback. Fourthly, throughout the process the teacher has to be aware of the “need to understand, and if necessary, reassess and redirect an individual’s coping strategies” (Hattie, 2009, p. 25). Hattie discerns three types of coping strategies: cognitive such as learning strategies, personal such as the development of self-efficacy, and social such as cooperative learning (Figure 2.5).

According to Hattie (2009), achievement outcomes need to be contextualised within three worlds of understanding: surface, constructed, and deep. At a surface level, there should be a state of ‘over-learning’; that is, developing a fluency of achievement that helps in the next phase of learning; how the learner makes use of their learning achievement. In the constructed world of understanding, the achievements of novices are differentiated from experts. Novices focus on the production of data, whereas for experts the gathering of data leads to the interpretation of data. Another key difference in outcomes for an expert compared with novices is the development of strategies to

cope with cognitive load, the perceived saturation point of information about a given topic:

Our cognitive architecture has limitations: we can only remember so many things at once; we can devote so much cognitive processing power to learning and resolving dilemmas. We build higher order notions or schema to help us retain more in memory at any one time, and we learn various strategies to assist in the learning process. (Hattie, 2009, p. 30)

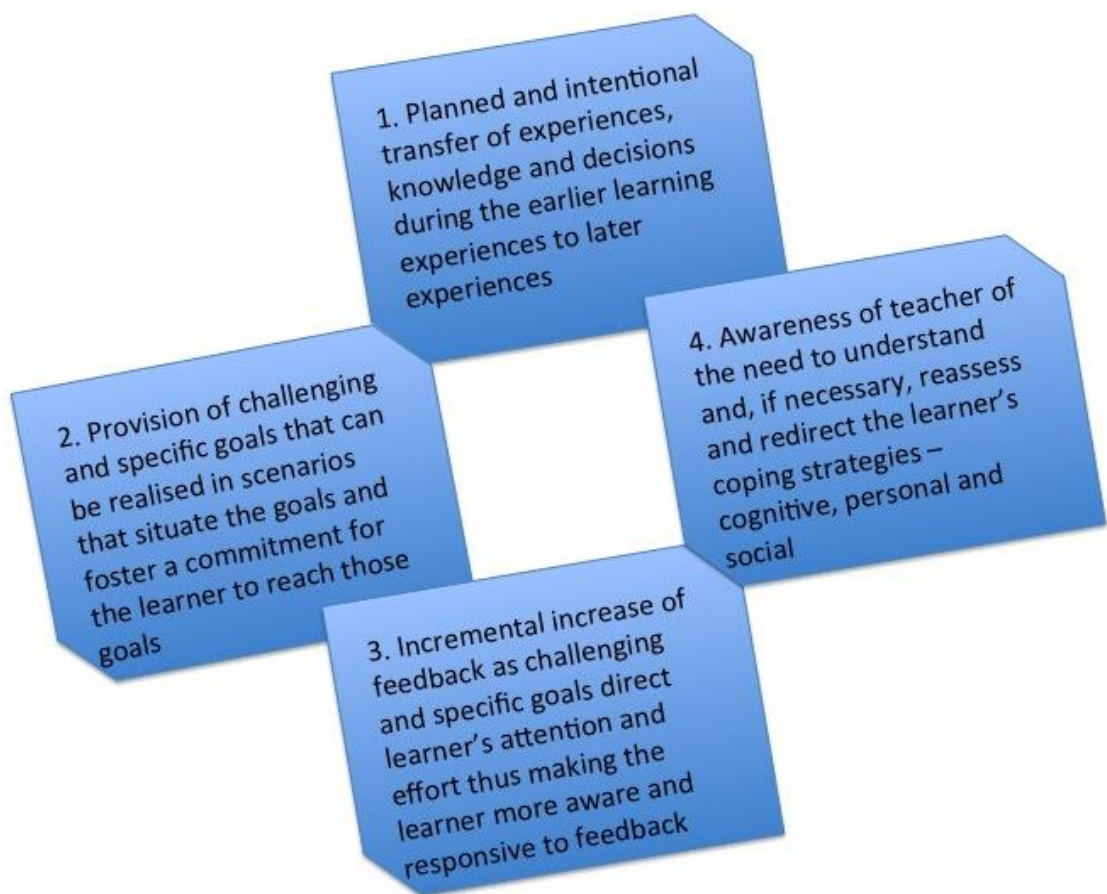


Figure 2.5: A concept of excellent teaching

Source: Adapted from Hattie (2009).

Finally, in respect to deep learning, outcomes can be assessed by the extent to which learners develop deliberative practice in the areas of improving performance in a specified activity; that is, learners start understanding how to monitor their performance (Hattie, 2009).

Much of the information used in interpretation in protected natural areas is connected to the natural sciences (Knapp, 2007; Newsome et al., 2013). The standardisation of scientific education occurs not only at an institutional level but also at a national and international level (Bybee, 2001; Bybee & McCrae, 2011). There is recognition that a learner's success in relation to assessment of their scientific knowledge is contextualised by their familiarity and fluency in life situations that involve science and technology. Life situations such as jobs may require people to use scientific evidence. Such evidence may only be correct if people are literate enough to use that knowledge in a specific context (Bybee & McCrae, 2011).

2.7 Informal education

Falk (2001) was wary of the division of education into informal and formal areas on the basis that within institutions and outside of them people can engage in “open-ended, optional inquiry-based experiences” (p. 7). The term free-choice education represents learning that occurs outside of school environments. It largely happens at the discretion of the learner, and such learning is “rarely linear and highly idiosyncratic” (Falk, 2001, p. 14). Floberg (2015) uses the term non-formal education to describe education that occurs at a non-school institution and has the following characteristics: “The learning environment is pre-arranged, attendance is voluntary, and formal assessment is not expected” (p. 6). In choosing to participate in tourism activities in protected areas, visitors are required to adhere to on-site behavioural standards. They have free choice in the matter but it is a case of acting ethically or unethically.

Environmental education, like interpretation, has developed into a large and differentiated field of learning. The goals of environmental education are to create awareness and develop concern for the environment and its related problems at a holistic level. The outcomes of these goals are to motivate people to work at both an individual and collective level to solve contemporary problems and be proactive in preventing future negative environmental impacts (Floberg, 2015).

Environmental education theory and practices have informed the learning process in interpretation (Butler & Hvenegaard, 2002; Knapp, 2007). Both environmental education and interpretation involve explaining the significance of the phenomena their audience experience in an outdoor, zoological or museum setting. While it is difficult to separate the two, “environmental education is not a substitute but should be regarded as an extension of interpretation” (Sharpe, 1982a, p. 25).

For environmental education, a direct experience of nature often occurs as a school-sanctioned activity. As the activity relates to the school curriculum, the direct experience is mediated in the context of a lesson that can allow for formal assessment. Cognitive outcomes associated with environmental education field trips are enhancement of;

...the ability to apply theoretical knowledge ‘in the field’, and to discover real-life examples of principles and problems in a new perspective. The trips provide training in problem-solving and decision-making within a real-world setting and help students engage cognitively and emotionally with environmental issues. (Morag & Tal, 2012, p. 748)

Environmental education field trips and guided interpretive experiences share similar characteristics. Both involve a direct experience of targeted phenomena mediated by an authorised person perceived to have sanctioned knowledge of the relevant phenomena. However, there are also two key differences between environmental education field trips and guided interpretive experiences: Firstly, an environmental education programme will entail formal assessments that relate back to a national qualification framework or set of standards; and secondly, the sanctioning of a guide to conduct a tour can be at the operator level alone whereas in formal education there are often legal requirements for instructors facilitating environmental education.

The informal nature of the learning environment further compounds the difficulty of devising and assessing measurable learning outcomes. Environmental educators are often accountable for measurable learning outcomes that assess the performance of each student and the suitability of the task to their needs and relevant learning goals. With assessment-based learning there are normally prescribed parameters to the temporal dimension of learning, and so it is possible to gauge what is possible to learn at a given time and at a given location. In informal learning contexts, such as free-choice learning, a person’s knowledge of a species such as whales may be more literary based than science based. Therefore, free-choice science learning is a difficult process to assess because “typically, individuals acquire an understanding of scientific concepts through an accumulation of experiences, normally deriving from many different sources at many different times” (Falk, 2001, p. 14).

Lessons from formal environmental education can help interpretation planners refine existing techniques that engage participants in informal learning environments (Knapp, 2007). A goal of environmental education is to develop an ethic of responsible environmental behaviour of students and this also is a goal for many interpretation programmes (Benton, 2009; Butler & Hvenegaard, 2002; Knapp, 1994). Environmental education in formal contexts can assess application of theoretical knowledge in the field; for example, observing real-world examples of a food web at a specific site. Awareness of conservation issues and associated appropriate behavioural standards for visitors, on-site and off-site, recede from visitors' memories after their visit unless subsequent learning opportunities are offered to them to reinforce what they have learnt (Ballantyne & Packer, 2011). Post-visit formal assessments connected to environmental education field trips provide an opportunity for reinforcement for school students. However, both formal and informal educational programmes face a challenge in trying to measure off-site or out-of-class environmental behaviour of their participants. For both environmental education programmes and interpretation programmes there are substantial challenges in assessing how the environmental knowledge accrued by participants translates into long-term responsible environmental behaviour (Knapp, 1994; 2007).

Table 2.4: Field Trip Planning in Natural Environments (FiNE) framework

| Framework section | Step | Description |
|-------------------|------|---|
| A Planning | 1 | Classroom preparation |
| | 2 | Collaboration |
| | 3 | Connection to formal education curriculum |
| B Pedagogy | 4 | Clarifying the goals |
| | 5 | Using the environment |
| | 6 | Connection to everyday life |
| | 7 | Social interactions |
| | 8 | Facilitator's performance |
| C Activity | 9 | Physical activity - observer |
| | 10 | Active learning – observer |
| | 11 | Active learning - learner |
| | 12 | Physical activity- learner |
| D Outcomes | 13 | Feelings, attitude and beliefs |
| | 14 | Knowledge and understanding |

Source: Adapted from Morag and Tal (2012).

A disconnect can exist between the wider formalised assessments, the objectives of curricula that field trips are connected to, and the actual operationalisation of field trips:

Teachers and providers of field trips are continually faced with barriers which prevent them from being utilised to their full educational potential. Teachers receive no formal training specific to field trip pedagogy and educational standards and the demands of a formal curriculum do not allow for adequate time to be dedicated to the preparation and follow-up of field trips. (Floberg, 2015, p. 7)

Therefore, challenges of aligning institutional objectives with educational practice to facilitate learning outcomes are a problem for both formal and informal learning situations.

Morag and Tal (2012) devised a Field Trip in Natural Environments (FiNE) framework to ensure that the learning occurring in a field trip could be assessed in relation to its planning, teaching and activities. The two researchers identified four overall areas: planning, pedagogy, activity and outcomes. Within these areas are 14 specific steps that need to be factored in to ensure that learning can be assessed (Table 2.4).

2.8 Psychology of learning

Research on the brain indicates that learning is “a uniquely personal, contextual experience, constructed from both internal (head and body) and external (physical world and social contacts) experience” (Falk, 2005, p. 269). The psychology of learning will be discussed in connection to environmental education, informal learning, the natural environment and behaviour. In considering the psychology of learning in respect to environmental education, Kahn (1999) identifies four theoretical bases for learning and development:

1. Endogenous
2. Exogenous
3. Causal interactional, and
4. Structural developmental.

The traditional rubric of nature versus nurture is a way of understanding how endogenous theories differ from exogenous theories of how people develop their learning. ‘Endogenous theories’ emphasise the agency of the learner in the learning process, whereas ‘exogenous theories’ depict external forces such as teachers as the

active agent and diminish the role of the learner. An example of an exogenous view is the notion that the child is a blank page upon which the teacher can impose their knowledge (Kahn, 1999).

‘Causal interactional theories’ revolve around a relationship between endogenous and exogenous factors in the learning process (Kahn, 1999), while ‘structural development theories’ work on the idea of both external mechanisms and internal mechanisms having an active role in the development of knowledge. Internal factors play the dominant role in structural development theories: “We construct our psychological structures through interaction with our environment; the environment can be seen to constrain or prod but not cause development” (Kahn, 1999, p. 52). Kahn (1999) uses the analogy of building houses to explain the key difference between endogenous and exogenous factors; the environment may determine the design and building materials used but not characteristic things required such as doors, windows or a roof.

Why people are motivated to choose nature-based tourism experiences can be connected to theories of why people are very responsive to natural phenomena. Wilson’s (1984) concept of ‘biophilia’ suggests that people are naturally predisposed to like and choose to learn about the natural environment because of humanity’s evolutionary processes. People are receptive to knowledge about the natural environment and develop it because at a subconscious level they identify it as benefiting their long-term survival (Kahn, 1999). The natural setting of wildlife guided tours might facilitate learning not only because it represents a direct experience but also because of the evolutionary context of human development in terms of humanity’s relationship with the natural environment (Kellert, 1997).

2.8.1 The role of social proximity in the learning process

Exogenous factors such as adult teachers or ‘capable peers’ can increase the learning potential of children through the notion of ‘the zone of proximal development’ (Vygotsky, 1978). This zone represents “the distance between the actual development level as determined by independent problem solving and the level of potential development as determined by independent problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky, 1978, p. 86).

In the context of interpretation, the zone of proximal development indicates how the actions and behaviour of operators, guides and fellow visitors can inform the learning process of visitors during interpretive experiences (Dierking, 1998; Forestell, 1990,

1993). In examining the impact of social proximity to a whale-watching trip, Forestell (1993) identifies temporal factors as being central for face-to-face interpretation planning. These temporal divisions that punctuate visitors' experience of whales within a tour can connect an individual's learning to the shared experience of the trip: "cognitive change occurs when individuals internalize knowledge contained within a social group. From that perspective, a sense of timing is critical for coordinating participants' self-discovery, the group's shared discoveries, and the educator's imposed discoveries" (p. 275).

2.8.2 The role of dynamic disequilibrium and cognitive dissonance in the learning process

Guided tours are characterised as having the potential to create moments of dynamic disequilibrium and facilitate episodes of cognitive dissonance for visitors. Such moments occur because of the nature of the direct experience or from information provided by people such as the guide. Opportunities may arise for guides to become involved in the management of dynamic disequilibrium and the resolution of cognitive dissonance through actions such as answering questions and providing relevant formal content. In the context of changing behaviour, strategies include modelling behaviour and providing opportunities for actions associated with behaviour change, both on the tour and off site as well. The temporal phases of cognitive dissonance and dynamic disequilibrium, i.e. their creation, management and resolution, are connected at a heuristic level to the temporal phases of a direct encounter (Forestell, 1992, 1993; Forestell & Kaufman, 2007; Ham, 2007; Ham & Krumpe, 1996; Orams, 1996, 1997). Forestell and Kaufman (1990) connect Piaget's (1970) theories of how children learn with their observations of the impact of wildlife watching on visitors during a guided interpretive experience. Orams (1996, 1997) has combined Forestell and Kaufman's use of Piaget's (1970) theory of dynamic disequilibrium with Festinger's (1957) theory of cognitive dissonance to explain how the information content of interpretation may impact on the visitor's existing knowledge of the phenomena they are experiencing (Figure 2.6).

A central idea of Piaget's (1970) theories about the psychology of learning is how learners incorporate new information into existing structures of related information (Lück, 2003b; Moscardo et al., 2004; Orams, 1996). This new information may put attitudes and behaviour based on the old information out of balance. This imbalance causes 'dynamic disequilibrium' as the brain evaluates both sets of information.

Through the repositioning of old information in alignment with new information, new behaviours and attitudes may be formed and old attitudes jettisoned. Three guiding principles inform Piaget's (1970) conception of structures: wholeness, transformation, and self-regulation. Wholeness relates to an overall system of thought and its application to a varied range of tasks; transformation refers to the changing of that system, and self-regulation explains the processes through which transformations happen, i.e. through assimilation and accommodation. Assimilation describes how new information makes no substantive change to a person's overall understanding of a given phenomenon, or their attitudes and behaviour towards it, while accommodation suggests that a person's new knowledge about a phenomenon may make existing behaviour incongruous with changes in their attitudes and values about that phenomenon (Kahn, 1999; Orams, 1996; Piaget, 1970).

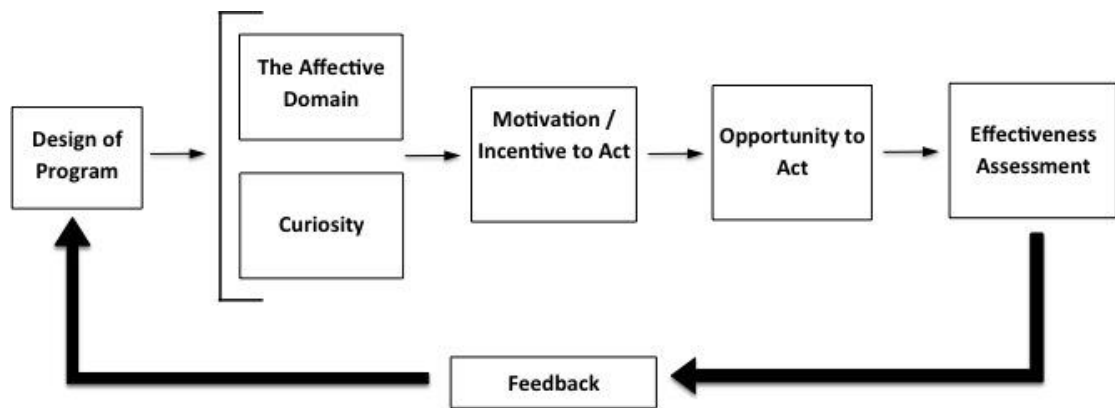


Figure 2.6: Orams' Model for Effective Interpretation

Source: Orams (1995: 1997)

A new structure of knowledge about a phenomenon is developed where new knowledge is added in a way that will change existing values and behaviours that are based on assumptions formed from the prior knowledge base. For example, a person's purchasing patterns of items such as seafood and plastic bags might change through awareness of the impacts these products can have on wildlife and the ecological systems they inhabit (Forestell, 1993; Orams, 1996). Forestell (1993) used the term the 'teachable moment' to describe how a guide creates the conditions "to generate motivation to learn by creating or uncovering an imbalance between an individual's initial knowledge, and some current perception of the world" (p. 274). Forestell and Kaufman (1990) state that face-to-face interpretation as part of a direct experience provides valuable learning opportunities for visitors, where important environmental and conservation messages can be delivered to the visitors as part of an interpretation programme.

At all stages of a tour visitors may discern inconsistencies between what they thought they knew about whales and new information they are receiving from the guides. At the contact level, some of this new information may derive from sensory cues stemming from the direct experience. In Forestell and Kaufman's (1990), and Orams' (1997) models of interpretation, awareness is considered in the context of gaps in knowledge and inconsistencies between existing and previous ideas. As cognitive processes they resemble cognitive dissonance (Festinger, 1957) and dynamic disequilibrium (Piaget, 1970). In a similar vein, the term 'transformative learning' is used in the McInnis model of interpretation to describe the overall psychological process of how adults change opinions or behaviour (Johnson & McInnis, 2014). Transformative learning has also been advocated as an approach for guide training (Weiler & Black, 2015). Transformative learning consists of five phases that includes a triggering event, self-examination, and explanation of that event. From this a new perspective arises and, through actions and beliefs, this perspective is instilled into the person's world-view (Johnson & McInnis, 2014).

The experiential education sequence (Forestell, 1990) and three-point approach to interpretation programmes (Forestell & Kaufman, 1990) are different descriptions of the same heuristic model. Forestell and Kaufman (1990) provided a framework for an interpretation programme with set goals and formal content to manage the visitor's cognitive dissonance and to consolidate that learning during the guided interpretive experience. The creation of dynamic disequilibrium within the visitor is referred to as the teachable moment (Table 2.5). Included in the model is the goal to get visitors to participate in activities that could facilitate the changing of existing attitudes and behaviours (Forestell, 1993).

Table 2.5: Experiential Education Sequence

| Phases | Explanation |
|-----------------------------------|---|
| Creating Dynamic Disequilibrium | 'The Teachable Moment'/creating a perceived need for information |
| Providing Relevant Formal Content | Managing cognitive dissonance/ providing the information in an informed and interesting manner |
| Follow-up Activity | Ensuring consolidation of learning and resolution of cognitive dissonance; evaluating success/facilitating participation in follow-up activities that incorporate the new information into a changed behavioural repertoire |

Sources: Adapted from Forestell and Kaufman (1990) and Forestell (1992, 1993).

Forestell (1990, 1993) associated dynamic disequilibrium with cognitive dissonance in describing the psychological processes that occur within the visitor during a guided whale-watch tour. Cognitive dissonance is cited within educational literature as a key determinant in creating a teachable moment (Forestell, 1990). Festinger (1957) deepened understanding of factors that influence whether people accommodate or assimilate new information into existing mental models that they associate with new information. The term ‘cognitive dissonance’ describes how new information can make people uncomfortable and therefore create a range of responses at the assimilation or accommodation level. Festinger’s (1957) theory of cognitive dissonance noted that high levels of discrepancy between new information and existing information (in this case, about alcohol and health) in respect to its implications on people’s current behaviour could also decrease a person’s motivation to accommodate new ideas into schemes that might influence their behaviour.

Festinger’s (1957) work suggests that the more investment a person has in maintaining the status quo in their behaviour, the more chance that the ‘uncomfortable truths’ of new information will be ignored or rationalised in a manner that marginalises their validity to the person’s way of life (Box 2.1). Cognitive dissonance may occur because of affective factors. Iozzi (1989) reasoned that “cognitive and affective factors should be considered holistically in the teaching-learning process” (p. 3). The affective domain relates to the combined roles of emotions, attitudes and value systems and can play a major role in learning (Orams, 1995). A strategy to influence the visitor using the affective domain in interpretation is to structure the formal content in a way that connects the visitor to the resource at an emotional level (Brochu, 2003; Forestell & Kaufman, 1990; Ham, 1992). A direct experience with wildlife can also stimulate the affective domain (Forestell, 1993; Lück, 2003a; Orams, 1996).

Although old behaviours may not be discarded, a person may feel that they are no longer appropriate in light of the new knowledge. By its nature, learning is a complex and on-going process and “researchers have come to more fully appreciate that learning is rarely an instantaneous event but rather a time-consuming, cumulative process” (Falk, 2001, p. 14). The role of dynamic disequilibrium and cognitive dissonance in the learning process is very complex and it is difficult to judge whether new knowledge has the impact to change existing values and attitudes and what implications that has for old or new behavioural patterns (Moscardo et al., 2004).

Orams (1995) studied the effectiveness of an interpretation programme at Tangalooma, in Queensland, Australia, involving the hand-feeding of the dolphins. He compared visitors whose experience involved the interpretation programme to those who just had a direct encounter with the dolphins. Orams's (1995) findings indicated that visitors who participated in the interpretation programme were more likely to be involved in on-site and off-site conservation-supporting behaviour. These findings demonstrate that "an education programme caused tourists to change their behaviour and become more environmentally responsible" (Orams, 1997, p. 304).

Box 2.1: Festinger's (1957) Cognitive Dissonance in the context of littering

Orams (1995) used an effective example to highlight how to understand Festinger's (1957) theory of cognitive dissonance in relation to littering behaviour. He did this by isolating statements relating to littering in a way that could demonstrate how people accommodate or assimilate the statements into behavioural intentions:

Element A = I do litter.

Element B = I don't litter.

Element C = I know that littering is bad for the environment.

Element D = I don't know that littering is bad for the environment.

A person who litters and is not aware that littering can have negative environmental impacts would not experience cognitive dissonance but a person who litters and knows the potential consequences of their behaviour would experience cognitive dissonance. The following elements may be statements that people make to rationalise their littering behaviour:

Element E = There are people paid to pick up litter

Element F = Sometimes littering cannot be avoided.

Element G = The government is responsible for waste disposal services in public areas.

On two beach reserves within two kilometres of each other, Auckland Council provides rubbish receptacles on one (Mission Bay) and none on the other (Okahu Bay). On both beaches you will find litter suggesting that some people rationalise that littering is an acceptable behaviour (element A). In Mission Bay, people often litter close to a full rubbish bin. This suggests that litterers may have attempted to use a rubbish bin because normally they do not litter (element B) but have decided to litter because individual workers, or the government, failed in their responsibilities to empty the rubbish bins (elements E, F & G)

Source: Adapted from Orams (1995).

The teachable moment in the context of interpretation programmes refers to manufacturing a scenario where the visitor seeks information from a guide. Within a wildlife tour, the scenario is created through sequential steps in the visitor's contact with the targeted phenomenon. The heuristic model created by Forestell and Kaufman (1990) suggests that the need for information does not necessarily depend on contact with wildlife but does rely on creating the conditions for the visitor to believe that they need new information to make their direct experience fully intelligible to them.

Orams' (1995; 1997) and Forestell and Kaufman's (1990) models of dynamic disequilibrium and cognitive dissonance in the context of the staging of interpretation programmes suggest that scenarios where visitors seek information from guides should be considered in the context of factors such as affect, psychological factors connected to pre and post contact with wildlife, and access to new information or experiences. Generalising what learning is in relation to tourism is fraught with difficulties as "the complexities of learning can only be simplified so much before they become less than useful" (Falk & Dierking, 2000, p. 136). Key ideas relating to learning are the notion of a dialogue, the idea that there it is an interaction process at a social or intellectual level between the learner's concept of ideas and external sources. Learning is also linked to the idea of being contextually driven; that is, learning is grounded by the minutiae of what is comprehended by peoples' senses at the time when learning occurs.

2.9 Summary

The literature review examined tourism in relation to guided tours, wildlife, ecotourism and sustainable tourism. In doing so it considered how the suitability of wildlife as an attraction is often determined by the characteristics of the place where the wildlife is encountered; that is, the attraction of the wildlife's natural habitat rather than settings that are perceived by tourists to be contrived, such as zoos. It showed how the models of visitor attractions are useful in understanding the relationship between wildlife as a 'product' and what motivates visitors to spend money on touristic experience involving wildlife.

The discussion considered the progress made through the concepts of ecotourism and sustainability in understanding how best to protect wildlife and ensure that guided tours are a viable business proposition in the conservation of the ecosystems that provide sustenance to both wildlife and humans. The discussion on visitor management and interpretation focused on what has to be considered in managing the constraints on visitor behaviour during animal encounters while still providing an enriching experience for the visitor. The discussion on education highlighted the complexity that surrounds GVI when it comes to developing interpretation that can deliver both learning and behavioural-change outcomes.

A number of authors have claimed that the use of face-to-face interpretation during wildlife tours can promote learning and prompt environmentally responsible behaviour (Forestell, 1993; Lück, 2003a; Orams, 1997). Visitors' receptivity to learning appears to

relate to both internal factors, such as personal learning traits, and the role of external factors, such as the behaviour of the wildlife and the teaching of guides (Lück, 2003b). There is a gap in documenting the nature and implications of GVI for face-to-face interpretation that the study addresses through establishing that there are identifiable phases on a guided wildlife tour where visitors are receptive to learning and interaction with the guide aids in consolidating that learning.

This study can make a contribution to literature on face-to-face interpretation by exploring a visitor's receptivity to learning while on a guided tour. Through empirical research, the study can assess whether this receptivity to learning relates to a teachable moment and/or to a phase or series of phases in a guided wildlife tour where learning commences, and also whether learning is consolidated through GVI. Such assessment can be achieved through the researcher observing guided tours and utilising the observations of the learner and other people involved in the learning process. These observations seek to answer the question: How did the guided wildlife tour contribute to a learner's understanding?

The next chapter outlines the design of the research conducted.

Chapter 3 Research Design and Methods

“Science is generated by and devoted to free inquiry...the suppression of uncomfortable ideas may be common in religion or in politics but it is not the path to knowledge, and there is no place for it in the endeavour of science. We do not know in advance who will discover fundamental new insights”. (Sagan, 1980, p. 91)

3.1 Introduction

The purpose of this research was to provide insights into tour guiding and face-to-face interpretation in the context of guide-visitor interaction during wildlife tours. It involved an interdisciplinary approach that draws upon a range of fields as diverse as geography and psychology through the prism of tourism studies, interpretation and education. The research questions and the design of the interpretive framework of the research were based on issues discussed, and recommendations from previous studies. These researchers have used a range of research paradigms to negotiate potential contradictions when synthesising the different traditions of research methods. The hermeneutic approach devised for this research sits within the pragmatic tradition of conceptualising the relationship between human understanding and the creation of knowledge (Cresswell, 2013; Cresswell & Plano-Clark, 2011; Porter, 2014; Rorty, 1979, 1982).

This chapter provides the rationale for the approach and methods used to address the research aim and research questions, and then discusses the interpretive framework and the relationship between the researcher and the study’s participants. The tension between orthodoxy and innovation in the discovery of new knowledge, and the relationship of that knowledge with the researcher, the researched, humanity and the natural world is addressed.

3.2 Research aim

The inspiration for this study arose from a desire to contribute to the practice of sustainable tour guiding. There are many extant models of effective interpretation that highlight the psychological processes involved with face-to-face interpretation; behavioural change, learning, curiosity and affect. This thesis examined the extent that

social interaction between guides and visitors during a guided tour acted as catalysts for phenomena connected to learning outcomes. To achieve this a multi-dimensional approach to tour guiding research was devised that allowed for the recollection of guides, visitors and the researcher in relation to shared experiences. The overall goal of the research was to better understand affect, curiosity and learning in the context of specific individual interaction between visitors and guides during a guided wildlife tour. The research aim sought to explore what scenarios in guided wildlife tours facilitated visitors' receptivity for new information and examined whether guide-visitor interaction contributed to learning. In order to achieve this the following questions were formulated:

1. Can visitors and guides identify a situation within a guided wildlife interpretive experience where visitors are most receptive to learning?
2. What are the factors within a guided wildlife interpretive experience that influence visitors' receptivity to learning?
3. Can visitors' receptivity to learning be discerned through observable behaviour such as visible signs of affect or curiosity on the part of visitors?
4. What level of interaction do visitors seek from guides in the learning process of a guided tour?
5. What role do guides play in the facilitation and enhancement of learning during the guided wildlife tour?

This was an exploratory study that recognised that the data collected may highlight ideas and issues not directly asked by the research questions. Qualitative research methods such as thematic analysis were used to allow the research to respond to ideas and issues that emerged during the field research that may lie outside the scope of the research questions (3.7).

3.3 Interpretive framework of study

Cresswell (2013) identifies two important issues for an interpretive framework of a qualitative study to address; its philosophical assumptions and how the framework informs the thesis. All academic research is underpinned by the ontological and epistemological assumptions about the nature of knowledge and the appropriate methods by which to obtain that knowledge (Guba & Lincoln, 2008). While many see a distinction between ontology and epistemology, others discount the need to consider epistemology as a distinct or relevant idea (Rorty, 1979). In this section, the ontological and epistemological views that frame this thesis will be discussed.

The dimensions of the philosophical relationship of this thesis with academic inquiry are ontological, epistemological, and methodological (Table 3.1). In designing research researchers have to examine their thought processes that underlie the rationale for their research methods because their initial motives for the research project can influence the knowledge claims made (Cresswell, 2013; Hammersley, 2011).

With the interpretive framework, I sought to address the following two issues associated with qualitative research: Firstly, the ability of a researcher to act as a bricoleur in negotiating potential contradictions between the different inquiry-based philosophies and the research tools used in the research (Denzin & Lincoln, 2005). A ‘bricoleur’ is an individual who “pieces together sets of practices to solve a puzzle” (Schänzel, 2010, p. 74). Secondly, I addressed the concern that what I perceived to be a suitable solution in reconciling different research methods and instruments may be viewed as a mismatch of concepts that are not clearly articulated in respect to either the overall framework of the study or the nature of the phenomena examined (Pernecky, 2012; Pernecky & Jamal, 2010). Flaws in either the design or execution of the field research can culminate in findings that have no integral relationship with the knowledge claims of the research (Weiler & Black, 2015).

The interpretive framework for this thesis was formulated around a hermeneutic approach to academic inquiry. For most studies, it is enough for the researcher to identify the relevant philosophical stances that frame and inform the research project. However, with sustainable tourism research, the researcher should consider the nature of research conducted by stakeholders of the relevant sites. The interpretive framework of this research constructed a “cognitively plausible bridge” between the research questions and the findings in order to better understand GVI during wildlife tours in relation to what might constitute learning (Boyer, 1998, p. 876). Thus, the interpretive framework was underpinned by an interest in pedagogy in the context of tour guiding practice and sustainable visitor management techniques.

Table 3.1: Overview of PhD's interpretive framework

| Interpretive framework | Hermeneutic (pragmatism) | Concepts, ideas and works that informed the development of the research model |
|---|--|--|
| Ontological beliefs (the nature of reality) | Multiple realities are constructed through our lived experiences and interactions with others (reality is what is useful, is practical, and 'works'). | Transactional (Clandinin & Rosiek, 2007) Constructionism (Pernecky, 2012; Schwandt, 1994) |
| Epistemology (how reality is known) | Reality is co-constructed between the researcher and the researched and shared by individual experiences (reality is known through using many tools of research that reflect both deductive (objective) evidence and (subjective) evidence). | Constructivist (Clandinin & Rosiek, 2007; Maxwell, 2012) Created findings (Guba & Lincoln, 2008); Hermeneutical (Westphal, 1999); Pragmatism (Rorty, 1979) |
| Methodology (approach to inquiry) | More of a literary style of writing used. Use of an inductive method of emergent ideas (through consensus) obtained through methods such as interviewing, observing, and analysis of texts (the research process involves both quantitative and qualitative approaches to data collection and analysis). | Hermeneutical/dialectical (Guba & Lincoln, 2008; Plester, 2007; Rorty, 1979). Narrative methods (Czarniawska, 2004; Riessmann, 2008) |
| Knowledge accumulation | | Reconstructions based on shared observations and recollections (Guba & Lincoln, 2008; Riessmann, 2008) Hermeneutic interpretation Thematic analysis (Riesmann, 2008) |
| Goodness or quality criteria | | Trustworthiness (Guba & Lincoln, 2008) |
| Axiology Values (role of values) | Individual values are honoured, and are negotiated among individuals (values are discussed because of the way that knowledge reflects both the researchers' and the participants' views). | Biased (Cresswell & Piano-Clark, 2011; Rorty, 1979) Included – formative (Guba & Lincoln, 2008) |
| Data collection methods | | Critical Incident Technique (Flanagan, 1954) – Identifying and selecting participants Participant observation – field notes Interviews - transcripts |

Source: Adapted from Cresswell (2013); Cresswell and Piano-Clark (2011); Guba and Lincoln (2008).

3.3.1 A transactional, constructionism, intuitive ontology

This thesis used a transactional, constructionist ontology to explore the implications of GVI during a guided wildlife tour on the overall experience of visitors. Transactional refers to a pragmatic stance on the nature of the relationship between reality and knowledge, and the research participants' lived experiences in the context of this thesis. This research sought to understand the lived experience of the research participants as both individuals and as members of social networks within the social, physical, and psychological environments they inhabit (Clandinin & Murphy, 2009; Clandinin & Rosiek, 2007).

Constructionism holds that reality is intrinsically connected to people's mental representations of the social and physical worlds they inhabit: "There are multiple, often conflicting, constructions, and all (at least potentially) are meaningful" (Schwandt, 1994, p.128). For some, differentiating constructed knowledge from 'objective knowledge' creates a meaningless distinction between reality and construction. Humans live within the spheres of the physical world and a world of meaning and this implies that "constructionism is at once realist and relativist" (Pernecky, 2012, p.1124). Therefore, to understand constructions of knowledge made within the overall interpretive framework a researcher should state their position about the nature of both physical facts and social facts in order that the communities they share their research with can gauge for themselves the trustworthiness of such qualitative findings (Pernecky, 2012).

Pernecky (2012) advises researchers who use constructionism as a research framework to, firstly, include hermeneutics or phenomenology in their research design. Secondly, to understand the relationship between the research framework and reality, a researcher should distinguish between reality and the construction of meaning that exists in the findings of their research to aid readers in making their own judgements about the trustworthiness of the research design. I negotiated these issues through the adoption of the intuitive ontological stance to explain how I see reality. Boyer (1998) connects intuitive ontology to an individual's negotiation between their pre-conceived stance and reactionary 'in situ' stance towards phenomena that they experience. An intuitive ontological stance towards phenomena encountered in a person's physical and social world consists of "a set of quasi-theoretical assumptions about their underlying properties and definite expectations about their observable features. Intuitive ontology

comprises ‘naïve theories’ of broad domains such as PERSON, ANIMAL, PLANT or ARTIFACT” (Boyer, 1998, p. 878).

Intuitive ontology has similarities with constructionist ontologies; a relationship in the observation of a phenomenon, a mental construction of the phenomenon and a cognitive bridge made between thought data and senses data through interpretation. The concept of truth in empirical research centres around the observations made by the researcher in relation to the phenomenon researched. These observations constitute evidence, and, in layman’s terms, the word ‘fact’ is used to describe such evidence. Dawkins (2009) notes a variety of definitions of fact and highlights the Oxford English Dictionary definition of fact that connects the term to a ‘datum of experience’ that is recorded by empirically confirmed observation or ‘authentic testimony’. A datum of experience in relation to a guided tour would be something that was observed or experienced by a participant on the guided tour. Authentic testimony would be somebody describing something they experienced and/or observed. However, without a discriminating level of scrutiny and assessment observation and authentic testimony can be unreliable as a source of empirical evidence (Dawkins, 2009). There are attempts to catalogue facts, and Kukla’s (2000) typology has been viewed as useful for tourism research in respect to negotiating physical and social realities (Pernecky, 2012) (Table 3.2).

Table 3.2: Typology of facts - Information connected with Humpback whales (*Megaptera novaeaeangeliae*)

| Type of fact | | | |
|---|---|---|---|
| Scientific: Invented by the institution of science | Social: Facts produced by social sciences | Everyday: Facts outside science | Noumenal: Possible facts about the world inaccessible by any method |
| Megaptera novaeaeangeliae (as per Linnaeus’ taxonomy). “I have now learned something so shocking that I am still reluctant to believe it, but it looks as though I am going to have to. Hippos’ [Hippopotamus spp.] closest living relatives are whales” (Dawkins, 2004, p. 165). | “Humans have always had a strong connection to whales. An evolution in human attitudes and behaviour towards cetaceans has taken us from hunting them to hailing them as icons of marine conservation” (Johnson & McInnis, 2014, p. 128). | Close physical proximity to a Humpback whale can be dangerous | Humpback whales are playful |

Sources: Kukla (2000) and Pernecky (2012).

The interface between subjectivity and objectivity is perceived as something that needs to be negotiated for ‘human’ sciences in a manner that is unconventional for natural sciences when devising methods in the discovery of new knowledge (Gadamer, 1992). An interpretive framework that utilises constructionism advocates the agency of the research subject in the development of knowledge and thus informed consent and the visibility of the researcher can contribute to the validity of the data (Guba & Lincoln, 2008). The constructionist research stance on studies of human research participants holds that they are active participants in creating the findings. Disclosure to the participants about the research, then, is an important factor to consider as their awareness that they are being researched may influence their testimony or their actions. Furthermore, if they only become aware of the research after it has occurred they may see the research as a breach of their privacy (Drury & Stott, 2001; Guba & Lincoln, 2008).

Gadamer (1992) argues that rather than focusing on critiquing what constitutes a fact a researcher’s task is to ensure that subjective factors do not affect the trustworthiness of their findings. ‘Reality’ in the context of this thesis was empirically recorded instances of the intrusion of phenomena into the personal space of the research participants such as wildlife and the conversation of other tour participants. Data of experiences were used in this research only when verified by specific research participants who provided it or shared the same social or physical spaces where such experiences occurred. Individual cognitive bias may have inhibited research participants’ perception of what is real. This thesis cannot make any assertions about the relationship between reality and individual constructions of the experience of the research participants (Appendix 1).

3.3.2 A hermeneutical epistemology

This research adopted a hermeneutic epistemology. This is consistent with a transactional ontological position because it focuses on understanding the phenomena researched in relation to the physical, psychological and social environments of the research participants (Van Manen, 1990). Thus the nature of the knowledge devised in this thesis is bounded by the transactional experiences of the participants and the researcher (Van Manen, 2014; Westphal, 1999). Epistemology is the “philosophical theory of knowledge, which seeks to define it, distinguish its principal varieties, and establish its limits” (Quinton, 1999, p. 279).

In order to research everyday practices such as guide-visitor interaction and learning it is important to understand the relationship between the temporal juncture of the action and the background understandings of the practitioners. The term 'horizon' has been used by Gadamer (1995) to define background understandings (Polkinghorne, 2004). A hermeneutic approach to research is a process of reduction of "all interpretation and explicating reflectively whatever assumptions seem to need attention in writing the research text" (Van Manen, 2014, p. 224).

The analogy of a circle has been a feature of describing the hermeneutic process of understanding texts and what they say about human ideas, actions and behaviour. Stewart-Harawira (2005) suggests that the circle is a misleading metaphor as it suggests to others that the inquirer returned to the point where they began. It is a pertinent observation though as an analogy of inquiry the circle also suggests that the initial starting point of examination can no longer be distinguished from the end. This research adopts the conception of a hermeneutic process of research as "the spiral never returns exactly to the point of origin but moves progressively forward in a process of constant motion and expansion" (Stewart-Harawira, 2005, pp. 49–50).

Trustworthiness is a contested construct in the academic world. Two academics that demonstrate opposite views about validity are Rorty (1979) and Hammersley (2011). Rorty sees science as a subset of conversations within a community where agreement occurs at a human level. No recourse to connecting research to an independent phenomenon that constitutes a parallel aspect of reality is therefore required. Hammersley (2011) believes that some form of referral is essential even if it is not possible to discern the true nature of the shared reality between the researched phenomenon and the independent phenomena it has been connected to.

Rorty's (1979) challenging of traditional conceptions of the epistemological relationship to the nature of reality, knowledge and academic inquiry has led academics to accuse him of eschewing meaning and focusing on style (Hammersley, 2011). However, academics have argued that interpretive frameworks such as pragmatism do not need to justify knowledge accumulation from an ontological or epistemological stance (Westphal, 1999).

The academic production of knowledge in the human sciences involves the researcher's relationship with the academic community and the communities that the research participants represent in the context of the study. With qualitative research, it refers to

the interrelationship between the researcher and the subject of the study. The terms 'distance' and 'closeness' are used by Cresswell (2013) to describe how relationships develop over time in the field, the nature of the interaction between the researcher and research participants, and the impact of the research on the researcher. The construction of a 'hermeneutical' space to generate and share knowledge does not suggest that scientific understanding of such knowledge is not possible, but that it may not be possible. Instead the focus should be on the knowledge itself rather than its relationship with reality and the laws of nature (Cresswell, 2013).

Based on the research and confirmed by the literature the key constituent in guide visitor interaction was dialogue. An epistemological conception of dialogue can usefully be used in research based on analysing the written records of the lived experiences that occur in the field research: "Dialogue is an exchange of speech acts between interlocutors, where meaning is determined by ostensive reference to things in a shared 'here' and 'now' " (Aylesworth, 1991, p. 69). A hermeneutical stance to epistemology is an accepted approach to developing an interpretive framework to devising research. However, a tourism researcher needs to recognise that there may be scepticism about the validity of their research findings and develop successful strategies to communicate to the research community of the sites involved in their study.

3.4 Methodology

The methodological framework for this thesis was based on a constructionist approach to qualitative research (Table 3.1). At an ontological level the researcher accepted the realist's premise that the study occurred in the real world of case studies (outlined in more detail below) of Tiri, Auckland, New Zealand and Maui, Hawaii, USA. These sites exist independently of the researcher's, the guides' and the visitors' own perceptions of the phenomena encountered in those places (Maxwell, 2012). This acceptance of an independent reality was based on an intuitive ontological understanding of the physical world (Boyer, 1998).

The focus of this study was participants' reflection on the experiences visitors derived from their interaction with the phenomena encountered. Such experiences represented the transactional nature of their 'reality' of the research sites (Clandinin & Rosiek, 2007). At an epistemological level, the researcher understood that the knowledge constructed in this study was filtered through the researcher's own biases and beliefs (Maxwell, 2012). A hermeneutic approach to constructing the findings was used to

manage the bias of the researcher when interpreting the potential meanings that arose from the data (Gadamer, 1995).

A goal of the research was to understand the meanings participants attach to observable phenomena on a guided wildlife tour; physical objects such as animals, the behaviour of other participants such as verbal communication and the participants' own behaviour such as their thoughts and what they said on the tour. The research sought to identify the relationship between visible signs that may relate to participants' curiosity and emotional states, to the interaction between visitors and guides during the tour, and the visitors' reflections on the significance of the tour after the trip.

This study's research design was built around a concern to devise instruments that collected and analysed data to represent a multi-faceted perspective of the nature of learning on a guided wildlife tour. This relates to what the participants construe as learning or the absence of learning on a guided wildlife tour, and how the process of learning may be observable to other people. At a practical level the research sought to generate results that "are understandable and experientially credible" (Maxwell, 2005, p. 24). A constructionist approach to the formulation of the research design, data collection and data analysis facilitated the achievement of the research questions. Constructionism has been utilised as a way to explore touristic behaviour (Wang, 1999). However, constructionism is a contested concept in relation to its context and place in the research process (Czarniawska, 2003; Pernecky, 2012). The design of the research contained a post-positive focus on procedures in respect to explicating the steps and procedures of the use of interviews and procedures. This stems from the use of Flanagan's (1954) critical incident technique as a framework for the interviews and participant observation. The focus of the critical incident technique on understanding phenomena from the perspective of the participant makes it a perfect vehicle to access the view of the participant within a constructionism paradigm.

At a methodological level, constructionism is an inquiry into phenomena that relate to issues, behaviours or concerns of participants. This is followed by a process "of iteration, analysis, critique, reiteration, and reanalysis, and so on that leads to a joint (among inquirer and respondents) construction of a case (i.e., findings or outcomes)" (Schwandt, 1994, p. 129). A hermeneutic method of interpretation requires a researcher to explicitly acknowledge and disclose their preconceptions about the data as a

necessary step in the process of understanding the potential meanings of the data that lie outside of the researcher's own experience (Gadamer, 1995).

The practice of face-to-face interpretation is influenced by an assumption that a mutually beneficial connection between the person and the resources experienced can be created through the meditation of face-to-face interpretation. My own belief in this assumption was a bias I was aware of during the design of the study. Utilising the hermeneutic practice of openness in the methodology enables the researcher to negotiate the impact of their beliefs on authoring research on the experience of others to ensure "that the various dimensions of lived meaning of some selected human experience are investigated for their various sources and layers of meaning, rather than being overlaid with a particular frame of meaning" (Van Manen, 2014, p. 224).

Concreteness refers to the hermeneutic phenomenological research process of reconciling the contradiction in seeking to understand the meaning of human experience at an individual level and abstraction of such phenomena. The task is to generalise about possible human experiences in a way that bridges historical understanding embedded in the research data (findings) to the implications such data has for informing the future (discussion) (Van Manen, 2014).

Learning and what signifies learning to individuals in the context of a guided interpretive wildlife tour is subjective. That a participant's conception of learning and the notion that a person's learning experience has observable manifestations, are potentially contestable items. I was aware that a question asked by a tour participant can be recorded as a manifestation of seeking new information by the researcher but may actually be a matter of reinforcing previously held knowledge or demonstrating to others the interlocutor's existing knowledge. A constructionism paradigm is an appropriate framework on which to base the research methodology for this thesis study design as it can facilitate "the production of reconstructed understandings of the social world" (Denzin & Lincoln, 2005, p. 184). Observation, conversation and interpretation are the processes used in this thesis to construct knowledge.

Anecdotal evidence from Forestell and Kaufman (1990) suggests that a guided wildlife tour creates situations where visitors become curious, affected, or emotionally aroused by factors such as new settings, as well as the anticipation of, and then, contact with wildlife. These situations can be recognised through observable behaviour. Some of these situations appear to resemble the conditions identified in psychological literature

that indicate when a person is receptive to learning (Forestell, 1993; Orams, 1995; Piaget, 1970). Such situations can be recognised through observable behaviour and might indicate a ‘teachable moment’ (Forestell & Kaufman, 1990; Forestell, 1993). It is this aspect of the social world, the direct encounters with wildlife during a guided tour and its possible utility for learning outcomes, which this study seeks to construct through the recollections and interpretations of visitors, guides and the researcher as a participant observer.

3.4.1 Guided tours as pedagogically-based learning environments

In assessing learning behaviour, there are three possible temporal phases in respect to activity-based learning, before, during or after. In formal educational environments, there is often a scheduled relationship between the teacher and the student on a daily, weekly or monthly basis. Teacher-student interaction can then occur in all the possible temporal phases. Typically, guided tours are a one-off occurrence for the visitor and GVI tends to occur only on the tour. Therefore, the insights from formal education that can best aid us understanding the role of guides in learning and assessing learning are studies on the activity that forms the basis of learning and teacher-student interaction. Nuthall (2004) posits three preliminary questions in respect to designing research on teaching-learning relationships:

- Why do we need the publicly available, research-based professional knowledge about the teaching-learning relationships that research can produce?
- What are the practical teaching problems researchers should address?
- What kind of relationship exists between teaching and learning? (p. 275)

For research on guide-visitor interaction in protected areas, publicly available research allows for wider scrutiny of how potentially fragile resources are managed in areas where recreational activities are regulated. One of the key practical problems about the ‘teacher’ role guides play is the degree of influence that it has on both visible behaviours such as on-site behavioural compliance but also on learning either on-site or off-site, and changes to off-site behaviour. The relationship between teaching and learning has been identified as pivotal to understanding the teacher-student relationship. Teachers in secondary schools find it difficult to discern direct links between their practice of teaching and the learning outcomes achieved by their students. Research that can aid in understanding the relationship between classroom practice and learning outcomes is valued by teachers (Kennedy, 1999; Nuthall, 2004). As facilitators of

learning interpreters seek research that connects empirical studies to actual practice (Glenn, 2004; Knapp, 2007; Weiler & Black, 2015).

As formal assessment was not a constituent in the guide-visitor relationship of tours observed and GVI was based on each guide and visitor of the case studies participating in the one tour understanding the role of guides in research participants' learning was problematic. Therefore, a deeper understanding of what occurred in the tours observed was pivotal to informing this research on the impact of GVI. Nuthall and Alton-Lee (1993) cite the importance of factoring in the site such as classrooms when conducting research on learning as "it is a mistake to think that, within a natural environment, behaviour can be validly described, counted, or explained independently" (p.800).

The visitor management objectives of guided tours in protected areas about protecting resources are normally effectively managed in-so-far that if guided tours were negatively influencing on-site behaviour then it would be possible, over time, to gather the necessary evidence. The evidence for learning outside of on-site behavioural compliance is difficult to collect. In both cases, only research involving observation of guided tours can show the influence of guides as teachers in relation to on-site and off-site visitor behaviour. A hermeneutic constructionism approach recognises that there can be multiple perspectives about the phenomena studied. This recognition of difference allows for the use of a dialectical process within the methodology where different perspectives can be voiced, compared and amalgamated or contested to create a richer understanding of participants' experience. Each participant interviewed appeared to have a prior understanding of the concepts of learning, curiosity and emotional states. Those understandings of these concepts may have incorporated prejudgements about the nature of the learning that occurred for them on the tour observed.

3.4.2 Case study as a method of inquiry for guide-visitor interaction

The use of case studies provides a concrete and meaningful context to explore phenomena such as human interaction in relation to specific behaviours (Cresswell, 2013; Plester, 2007; Yin, 2003). Cresswell (2013) uses the term 'concrete entity' as a starting point to describe the nature of a case study that can range from a "concrete entity, such as an individual, a small group, an organization, or a partnership. At a less concrete level, it may be a community, a relationship, a decision process, or a specific project" (p. 98). GVI was the unit of analysis pertinent to the research questions and

makes each guided wildlife tour observed a potential case study for this thesis. One dimension of GVI that I was focused on was where the participants appeared to view each other in roles that replicated a notion of a student-teacher relationship and where conditions favourable to visible learning occurred. The guide and the visitor of a specific tour may have interacted in the same or a different social setting before or after the guided tour observed. However, such GVI lies outside of the case study. The rationale for observing wildlife tours was that the tour indicated to both guide and visitor that there was a focal subject for GVI, direct encounters with wildlife. In this study a guided wildlife interpretive experience referred to an activity where there was interface between a guide, the visitor and targeted phenomena such as Humpback whales or birds.

Each tour observed had the potential to be a distinct case study if it involved observable interaction between one guide and one visitor who, with others, participated as a group for the duration of the trip. While the guide was pre-selected prior to the observation it was only by the end of the tour that the specific visitor to be included in a case study was identified. From a range of potential case studies the actual case studies selected for the findings chapter was based on three criteria. Firstly, that for each case study there was a complete set of field-notes, in situ interviews and reflective interviews (one of each for each guide and visitor). Within these sets there was sufficient material to explore specific instances of GVI. Secondly, that there were instances of GVI that were meaningfully discussed by each participant of the case study. Thirdly, that each case study selected contributed elements of uniqueness to the findings.

An important component in designing case study research is for the researcher to think about the implications of the number of case studies to use for issues connected to the nature of differentiation and replication in each case study (Cresswell, 2013; Riessmann, 2008; Yin, 2003).

3.4.3 Justification of the case studies chosen to research guide-visitor interaction

A critical area in the collecting and analysing of the research data was the lack of an empirically based precedent to determine the number of observations and interviews needed to answer the research questions. Sample sizes for qualitative research should generally focus on a few sites or individuals but gather as much detail in order that the particulars of each can be fleshed out. Narrative studies often are based on one or two individuals (Cresswell, 2013). Neither Czarniawska (2004) nor Riessmann (2008)

address the issue of sampling size in relation to narrative methods, and the examples they refer to mostly consist of a study of one individual. Cresswell (2013) argues that case study based research should focus on between four to five cases due to the need to gather extensive detail for individual cases in qualitative research. At a temporal level, most research participants involved in this thesis proportionately spent as much time reflecting on the tour in the in situ and reflective interviews as they did experiencing their tours. Compared to phenomena that are generally the focus of qualitative research that use techniques such as participant observation and case study the ephemeral nature of guided tours was a quality that required careful attention in the sampling strategy formulated for this thesis.

In empirical research a tension exists between generalisation and elucidation of the particular (Cresswell, 2013). The strengths of case-oriented research are that it provides opportunity for the research to address questions about participants' motives and infer relationships between examined phenomena but "it is difficult to gain confidence that inferences are well-grounded or that findings are general in any way" (Ragin, 2006, p. 166). Steinmetz (2006) argued that it is possible to compare events connected to social practice involving observable dimensions. Such events allow for the signification of meaning by both actors and observers. As social phenomena are different to physical objects, "recognition of the ontological peculiarities of the social helps to clarify the invaluable role of case studies and historical narratives" (Steinmetz, 2006, p. 188).

The decision to notify visitors of my presence for each observed tour raised the possibility that I may have impacted on their GVI (Spring, 2015). Prior to the fieldwork, I did not know how many observations and interviews should be omitted due to the possibility that I may exert an inappropriate influence on visitors' experience. According to Suri (2011) "data saturation may be associated with the stage when further collection of evidence provides little in terms of further themes, insights, perspectives or information" (p. 72). As this was an exploratory study there was no way to pre-determine how many tours and interviews would need to take place in order to reach data saturation.

Selection of research sites and the number of case studies chosen were decisions made through use of a convenience sampling strategy. Convenience sampling has advantages in that it enables the researcher to negotiate time and financial constraints (Marshall, 1996). Therefore, its use can aid in facilitating research in overseas locations. Some

researchers caution against the use of convenient sampling as it may impact on the quality of the data collected (Marshall, 1996; Patton, 2002).

For an exploratory study on ephemeral phenomena, guided tours, convenient sampling was an appropriate strategy as it provided the flexibility required to integrate research techniques such as participant observation, case study and narrative methods that have typically been used for understanding social institutions and events of a longer duration. Selection of, and the decision on the number of participants was also informed by emergent sampling that took advantage of whatever occurred on the tours as it occurred (Patton, 2002). However, decisions on the type of tours used as case studies and increasing the number of observations and interviews in this thesis also stemmed from responding to issues to do with the ethical framework. Suri (2011) suggests that it is important to ensure that a sampling strategy addresses the ethical dimension of the research. The decision to use full disclosure with participant observation resulted in the gathering of more data than when using non-disclosure due to my personal assessment during each tour of the extent the data collected was informed by my visibility as a researcher (Spring, 2015). In the summary of the fieldwork I will discuss the sampling strategy as well as changes made at the relevant phase of the fieldwork (Section 3.9). Convenience sampling in the context of this research was a complex negotiation between this thesis' research questions, its ethics framework, geographical constraints, temporal issues, and emerging issues during the fieldwork.

In this thesis, a case study represented recorded GVI of a specific guided tour at two research sites. The two NGOs whose tours formed the basis of the research were chosen for their qualities in respect to wildlife tourism, conservation and face-to-face interpretation facilitated by guides. In addition, my own familiarity with both organisations gave me an important background understanding of the nature of the wildlife tour experience. The case studies chosen were individual guided tours of PWF in Maui, Hawaii, and SoTM tours on Tiri, an island in the Hauraki Gulf, New Zealand. A key component in choosing the tours of these two organisations was that it is possible to observe guide-visitor interaction while watching wildlife. However, each setting contrasted with the other in that PWF conducted boat-based guided tour focusing on a specific species (Humpback whales) while the SoTM tours were facilitated by volunteer guides providing general interpretation as part of a nature-based walk through re-generating native forest where a range of plant, bird, reptile and insect species may be encountered.

3.4.4 Pacific Whale Foundation

Pacific Whale Foundation is a not-for-profit organisation that conducts seasonal whale watch tours in the Hawaiian Islands Humpback Whale National Marine Sanctuary (HIHWNMS) and year-round vessel-based wildlife and snorkelling tours to achieve and support their conservation, education and research goals (Pacific Whale Foundation, 2015; Shapiro, 2006) (Figure 3.1). PWF was selected because Forestell and Kaufman's (1990) discussion on the potential for using guided tours as a vehicle for learning experiences was connected to their professional experience working on, and observing, PWF tours. PWF have developed a comprehensive education programme that seeks to maximise the learning opportunities that can occur on their tours. Research has been done on PWF visitors' preferences for tour attributes and marine management (Shapiro, 2006). Guides are paid and are required to have relevant qualifications such as university biological sciences degrees. PWF provide opportunities to model desirable behaviour to the visitors on the tour, for example in respect to recycling, and signing petitions (Forestell & Kaufman, 2007). Visitor management based on sustainable tourism practice infers that a wildlife tourist operator not only adheres to those regulatory practices but also evaluates what else they can do at a voluntary level to ensure the long-term viability of their venture and the sites they operate in. PWF demonstrate how vessel-based marine wildlife tour operators are able to do more than comply with existing emissions regulations from a boat by utilising fuel alternatives and the land-based removal of sewage (Forestell & Kaufman, 2007).

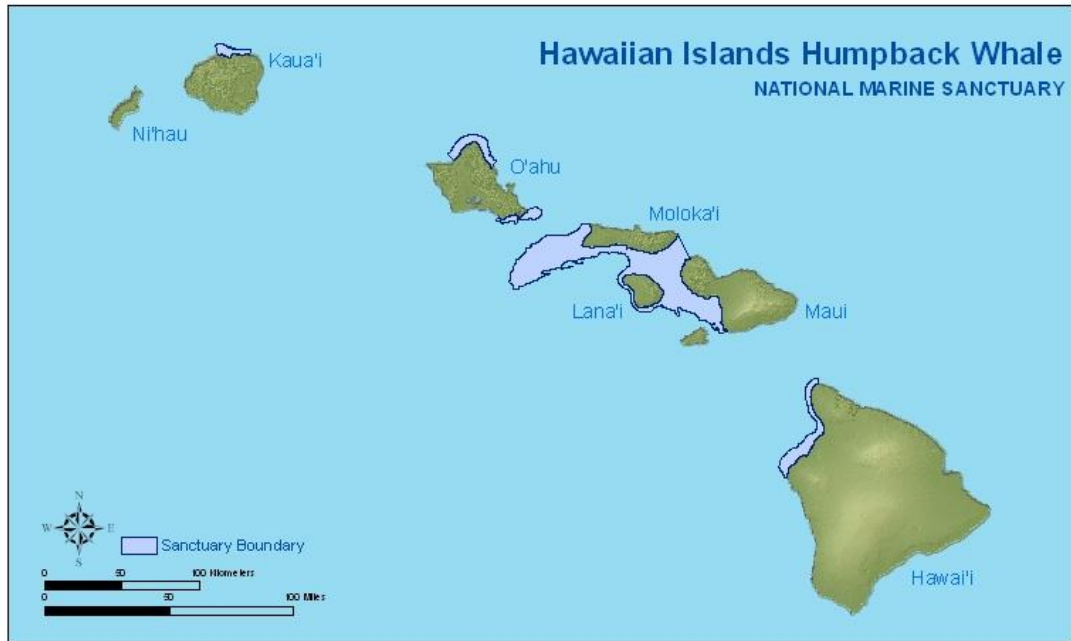


Figure 3.1: Hawaiian Islands Humpback Whale National Marine Sanctuary (HIHWNMS)

Source: National Oceanic and Atmospheric Administration.

PWF whale-watching tours are vessel-based and are approximately two hours in duration. The crew typically consists of a lead guide who provides most of the interpretive commentary through a public address system (PA), and a roving guide who makes themselves available to visitors' queries and can provide on the spot interpretive commentary. There is also a captain who pilots the vessel, and a purser responsible for the food and beverage needs of the visitors.

3.4.5 Supporters of Tiritiri Matangi

Tiritiri Matangi Open Scientific Reserve, a 220 hectare-sized island, is an example of a type of tourism that is in close proximity to urban area and its associated infrastructure and amenities (Higham & Lück, 2002) (Figure 3.2). Tiri has provided the opportunity for community groups to be involved in the management of the site and make substantive contributions to the restoration of the site at an individual and community level. Volunteers planted over 280, 000 trees between 1984 to 1994 (Rimmer, 2008). It has been a research site for research articles, doctoral and master's theses ranging on subjects ranging from the impact of fragmented habitats on avian behaviour, management of rare species and impacts of human visitation on breeding and nesting behaviour of birds (Armstrong, Richard, Ewen, & Dimond, 2008; Ewen, Thorogood, Nicol, Armstrong, & Alley, 2007; Lindsay et al., 2008; Robinson et al., 2013; Wittern & Berggren, 2007). Tiri's 'open' status means that prescribed types of recreational

behaviour are permissible on Tiri such as visitation by private vessels. For ‘closed’ scientific reserves, such as Little Barrier Island (*Hauturu*), access is determined on a case-by-case basis by official application (Butler et al., 2014; Galbraith, 2013; Rimmer, 2008; Robinson et al., 2013).

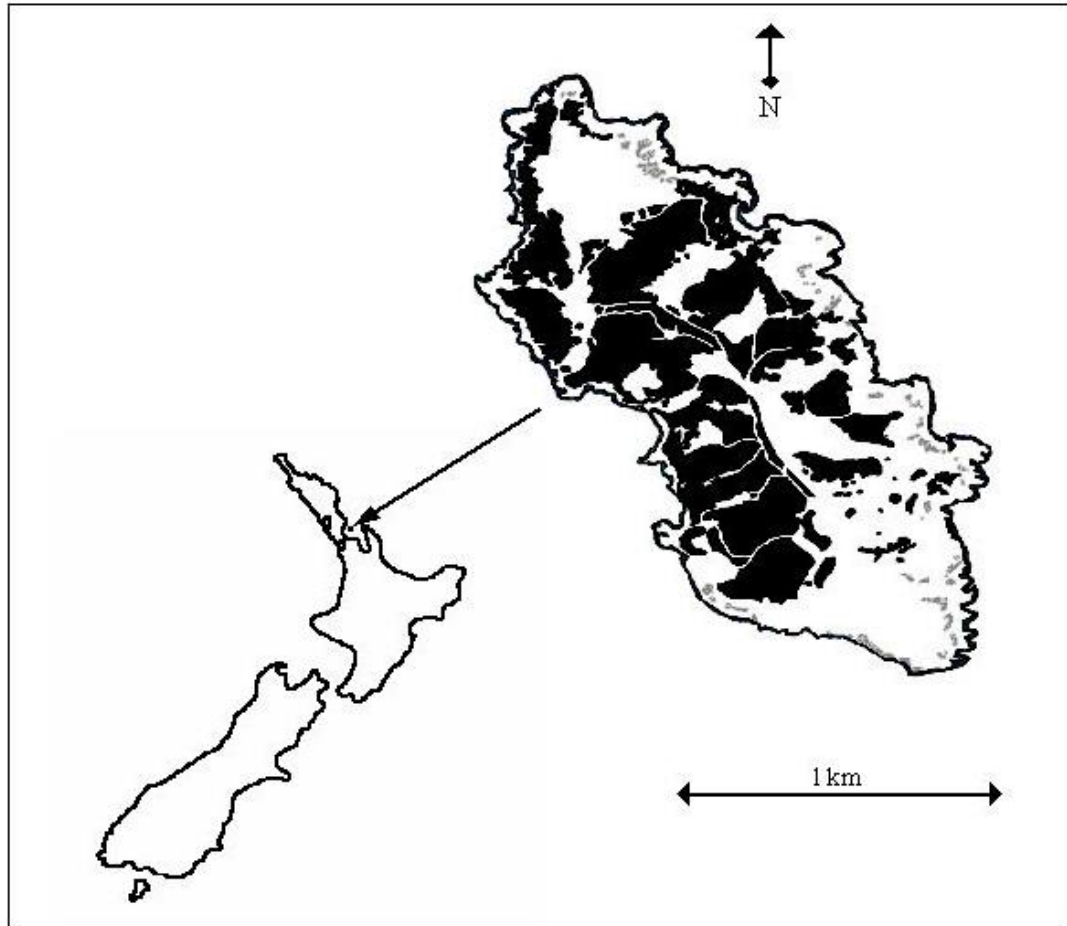


Figure 3.2: Map of Tiritiri Matangi, Hauraki Gulf in relation to New Zealand

Source: Wittern and Berggren (2007).

The Supporters of Tiritiri Matangi (SoTM) is a volunteer community-based organisation that, through a memorandum of understanding, jointly manages Tiri with the Department of Conservation (DoC). SoTM has plays a pivotal role in the ecological restoration of the island through re-planting, the translocation of endemic species of flora and fauna, and through the management of weeds and pests (Rimmer, 2008). Tiri has been cited as a sustainable model of ecotourism that creates positive outcomes for indigenous biota and the local community (Orams, 2001).

SoTM holds the exclusive rights to conduct guiding activities on the island. Guides are members of SoTM who guide on a voluntary basis. The SoTM guiding programme provides a template for other community-based organisations throughout New Zealand

who are involved in locally-based ecological restoration programmes (Butler et al., 2014; Robinson et al., 2013). Tourism activity generated by the combined efforts of SoTM, DoC and Fullers (the commercial operator that runs the 360 Discovery ferry service to the island) not only results in the active management of those tourists arriving on commercial vessels but also monitoring the recreationists who arrive by private boats. The visitor management techniques used to protect the island range from overt methods such as restricting the number of visitors on commercial vessels to a maximum of 175 per day and the development of a track system to more subtle techniques such as providing information and education about the sanctuary (Robinson et al., 2013) (Figure 3.3). Research has established that visitation to the island and the creation of tracks does not negatively impact the trans-located fauna (Lindsay, Craig, & Low, 2008).

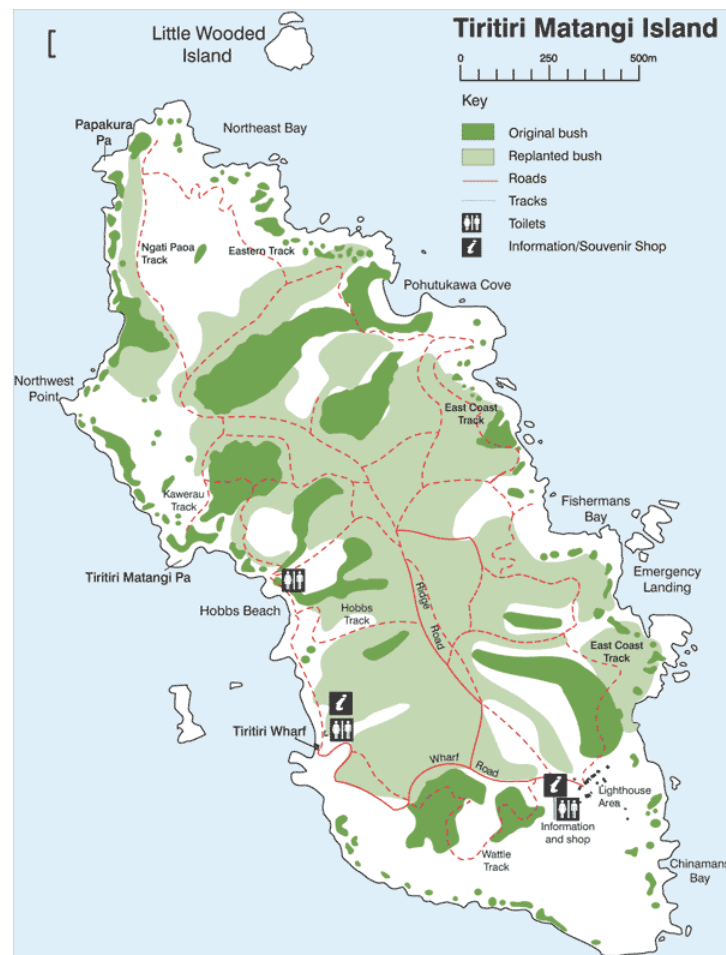


Figure 3.3: Map of Tiritiri Matangi Open Scientific Reserve showing tracks and amenities
Source: Department of Conservation

SoTM's guided tours occur on two walking tracks on the island that go through remnants of the original native forest and regenerating bush. The guided tours are typically two to three and a half hours in duration. While distance of the tracks affects the duration of SoTM tours, encounters with wildlife, and the propensity of participants

to ask questions, share their knowledge and engage in conversations (with both the guide and with each other) have more impact on the length of a tour than during a PWF tour (Pers. obs., 2009-2012).

3.4.6 Summary of research sites

The differences between PWF and SoTM tours include the use of professional guides versus volunteer guides, the nature of the physical environment and species of animals. However, both operate in protected areas and this limits permitted human interactions with animals during guided tours. Both NGOs also adhere to sustainable development practices. One of the criticisms about tourism in relation to wildlife and nature-based sites is that it privileges those who have easier access to disposable or borrowable income (Weaver & Lawton, 2014). SoTM and PWF have both developed strategies to subsidise educational trips that make use of their resources (B.A. Porter, pers. comm., January 8, 2010; M. Rowland, pers. comm., September 6, 2014). These factors and the opportunities both types of tours provide to observe GVI are the key factors for their selection as research sites (Figure 3.4).

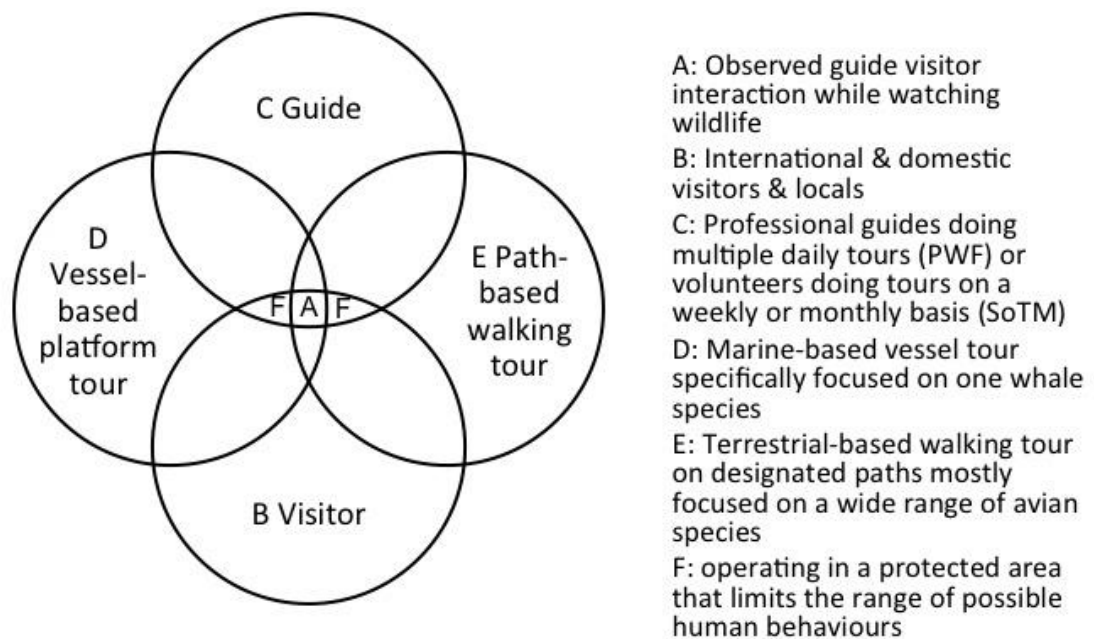


Figure 3.4: Factors influencing selection of settings for case studies

Discussion of how operational issues of the PWF and SoTM tours affected the disclosure, observation and interview procedures of the field research will be discussed in the access, reconnaissance and data collection sections below.

3.5 The researcher and the researched: Partnership, participation and protection

To gain approval for research from Auckland University of Technology (AUT) a researcher needs to incorporate the Treaty of Waitangi's (Treaty) principles of partnership, participation and protection to its ethical practice. While this research is not ethnically focused or specifically engaged with Māori or Moriori, New Zealand's indigenous peoples, specific Māori hapū have 'mana whenua' status at the thesis' research locations in New Zealand. Mana whenua refers to customary jurisdiction over an area (Orange, 2004). Certain Indigenous Hawaiian communities exercise the same jurisdiction over the research locations of the PhD in Maui (M. Kaufman, pers. comm., December 2, 2009).

The Treaty is the founding document of the modern nation of New Zealand. In the Treaty, partnership refers to the establishment of a relationship between specific Māori tribal communities and the 'Crown', the collective term for the institutions of government (Orange, 2004). In the case of New Zealand, from a research point, partnership requires the researcher to work together with Māori communities to ensure that their individual and collective rights are considered and protected. In the context of this research, the concept of partnership requires the researcher to ensure that the rights of all individuals, communities and organisations involved in this research are considered and protected.

The research project represents a partnership between the researcher, as a representative of AUT, and the research participants as stakeholders of the sites where the research took place. In order to gain access to Tiri, contact was made with SoTM (who hold the guiding licence), the Department of Conservation (DoC) and Fullers. The researcher discussed the proposed research to a meeting of guides on 6th July 2009 and members of the group were invited to the presentation of the research proposal on 31st July 2009.

The appropriate channels were used to achieve the goals of partnership with the individuals and organisations directly involved in the research and the wider community. For the New Zealand sites, the research involved areas where there are endangered wildlife whose welfare are under the protection of the Department of Conservation which has clearly defined Treaty of Waitangi responsibilities in its general policy.

An e-mail was sent to PWF explaining how New Zealand originated research needs to consider how the study may affect indigenous people. PWF personnel informed me that PWF had a network of contacts with indigenous people and their communities. A PWF representative acted as the intermediary with the relevant communities in Maui.

The concept of participation requires that Māori are extensively involved in the overall research process involving Māori. Māori were not specifically targeted in this research. Māori and indigenous Hawaiian communities were offered involvement wherever possible in this research. This research sought to be inclusive to all wishing to participate in planning, carrying out fieldwork and disseminating results. Part of the requirement for DoC to accept the proposal was to gain permission from entities representing Māori tribal communities who have a special relationship with Tiri. DoC provided the researcher with contacts for the Māori tribal communities with links to Tiri (Ngāti Wai, Ngāti Manuhiri, Ngāi Rehu, Ngāti Paoa, and Te Kawerau a Maki) to inform them of the research. Contact was made with the relevant entities and I invited them to comment on the research itself (Appendix 2). By November 2009 their approval was given but there were no specific issues raised about the research itself. During my time on Maui and afterwards no issues connected to Hawaiian indigenous communities and this research were communicated to me.

Participation in this research project was voluntary and all of the participants' opinions and ideas remain anonymous and confidential. The observations and interviews of this study were designed and implemented to ensure that participants were comfortable, did not feel threatened and had the option to withdraw from the research at any time.

A central principle in the Treaty of Waitangi is the duty of active protection of Māori on the part of the Crown. This principle requires the researcher to actively protect all aspects of Māori individual and collective rights and culture (which includes but is not limited to values, practices, norms, beliefs and language) in the research process. The researcher strove to ensure that the welfare, privacy, security and rights of research participants were maintained at all times. All data were kept confidential and anonymous and no participant should be able to be identified in reports or publications emerging from this study (Appendix 3. Also, Appendix 4 for further discussion on the relationship between academic research and the Treaty of Waitangi in New Zealand).

3.5.1 Gaining access

In order to conduct this research, I needed access to spaces where people were engaged in legally sanctioned activities restricted to some or all of the public due to the private-public interface of property rights, occupational safety and health issues of employees, and welfare of individual members or stakeholder communities. I gained permission to conduct research involving PWF and SoTM personnel and the visitors on their tours firstly at an organisational level, secondly, with the guides, at a peer level, and thirdly with visitors on the day of their research (Appendices 2, 5 & 6). Permission was sought and granted with other relevant organisations such as DoC, the government department responsible for Tiri, and Fullers, the company on whose vessel in situ interviews were conducted with SoTM visitors.

3.5.2 Induction and disclosure

Full disclosure by explicitly stating the aims of the research to participants may introduce a potential bias that may shape results (Herrera, 1999; Seaton, 2002). That is, research subjects who understand they are being researched may shape their behaviour to what they perceive as desirable for the research. A researcher should determine the impact disclosure could have on participants and the influence it may have on the validity of the research findings (Plester, 2007). The researcher as an ‘outsider’ may create a bias in the research where participants stop acting naturally. A participant might alter their behaviour to conform to their perception of desirable behaviour in the context of being researched (Herrera, 1999; Spring, 2015).

Seaton (2002) uses the term ‘induction’ to describe the process where the researcher gains access to the natural behaviour of the participants. For induction to occur the visibility of the researcher is either diminished over time or from the start perceived by the participants as being no different to other people they encounter. Participant observation strategies of research on guided tours have employed methods ranging from non-disclosure (Hartmann, 1988; Miller, Hudson, & Turner, 2005; Seaton, 2002) to situations where the participant may know that they are the subjects of the research but not know what specific part of their experience is the focus of the research (Holloway, 1981; Ryan & Martin, 2001) as well as full disclosure (Benton, 2009; Maat, 2009). The nature of how the researcher records their observations also plays a role in the decision about disclosure. The incorporation of consensual observation of the interaction can elicit detailed responses from the participants just as covert observation. Note taking within sight of the participants may create questions in the mind of visitors about their

purpose. To avoid this researchers have gone to secluded spaces such as a toilet to surreptitiously write notes (Ryan & Martin, 2001). While a researcher can pretend that their field notes written in the presence of the research participants are, for example, travel diary entries it involves a level of intentional deceit that may be objectionable to the participants if they became aware of the research (Spring, 2015).

Non-disclosure differs from the original ethnographic context of participant observation in that the participant no longer makes a tacit decision to accept the presence of the researcher (Teshome-Bahiru & Negashe-Wossene, 2007). For a researcher using non-disclosure an issue to consider is role maintenance; ensuring that participants accept a plausible reason for the researcher's presence. The researcher may have to create the perception that they are primarily involved in the guided tour as a tourist (Ross, 1998). A potential problem with role maintenance is that "the researcher becomes so much of an insider that the researcher starts affecting the research situation under study as an active participant" (Seaton, 2002, p. 312).

For a researcher using a level of disclosure the knowledge that the research relates to the participants' behaviour on the guided tour potentially creates a scenario where the researcher is perceived to exist outside of the social group of the guided tour. This is not an unusual situation in guided tours as the guides themselves are to a certain extent differentiated from the other tour participants. Within anthropology a tactic to counter the possible bias of the research participant's awareness of the researcher is to have the researcher stay in the 'field' and to participate in everyday life as much as possible to reduce the researcher's visibility (Atkinson & Hammersley, 1994). The transient nature of observations in some research contexts such as guided tours make it difficult for research instruments such as participant observation to involve both full disclosure and full consent from all involved (Lugosi, 2006). From an ethical viewpoint, the lack of disclosure and or full consent when using participant observation are deviations that need to be negotiated and fully justified between the researcher, and the ethics body of the research institute (Fitzgerald, 2005; Hudson & Russell, 2009; Tolich, 2002). Ethical issues include the potential harm to the participants as well as the researcher and how to avoid or minimise the potential for risk (Spring, 2015).

The use of non-disclosure in the participant observation section of this research could have caused problems for this study because the interviewing of participants after the guided tour means the participant becomes aware of the ulterior motive of the

researcher in accompanying the tour they were on. This could cause offence to the participant and can lead to a process where the decision not to inform the participants from the outset may, in itself, create a bias in the findings. Visitors may be less forthcoming in the sharing of their experiences. In the next section I will discuss how full disclosure was used in the research.

3.5.3 Informed consent and anonymity

An important consideration in designing research is determining the timing of, and the extent to which people consent to be research participants. The relationship between the researcher and research participants is having a major bearing on what academic institutions view as appropriate areas of research and informed consent is a fundamental principle of ethical research (Haggerty, 2004; Hedgecoe, 2008). Aside from the researcher and their supervisors' discussion about the ethical implications of the research, institutional review boards and ethics committees have the potential to impose provisions and limits on the use of research instruments (Lugosi, 2006).

In gaining the consent of the guides and visitors to participate in observing the guided tour, I explicitly stated the purpose of the observation process in the participant information sheets provided as seeking "a better understanding of learning during a guided tour. I am interested in evidence of people becoming curious while on the trip. I want to explore the cause for that curiosity and how that curiosity is managed during the trip" (Appendix 4). However, during an actual tour, I kept interaction with guides and visitors to a bare minimum; giving minimal responses to any inquiries made by guides or visitors. I also attempted to avoid initiating any dialogue. During the field research at PWF, upon the announcement of my presence some visitors sought to engage with me, sometimes to seek clarification on the nature of the study. Others engaged in small talk. At SoTM, when the guiding coordinator introduced me she decided to mention that I was also a volunteer guide but made it clear that the reason I was participating in this particular tour was participating as a researcher.

The authentic representation of data while maintaining anonymity is a challenge for qualitative data where quotes from peoples' interviews are used. There is always a possibility that the person recognises themselves and also that people from their inner social circle may recognise the participant's 'voice' through the unintentional use of a 'phrase' that can be deemed a signature of the participant (Cresswell, 2013; Cresswell &

Plano-Clark, 2011). This emphasises the importance to avoid having too much demographic information connected to participants of the research.

3.5.4 Reconnaissance

I experimented with observing tours and interviewing participants at Whale and Dolphin Safari in Auckland, New Zealand, and with PWF in Maui. I chose Whale and Dolphin Safari for three main reasons. Firstly, their proximity to AUT University meant that I could conduct the pilot study. Secondly, Higham and Lück (2002) characterised it as a type of ecotourism operation that shared traits with PWF and SoTM in terms of philosophy and practices. Thirdly, they gave me permission and a space on-board their vessel to conduct in situ interviews with visitors. This enabled me to test both my participant observation and in situ interview instruments.

Initially the in situ interview was designed to last no longer than 20 minutes, followed up by a reflective interview at the convenience of the participant. This was due to practical issues to do with the site and ethical issues to do with not intruding excessively on visitors' leisure time. It was planned then to ask visitors if they would consent in participating in a longer interview about the interview to follow up on matters already discussed at a later date that met the needs of visitors and myself.

As PWF provided trips ranging from two to seven hours, the initial focus was on trips where the interview could occur on the boat trip, and the trips of longer duration were snorkelling trips. During the field observation and interviews of snorkelling tours with guides, concerns were raised about the potential implications of the research for the naturalists involved. I made a decision to adhere to an ethical stance that the research would not allow for the potential of harm arising for any participant. In consultation with my PhD supervisory team a decision was made to shift the focus on PWF whale watches and hold the interviews on shore when the vessel returned.

3.6 Data collection methods: The critical incident technique framework

The selection of the methods was based on the research questions, the actual research situation and an assessment of what methods most effectively provided the study with the relevant data (Maxwell, 2005). The essential task of the research process was to translate the lived experience of the visitors and guides into ideas that convey the meaning that the participants sought to express about their individual experiences.

Critical Incident Technique (CIT) was developed by Flanagan (1954) in relation to improving job training. CIT is defined as:

A set of procedures for collecting direct observations of human behaviour in such a way to facilitate their potential usefulness in solving practical problems and developing broad psychological principles. The critical incident technique outlines procedures for collecting observed incidents having special significance and meeting systematically defined criteria. (p. 327)

The value in CIT is that it involves the recounting of actual events by the actual participants who say how it 'was' rather than how it should be (Bradbury-Jones & Tranter, 2008). CIT was used within the research presented in this thesis for data collection, analysis and interpretation. The definition of a critical incident provided by Flanagan (1954, p. 338) states "that an incident is critical if it makes a 'significant' contribution, either positively or negatively, to the general aim of the activity. The definition of 'significant' will depend on the nature of the activity". A critical incident exists in a particular context, has an impact on the research participant and may reveal patterns of well-defined stages within the event (Webster & Mertova, 2007).

As a method of inquiry, CIT sits in the post-positivistic tradition of uncovering reality. Rather than using an adapted form of CIT, the qualitative researcher needs to read Flanagan's original work and judge its merits for the research problem to ascertain whether or not existing qualitative traditions of inquiry are more relevant to answering the research problem (Byrne, 2001).

The methods for data collection were CIT, participant observation and interviews. They were selected to help create a rich picture of a complex phenomenon involving people, fauna, modes of transportation, terrestrial and marine settings, and weather. As this was an exploratory study and sought to include the voice of both the visitor and the guide, the researcher decided upon CIT due to its focus on observation as the method to collect data, and its adaptability to meet the specific needs of the research. CIT acted as a framework that combined the data collection in a coherent manner from the devising of the research instruments through to the preparation of the transcripts of the interviews, the field notes and the research journal for the later stages of analysis. Interpretation models (Forestell, 1992; 1993; Forestell & Kaufman, 1990; Orams, 1995; 1997, Figure

2.6 and Table 2.5) were used in conjunction with Flanagan's CIT and a range of analytical tools (Burke, 1945; Czarniawska, 2004; De Santis & Ugarriza, 2000, Table 3.4 and Figure 3.8). These models and tools allowed me firstly, to specify the nature of the studied incidents arising from the guided tours and secondly, thematically analyse them (Figure 3.5).

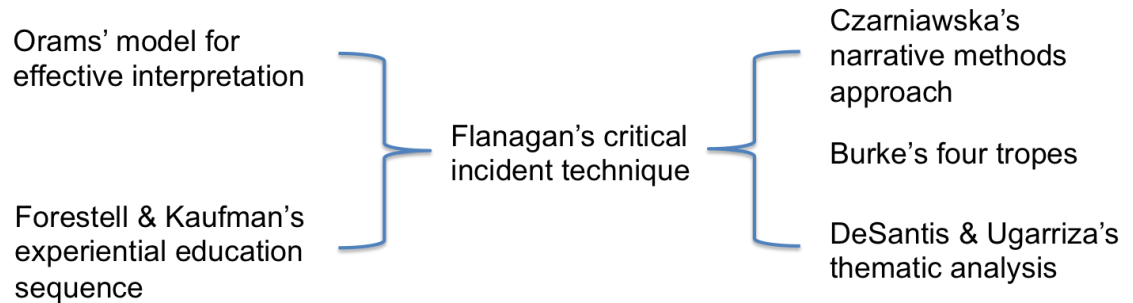


Figure 3.5: Key theories and models that inform data collection method and instruments

In laying out the framework of the research procedure to communicate to the reader a thorough description of each step of the data collection and analysis process, CIT research must include:

1. General aims of the study.
2. Plans and specifications for the collection of incidents.
3. Data collection.
4. Data analysis.
5. Interpretation of the data and dissemination of the findings (Flanagan, 1954; Plester, 2003).

The research questions for this study have been outlined earlier in this thesis (Section 3.2). In order to work towards achieving this aim using CIT it is important to establish the unit of analysis. That is; the provision of defined parameters of a phenomenon that allows the researcher to establish its similarity with other phenomena in terms of those parameters (Voss, Tsikriktsis, & Frohlich, 2002). The unit of analysis was GVI. Such GVI involved observable behaviour in terms of sense data or the perceptions of a person in relation to their inner life. A further issue to consider in using CIT is the lack of consistency in its use by researchers (Bradbury-Jones & Tranter, 2008; Butterfield, Borgen, Amundson, & Maglio, 2005). An example of this is the failure by researchers to explicitly define what a critical incident is in relation to the research (Bradbury-Jones & Tranter, 2008; Gremler, 2004). Researchers have been at pains to emphasise the complexity that arises in how people recollect their experiences and using CIT

technique. They note that participants often referred to a series of incidents rather than one specific incident. Consequently much of their relevant data often came from discussion around connected incidents that people were involved in rather than a clearly defined incident (Norman, Redfern, Tomalin, & Oliver, 1992; Schluter, Seaton, & Chaboyer, 2008).

An important concern about the use of CIT is that a focus on a specific incident can marginalise important behaviours that contributed to the desired outcomes being studied. This can arise from participants misinterpreting what is meant by 'incident'. The use of the word incident itself in interviews has made participants focus on unusual aspects. For an incident to be critical there must at least be the incident itself and a phase of reflection, and researchers noted that in their studies there were often many separate phases of behaviour and reflection that made an incident or event critical (Czarniawska, 2004; Webster & Mertova, 2007). The reflection process of the person recounting her or his own experience is what makes an incident 'critical' (Angelides, 2001). The challenges this creates for the research is that participants have found it difficult to recall events; much of interviews are spent thinking about events to discuss rather than reflecting on their meaning (Schluter et al., 2008).

3.6.1 Applying the Critical Incident Technique to this study

In the context of this thesis an incident was defined as an exchange of information between the guide and the visitor during the guided tour. Such incidents were predominantly connected to encounters with wildlife (pre-contact, contact or post-contact). An incident was deemed as critical if it influenced what the visitor recalled during a later interview. Some interviews included more than one person. One person, considered the key informant, was designated as "Visitor". The other people in the interview were identified according to their relationship to the key informant (e.g., Visitor Six was accompanied by Partner Six (wife) and Aunt Six). Only accompanying individuals who contributed to the interview were identified (e.g., in the case of Visitor Six, Aunt Six's husband was present, but did not participate, and therefore was not identified).

Observations were recorded through the use of a logbook, and voice memos through the use of an audio-recording device. Data were gathered in a transparent manner with both guides and visitors having been informed that upon request they could look at or listen

to whatever had been recorded. Data included discussion with guides and visitors to identify what elements of the tour influenced the learning that occurred.

The terms incident and events were interchangeably used to describe the phases of observable behaviour where visitors appear to make sense of information and phenomena experienced during the case study tour. In the observation of guided tours, the researcher was interested in recording scenarios of guide-visitor interaction such as asking a question or sharing and observation. The field notes of such scenarios were explored in the interviews with relevant visitors and guides to understand how guide behaviour may have contributed to the actions and events that the visitors reflected on in their interviews.

3.6.2 Field research procedures at PWF and SoTM

The specific nature of each of the research sites meant that the procedures for disclosing the research to the participants, and the order of interviewing the visitors and guides were different at each site. The PWF vessel-based tours were typically two hours in duration and made up the total interpretive and wildlife experience of the visitor for the whale watching tour. Consequently, disclosure of the research was incorporated into the introductory speech of the captain to the visitors who also made the visitors aware of a copy of the participant information sheet (Appendix 5) that was located at the vessel's bar. After the lead guide announced the end of the tour, I approached the relevant visitors and requested if they would participate in an interview that would take place in the port where the vessel was based, and I also gave them a copy of the participant information sheet and consent sheet (Appendix 6). If the visitor accepted the invitation to participate in the interview, then the interview took place immediately after the tour. These would occur in venues ranging from PWF education rooms, cafés, parks and libraries. As the PWF guide would typically have to work up to three trips a day their interview occurred after their shift.

The SoTM path-based guided tours commenced between 10.30-10.45am next to the boat pier after introductory speeches from the DoC Ranger and the guiding coordinator. After the majority of the visitors left on tours or independent trips, the guiding coordinator introduced me to the group of the guide who was involved in the observation and summarised the purpose of the research. I then moved away from the group who decided if they were comfortable with my presence on the tour. After the tour, I then approached the relevant visitor and asked if they would participate in an

interview and also gave them a copy of the participant information and consent sheets. A decision to avoid intruding on the leisure experience of the SoTM visitors while on the island was a major factor in deciding to interview the guides first and the visitors second. If the visitor accepted the invitation to participate in the interview, then the interview took place on the vessel that left the island at approximately 3.30pm to return to Gulf Harbour and Auckland. I then interviewed the guide after confirming the visitor's interview and prior to boarding the vessel for the return trip.

To obtain a richer picture of the social and temporal nature of guided tours and their associated outcomes, a long-term research approach was used that linked observation of phases of social interaction with individual interviews with guides and visitors immediately after the tour and then at least 10 months after the tour. This captured different perspectives of the information exchange that occurred during the guided tour and explored temporal influences through a longitudinal design. It focused on what people said on a tour and what responses it generated in the recollection of participants in the immediate, short and long term. Each of the sets of interviews that included written field-notes and in situ and reflective interviews with both visitors and guides were labelled proto-case studies. From these the final 10 case studies used in the findings were selected (Appendix 7).

3.6.3 Participant observation as a method of inquiry for guide-visitor interaction

Participant observation is a research technique that can provide rich data for understanding tourism phenomena (Cole, 2005; KwaZulu-Natal Tourism, 2008) and has been used in researching guided tours (Benton, 2009; Holloway, 1981; Howard, Thwaites, & Smith, 2001; Lugosi & Bray, 2008; Seaton, 2002). Participant observation is a field research method derived from the ethnographic tradition (Atkinson & Hammersley, 1994). It is a technique that seeks to make sense of phenomena associated with the social and cultural practices of a society or community. The researcher records observations made while participating in the social group being studied (Plester, 2007). The extent of the participation can vary from actually participating in the specific activity being observed or acting as an onlooker or audience (Atkinson & Hammersley, 1994; Czarniawska, 2004). There are attempts to differentiate what can be considered participant observation in relation to other modes of observation used in field research (Seaton, 2002; Stewart, Hayward, Devlin, & Kirby, 1998).

Participant observation originated from a tradition of researching stable populations within their own defined geographical location that they inhabit. Tourists are a transient community in that the amount of time they inhabit the space where they are researched is of a short duration (Salazar, 2008). With guided tours the spaces that the tour takes place in may be areas where even the guides visit temporarily. Seaton (2002) has created an ethnographic approach to a study of coach-based guided tours to explore the benefits of participant observation in studying organised tourism activity such as transport specific tours and package tours of a long duration. Seaton (2002) is unsure of the usefulness of participant observation in studying short term tours in respect to the issue of coverage; arising from a concern that the researcher would not have time to observe all the participants on the tour. Observation by the researcher can also aid in ensuring that participants' recollections of their experiences relates to incidents connected to the research questions (Plester, 2003).

Atkinson and Hammersley (1994) see participant observation as not just a method but as a process that underpins all social research because "we cannot study the social world without being part of it. From this point of view, participant observation is not a particular research technique but a mode-of-being-in-the-world characteristic" (p. 249). In this context participant observation connects to Van Manen's (2014) notion of close observation involving "an attitude of assuming a relation that is close as possible while retaining a hermeneutic alertness to situations that allow us to constantly step back and reflect on the meaning of those situations" (p. 318).

In this study the observation procedure I adopted was an amalgamation of structured and naturalistic observation techniques (Ryan & Martin, 2001; Seaton, 2002). The structured component involved the use of a logbook, with pre-defined coding items, allowing me to record anticipated phenomena and unexpected phenomena. The naturalistic components were designed around the principle of being able to record behaviour and events that could not be predicted from the outset. When phenomena appeared to be associated with critical incidents relating to the research questions they were added to my logbook. Coding techniques were refined in order to make sure they accurately recorded the phenomena relevant to the research questions. Adjustments were evaluated on the basis that they did not affect the credibility of the data collected. I had to think about how the nature of exchanges between myself and research participants as well as my constant note taking impacted on the research (Silverman,

2006). Observation of the tours that the guides and visitors participated in helped provide a structure to the reflections of the participants obtained in the interviews.

3.6.4 Hermeneutic interviews as a method of inquiry for guide-visitor interaction

Two key constituents of narrative methods are researching the lived experience of people to understand relevant events and behaviour and associated situation factors such as their temporal dimensions (Czarniawska, 2004). This study uses instruments to record three instances of the lived experience of participants in relation to GVI during the tour, namely participant observation of the tour itself, a post-tour in-situ interview, and a reflective interview at least 10 months after the tour. The strategy of a multi-temporal dimension of the data collection was informed by interpretation studies that used different research instruments and temporal intervals to achieve their research goals. For example, research on wildlife tourism at Mon Repos Turtle Rookery sought to gain insights into visitors' experiences through pre-visit and post-visit questionnaires as well as a web-based survey that was available six months after their visit (Ballantyne, Packer, & Bond, 2007). Other researchers have used off-site phone-based interviews to follow up on participant observation of visitors' participation in interpretation-based activities (Benton, 2007; Orams, 1995). Orams (1995) observed dolphin-human interactions during tourism-based feeding activities in conjunction with on-site self-reply questionnaires, and phone call interviews with participants within six to eight weeks after their visit. Benton (2007) interviewed relevant staff on-site and visitors off-site 30 days after observing their tour.

Researchers who utilised interviews in conjunction with the critical incident technique noted that the act of reflection on an incident was an important constituent in understanding the significance of the incident itself (Webster & Mertova, 2007). To understand if the observed behaviour of visitors was indicative of learning, visitors needed to reflect on the meaning of their behaviour during the research, and interviews are an established method to achieve this goal (Pontin, 2000). Hermeneutic interviews can be used with methods such as participant observation that initially create research data explored in the hermeneutic interviews (Van Manen, 2014).

The selection of interviewees and the formulation of the questions for the interview were determined by how each related to the research questions and guided by the following criteria:

1. A question is relevant to respondent's experience;
2. Respondents have the information requested;
3. Respondents are likely to have opinions, attitudes or beliefs about the question asked and;
4. The respondents are capable of expressing this information, or these opinions, attitudes, or beliefs (Orams, 1995, p. 69).

A semi-structured interview is a useful format for a hermeneutic interview that seeks to interpret empirical data obtained from researching the lived experience of the interview participants (Van Manen, 2014). The structured elements were designed to help facilitate participant reflection that was relevant to addressing the research questions (see Table 3.3 and Appendices 1 & 2). The questions were developed to identify if the incidents and ideas nominated by myself were connected to the participants' experience. The open-ended interview questions were designed to facilitate participants' interpretive insights into phenomena. I interpreted such insights as being connected to their inner life.

Table 3.3 Relationship between research questions and interview questions

| Research Questions | Interviews Visitor (V) Guide (G) | |
|--------------------|----------------------------------|------------------------|
| | In situ interview | |
| One | V Q2, Q3, Q4 & Q6. | G Q2, Q3 & Q6. |
| Two | V Q2, Q3, Q4, Q7, Q8 & Q9. | G Q2 & Q3. |
| Three | V Q2, Q3, Q4 & Q5. | G Q2, Q3, Q4, Q5 & Q6. |
| Four | V Q2, Q3 & Q7. | G Q2 & Q3. |
| Five | V Q2, Q3, Q7 & Q8. | G Q2 & Q3. |
| | Reflective interview | |
| One | V Q2, Q9, Q10 & Q11. | G Q12. |
| Two | V Q3, Q4, Q6. | G Q2, Q12. |
| Three | V Q3, Q11, Q13 & Q14. | G Q12. |
| Four | V Q5, Q12. | G Q12. |
| Five | V Q5, Q12. | G Q12. |

CIT method, when used with narrative construction, involves a pattern of negotiation between interviewer and interviewee in choosing an incident to discuss, and the structured aspect helps to establish a relationship between the participants' lived experiences and the research questions (Czarniawska, 2004). A hermeneutic interview differs from other phenomenon-based interviews by not assuming that "those who have shared their (lived) experiences should have the expertise and insights to interpret their own experiences" (Van Manen, 2014, p. 317).

In the performance of a structured interview interviewers can unwittingly change the wording of questions (Fontana & Frey, 2003). A semi-structured interview format recognises that variation occurs within each interview that makes up the data set. A concern with structured interview is that it privileges the rational content of a participant's reflection over the emotional dimension of their experience (Fontana & Frey, 2003). The non-structured dimension of the interviews can maximise the relevance of data collected and provided conditions for non-solicited comments.

In this research, I adopted an approach that combined elements recommended by Czarniaswka (2004) and Fontana and Frey (2003). I conducted semi-structured interviews where the structured aspect of the interview related to standardised questions, which were used in all the interviews (Appendix 8), and the non-structured aspects related to the field notes from the tour and to the specific circumstances of each interview in terms of what could be usefully explored in what the visitor shared during the interview.

The basic structure of the interview was to nominate or get the visitor to identify incidents that occurred during the guided tour, and then I explored three specific concepts in relation to the visitor's experience; curiosity, affect and learning. During interviews, I used recall or excerpts from my field-notes to set the scene about something I had observed in terms of visitors' behaviour in relation to an event (Czarniawska, 2004). Dependant on the situation or circumstances, I either referred to the specific behaviour observed or set the scene around it. I sought through a set of consistent questions to get visitors to relate their perceptions of the experience. Through this process, it was explored whether at a point of time in that period visitors were receptive to learning. These questions addressed factors related to the interaction between guides, other visitors, wildlife and other relevant phenomena in the management and consolidation of this receptivity to learning.

There was a two-phase interview strategy used in respect to interviews. At least one visitor was interviewed in each guided tour (Appendix 8). The guided observations and in situ interviews occurred at the sites where the guided tours were organised and conducted. The follow up interviews conducted 10 months post-tour were undertaken by a means most convenient for the participant (Appendix 9). These were either conducted in person, by phone or via the internet (Skype).

3.7 Data Analysis

Thematic analysis is a research method for locating collective strands of meaning from compared individual experiences. This is initially achieved by careful reading of the data collected to recover “structures of meanings that are embedded and dramatized in human experience represented in a text” (Van Manen, 2014, p. 319). The term ‘theme’ is used in different contexts in qualitative research (Boyatzis, 1998; DeSantis & Ugarriza, 2000; Saldana, 2013). A theme is “an abstract entity that brings meaning and identity to a recurrent experience and manifestations. As such, a theme captures and unifies the nature or basis of the experience into a meaningful whole” (DeSantis & Ugarriza, 2000, p. 362) (Figure 3.6).

For many coding strategies associated with qualitative research a theme is an outcome of, and not something to be coded; the theme delimits what is possible to infer from the data analysed. Other approaches suggest using themes to further analyse themed groups of data (Saldana, 2013). As such themes become an analytical tool. Thematic analysis can then create links between an extended thematic statement, a theme, that embodies generalised salient features of a group of themes. Such groups are accorded the status of sub-themes (DeSantis & Ugarriza, 2000). Thematic analysis encompasses the spectrum of identifying and developing themes within the data sets used and the overall process of further abstracting and making sense of the themes uncovered (Van Manen, 2014).

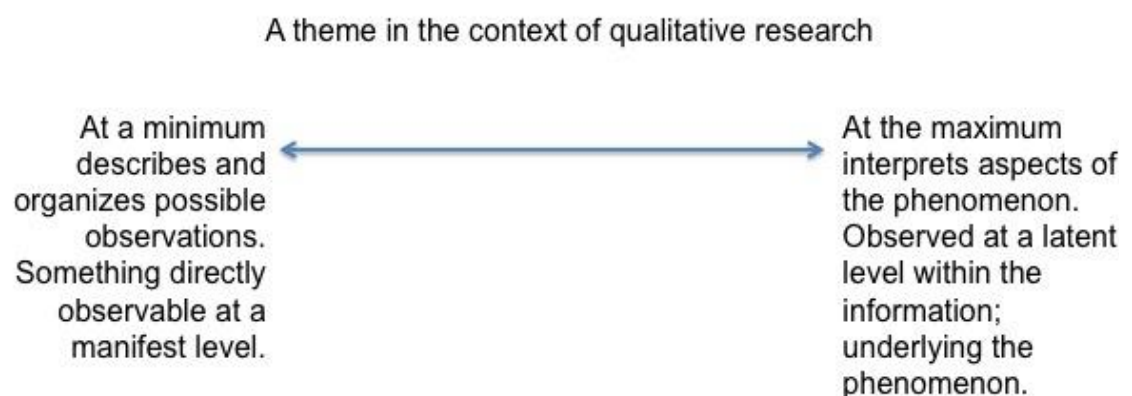


Figure 3.6: Defining a theme

Source: Boyatzis (1998); DeSantis and Ugarriza (2000); Saldana (2013).

DeSantis and Ugarriza (2000) refer to ambiguities in the defining of what a theme is, in part, caused by the failure to separate the term theme from the term thematic analysis. In order to remove such confusion, DeSantis and Ugarriza (2000) identify four key criteria that act as a basis for the definition of a theme; emergence from data, abstract nature,

iteration, and levels of theme identification (Table 3.4). Firstly, the initial idea of the theme comes from the data and not the researcher (emergence from the data). Secondly, a theme is often expressed in the researcher's own words rather than the specific phrasing of the research participants (abstract nature). Thirdly, a theme is representative of a repetitive pattern discovered within the data (iteration). Fourthly, a theme may be discerned in one or more classified levels of data stratification (levels of theme identification).

Table 3.4: A basis for defining a theme in qualitative research

| Criteria foundational to the definition of a theme | |
|--|---|
| Emergence from data | Themes emerge from the data. Themes are not superimposed on the data by the researcher... Emergence from the data does not preclude researchers from discovering other supporting evidence of an identified theme or from seeking additional observations or interviews to further verify or modify the theme. |
| Abstract nature | Themes may be explicitly expressed and openly promoted by research participants. In the majority cases, themes are implicit and embedded in the data and must be extracted or inferred from the data by the researcher. |
| Iteration | A theme is an iteration or recurrence of a variety of experiences that is manifested in patterns or configuration of behaviour, that is ways of thinking, feeling, or acting. As such, themes are embedded in repetitive or variant, often disparate expressions of social behaviour or verbal interaction. This iteration makes themes identifiable and converts them from emic-implicit meaning of participant to the etic-explicit meaning of the researcher. |
| Levels of theme identification | The unifying and explanatory functions of a theme may occur at multiple levels. The concepts of category, domain, and taxonomy are examples of levels where themes can emerge. Category is a specifically defined division in a system of classification, for example, a class or a general set of ideas, terms, or things that mark divisions or co-ordinations within a conceptual scheme. Domain is a territory, field or sphere of activity, concern, or function, over which rule or control is exercised. Taxonomy is the overall classification of similar or like things into an ordered system, and it indicates their natural relationship. |

Source: DeSantis and Urgizza (2000).

Van Manen (2014) uses the acronym 'LED' for the unit of lived experience description that is analysed at the level of thematic analysis. Experience is presented as:

1. A lived experience description (LED);
2. converted into an anecdote;
3. submitted to the holistic, selective and line-by-line thematizations and;
4. themes used for some exemplary phenomenological reflective writing (p. 320).

A selective reading approach is when we "listen or read a text several times and ask 'what statement(s) or phrases(s) seem particularly essential or revealing about the

phenomenon or experience being described?’” (Van Manen, 2014, p. 320). These statements are elevated from the rest of the text in a manner of trying to capture their meaning in a paraphrased manner or some are accorded the status of ‘rhetorical gems’ and quoted in full and used in a way that builds a narrative able to “capture thematic expressions, phrases, or narrative paragraphs that increasingly let the phenomenological meaning of the experience show or give itself in the text” (Van Manen, 2014, p. 320).

There is a concern with attempts to use the term theme to describe specific narrative sequence as a narrative may contain disparate meanings rather than a clear unified meaning (DeSantis & Ugarriza, 2000). Researchers that utilise thematic analysis in conjunction with narrative methods focus on meaning rather than form as “interrogating the particular language a speaker selects is not relevant to their purpose; focus is on the act the narrative reports and the moral of the story” (Riessman, 2008, p. 62).

Narrative in respect to qualitative research can refer to the dialogues collected from research participants about the phenomenon studied (Cresswell, 2013). The stories of each guided tour researched, at a collective or individual level, were used to analyse the stories told by participants about their experiences.

3.7.1 Distanciation

The process of transcription turns speech into a text (Czarniawska, 2004; Riessman, 2008). ‘Distanciation’ is the concept that explains the separation of the interviewee from the text that records their speech (Czarniawska, 2004). It enables the researcher, using a constructionism approach to qualitative research, to decide on the appropriate limits of the research participants’ involvement in the research. Distanciation represents an attempt to dissolve a false dichotomy between interpretive methods that focus on qualitative understanding and explanatory methods that focus on objectively making sense of researched phenomena (Aylesworth, 1991).

Questions arise over the relation between the meaning of an event and the event itself. A plausible reason is that meaning of the words used by a person in a LED may be distanced from the actual events referred to in their LED. Words, and also the phrasing of words have individual and collective historical meanings for research participants, researchers and other readers of peer-reviewed research. A narrative methods approach relies on studying texts at the level of a sentence, understanding narrative requires the researcher to differentiate meaning from a connection to the linear nature of a sentence (Czarniawska, 2004).

There are four forms of distancing that can be seen in relation to the separation of the act of speaking at the time of the interview and the text transcribed from it (Czarniawska, 2004). The first form of distancing describes how recorded speech loses the ephemeral quality that is an attribute of most spoken utterances. It may have a 'longer life' than the participant, whose speech it was, expected. The second form of distancing explains how a consequence of this longer life is that the interviewee may no longer agree with or remember aspects of the ideas and concepts contained in the text. Czarniawska (2004) noted that a research process of involving interviewees to read their own transcripts could result in the interviewees attempting to 'correct' the transcript. The researcher, in wishing to create a joint understanding, has to balance the ethical issue of respecting the interests of the interviewee but also showing that the text represents the views and idea of the interviewee at a historical point, which may not be representative of the interviewee's opinion now. The third form of distancing suggests an unexpected multiplicity in audiences for the speech. The audience of the text, as a datum of research, may differ to the actual or intended audience of the speech when it was uttered by the participant. Finally, "the fourth form of distancing concerns the text's separation from the frame of reference the speaker and the audience shared or might have created together" (Czarniawska, 2004, p. 70).

Distancing as a feature of this thesis was addressed from the start of data collection through to the write-up of this thesis. Through the consent form and participant information sheet, the interviewee had a notional understanding that their speech in text form would be part of a study. The readership of the PhD thesis in its final form is removed from the context of the interview. In respect to the research the interviewees and myself were connected through a shared experience of a guided tour that we reflected on. I then sought to represent in the text the context of the space and time when the interviewee made the comment to the extent that it helped elucidate the meanings of the text for the reader.

Constructionism-based research often addresses issues related to fairness in representation by assigning participants a role as co-researchers. This entails involving participants in more than one instance of data collection or analysis. This is done to create a level of commensurability in the representation of the participants in the data collection stage but not in the explication process. In the context of this thesis I considered myself, and those who took part in the interviews, as co-participants in the research process.

At the field research stage, the other sources of perspective of an incident during the guided tour (the inner social circle of the visitor that participated in the interview, the guide(s), and myself (as a participant observer) are subordinate to the visitors chosen for interviews. This was to ensure that the phenomena discussed had a relationship to the main research participant. Such a focus did not omit instances of divergence or contestation but just sought to understand if such issues could be meaningfully aligned to the main research participant. However, I was solely responsible for trying to ‘author’ an overall interpretation of the potential meanings from the data collected. Distanciation accorded me with a position of familiarity and authority with the data throughout the PhD research process that was not available to others involved in the research.

3.7.2 Burke’s four tropes and abduction: A coding strategy for narrative methods

Coding is an integral part of an analytical strategy in qualitative research (Maxwell, 2005). It is the process of categorising and labelling data into themes and issues. Coding can help identify themes; groups of repeated ideas expressed by different participants using similar phrases (Plester, 2007). The use of a narrative or story format is a method advocated for use in conjunction with CIT in collecting and analysing data (Czarniawska, 2004; Plester, 2003; Query, Kreps, Arneson & Caso, 2001). Narrative construction can be combined with CIT to develop a better understanding of complex phenomena that involve different viewpoints and perspectives (Czarniawska, 2004; Query et al., 2001). With narrative methods, the coding process can involve ‘abduction’ or acts of conjecture to facilitate employment of a narrative about the data. Abduction is “conjecture that is tested by fitting it over ‘facts’. The conjecture may be adjusted to provide a fuller account of the givens” (Polkinghorne, 1988, p. 19) (Figure 3.7). Combining narrative methods with CIT allowed actions and events within a case study to be construed as a ‘nascent story’.

The data analysis of this thesis was informed by the hermeneutic process of explicatory, explanatory, exploratory, and dialectic engagement with the texts involved for the purpose of distilling meaning through reduction (Burke, 1945; Czarniawska, 2004; Hernadi, 1987). In discussing the coding strategy to create narratives as part of the thematic analysis strategy of this thesis, this section will discuss three inter-related approaches to reading texts: Czarniawska (2004), Hernadi (1987), and Burke (1945).

Hernadi’s Triad is Czarniawska’s (2004) term for her adaptation of Hernadi’s (1987) hermeneutic process of explicating, explaining and exploring a text. Explication means

paraphrasing a text, and explanation suggests an approach of identifying its potential sub-texts. Exploration captures the idea of how a researcher's interpretation of the meaning of a text speaks for the text in its place. Hernadi's (1987) approach is based on Burke's (1945) four tropes, metaphor (explication), metonymy (explanation), synecdoche (exploration), and irony (dialectic) (Figure 3.8). While attempting to distinguish the four tropes as having their own integral qualities, Burke (1945) acknowledges that they are intricately connected to each other:

A dialectic, for instance, aims to give us a representation by the use of mutually related or interacting perspectives – and this resultant perspective of perspectives will necessarily be a reduction in the sense that a chart drawn to scale is a reduction of the area charted. (p. 503)

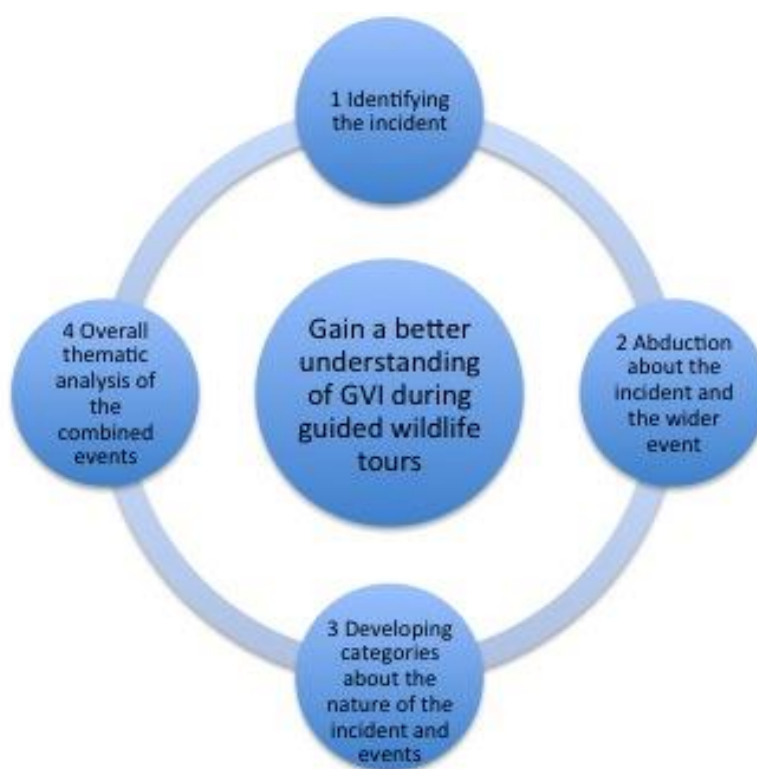


Figure 3.7: Elements of thematic analysis in the research

Explication is a process of summarising and paraphrasing a text in a manner that is responsive to the potential range of meanings that exist within the text (Hernadi, 1987). A challenge in the explication process is privileging the notion that there can only be one story that can accurately reflect what occurred in the event narrated (Czarniawska, 2004). Czarniawska (2004) argues that the process of explication when interviewing participants of modern-day societies such as tourists less problematic than traditional anthropological studies: “When a field of practice under study is highly literate, the re-

descriptions undertaken by the researchers are open to practitioners' comments and questions, which makes the problem less morally implicated but more politically complex" (p. 61).

Explanation is the process of deconstructing the words and phrases used in a text (Hernadi, 1987) In this thesis it refers to analysing the utterances made by the participants in their interviews and what was recorded in my field notes in order to interpret meaning. At the level of interpretation explanatory reduction involves identifying an intangible quality that I perceived as present in the text and utilising a concept that can convey that idea into a more tangible state (Czarniawska, 2004; Hernadi, 1987). At an analytical level it involves identifying where a participant may have used a tangible term to convey an intangible idea (Burke, 1945). This involves a careful reading of the interview scripts to consider what cultural resources the participants draw on or subsume in their reflection. Their narration of an incident may utilise iconic plots such as 'the teacher and the student' in explaining elements of guide visitor interaction (Riessman, 2008). A constructionism-based explanation introduces the idea of reader-response theory that refers to the notion that the boundary between the reader and the text is blurred and the process of defining meaning becomes an experience in itself for the reader (Czarniawska, 2004).

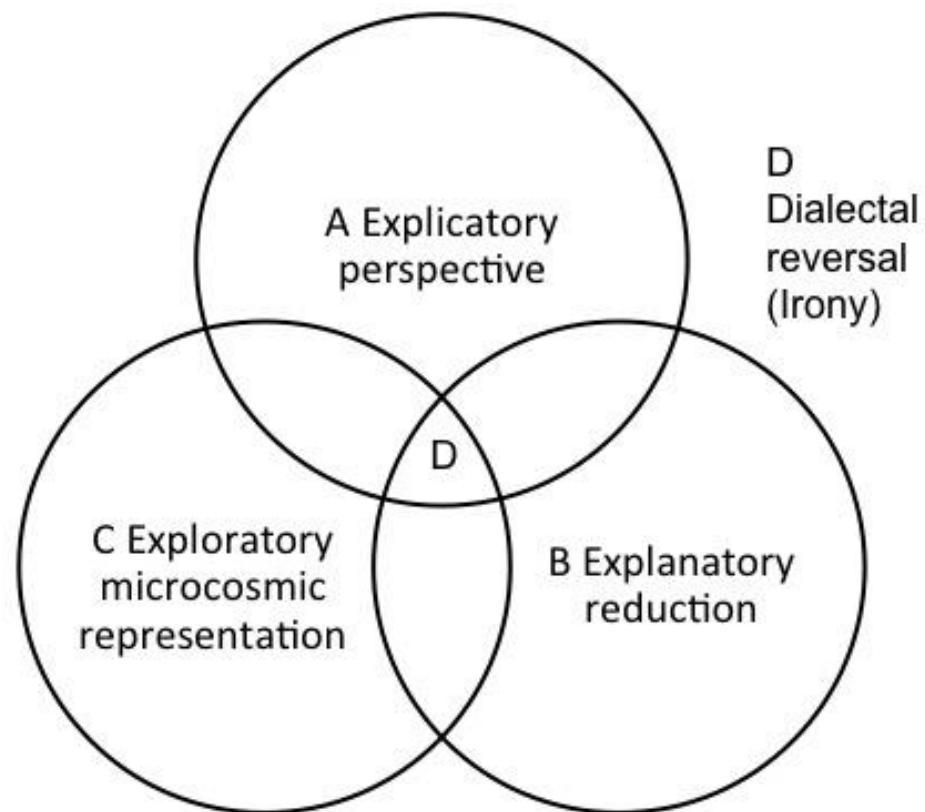


Figure 3.8: Four steps of analysis based on Burke's Four Tropes
Source: Burke (1945).

Hernadi's (1987) conception of exploration is the process of interpretation that Czarniawska (2004) aligns with the social sciences as "the social sciences reader reads in order to become an author: no matter what school of explication or explanation he or she belongs to, no matter whether the reading turns out to be methodical or inspired in kind" (p.71). It is in the exploration process that the themes are created. The detailed reading process involves the researcher exploring the potential meanings of the texts of the research, through writing and refining drafts of nascent themes, as "themes are succinct phrasings that are discerned in the activity of theme analysis of the concrete or experiential material. These phrasings correspond to the variant and invariant themes of reduction" (Van Manen, 2014, p. 377).

Exploratory representation is the process of developing a synecdoche, an integral relationship between two terms (Burke, 1945; Hernadi, 1987). This is the process where the researcher develops a relationship between the specific experience of a participant in one of the case studies, and a generalised notion of the sort of experiences that can be said to be representative of guide visitor interaction. Exploratory representation can be conceived as 'construction' (Czarniawska, 2004). It is the development of categories of ideas, through analysis and interpretation of the texts, perceived to represent a similarity in the different experiences. It is key process in the creation of emergent themes.

Explication, explanation and exploration arise from Czarniawska's utilisation of Hernadi's conception of Burke's (1945) four tropes. Dialectic engagement is another term for irony, and the discussion by Hernadi (1987) of irony was not as full as the other three tropes. It is, however, a very important part of the process of reading a text as it is about the relationship between comprehension and expression. Irony relates to those instances when the text appears to say one thing about the events and actions reflected on but it can be construed as saying something very different (Burke, 1945).

Dialectic engagement involves searching for gaps and inconsistencies in the narratives of the texts that might suggest preferred, alternative, or counter-narratives about the incidents explored (Burke, 1945). It is the space for consciously examining the researcher's beliefs, fore-havings and fore-conceptions about the critical incidents, events, and case studies (Czarniawska, 2004; Riessman, 2008) (Appendix1).

3.7.3 Analysing the data in this study

After each individual incident was examined thematic analysis was extended to the perceived outcomes of each specific case study, the guided tours observed. This process

commenced with the creation of a narrative as a device to combine CIT with thematic analysis (Riessman, 2008). Explication in this research involved using specific phrases on my own when paraphrasing the narrative features that appeared in the reflection of the visitors and guides during the interviews. I did this in a manner that helped recognise patterns within each set of texts of the case study and across case studies. This included thinking about 'the audience' of the text and if participants employed a narrative structure in their reflection to configure a succession of incidents (Riessman, 2008). A researcher using CIT and narrative methods can organise their data collection and analysis process in the following manner (Czarniawska, 2004):

- Watch how stories are being made;
- Collect the stories;
- Provoke story telling;
- Interpret the stories (what do they say);
- Analyse the stories (how do they say it);
- Deconstruct the stories (unmake them);
- Put together your own story;
- Set it against/together with other stories (p. 15).

With this thesis, there were potentially four sources of human perspectives within the texts of an incident. Firstly, from the specified visitor whose experience was the basis of each case study. Secondly, other visitors who were involved in the interview process at the discretion of the specified visitor. Thirdly, the guide(s) involved in the relevant GVI, and fourthly, myself as the participant observer and the interviewer in all of the fieldwork.

The data collected in the form of field-notes and interview transcripts were used in the following way:

1. I recorded data in my field notebook and used these data to provoke story telling.
2. I then used the field notes to assist in interpreting, analysing and deconstructing the stories of the visitors and guides.
3. Extracts from the interviews of both visitors and guides were then combined to construct a narrative of the incidents and supplemented with notes taken from my field notes which recorded my own observations of the incident. Such data

created a rich picture of the critical incidents observed and experienced by the researcher, visitors and guides.

4. The coding process involved the use of a research journal. The primary format of the research journal was the books where field notes were recorded. However, I took the opportunity to utilise e-mails as well as word documents as spaces to reflect on the data collected. Often when I was sending e-mails to friends and family about my experiences or writing in my own personal diary I realised that what I was discussing had relevance to my research. I would then copy the contents of the e-mail or the journal into a word document.
5. Theme statements were developed through a careful reading of the texts of the interviews of the visitor participants. The theme statements were then checked with the field notes and also the transcripts from the guides' interviews. Events such as the visitor discussing information about the wildlife and the sites were examined in the context of GVI actions such as questions, guide commentary, direct encounters. Such events and actions were analysed through a process of coding based on a hermeneutic approach to reading texts. The incidents selected and discussed in the interviews were only included if the shared perspectives of the researcher, visitors and guides deemed that it was a critical incident (refer to Table 3.5 as an example).

Prior to the field research, I had assumed that the incidents discussed in the interview would relate to visitors' behaviour that was externally visible to others during the guided tour. However, during the interviews the visitors sharing of other incidents involved a level of reflection that contested my assumption. It became apparent that interviewees had continued to evolve their viewpoints of the experience from their initial line of thought when hearing what the guide said in situ, through to the interview process itself after the event. Such reflections appeared to me to relate to insights into how visitors were trying to make sense of phenomena connected to GVI at an internal level.

When discussing the incidents with both the relevant visitors and guides in the interviews, I sought to elicit the perceptions of both the visitor and the guide about specific incidents. The interview transcripts then became texts that over-layered the initial interpretation of the incidents I made in my field notebook. In particular, I focussed on the reflections of visitors in relation to their perception of whether learning occurred for them in relation to the critical incident being explored. Whether an incident

observed contributed to that learning depended primarily on the evidence contained within the observation of the visitors on the guided tour because:

It is only in retrospect that an event can be seen to have been critical for the storyteller. The longer the time that passes between the event and recall of the event, the more profound the effect of the event has been and the more warranted is the label *critical* [authors' emphasis] event (Webster & Mertova, 2007, p. 74)

Table 3.5: The framework for data collection, analysis and interpretation: Research questions and the experiential education sequence integrated into the field research inquiry

| | |
|----------|--|
| A | An observable example of a perceived need for information on the part of a visitor on the tour through observation and interaction with other people during the guided tour that occurred approximately at the time of an observed direct experience of wildlife, commentary of a guide or response from another visitor (research questions one, two and three) |
| B | Provision of information during the guided tour by the specific guide the researcher is accompanying or other representative of the organisations involved in the study (research questions two & five) |
| C | Follow up phenomena previously discussed through guide-visitor interaction during the guided tour (research questions one, four & five) |
| D | Comments articulated by visitors during the guided tour (research question two) |
| E | Visitors perception of what was discussed and seen on the guided tour in an interview on the same day of the guided tour and/or after a period of over 10 months (research question two) |
| F | Follow up activity relating to A and B later on the guided tour or after the tour by the guide or visitors that incorporates either the provision of formal knowledge, new insights or changed behaviour (research questions two, three, four & five) |

Source: Adapted from Forestell (1992; 1993), Forestell and Kaufman (1990), Orams (1997).

I then analysed the texts of the first interviews and field notes in each case study of a specific guided wildlife tour and then used my perceptions of these to test again my assumptions with the perceptions of the visitors and guides in the second interviews. The initial stage of the reflective interviews involved general questions on what the visitor remembered most, what was the most significant thing the visitor learned, what did the guide do best and what surprised them the most. It was the information collected in these questions that I used to interpret whether the incidents that occurred in the guided tour could be deemed 'critical' (Appendices 10-14).

Over four distinct periods of collecting interviews between December 2009 and May 2012, I began to appreciate how the interviews acted as an interface between peoples' thoughts, their experience that is observable to others, and the primary for of data recorded in my field notes. I was able to assess the extent to which participants'

recollection of their experiences connected with the recollection of others, and how phenomena represented as curiosity or learning were observable to others (Table 3.5). Finally, during the course of the interviews it became clear that there were certain instances where exchanges of information during GVI were not remembered in the same way or that participants had different understandings in the passage to time between tour, the in situ interview and the reflective interview of what, or how, information had been exchanged through GVI.

I coded the incidents using Burke's (1945) tropes and making abductions about them facilitated the employment of a narrative about the relationship between GVI during the tour and the overall experience of the visitor connected to the wildlife and the site where the tour occurred. The process was based on a variety of sources that consider how to analyse narratives through the use of hermeneutic interpretation, the use of the critical incident technique and thematic analysis.

3.8 Trustworthiness

In terms of trustworthiness of the data, when using CIT as a part of a constructionism approach, there is a concern that malconstruction may occur. This is where there are problems with the findings due to the analysis process or design of the research or a bias due to the inherent subjective nature of the inquiry (Guba & Lincoln, 1989; Yeoman & McMahon-Beattie, 2014). Some contend that the use of the term malconstruction to critique research relates to power relations within social units such as academic networks that judge the value of the findings of the research being evaluated (van der Haar & Hosking, 2004). Such critiques highlight the centrality of the need for the researcher to identify how they understand, and how they communicate the negotiation of meaning that occurs in the research process. In order to avoid malconstruction, this research followed a set of injunctions that allows the reader to judge the integrity and good practice of the researcher. The procedures identified by Brewer (1994) to establish credibility of data collection and analyses are:

- Establishing the relevance and representativeness of setting;
- Identify theoretical framework of research;
- Identify features of research area addressed and those omitted and the relevant implications;
- Establish researcher's integrity;
- Establish the authority of the data;
- Demonstrate the complexity of the data. (pp. 235–236)

A clear goal of what is being studied, i.e. guide-visitor interaction during a guided wildlife tour that involved information sharing was developed. A plan of how a study of guide-visitor interaction could be achieved through clearly articulated methods and realistic timeframes was created. Features of the research area addressed in the research were the specific examples of interaction between visitors and guides. Interaction between visitors and/or other staff members were sometimes recorded but always in relation to the context of the GVI that was observed while I accompanied a specific guide. While failure to give due consideration to the wider social dynamic occurring in the context of GVI can distort depictions of its nature and extent, I had to demarcate limits to what could be included in the research in the context of the scope of the research. Where I could I attempted to demonstrate the complexity of the social dynamic of a tour and its impact on GVI.

While the research sought external validation of the interaction of the visitor and guide through participant observation and interviews with both guides and visitors, external validation of learning, curiosity and behavioural change relied on the participants' own observation and the subsequent examination of those observations in the relevant interviews. When a participant stated that the tour was consequential in terms of their learning outcomes but did not go into much detail about that learning it became very difficult to get a clear picture about what the participant was referring to.

Chirban (1996) states that the interaction of an interview is facilitated by the posture that the interviewer develops through the course of the interview. This posture has implications on the extent the visitor feels comfortable enough to share their experience with the interviewer, and the degree that they are willing to reflect on those experiences shared during the interview. I was always conscious that I was in a space that was one of work for professional and volunteer guides, and one of leisure for visitors. Having been invited to share that space, I emphasised aspects of my personality that were attentive and empathetic to the needs of others and consciously sought to restrict the gregarious and mischievous aspects of my personality.

In using constructive methodology in social research the convention is for the researcher to be a 'passionate participant' in facilitating the representation of multiple identities in the reconstruction of the phenomena researched (Phillimore & Goodson, 2004). The vivacity and candidness of many of the participants allowed me to be more open and there was often much laughter shared in the interviews and observation. However, I

realised that the more I got involved the less attentive I became of others. In one of the earlier interviews, I shared an observation with a visitor saying “and I heard you say, ‘oh my God’”. The visitor quickly responded with “I would never say that!”. I was aware that she felt misrepresented, that the use of the word God was disrespectful to her in that context, and it took a while to restore her sense of trust in the process.

The personal assumptions of the researcher in the collection and analysis of the findings in terms of the credibility of the data were dealt with by providing the reader with a framework of reference from which to judge the relevance of the findings (Brewer, 1994; Carter & Porter, 2000; Schwandt, 1994). I shaped the shared meanings from the data for the purpose of increasing understanding of the relationship between GVI and visitors’ perceived outcomes from tours. The data collection methods for this study were informed by the belief that the interaction of the participants with the research process may have influenced the participant’s interpretations of the learning process on a guided tour. The process of getting visitors and guides to consciously think about the tour in the context of learning during the interviews may mean that they developed a deeper understanding of the learning processes they were involved in.

What sets this study apart from other studies of job practice is the involvement of both the person performing the job and the visitor whose experience is the focus of deeming the significance of incidents that arose from their interaction. The presence of the researcher on the guided tour can also aid in recall of specific incidents. This can potentially shift the bias that occurs from the participant to the researcher but the researcher focus is on nominating events that involved the participant and who are then asked to reflect on the personal significance of those events.

3.9 Summary of the field research

A pilot study at Auckland Whale and Dolphin Safari occurred in November 2009 and involved five trips on the same vessel. I followed up on GVI on four of those trips through interviews with the relevant participants. The four sets of interviews from the pilot study established that it was viable for me to observe and record incidents of GVI that were recognisable to both visitors and guides in a manner that they could reflect on it. The pilot study also demonstrated that a short interview with visitors could occur on board the vessel at the end of the formal guided part of the trip. Such an interview had negligible impact on the visitors’ experience and visitors were willing to be involved in a follow up interview.

The fieldwork with PWF and SoTM involved participant observation and two stages of semi-structured interviews (on-site – the in situ interview, and off-site – the reflective interview) with both visitors and guides from the same tour between December 2009 and May 2012. Sixty-two tours were observed resulting in 122 interviews.

3.9.1 PWF field research

Thirty-one tours conducted by PWF off the coast of Maui, Hawaii, USA were observed for the fieldwork of this thesis. Twelve of the 31 tours generated in situ interviews.

There were two distinct phases of fieldwork at PWF; fieldwork on snorkelling tours from 2nd December to 10th December 2009 and fieldwork on whale watch tours from 11th December to 5th January 2010.

Twenty-five in situ interviews (12 with visitors and 13 with guides) and one reflective interview from the snorkelling tours took place. From October 2010 until May 2011, 14 reflective interviews were conducted (seven with visitors and seven with guides). In the case of two interviews (Guide 9 and Visitor 11) the relevant visitor and guide did not respond to the request for a reflective interview (Table 1 in Appendix 9). This generated six PWF proto-case studies from which five case studies were selected (see notes for Table 3.6).

Table 3.6: Summary of data collection for the pilot study and PhD

| | Dates of data collection | Guided tour observations | Visitor in situ interviews | Visitor Reflective interviews | Guide in situ interviews | Guide Reflective interviews | Proto-case studies |
|--------------------------------------|--------------------------|--------------------------|----------------------------|-------------------------------|--------------------------|-----------------------------|--------------------|
| Whale and Dolphin Safari Pilot study | November 2009 | 5 | 4 | 0 | 4 | 0 | n/a |
| PWF Snorkelling Pilot Study | December 2009 | 6 | 2 | 1* | 2 | 0 | n/a |
| PWF Whale watches | December 2009- May 2011 | 25 | 10 | 7** | 11*** | 7** | 6 |
| SoTM tours | October 2010- May 2012 | 31*** | 25**** | 12 | 25**** | 12 | 12 |
| Subtotals | | | | | | | |
| Pilot | | 5 | 4 | 0 | 4 | 0 | 0 |
| PWF | | 31 | 12 | 8 | 13 | 7 | 6 |
| SoTM | | 31 | 25 | 12 | 25 | 12 | 12 |
| Totals | | 67 | 41 | 20 | 42 | 19 | 18 |

* This interview was conducted during the visitor's vacation at Maui and was a key factor in deciding to develop a different format for the reflective interview rather than being a continuation of the in situ interview

** I did an interview with Visitor E but was not able to get an interview with Guide 11. I did an interview with Guide 9 but was not able to get an interview with Visitor 9.

***With Visitor 5's tour I did two in situ interviews with guides: The guide that I observed (recorded as 5a) and the lead guide who is recorded as Guide 5. Guide Five was also Guide 12. I conducted two in situ interviews with him and a reflective interview as Guide Five

**** One of my SoTM observations had to terminate early due to one of the visitors observed being medically evacuated off the island.

***** For one SoTM interview I recorded the interview for the guide but the visitor felt sick on board the return trip, so we cancelled the interview. I interviewed Visitor I first as he disembarked at Gulf Harbour and then I interviewed a second visitor on his tour while the ferry went on to Auckland.

3.9.2 Changes from an extended interview to a reflective interview

Changes to the use of the reflective interview occurred because of experiences stemming from snorkelling and whale watch tours. During the research design a two-stage interview strategy was created to ensure that whatever data were initially collected in the in situ interview could be explored in sufficient depth through recourse to an extended interview to occur off-site during the research at the respective site (Appendix 4). Unlike the Whale Dolphin Safari tours in Auckland, New Zealand, there was no clear end of a tour as whales could be sighted right up to returning to port. There were frequent sightings of Humpback whales, and this appeared to be novel and absorbing for

visitors, staff and myself. Therefore, I made arrangements to conduct visitors' in situ interviews immediately after returning to port. The interviews with PWF participants were much longer than anticipated, the shortest being 32 minutes and 37 seconds and the longest being 92 minutes and 12 seconds. This suggested that, in the short term, the reflective interview was unnecessary. I conducted both an in situ interview and a reflective interview with one snorkelling visitor in the same week. The nature of the reflective interview with the snorkelling tour participant was predominantly a reinforcement of points already made by her rather than any new insights. I attempted to arrange a reflective interview on Maui with Visitor Six but it never eventuated. Consequently, I decided to stop trying to generate reflective interviews while on Maui and wait until meeting with my supervisors back in Auckland to decide what to do about the reflective interview stage.

The reflective interview was initially conceived as a follow up interview from the in situ interview that sought to get the information that could not be gathered due to the time constraints of conducting the interview on the return phase of the PWF boat trip. As such it had no clear structure. The changed reflective interview devised in 2010 was informed by the strategies utilised by Orams (1995), Knapp (2007) and Benton (2007) in conducting off-site interviews, and had two distinct phases. The first phase consisted of a set of questions that allowed for as much input from the visitor without recourse to conversation (i.e. what do you remember most from your trip?; what was the most significant thing you learnt?). The second phase involved exploring specific issues that arose from the in situ interviews and the field-notes. In the case of the guides' reflective interviews I also included items discussed in the visitors' reflective interviews. This phase had a distinct feel of a conversation where both myself and the participants, shared their perspectives about the nature of, and the impact of GVI.

On reflection, I would not use the term pilot study to describe my observations and interviews at Whale and Dolphin Safari. My time there as well as my initial fieldwork with Pacific Whale Foundation, enabled me to be research ready. I stopped researching snorkelling tours due to ethical issues because a situation arose that could have compromised the integrity and confidentiality of the research participants. During my time at Auckland's Whale and Dolphin Safari and on PWF snorkelling and whale watch tours up to my observation and interviews with Visitor Three at PWF I became aware of, and learnt how to negotiate a personal bias towards the use of PA systems in face to face interpretation. I was able to do this by listening to what the visitors were saying in

their in situ interviews and careful re-readings of my field notes. Finally, I was able to re-evaluate how I initially planned to use my two-stage interview strategy in response to the realities of the fieldwork and devise a more appropriate response (Appendix 3).

3.9.3 SoTM field research

Thirty-one SoTM tours conducted by volunteer guides on Tiri were observed for the fieldwork between October 2010 and May 2011. Twenty-six of the 31 tours generated in situ interviews. Fifty in situ interviews took place (25 with visitors and 25 with guides). From October 2011 until May 2012, 24 reflective interviews were conducted (12 with visitors and 12 with guides). This generated 12 SoTM proto-case studies from which five case studies were selected.

3.9.4 Changes to interview selection process during SoTM fieldwork

When I commenced SoTM fieldwork I expected that, just as with my experience at PWF, not every tour observed would generate in situ interviews. Between October and December 2010, six of nine tours generated in situ interviews. I sensed that SoTM guides who participated in tours where I decided that the GVI did not warrant interviews saw my judgement as a reflection on their performance. This appeared to differ from the response of PWF guides when I told them that I would not follow up the observation with interviews. They may have been more accepting because the interviews were connected to professional work, and an interview with them would occur in their spare time after work.

I took a short break and reflected on the process that I used for deciding to interview visitors. With my first observation in January 2011, I again decided that the data I collected in my field-notes were not satisfactory for an interview with a specific visitor. I believed that the guide was visibly hurt by my decision. I decided that I had an ethical obligation as a duty of care for the SoTM guides who chose to participate in the study to have in situ interviews for every subsequent observation. My selection process for choosing a visitor just took longer. Whereas before 2011 I always asked a specific visitor to participate at the actual end of the tour, I would often spend another 15 minutes going over my field notes before finding the visitors and asking if they would participate in an interview on the ferry. Of the five SoTM case studies in the findings, one was from a tour observation before January 2011 and the other four after.

3.9.5 Selecting the 10 case studies

The 10 case studies were chosen as they provided maximum impact when it came to providing depth and breadth of data connected to answering the research questions. Purposeful sampling allows the researcher using case studies to select cases that give a range of perspectives about the issues connected to what is being researched (Cresswell, 2013). The process of developing purposeful sampling strategies for research involves three considerations; selecting a specific type of sampling strategy, determining the size of the sample studied, and whom to select (Cresswell, 2013).

More than one sampling strategy may be used for the same research (Cresswell, 2013). The types of purposeful sampling strategies used in this PhD study were convenience and maximum variation. In deciding who to select there was an element of convenience due to availability of participants to take part in an in situ interview after their tour (for example one PWF visitor had to travel to the airport soon after their tour finished) but also because of the number of incidents or the nature of the incidents of observed GVI between a visitor and the guide on their tour. The number of visitors on a PWF tour or a SoTM tour observed varied considerably and it was not possible to record all possible incidents of GVI that would justify a person to be selected. While I expected it to be viable to often interview more than one visitor per tour this actually happened occasionally. Usually other visitors were members of the same social group of one visitor who I asked to participate in an in situ interview.

With selecting types of purposeful sampling strategy, maximum variation was used because it focuses on diversity in the research participants or sites in relation to the characteristics specified for the research questions (Cresswell, 2013).

When it came to determining the size of the sample of case studies, it was not my intention to have 10 case studies. Initially I planned to have five to six case studies in the context of recommended guidelines for case study research (Creswell, 2013). Ten case studies were used because all had the necessary pre-requisites to be included in the analysis (see overview of 10 case studies, Appendix Three). There were 18 proto-case studies that could have been used as case studies (six from PWF and 12 from SoTM). I used 10 case studies in the analysis because I could not discern deficiencies in any regarding the richness and complexity required for answering the research questions.

It was difficult task to select 10 but I chose to think about the unique and similar qualities shared (see extract from research journal, Appendix Three). In this process,

there was a clear delineation between the two research sites when trying to reduce proto-case studies from each site to the targeted three each. Five PWF case studies were selected from six proto-case studies. I chose not to use Visitor 10's PWF interview because Partner 10's experience was just as compelling as Visitor 10's in respect to GVI. With the other three PWF interviews where partners were involved in the interview (Visitors Five, Six, and Eight) there was always a clear sense that the overall focus was on the visitor's experience and not the partner's experience (see Table 7.1, Appendix Three).

Five SoTM case studies were selected from the 12 proto-case studies (see Table 7.2, Appendix Three). It was more difficult trying to select the five SoTM case studies than the PWF ones. Visitor F's set was not used because the weather during his tour made it impossible to write handwritten notes. My attempts to use my I-pod to write notes resulted in it breaking down. Consequently, I had to make handwritten notes of the answers of Visitor F and Guide F during their in situ interviews. The nature of how these were recorded was so different to the rest of the interviews that I decided not to include these interviews. In the selection process, I also paired two visitors together in terms of shared qualities and decided on that basis which visitor to select. For example, with Visitor L I saw similar qualities in his experience as a hunter and his involvement in restoration projects as Visitor C's experience. Visitor L's story was just as compelling as Visitor C's story, but there was an element of a qualified support of legally protected areas in Visitor C's reflections that stood out and so I removed Visitor L from the final list of case studies. In summary, aside from the pilot study, the research was based on the observation of 62 guided tours, 83 in situ interviews and 39 reflective interviews. The incidents that occurred in the 10 case studies of the guided tours observed and their related interviews were used in the results chapter (Appendix 15).

3.10 Conclusion

The methods proposed for this research draw from a range of qualitative research traditions. This approach is widely accepted in tourism research and, indeed, is strongly advocated as the most appropriate approach by many authors (e.g. Faulkner & Russell, 2003; Phillimore & Goodson, 2004; Tribe & Airey, 2007).

The design of this research focused on what research instruments facilitated a better understanding of the issues the research problem sought to address, namely the impact

of face-to-face interpretation in the field on the visitors' experience. In designing these instruments the welfare of the people participating in the research and the protection of the resources utilised in the tourism phenomena being studied was a primary concern.

As multiple sources of information were used for each specific guided wildlife tour observed, in keeping with a case study approach, the narrative inquiry dimension of this study involved sketching out the particular of each participant's experience mediated through the imposition of plot lines. These plot lines were developed from explicit dialogue that was heard during the course of each guided tour (and thus furnishing elements of the unstructured part of the interview process) as well as the interview questions that articulated visitors' experience in relation to concepts such as affect, curiosity, evaluation and learning. The thematic analysis dimension teased out meaning in the individual narratives in order to emphasise the generalisability of the meaning arising from certain dimensions of each individual experience. The researcher then sought to construct from the narratives ideas that approximated the individual meanings in a way that connected them to the research questions that informed the study. Within the use of the narrative and thematic analysis the researcher sought to reconstruct the experiences of the participants through paraphrasing key aspects of their experience; deconstructing the symbolism latent in their expression of their experience to ensure a semblance of actuality in the researcher's construction of themes about the commonalities present in peoples' individual experiences.

Chapter 4 Findings in relation to guide visitor interaction

“In that moment, I suddenly thought ‘yeah, to do with climate’. I know why it was. It was because the captain or someone had said ‘we don’t normally see sightings this early’”. (Visitor Three, in situ interview, PWF)

4.1 Introduction

Having outlined the methods used in this study, this chapter presents the results from an inquiry process that sought to understand the relationship between guide–visitor interaction (GVI) and the meanings of the experience for participants. While many people participated in the field research this chapter focuses on the experience of 10 visitors, specific members of their social circle present during the interviews, and relevant guides from PWF and SoTM.

The first part of this chapter addresses the findings in relation to the research questions. The second part presents a thematic approach to the analysis of the data through the identification of three themes. These themes respond to the exploratory nature of the research and address the ideas that emerged while seeking to answer the research questions during the data analysis. Data are presented in three formats in this chapter. Firstly, through in-text quotes. Secondly, in boxes, figures and tables, and thirdly, there are two narrative sections that provide a coherent account of the experience of one visitor to demonstrate what GVI facilitated learning looks like on PWF and SoTM tours. In the appendices, there are boxes that contain data connected to each of the narrative sections. Certain words and phrases in quotes are bolded to highlight important concepts for participants.

4.2 Findings in relation to research aim

The research questions sought to explore scenarios of GVI during guided wildlife tours to understand how it may facilitate visitors’ receptivity towards new information. The findings have indicated that GVI plays an important role in augmenting a sense of a shared experience of a tour arising from direct encounters with wildlife and contact with the natural world. The augmentative role of GVI is critical in maintaining a shared experience of a tour as many factors arise during a tour whereby the individualised sense of an experience becomes more of a lasting memory than just a shared experience of a tour.

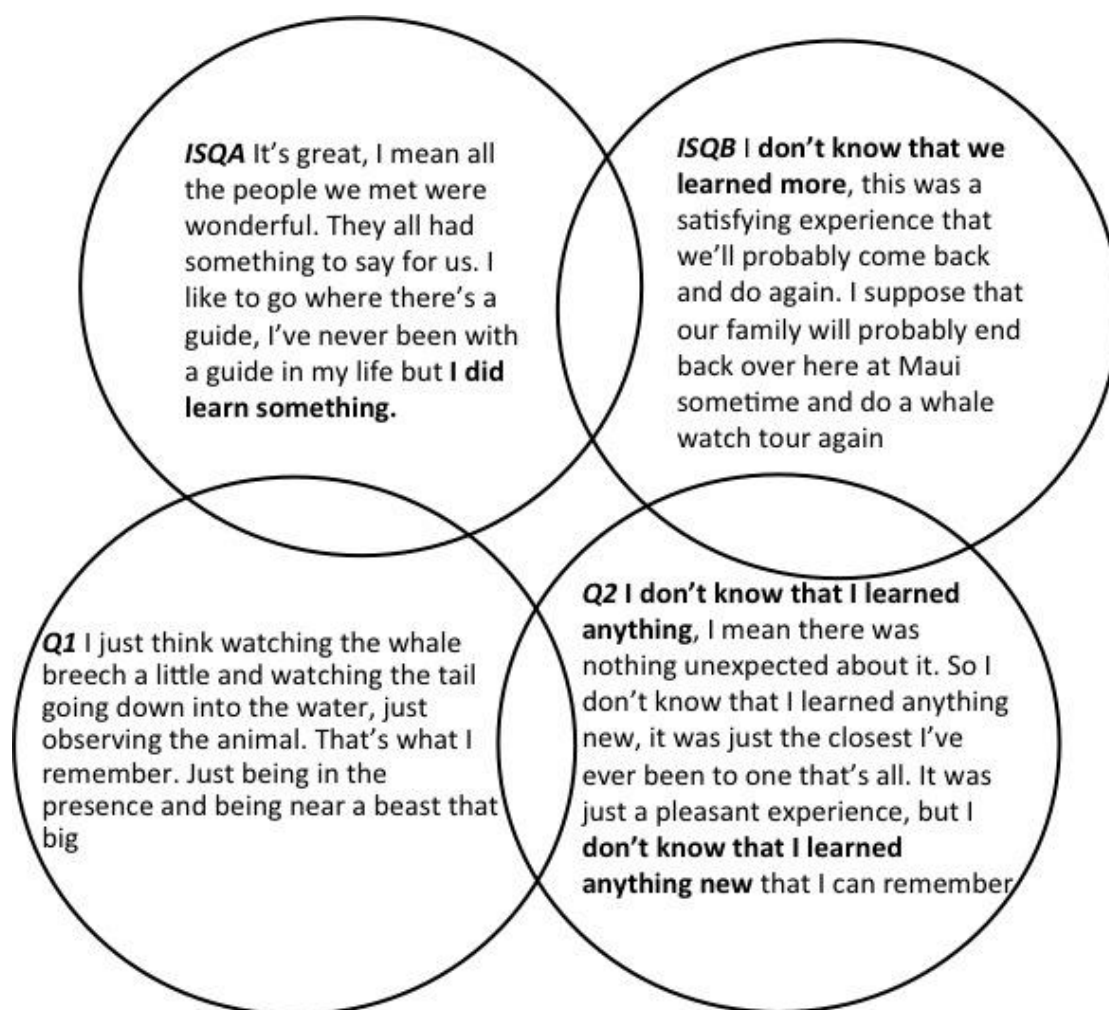
The findings of the case studies of five participants each from Pacific Whale Foundation's (PWF) tours and Supporter of Tiritiri Matangi's (SoTM) tours are presented here (Appendix 16). The PWF participants (V3, V5, V6, V7 & V8) are assigned numbers and the SoTM participants letters (VA, VC, VD, VE & VI). Integral to all case studies are the reflection of the relevant guides who also follow the same numbering and lettering procedure (G3, G5 etc.). Spouses and other family members of the participants present during the interviews as well as the tours shared their reflections are also identified by the same process (partners are P, and an aunt of V6 was assigned A6).

4.2.1 Critical incidents and perceived learning events connected to observed tours

All visitor participants perceived that they could identify something they had learnt from their experience (with the exception of Visitor Seven). I have labelled such reflection as 'perceived learning events' and these are discussed in conjunction with the critical incidents connected to them (Figure 4.1). The research demonstrates that instances of GVI that were recorded during a tour can be designated as critical incidents for visitors when it came to developing their understanding of issues connected to GVI. The critical incidents can be placed into three categories. Firstly, new or increased awareness and understanding of phenomena referred to in GVI. Secondly, investigating and evaluating pertinent issues connected to those phenomena. Thirdly, visitors' empowerment to follow up on issues connected to those phenomena (Table 4.1).

The perceived effect of GVI on visitor knowledge ranged widely from a sizeable increase in knowledge to a self-evaluation that information accrued during GVI confirmed what visitors already knew. Visitor Five emphasised her lack of prior knowledge in explaining the impact of GVI: "When I came here, you have to understand, I knew nothing about whales. I'm coming out here for an activity I have zero knowledge [of]" (Visitor Five, in situ interview, PWF). By the time of the reflective interview, Visitor Five still retained that sense of a noticeable change in her knowledge from before the tour (Figure 4.2).

Direct encounters with Humpback whales made a strong impression on Visitor Seven in the reflective interview but the direct encounters did not appear to match Visitor Five's expectations (question one in Figures 4.1 and 4.2). This suggests that other features or characteristics of the tour or her experience in Maui had an impact.



Unstructured question in situ interview (ISQA): But this sort of tourist experience, it can be a learning experience you feel?

Follow up question to learning experience question (ISQB): Do you think you learnt something here?

Structured question one in reflective interview (Q1): What do you remember most vividly from your trip?

Structured question two in reflective interview (Q2): What was the most significant thing you learned?

Figure 4.1: Visitor Seven's initial responses to questions about what he learnt or remembered on observed tour from in situ and reflective interviews

CIT technique provided the opportunity to select and explore specific incidents that were perceived as important for visitors in assessing perceived learning events that they associated with their tours. Visitors Five, Seven and C were deliberately selected because their experiences provided important insights pertaining to the research questions. More specifically, Visitors Five and Seven represent experiences and perspectives that were contrasting and at each end of the continuum of participants in this study. Visitor C's experiences were selected because, like Visitor Seven, he explicitly stated how he is very discriminating when it comes to evaluating information sources but referred in both interviews to learning events occurring for him. The decision to consider the experiences of these three in detail, rather than select instances

from the other seven visitor participants was also made because CIT technique demonstrates that for most people a series of incidents contribute to a perceived learning event rather than one isolated incident.

Table 4.1: Evidence of awareness, investigation, evaluation and empowerment in visitors' interviews and field notes

| Category | Specific examples | Visitors |
|--|---|--|
| Awareness and understanding of phenomena discussed during GVI demonstrated in visitors' interviews and field notes. | Conservation efforts to monitor and protect sites or resources | Visitors Three, Five, Six, Seven & Eight; A, C, D, E & I |
| | Newly identified features or characteristics of sites or resources | Visitors Eight & I |
| | Nature and magnitude of Humpback whale migration | Visitors Five, Six & Eight |
| | Effort required for ecological restoration at Tiri | Visitors A, C, D, E & I |
| | Volunteer commitment to ecological restoration at Tiri | Visitors A, C*, D, E & I |
| Investigation and evaluation of pertinent resource site issues connected to phenomena discussed during GVI demonstrated in visitors' interviews and field notes. | Human impacts on Humpback whales | Visitors Three, Five, Six & Seven |
| | Interpreting the significance of observed Humpback whale behaviour | Visitors Five, Six, Seven & Eight |
| | The implications of concentrated human and Humpback whale activity in the HIHWNMS | Visitors Five & Six, |
| Evidence of visitor empowerment to follow up on issues connected to phenomena discussed during GVI demonstrated in visitors' interviews and field notes. | Efficacy of pest eradication for ecological restoration in New Zealand | Visitors A, C**, D, E & I |
| | Reinforced existing environmental behaviours | Visitors Six, Eight, A |
| Evidence of visitor empowerment to follow up on issues connected to phenomena discussed during GVI demonstrated in visitors' interviews and field notes. | Membership of tour provider | Visitors Six, Eight & E |
| | Informal environmental advocacy | Visitor Six |
| | Change in consumer behaviour | Visitor Five |

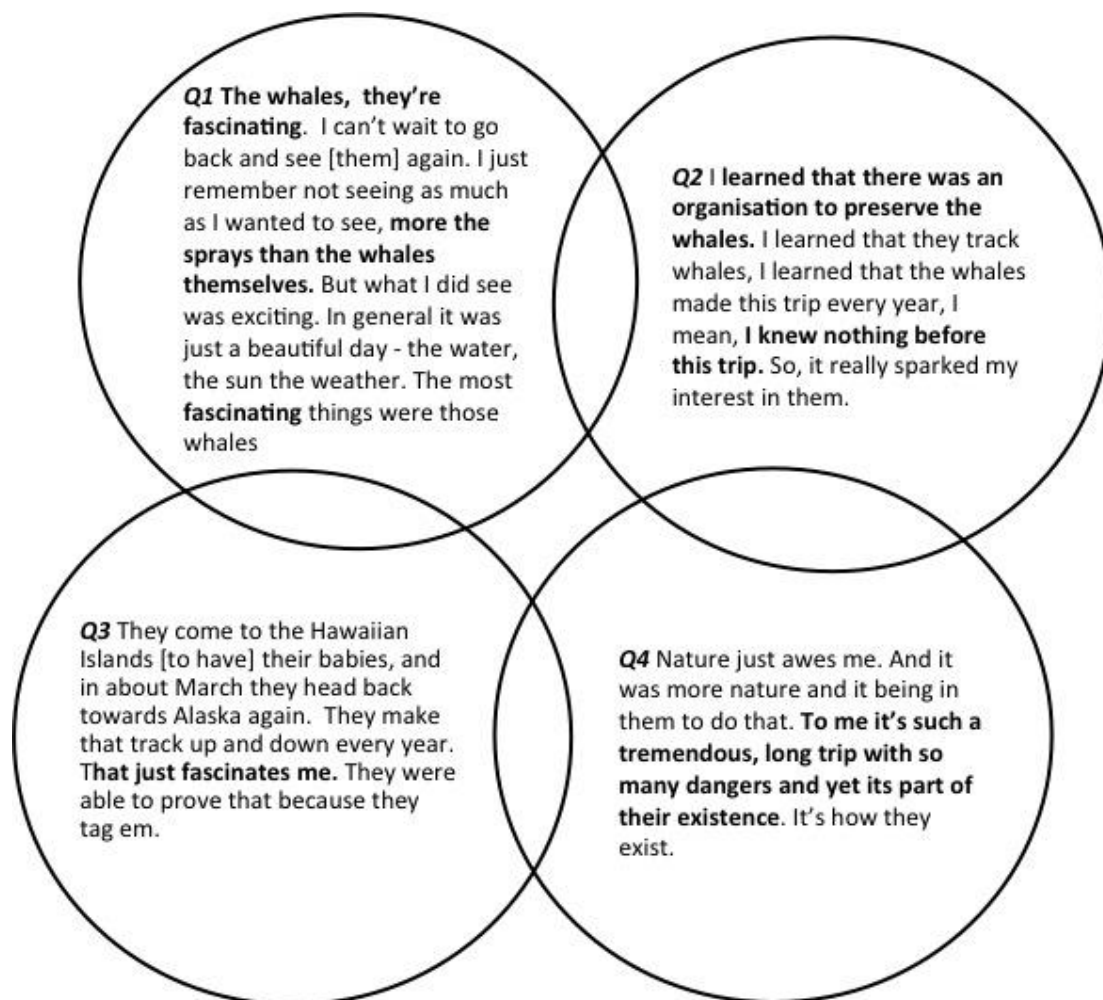
* Visitor C's comments were in context of Guide C whereas other SoTM visitors' comments were about community as well as individuals

** Visitor C also made comments that made clear that pest eradication while possible at sites such as islands was not feasible in many mainland areas

Source: Adapted from Knapp (2007).

As with other PWF participants, Visitor Five believed that she became aware of newly identified features of Maui and Humpback whales after her tour. Visitor Five's first encounter with a Humpback whale was on a fishing trip the day before her PWF tour. That encounter was the trigger for her interest in Humpback whales. She and her husband were oblivious of the relationship of Maui with Humpback whales on their previous holiday to Maui. After the tour, they were aware of the significance of Humpback whales in the lives of people living and holidaying in Maui:

People were excited and they talked about them [Humpback whales] as I say we really got the hang of it. We never talked about a whale before we came to Maui, but you know I don't want go back to Maui unless I can see a whale now. (Visitor Five, reflective interview, PWF)



Question one (Q1): What do you remember most vividly from your trip to Tiri?

Question two (Q2): What was the most significant thing you learned?

Question three (Q3): How did you learn that [unpack the experience to locate the TM]?

Question four (Q4): What do you think was important in you remembering that?

Figure 4.2: Visitor Five's initial responses to first four structured questions of reflective interview

For all visitors, new or increased awareness resulted in their investigation and evaluation of certain issues connected to GVI. For some evidence of visitor empowerment can also be connected to GVI during a wildlife tour. This ranges from reinforcement of existing behaviour, membership of tour providers to changes in behaviour. During Visitor Five's trip the PWF crew interrupted the tour to pick up marine debris. Guide Five discussed the impacts of marine debris on the ecology of the Pacific Ocean and individual Humpback whales. This was recorded in the field notes and recalled by Visitor Five "They were talking about this massive hole [Northern

Pacific Gyre] of trash that the whales have to go through. I never heard of anything like that. So, they're just marvellous creatures in all that they deal with" (Visitor Five, in situ interview, PWF) (Box 4.1).

Box 4.1: Visitor Five field notes on Northern Pacific Gyre

Observer note: Water bottle issue (0917)
 Observer note: Visitor Five & Partner Five: [taking] Photos (0920)
 Visitor Five: Pointed [to water bottle and said] 'there it is' (0923)
 Guide Five: Heard recently that there is more plastic in ocean than plankton. North Pacific Gyre. Large gyre of garbage. Size of Continental America. 700 feet of fishing.
 Roving Guide: [Speaking to] seventh & eighth identified visitors 'Yeah it [entangled Humpback whale in the HIHWNMS] was released [from marine debris]' (0925)
 Observer note: Sustainable seafood guide cards distributed by roving guide (0928)

Visitor Five in her reflective interview nine months later still thought about the human impacts on Humpback whales and believed that she had changed aspects of her consumer behaviour as a consequence.

We can do something different as individuals. Every now and then **I start looking at things like buying the little paper bags...** I don't know about in New Zealand but we still use plastic bags here and there everywhere and I tend to use **less and less plastic because it is harmful...** in terms of whales. (Visitor Five, reflective interview, PWF)

GVI in Visitor Five's tour was a contributing factor in a shift in perspective of Humpback whales in that she believed it influenced behaviour.

Most visitors opined that they did not do anything since the tour when asked that question in their reflective interviews. Many visitors felt it reinforced existing behaviour. Visitor Six, one of the visitors that joined the organisation who provided the tour, felt he had become more active in talking to people about environment-related issues:

We haven't done nothing different, as far as my everyday living, **I've definitely educated people.** Aside from the whales which **I learnt from the [Pacific] Whale Foundation too, was the garbage, like the dumping in the ocean** and how there's, like the currents that collect garbage that's in the ocean path. And

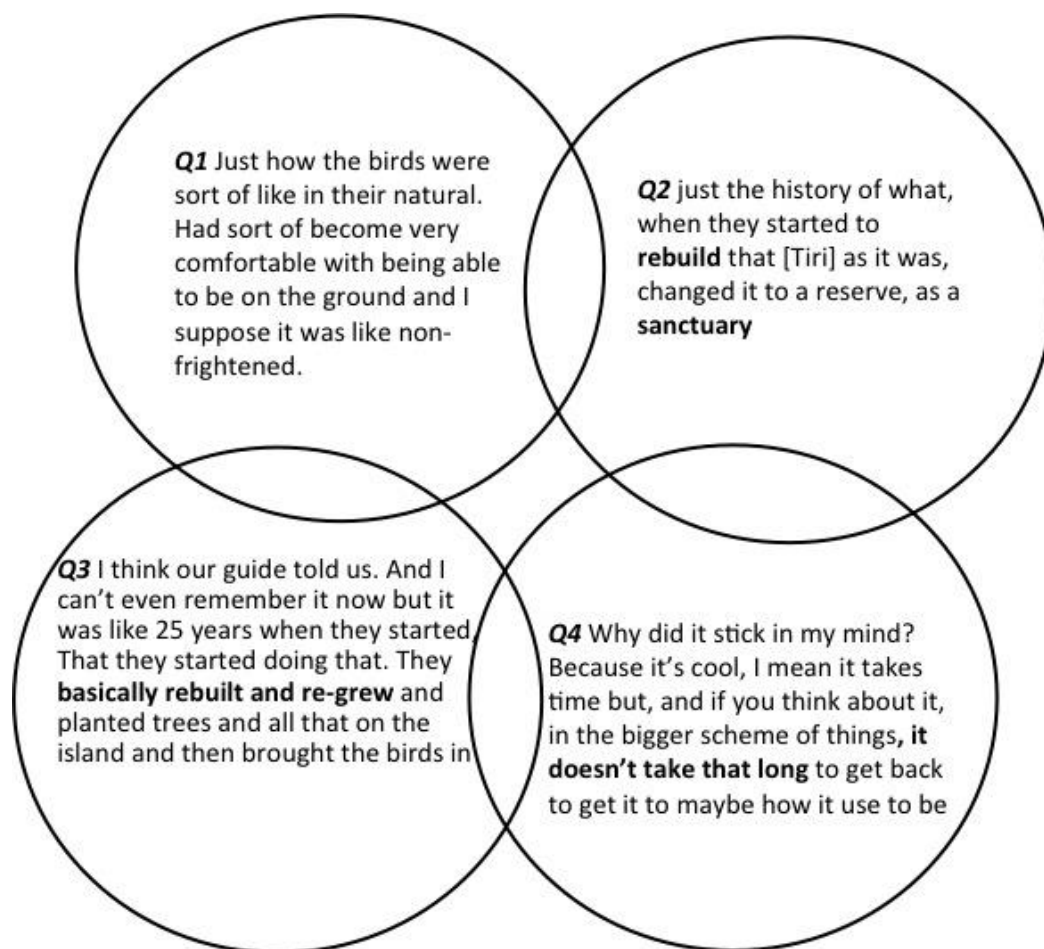
how they know like there's things that they are tangled up on them and they think it's coming from the sea of garbage that we have that's the size of Texas or whatever the heck they said. And things like that **make me more cautious aware of garbage and stuff. I'm definitely more conscious on littering.** I pay more attention on that kind of stuff for sure. We are 100% recyclers and you know we're definitely green people. (Visitor Six, reflective interview, PWF)

For other visitors, the impact of GVI was more about reinforcement of existing knowledge than empowerment or reinforcement of existing behaviour. A critical incident of GVI for Visitor C was asking Guide C about factors affecting the distribution of Saddlebacks or Tīeke (*Philesturnus spp.*) in New Zealand. The question was observed by myself and remembered by Guide C. Visitor C through GVI and encounters with Saddlebacks became aware of a perceived demarcation between areas where he had heard or seen Saddlebacks and places he had not encountered them (Boxes one and two in Narrative 4.1, Appendix 17). Visitor C assigned to Guide C a role in deepening his understanding of the role pest eradication played in creating habitats for viable populations of Saddlebacks:

She made it really easy to understand [impact of exotic predators]. And that was that they [Saddlebacks] are a ground habitat bird. And you can see that when you see them; they even nest close to the ground. So, they are easy prey. (Visitor C, in situ interview, SoTM)

Among the issues connected to the distribution of Saddlebacks that Visitor C investigated was the relationship between native bird species, exotic mammalian predators and human pest control initiatives (Boxes two and four in Narrative 4.1, Appendix 17). There was evidence that he has also thought carefully about whether human intervention could engineer viable populations of endangered native bird species throughout New Zealand or just confine them to certain geographical areas (Box five in Narrative 4.1, Appendix 17). Visitor C had an appreciation of the complex interrelationship between conservation management, recreation, and the wise use of public resources in New Zealand. GVI appeared to reinforce his existing beliefs on the value of conservation work but he believed that pragmatism rather than idealism should

determine the scope of ecological restoration efforts (Figure 4.3 and Box seven in Narrative 4.1, Appendix 17).



Question one (Q1): What do you remember most vividly from your trip to Tiri?

Question two (Q2): What was the most significant thing you learned?

Question three (Q3): How did you learn that [unpack the experience to locate the TM]?

Question four (Q4): What do you think was important in you remembering that?

Figure 4.3: Visitor C's initial responses to the first four questions of the reflective interview

Learning occurred during the tours as evidenced through the testimony of the learners and the observations of other tour participants. In this section, it has been shown that it is possible to infer that specific instances of GVI were critical to the nature and extent of learning events that are connected to the tours observed. New or increased awareness and understanding of phenomena referred to in GVI, the investigation and evaluation of issues, as well as, visitors' empowerment to follow up on issues connected to those phenomena were just some of the dimensions of the learning outcomes connected to GVI. The findings in the context of the research questions are addressed in the following sections.

4.2.2 Can visitors and guides identify a situation within a guided wildlife interpretive experience where visitors are most receptive to learning? (Research Question One)

The findings show that both visitors and guides can identify situations where visitors are receptive to interaction but did not specify a situation where they were most receptive to learning. Also, some visitors described personal experiences that resemble what literature calls ‘a teachable moment’. Visitors were able to locate points of reference in respect to their knowledge and familiarity with ideas connected to specific phenomena. With these reference points, they identified changes in their knowledge before and after the guided tour and they self-assessed that learning had taken place.

In any given tour, there were a number of interaction contexts between guides and specific visitors and it is difficult to connect any specific moment on a tour with what visitors identified as a learning event in the short or long term. A teachable moment can be discerned in Visitor E’s experience upon hearing that Argentine ants (*Linepithema humile*) were an invasive pest problem for Tiri (Box 4.2).

CIT technique provided the opportunity to select and explore specific incidents that were perceived as important for visitors in assessing perceived learning events that they associated with their tours. Visitors Five, Seven and C were deliberately selected because their experiences provided important insights pertaining to the research questions. More specifically, Visitors Five and Seven represent experiences and perspectives that were contrasting and at each end of the continuum of participants in this study. Visitor C’s experiences were selected because, like Visitor Seven, he explicitly stated how he is very discriminating when it comes to evaluating information sources but referred in both interviews to learning events occurring for him. The decision to consider the experiences of these three in detail, rather than select instances from the other seven visitor participants was also made because CIT technique demonstrates that for most people a series of incidents contribute to a perceived learning event rather than one isolated incident.

The interface between existing knowledge and new knowledge about invasive pests, and the conservation effort to restore and protect Tiri can be explored through the ideas and concepts that arose during Visitor E’s SoTM tour. He was surprised that the guide referred to an ant as a pest as it didn’t conform to the mammalian profile he usually associated with exotic animal pests in New Zealand. Not only was he surprised that it was an ant but that the pest was narrowly specified as being an Argentine ant:

It's just unusual; **I expected him** to say, you know, of all the different pests and things. You now, the usual sort of rats and stoats, dogs and things and then suddenly came across 'A', the fact it's an ant and, 'B' it's an Argentine ant. Out of all the ants that it could be, umm so, yes, a little bit unusual and which is **why I sort of lodged on to it**, and I suddenly thought, 'how the hell do you get rid of them?' (Visitor E, in situ interview, SoTM).

Box 4.2: GVI references to Argentine ants in Visitor E field notes

Initial question in field notes: [Little Hobb's beach] 1105-1115

Guide E: When you look out from there, that's our main defence. 4 km [of sea between Tiri and] Whanga[paraoa]; Stoats can swim 2 km. Strong current [a factor in preventing pests swimming to Tiri]. Had re-invasion of Argentine ants from boat.

Visitor E: What do you do to eradicate it [Argentine ants]?

Guide E: Big grid system; Chris Green [DoC staff member], world expert. Like to say eradicated them [Argentine ants], Chris has been trying for a long time - 10-15 years

Follow up of Argentine ant GVI in field notes: [On shortcut path between turn off and crossroads junction before Coronary Hill] 1307-1309

Guide E: Big argument about [pest eradication] on Great Barrier Island. Wild pigs an issue as locals want them, use of poison and [reference to] Māori. [Examples of how conservation management] gets complicated. Sign of progress that it is being debated.

Observer note: Great Barrier Island and Argentine ants discussed

Visitor E: Your guy over there?

Guide E: I think he [Chris Green] is. Do Argentine ant eradication at the hottest time. Teamwork.

Firstly, Visitor E's discussion about Argentine ants is a response to my question "what made you interested in that?". Secondly, the pests Visitor E listed (rats, cats, stoats and dogs) are the mammalian predators that are commonly referred to in discourse on exotic predators for New Zealand's native fauna. Thirdly, there were at least two instances where these mammalian predators that are commonly referred were announced to visitors: on the ferry and in the introductory talk by the DoC Ranger. Also, I wrote down the word 're-invasion' when recording in the field notes what Guide E said about Argentine ants (Box 4.2).

'Receptivity to learning' is a difficult concept to characterise when discussing another person's experience but the way Visitor E describes the ideas he connected to Argentine ants provide an insight into how he makes sense of Guide E's commentary. Visitor E

appeared to emphasise his surprise about Argentine ants by ‘creating’ a new nomenclature for the ant species found at his residence (i.e. ‘home ants’) in his explanation of the eradication of Argentine ants. Visitor E outlines his personal understanding of ant eradication (gel-based bait is taken back to the nest) and then contrasts the difference of the scale of the problem through using the term ‘army of ants’ to indicate the size of the problem on Tiri. He referred to a ‘nest’ when referring to the domestic example. Visitor E at the time of the in situ interview, outlined his understanding of how Argentine ants were controlled in relation to what he heard from Guide E:

I asked a question about how did they eradicate [Argentine ants]. Mass poisoning and dividing up into sections. Yes, I remember some of that. Yes, and he mentioned the name of **the specialist guy** they’ve got on the island... and how he **divided it up into like a grid and put some form of poison down**, and he was a very dedicated man, you know, and there’s still a few to go yet but he wasn’t giving up. (Visitor E, in situ interview, SoTM)

It was interesting that Visitor E may have already been aware of Argentine ants before Guide E’s commentary. During the in situ interview, Visitor E’s partner (Partner E) remembered that someone may have spoken about ants at the wharf, when I clarified if it was the guide or the ranger, Partner E said the ranger. So, it is not necessarily just the term Argentine ants that piques Visitor E’s interest at the point when he asked the question but more trying to understand the scale of the eradication programme required. By the time of the reflective interview Visitor E emphasises that the guided tour enabled him to understand the effort that goes into all facets of the restoration project:

The most significant thing I learned there, was probably **the amount of work that goes on to create a sanctuary like that and maintain it** and the number of people involved and the hours and the years that have gone in creating it. So for me you know, you thought you land on the island, you have a wander around you look at the birds, **you leave but the people explained**, you know the years that have gone

on to actually create it, to eradicate the pests, to do the planting and you know the birds and the animals come back. (Visitor E reflective interview, SoTM)

Visitor E's question about Argentine ants was remembered by Guide E because it was an unexpected question. The topic of Argentine ants was not one that visitors had discussed with him before. It was something that he chose to talk about on his tour because there had recently been a SoTM organised lecture on them:

Well I certainly remember the ant [question] because that was **an unusual question**. That's the first time I had been asked in regard to any detail about Argentine ants. The reason why I used Argentine ants as an example of re-invasion, but I only found out about that going to the **guide meeting** with Chris [a DoC pest eradication specialist], I didn't know about it until then, just recently and that's **a great way to explain to people** about the risks of re-invasion of exotic pests. (Guide E, in situ interview, SoTM)

Approximately two hours separate the two instances of GVI on the subject of Argentine ants. Guide E's decision to refer to them when discussing conservation management on an inhabited island in the Hauraki Gulf again may have been a perception that the ants interested Visitor E. His commentary prompted Visitor E to ask if the DoC expert on ant eradication was involved with the work on that island (Box 4.2).

4.2.3 What are the factors within a guided wildlife interpretive experience that influence visitors' receptivity to learning? (Research Question Two)

Factors that influenced visitor receptivity were varied but included comparisons in differences with phenomena that visitors had some contextual familiarity elsewhere; in particular, this comparison might be with respect to the sensual or mental appearance of the phenomena during the tour. It is important to note that the factors that visitors report influencing their receptivity to learning are difficult to isolate. Furthermore, in the analysis of the data many factors are interwoven together and so rarely is one factor or a specific catalyst within the total GVI identified as a specific trigger for a teachable moment.

The previous experiences or knowledge of visitors were a common factor noted in visitors' recollection as influencing their learning. In many cases this was due to previous encounters of the same species encountered during the tour observed (Table 4.2). Guide intervention through interpretation was a factor that also influenced visitors' receptivity to learning. A common instance discussed by visitors was how guides utilised visual cues during GVI. Such visual cues ranged from wildlife and plants to the appearance of phenomena such as water. Through the field notes of Visitor Eight's and Visitor E's tours I could see how guides' integrated visual cues about the sea with commentary that was relevant to phenomena connected to the site of the tour (Box 4.3 and Box 4.4).

Table 4.2: Factors within a tour influencing visitors' receptivity to learning

| Factors within guide tours | Examples in visitors' recollection and field notes |
|---|---|
| Previous experience of targeted wildlife | Visitors Five, Six & Eight Visitors A, C, E & I |
| Previous experiences connected to the natural environment | Visitors Three, Five, Six, Seven & Eight Visitors A, C, D, E & I |
| Visual cues used by Guides | Visitors Three, Five, Six, Seven & Eight Visitors A, C, D, E & I |
| Direct encounters with animals during the tour | Visitors Three, Five, Six, Seven & Eight Visitors A, C, D, E & I |
| The Guide's own interest in a specific topic outside of required training | Visitors Seven & Eight Visitors A, D, E* & I |
| Guides' enthusiasm and passion | Visitors Five, Six & Eight Visitors C, D, E & I |
| Guides' commentary | Visitors Three, Five, Six, Seven & Eight Visitors A, C, D, E & I |

* Guide E referred to attending an SoTM guides' talk about Argentine ants. It is strongly encouraged that SoTM guides attend some of these talks but it is not compulsory

An instance of Guide Eight using a visual cue was trying to explain the connection between the colour and the specific nature of the ecology of Hawaiian and Alaskan coastal waters, and the implications this has for Humpback whale behaviour (Box 4.4). Guide E used the sea as a visual cue to explain to visitors the complexity of conservation management when it came to dealing with invasive exotic species (Box 4.2). In both tours the guides also followed up with previous GVI with a follow up to that discussion. Guide Eight having brought up the seasonal migration of Humpback whales towards the beginning of the tour talked connected the colour of the sea to the presence of food sources for Humpback whales in Alaska at a later stage on the tour (Box 4.4).

Box 4.3: GVI from field notes involving references to visual cues and Humpback whale feeding and breeding behaviour

0658 Time of field note recording
 Guide Eight: North Pacific Humpback whale population. Whale season Dec 15 – May 15. [These are] arbitrary dates. Start to see whales trickling down early in October and November. Only here seasonally
 Guide Eight: Q[uestion] ‘where are they [when not in Hawaii?]
 Visitor Eight: Yeah we saw them [Humpback whales] in September in Alaska
 0659
 0729
 Guide Eight: [Commentary about using] photo identification [to identify individual HBWs]. [HBWs have] natural marking pigmentations. Like freckles
 Observer note: The sixth identified visitor smiles at this
 Guide Eight: [HBWs also receive] marking[s] from predator[s]
 Observer note: Visitor Eight looks intently at Guide Eight throughout talk [on photo identification]
 Guide Eight: Who had seen them [HBWs in Alaska]?
 Visitor Eight: [HBWs] weren’t as active. It was raining heavy [when I saw HBWs]
 Guide Eight: Someone [here who was] up in Alaska had seen them [HBWs there]. [HBWs exhibit] different behaviour [in Alaska compared to Hawaii]. One specifically different behaviour. Reason why [HBWs] have to leave Hawaii
 Ninth identified visitor: Feeding
 Guide Eight: Yes that’s right
 Ninth identified visitor looked at Guide Eight when she said [they] don’t feed in Hawaii]
 Guide Eight: It’s not that they are picky but don’t have opportunity. Look at water [here in Hawaii]. Different currents upwelling [in Alaska]. Sunlight long in summer [and] Algal blooms [in Alaska]. Herring, capelin, mackerel [are HBWs prey in Alaska]. Grapefruit [analogy for the size of a HBW’s throat]
 Observer note: The sixth identified visitor smiles [on hearing this analogy]
 Guide Eight: [HBWs] Store food as fat on bodies. All this breeding done on an empty stomach; how amazing is that!
 0735
 0747
 Visitor Eight: (makes clear that conversation is off-mike) We had ___ [a whale] right off boat [in Alaska] Do they do that here?
 Guide Eight: Yes but not that often
 Visitor Eight: It was really green water. All we saw was [Humpback whales] doing this [up and down] hand signals [up and down signals- suggests travelling]
 Guide Eight: Didn’t see any breaching?
 Visitor Eight: Didn’t see any breaching
 0749 end of field note recording

4.2.4 Can visitors’ receptivity to learning be discerned through observable behaviour such as visible signs of affect or curiosity on the part of visitors? (Research Question Three)

The use of participant observation and field notes enabled me to detect events during the tour where a visitor’s visible behaviour could be connected to what the visitor perceived as learning outcomes in the short and long term. One of the indicators that suggests curiosity on the part of a visitor and, then, connecting it to learning were visitors asking questions. Guide Five seemed to associate many of the questions that he fielded on the observed tours as coming from Visitor Five: [Do you remember some of the interaction

you had with Visitor Five and Partner Five?] “They had a number of questions. Most of the questions on the trip came from those two” (Guide Five, in situ interview, PWF). A factor that can explain why Guide Five was so aware of the number of questions they fielded was that Visitor Five and Partner Five positioned themselves close to where the boat Captain was, and that was where Guide Five conducted most of his commentary over the PA system. A series of incidents that I explored in my interviews with Visitor Five and Guide Five was about exchanges over the PA about when whales might surface. Guide Five appeared to be able to connect Visitor Five as being interested in this through a series of exchanges:

I think she [Visitor Five] may have asked how long do they stay down for, I think she may have been the first one and she asked that almost immediately and that **may have been what prompted me to do the check your watch thing**, I forget although I feel like I did that right away. **But she did ask**, that’s right because she said how long are they going to be down there for and I said ‘well the maximum down time is a little over an hour that we’ve recorded’ and I remember her saying ‘oh no’. I told her that ‘the good news is that’s very rare. That’s the record and more typical is 8-15 minutes’ range and if it’s a smaller animal then it will be shorter’ and so on and so forth. **She did sort of initiate that**. (Guide Five, in situ interview, PWF)

Guide A connected her rationale for interpreting a direct encounter with a Tūi to previous episodes where visitors appeared to be interested in identifying whether birdcalls heard could be those of Bellbirds or Tūi (although she could not recall if it was specifically Visitor A who asked those questions). Guide A stated that she recognised instances of curiosity from Visitor A but believed that cultural traits perceived to be representative of a person’s country of origin were also factors about the extent that people show that they are interested or emotionally affected by an experience (Box 4.4).

A mitigating factor in trying to understand the extent observable behaviour on a tour might relate to visible signs of affect or curiosity is that visitors are aware of what their facial expressions and body language might convey to others. Visitor A explained in the in situ interview that she felt unwell from the boat trip, and needed some time to recover,

hence why she did not participate in the first stage of the trip which took a detour to see the penguin boxes at the start of the other guided tour route. That she was unwell was not readily apparent to me or Guide A. Visitor A was conscious that she may have made a bad impression and wanted to indicate her willingness to participate in the tour:

The guide **has to assess in a very short amount of time**, don't they, what their audience is, that's why they ask where you come from. Their actually probably listening to the tone of your voice, you know, whether your making eye contact, whether you're interested. That's why at the beginning I was sitting down, that's cause I'm a lazy bird! But I noticed, she was having to turn cause she was trying to gauge, so **that's why I stood up and got in front of her to say** 'no I am interested, I'm just lazy and like to sit down'. (Visitor A, in situ interview, SoTM)

Box 4.4: Excerpt Guide A's in situ interview about rationale for content in interpretation

Interview section about the rationale for interpreting a direct encounter with a Tūī

Guide A: "I don't know. I think that I was talking about that you could see that it was opening and closing his mouth, but there was no sound coming out.

Me: You said, 'opening mouth, can't hear anything, so that's outside our hearing range'.

Guide A: Oh, I know what that was, it was earlier on when we come up the road somebody had heard that noise in the Puriri trees. We weren't quite sure if it was a Tui or a Bell bird

Me: Cool. And I think that's what she was saying. Is that a bell bird – it was her sort of things.

Guide A: And often people say, 'no that's not a Tui, it doesn't sound like a Tui at all'. But when you hear it echoing around the bush here, it sounds different from one individual bird that you are listening to". (Guide A, in situ interview, SoTM)

Excerpts from Visitor A's Field notes about encounter with a Tūī

Guide A: See Tūī opens mouth but can't hear anything. That's [because its] outside our hearing range. Two voice boxes, able to open and close them independently. So why a range of sounds? (Tūī on perch vocalizing with white [throat] feathers showing). So can hear "du bu". Now reason brought here not to look at Tūī but to look at this tree. (Visitor A Field notes, SoTM)

Interview section about affect and learning

Me: "So did you see joy in the face of [Visitor A], the English lady or was it – you saw – how do you think her thing was?

Guide A: Ah, she was quite – a lot of English people do this, - she was quite laid back about everything, so it was hard, the joy wasn't so visible in her expression, but I felt as though she was really enjoying it. I could be quite wrong, but she was quite engaged, because she was asking lots of questions (Guide A, in situ interview, SoTM).

Me: So, do you think she learnt anything today?

Guide A: I'd like to hope so. She did know a lot beforehand, I'll certainly give her that but I'm sure there were things I wasn't aware of". (Guide A, in situ interview, SoTM)

Guide A indicated that her perception of the willingness of Visitor A to be involved in the tour changed over the course of the tour: "I was surprised because in the beginning

she behaved like she wasn't very interested" (Guide A; in situ interview, SoTM).

Visitor A also appeared to be concerned that she may be impinging on other people's experience if she did not restrict her level of interaction with Guide A during her SoTM tour. There were initially five people in the group, but this reduced to four when one visitor left. Visitor A and the other female visitor frequently interacted with the guide and others, whereas the two male visitors were more reticent and only asked occasional questions. This may have been a factor in Visitor A not sharing her own ideas about dialect: "Well there's whitey wood as well. I had heard of that so I kept shut. Because other people have to have [a turn]. I didn't want to take over, asking silly questions" (Visitor A; in situ interview, SoTM).

The caveat on this is that in the study of individual visitors, many of the questions that were recorded in the field notes by the relevant visitors could not necessarily be connected to the visitors' perceived learning outcomes. So, while I could detect events during the tour where visitors' visible behaviour could be connected to what visitors perceived as learning outcomes in both the short and long term, I cannot definitively say that visitors' receptivity to learning can always be discerned through observable behaviour such as visible signs of affect or curiosity on the part of visitors. Aspects of this question will be further explored in the next section in combination with the next research question.

4.2.5 What level of interaction do visitors seek from guides in the learning process of a guided tour? (Research Question Four)

The only generalisable statement to be made is that the level of interaction that visitors seek varies widely. Many visitors appear to be content with passive interaction at an external level; that is, listening to the guide and moving their attention to specific visual points referred to by the guide. The findings indicate that visitors' perceived learning outcomes can be connected to instances where the only GVI that could be inferred was at the level of listening externally and cognitively engaging with what was being said internally.

Visitor Eight's receptivity to learning can be connected to certain behaviour he exhibited on tour that was observed by either Guide Eight or myself. The level of interaction that Visitor Eight sought ranged from passively listening to also responding to Guide Eight's prompts for visitors to interact, and also specific one-on-one discussion with Guide Eight. During the tour, Visitor Eight went out of his way to engage Guide Eight on a one-on-one talk during his tour. On SoTM tours observed, that involved no more than 16 people, individual access to the guide was relatively straightforward but on a PWF tour, it is easier

to engage with the roving guide rather than a lead guide such as Guide Eight who was focused on talking to the group as a whole over the PA. This suggests that he was motivated to ask Guide Eight about different whale behaviours at the different sites. Guide Eight got the sense that Visitor Eight was interested in learning through his willingness to engage with her (Box 4.5).

During the in situ interview Visitor Eight joked about his level of interest in just listening to what Guide Eight said: “Yeah I was listening to her [Guide Eight] I listened to her more than I talked to you [joke between Visitor Eight & Partner Eight]” (Visitor Eight, in situ interview, PWF).

Box 4.5: Guide Eight on Visitor Eight from in situ interview

Yeah, he [Visitor Eight] was asking, earlier I remember in that situation I had asked if any had seen whales in Alaska and he said that he had and then I remember I asked if he had noticed any differences I believe; that would have been a little bit after asking him that and he said that it seemed like that there was more activity here, and he also mentioned that without talking into the microphone that he had had a whale come towards the boat under the boat and he wanted to know if that ever happened in Hawaii (in situ interview, PWF)

I think what helped him [Visitor Eight] to be a little bit curious was having whale watched before and seen the differences and me maybe remarking on the differences that he might have noted himself, umm, so I think yeah he was probably curious as to why the whales behaved differently here than they had in Alaska when he was on his whale watch there, umm why the water would be green there and, maybe he had noticed that when he was up there but didn't know why it was green so that was something that made him curious (in situ interview, PWF)

Yeah well when I asked that has anybody been to Alaska. He [Visitor Eight] initially said yeah which made me feel like well that he's interested. First of all, he's listening and second of all he was interested in maybe first of all participating a little bit. Then he of course asked a question and he would comment on something he saw and then compared it to Alaska like the green water. So that would obviously make me think that he was a bit curious (in situ interview, PWF)

Oh that's right. He didn't show me a photo but what he came up and told me that the whale that breached, was tail smacking, tail smacked three times as we left. That's right because, I wasn't watching, I was looking at the lady's breach photo and I remember talking about that on the mike. I guess that would definitely suggest that he learnt something because why would he, be so interested to come up and tell me... A lot of passengers might, if they first of all weren't even paying attention. Not even known that I would have been even interested in that (in situ interview, PWF).

For Visitor Eight, Guide Eight had previously made a comparison between the colour of the water in Alaska and Hawaii, and then went on to discuss the scarcity of food for Humpback whales in Hawaii. Even though Visitor Eight had been on a whale watch tour in Alaska, he had not realised that their foraging behaviour was mostly restricted to Alaskan waters; however, by the time of the reflective interview, Visitor Eight was clear that Humpback whales behave differently at the two locations – foraging in Alaska, and mating and birthing in Hawaii:

[What was the most significant thing you learnt?] That's a good one, don't know what, **we were on vacation** [laughs]. I know there were some things that the **woman [Guide Eight] had said** on the ship about the whales, they don't eat and they have, they either calf or they mate while they are in the warmer waters. But up in Alaska where we saw them, they eat a lot and that's all they do. **And the males fight a lot in Hawaii.** (Visitor Eight, reflective interview, PWF)

So, for visitors where GVI can be connected to a perceived learning event, such as Visitor Eight, a range of interaction contexts with guides were observed or described. However, it should be noted that Visitor Seven who could not identify any learning for himself from the tour was observed by myself to have engaged with Guide Seven a number of times, and also demonstrated that he actively listened and evaluated to her commentary even when he did not talk specifically to her.

4.2.6 What role do guides play in the facilitation and enhancement of learning during the guided wildlife tour? (Research Question Five)

Visitors say that guides play a major role in the facilitation and enhancement of their learning. Concepts and ideas used by visitors in interviews about their tour experience can be attributed to guides in the field notes. Existing knowledge of visitors was inferred from a careful reading of interview transcripts and field notes.

Visitor Five believed that Guide Five and the other PWF staff facilitated her ability to communicate her observations to the PWF staff during the tour (Narrative 4.2). Visitor Five felt discussion by the staff of the surfacing behaviour of whales enabled her to get a sense of predictability about whale surfacing during the tour. A further feature of the visitors' recollections of their interaction with the staff on the PWF tour is that it appeared to create a level of rapport between themselves and the staff which made the visitors feel comfortable to ask questions and interact with the staff. In the in situ interview, Visitor Five believed that she learnt a lot about whales through her interaction with the crew; in particular, the captain of the vessel, put her at ease and made her feel comfortable. This was something that Visitor Five commented in both the in situ and reflective interviews.

Yes [the PWF crew acted appropriately in terms of the safety of the whales] because **I don't believe they compromised safety.** I mean I'm sure that that

Captain knew that if we saw that whale over by that bush, that I wanted him to go closer to be really honest, but **I trusted his knowledge** in knowing how safe it was, and how close to get. (Visitor Five, in situ interview, PWF)

An important element in Guide Five's interaction for Visitor Five was that Guide Five included the visitors in his commentary and that there was a perceived spontaneity in his approach. Visitor Five felt that the communication style of Guide Five created an atmosphere that made her and her husband feel able to ask questions:

The thing I like about [Guide Five] was, **he didn't have a script written out**. He said 'hey, I want to be able to be responsive to you, what do you want to know?' And so, it was interesting because the things that were going on in my mind and the questions I had, he answered those. He allowed me to ask those questions, which gave me more of a learning experience. (Visitor Five, in situ interview, PWF)

Excitement of the experience was a quality that Visitor Five felt was something that the PWF staff wanted to share with the visitors. Such excitement was perceived to be representative of people in Maui: "I feel there was a **genuine interest** in wanting us to share the **excitement** of being really able to see one ... it's that time of year and I guess it's that big draw for Hawaii" (Visitor Five, reflective interview, PWF).

Field notes and interviews highlight the complex relationship between GVI and its role in facilitating learning. However, the results demonstrate guides play a major role in facilitating information for visitors and they highlight this in their narration of perceived learning events. Most visitors can point to specific instances where guides targeted their commentary to expand on an issue or direct encounter that they wanted to explore. Visitors described guides as being engaged, enthusiastic and even spontaneous to explain how GVI stimulated and enhanced the perceived learning events that they discussed.

4.3 Themes

4.3.1 Introduction

The following sections present the thematic ideas that arose during the analysis of the data. These themes highlight the exploratory nature of the research. Three major themes and 10 sub-themes were identified. The ideas that are inherent in Themes Two and Three are each further elaborated into five sub-themes respectively. At one level, the data highlight the content of peoples' experience when it comes to concepts such as curiosity, affect and learning. These concepts are very difficult to discern in human experience such as everyday tourism activities that lie outside of the laboratory or the examination room, yet a careful analysis of the data was able to generate three distinct themes (Table 4.3).

Table 4.3: Themes and sub-themes derived from the findings

| | |
|--------------------|--|
| Theme One | Differentiation in the shared experience of a tour |
| Theme Two | Making sense of the experience |
| Sub-theme One | Filtering information and phenomena |
| Sub-theme Two | Stimulating inquiry |
| Sub-theme Three | Invoking a response |
| Sub-theme Four | Integrating new information |
| Sub-theme Five | The agency of the visitor is the key determinant in the extent to which a shared experience of a tour occurs through GVI |
| Theme Three | The agency of participants in facilitating a shared experience of a tour |
| Sub-theme Six | Rapport building creates pathways to a shared experience |
| Sub-theme Seven | Conveying credibility |
| Sub-theme Eight | Inferring passion and enthusiasm |
| Sub-theme Nine | Exploring outcomes |
| Sub-theme Ten | Facilitating learning |

These three themes, with their 10 sub-themes, provide insights into what I term curiosity, affect and learning can be connected to the research participants own experience of their tours.

4.3.2 Theme One: Differentiation in the shared experience of a tour

Perceptions of wildlife can individualise the experience. Visitors' and guides' perception of phenomena during the tour are a determinant in the degree to which a guided tour is a shared or individualised experience. The findings indicate that a shared experience of a tour does occur for participants but that the shared experience dimension is subordinated to other factors incorporated into individual experiences. The shared experience of a tour is much more difficult to isolate or measure than the individual experiences derived from it.

The study's findings-based constituents of both a shared experience between participants and individual experiences on a specific guided tour are to do with the senses, the notion of familiarity, and the degree to which there is consensus about what was seen or heard as well as the significance of that phenomenon (Table 4.4). Guides felt that they were able to deduce that a person was curious about a phenomenon and also rationalise that a person may have been able to integrate information from the tour with their own understanding of that phenomenon. In part, this rationalisation was based on instances where they remembered an exchange between themselves and the visitor and then either an instance of the visitor utilising that information or myself relating an aspect of the visitor's recollection back to the guide.

Guides also recounted their own perceptions of visitors' levels of receptivity for GVI as well as the extent that visitors may have sought to engage with others or be left to their own thoughts. Members of visitors' social circles were also able to verify instances of GVI. Sometimes it appeared that part of the process of visitors' understanding of phenomena was through systems of recall that actively involved the input of a member of their social circle.

The data relating to the findings in Theme One were defined, and categorised, as instances of hearing, seeing and familiarity. There were also instances of touch, taste and smell, but they accounted for only a small part of what the participants shared about their overall experience on the guided tours. There are clear instances of participants' recollections referring to the same phenomenon but differences do appear in what participants believe they saw or heard. In this study, seeing refers to the things seen by the participants during their guided wildlife experience and includes instances of body language from humans and animals, signage, and all visible representations of natural and man-made phenomena reported in the interviews and field notes; hearing, refers to verbalised speech and non-verbalised sounds from people, animal calls and noises, and other noises from natural and man-made phenomena.

Table 4.4: Theme One: Shared experience narratives from interviews

| Visitors' narratives (PWF) | The Visitor | The guide | Inner social circle | Researcher |
|---|---|--|---|---|
| Visitor Three's vertical whale | And there was one doing the tail slapping, although I wouldn't call it that because I see it coming up vertically with the tail high. I saw that five times (Visitor Three; in situ interview). [What do I remember most vividly from my trip?] It's kind of a whole sequence, but I guess if I had to say one thing was when I saw that particular whale breaching just as the sun rose over those mountains. (Visitor Three; reflective interview, PWF) | She actually just noticed before I even did that the whale was doing some splashing... she thought some tail slapping and she got kind of excited and turned around to point it out. So I kind of explained that the purpose was communication and she was exactly, and she just kind of kept watching. (Guide Three; in situ interview, PWF). | [Visitor alone on trip and during in situ interview]. | Observer note: Tail slap three to four times observed [Ts 3-4]. V3 talks to G3. Excited. Seven o'clock is where tail slap occurred [7/0] Lead Naturalist: Sunrise Haleakala, House of Sun (Visitor Three field notes, PWF). |
| Visitor Six's concern for the welfare of whales in proximity to the harbour mouth | They were sitting out the surface of the water for quite some time and from what I understand, from what I've been taught before on the grand opening whale tour, was that they are tired and we weren't sure if there was a calf or like was there like. (Visitor Six; in situ interview, PWF). | He asked if they commonly rest. I remember that being one of the very first things. [If] they commonly rest when they get back from Alaska after their migration; would [they] just stop and rest. (Guide Six, in situ interview, PWF). | I felt that too... That anticipation – holy cow, that boat is running right towards that whale. (Partner Six in Visitor Six, in situ interview, PWF). | V6: Resting on the freeway [reference to the entrance of Maalaea Harbour] (field notes). (Visitor Six field notes, PWF). |

The dimension of familiarity relates to the extent that the phenomena experienced or discussed were reported as being familiar in terms of knowledge and experiences. Familiarity in respect to the guided wildlife experience relates to the extent to which the participants are familiar with phenomena, either in terms of direct experiences of the phenomena (during the tours) or in terms of knowledge. Participants' familiarity in terms of tour-based phenomena was defined in the analysis by the level of prior knowledge a participant indicated they had; for example, the degree to which an animal seen is identified not just as a bird or a whale but as a specific species, either in relation to previous direct experiences or from accrued information about how to identify the animal.

The discussion of this theme is organised into two areas: Firstly, elements of convergence in visitors' and guides' experiences can be described in respect to what participants saw, heard or understood; and secondly, both sense determination and the notion of familiarity create elements of divergence in the experience for both visitors and guides. Visitors' recollection of phenomena connected to observable guide–visitor interaction approximated the recollection of other people involved in the same guided tour; that is, people such as guides, the researcher and members of visitors' inner social circle (Figure 4.4). Visitors' interest in a certain phenomenon was also observable to others.

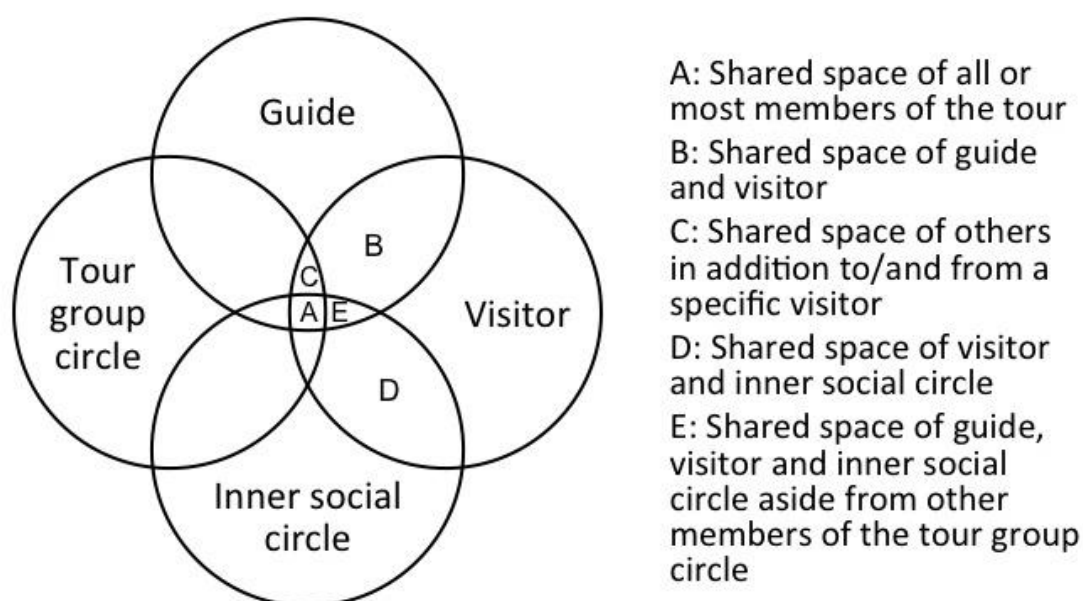


Figure 4.4: Dimensions of a shared experience of a tour.

Note: While I did record instances of GVI in the other areas of overlap in my fieldnotes I did not have the opportunity to explore these in interviews, and so have not described them as a shared space in the context of the study

The narratives of the visitors and guides and the observations in the field notes reveal that the participants' perceptions of animals and their behaviour states during a wildlife tour is a determinant in understanding the degree to which a guided tour is a shared or individualised experience. While much of the discussion in the participants' reflections revolved around shared direct experiences, key elements of the narratives about wildlife during the GVI were memories of previous encounters or imaginings about wildlife behaviour. The nature and frequency of whale sightings in the context of visitors' expectations about such encounters was a factor in creating a more individualised experience for visitors.

A shared experience of a tour can be discerned on the Pacific Whale Foundation (PWF) tour between Visitor Six, his inner social circle, the guide and the researcher in respect to linking the behaviour of a whale pod to logging. Differentiations in that shared experience occurred in respect to concerns that the encounter posed a potential risk to the whales encountered. Four people – the visitor, the researcher, the visitor's partner and the guide – remember GVI around seeing a pod of whales close to the Maalaea Harbour. Visitor Six appears to have associated the information he received from his first whale watching trip about the Humpback whales' migration cycle and a behaviour termed 'logging' with the direct experience of seeing Humpback whales on this tour. Visitor Six wondered if the apparently stationary position of the whales was due to the impact of the migration. He asked Guide Six if the whales were logging (Box 4.6). Guide Six remembered that, prior to Visitor Six's question, he had used the term logging and explained it in connection to resting; in particular, as a common behaviour observed with mother-calf pairs.

What was not part of the shared experience between the guide and the inner circle was concern that the actions of the PWF vessel and other vessels posed a risk to the Humpback whales. Visitor Six did recount discussing with their vessel's captain whether he could communicate with other vessels close to the harbour mouth but did not appear to explain the motive for the question, and Guide Six was not aware of this communication. Visitor Six's aunt recalled that PWF staff discussed how the distances between their vessel and the whales were measured, and this was also recorded in the field notes (Box 4.6), but such instances were not part of Visitor Six's experience. Instead he made statements where he commended PWF for their conduct in respect to being responsible and educational in their tours, while adding that a snorkelling tour run by another company acted irresponsibly:

There's definitely **a standard**. It was funny, we were on a snorkelling trip and it wasn't an hour before they give us the spiel about you shouldn't feed the fish and all that's needed is everyone jumps in the water and then, all of a sudden, they're throwing bread overboard. (Visitor Six; in situ interview, PWF)

Box 4.6: Visitor Six's 'freeway' narrative from in situ interview

| | |
|--------------|--|
| Visitor Six: | “Like the freeway... Out of the harbour, it was... I found that I didn't like that a whole bunch; you know, where two boats come out of the harbour... my first question to the captain was, ‘Can you communicate with the other boats?’ and he said, ‘Yeah’ but I didn't see him communicating to that boat, or if he did, he didn't tell him that there was a whale in front of him because that boat was going full speed until, like, right there and then, boom he stopped. So I find it strange that in a busy port like that, how there is no monitoring system for a species that was endangered, is now protected or something. I guess it's not endangered anymore.” |
| Partner Six: | “When that boat was coming out, the whale was down under so I felt a lot of anticipation from you, that you were like ‘Oh my God, he's not communicating with the other boat, he's driving right towards that whale’. You've just seen him.” |
| Aunt Six: | “And then he made the comment about them having –what is it? – the sonic, the reading thing.” |
| Visitor Six: | “Sonar, whatever; I didn't actually hear that.” |
| Partner Six: | “Radar.” |
| Aunt Six: | “Oh you didn't hear that. Well he did; he mentioned that later because I was thinking the same thing and I thought okay ... then they kept checking the distance between the boats. Because he said we can't be more than a hundred yards or a hundred and fifty from the whale. So they were doing the sonar and reporting that ‘Oh, that one is two hundred and something from us.’ (Visitor Six, in situ interview, PWF) |

Visitor Six had specific concerns about the proximity of the boats to the whales which he did not appear to specifically address through GVI (Box 4.7). Instead, he referred to a question he asked the captain about communicating between boats about the proximity of the whales. By the time of the reflective interview, Visitor Six had an impression that the PWF tour observed by the researcher was too focused on constructing encounters in a confined space at a critical period for Humpback whale reproductive activity:

I would say [that what I remember most vividly from the tour was our] **proximity** [to], the distance from the whales that we approached, I felt – and I had mentioned this previously [in the in situ interview] –they would be a little closer. I just felt like we were **chasing down** the whales rather than watch the whales almost, if that makes sense?... I just feel that there should be **limitation** to how many boats can be out at once while you're whale watching, especially when you get into their

peak season, their breeding season, their calving season... But really that's a small area and there's a lot of boats and a lot of whales there, right? (Visitor Six; reflective interview, PWF)

Box 4.7: Visitor Six field notes

Guide Six: Coming towards us, in neutral (12 o'clock position, pod of one whale; after 0649). Maybe doing a little people watching.
 Second identified Visitor: Saw one just as we were coming out of [the] harbour (7 o'clock)
 Captain: 138 yards
 Guide Six: Lo [logging]. Did you guys hear it? You saw why they are called humpback [whales]. [That was a] peduncle [throw]. Dive without its tail. Then [Guide Six] refers to Fl [fluke]. (photo orientating, now [Ocean] Spirit travelling 0657).
 Guide Six: (refers to another pod of whales Ts [tail slapping] (0700)
 Fourth identified Visitor: "six o'clock" [direction of pod in relation to vessel]
 Eighth identified Visitor: "one iron" (re distance; brings laughter)
 Guide Six: Don't five too deep, about 600' [feet, the depth of the waters in the sanctuary]. [whale is] 250 yards.
 Captain: 252 yards, pretty good guess
 Visitor Six: That's called logging?
 Guide Six: not logging re dipping below su[rface]
 Visitor Six: What is logging?
 Guide Six: [blank space]
 Visitor Six: Resting on the freeway (reference to entrance to Maalaea Harbour). Is that an indication of resting if they're tired
 Guide Six: More mating or calf [related behaviour]. See resting behaviour after competing [competition pod activity]. [Following solicited from Guide Six at 0742 Visitor Six [asked] are they resting from migration. Guide Six [said] resting on the way, generally do that when nursing and then talked about resting behaviour]
 Partner Six: What was your question about that because they sleep with one half of the brain?
 Guide Six: That's very interesting
 Captain Six: Only fifty feet deep [water]
 Guide Six [blank space]
 Visitor Six: probably scratching her [the whale] belly (0706) There's its back (0707)
 (Visitor Six taking photos)
 Guide Six: That's a roundout as its diving down
 Observer note: [Ocean] Voyager about to come into Harbour (0708)
 Fifth identified visitor [talking to me] boat coming out of harbour, going to hit whale (looks at me with concern
 Partner Six: What is that called (re pukka)
 Observer note: [Guide Six] and how whaler's referred to them as oil slick
 Guide Six: Eyes about the size of an orange; 45 feet [length of whale]; 80-90,000 pounds [whale's weight]. Think about this for weight [equivalent to] African eleph[ant]. 5-6 of these [elephants] squashed together. Females larger than males [by 10%. [males] 42 feet. [something] dimorphism. More females tend to be larger than males. Breath. VW beetle [heart size analogy] (0713)
 Observer note: second pod at six o'clock. One boat before it. Two [boats] travelling towards harbour
 Captain Six: Good eyes, good eyes, it is the [illegible]
 Guide Six: recognise the tail? Like our fingerprint. Notches on the tail edge. Fluke identification [interpretation]. Over 7,000 [whales] identified. [whale pod] at 12 o'clock
 Observation note: Visitor Six takes photo of rainbow (0715) (Visitor Six field notes, PWF, between 0649 and 0715).

A contrast of actual whale behaviour with previous perceptions of behaviour was a factor in GVI during the tours. A key wildlife encounter that dominated much of the GVI between Visitor Six and Guide Six, and that was a major subject of discussion in both Visitor Six's in situ and reflective interviews, was an encounter with whales that were milling close to a harbour entrance. In Visitor Six's field notes and in situ interview are references about the apparent stationary behaviour of whales in relation to the proximity of vessels in transit. Visitor Six appeared to consider logging as a consequence of the exhaustive impact of the migration on the whales.

A dimension of Visitor Six's GVI at this time was a concern that the operators of vessels could be putting the whales in danger through their actions. When discussing the proximity of in transit vessels to the whales encountered, Visitor Six talked about intentional versus actual behaviour, referring to a recent holiday experience where snorkelling operators put food into the water as the visitors were commencing their snorkelling tour, despite having earlier warned Visitor Six and the other customers not to feed the fish.

Guide Six had no perception of endangering whales' safety during the tour. There was one instance when a Humpback whale surfaced in the area the PWF tour vessel was approaching: "And it came within about 150 yards as it dove, and I would have predicted that it was within 100 yards pretty quickly" (Guide Six; in situ interview, PWF). Guide Six acknowledged Visitor Six's concerns about the proximity of the vessels to the pod of whales, but he noted that visitors' perceptions of proximity of other objects to themselves get confounded by the difficulty of measuring distance on the water:

No, we don't [get a lot of questions about the proximity between our vessel and encountered whales]. It's really interesting we don't and I... think a lot of people have that question in mind, but **they see us a professional organisation**, and, it might be on their mind, but they just **believe** we will do the right thing. I get it more as just [visitors] being **shocked and surprised** as what appears to be right next to the boat is 100 yards or 150 yards away. (Guide Six; reflective interview, PWF)

There were instances of a shared experience in the tours, in terms of hearing and seeing as well as sharing of concepts and ideas connected to the phenomena observed. In all the guided tours where participant observation was triangulated with the in situ interviews and reflective interviews with the relevant visitors and guides, there is evidence of shared experiences of animals as well as shared ideas and concepts pertaining to those encounters and associated phenomena. While there are elements of variation in the individual recollections of each of the participants, there are elements of uniformity to their recollections that allow for a sense of a shared experience of a tour.

The SoTM tour experience was more immersive with the potential of wildlife encounters from not only below and on the horizon but also from above. Guides on the SoTM tours used the contact phases with animals to introduce ideas and concepts, and these ideas and concepts featured in the visitors' narratives about their experience. There is a relationship between the contact phase and visitors' attempts to orientate themselves to the experience and to explore and contextualise ideas about the phenomena encountered. However, the vegetation and contours of Tiri also means there are more limited lines of vision for visitors to the island than for those on ocean-based tours. Thus, the GVI on the SoTM tours required a much more prolonged orientation phase and also involved differentiation of the species on the island, as well as information about the gender or age of the same species. The aural dimension of direct encounters on the SoTM tours was much more of a consequential feature in the GVI than on the PWF tours. One feature of this was that much of the GVI about aural experiences was centred on the 'less desired' species such as Tūi and Bellbirds (*Athornis Melanura*); for example, Visitor E noticed the difference in the sounds of Tūi on the island compared with what he had experienced on the mainland. A feature of the GVI was distinguishing between different birdcalls when the respective birds could not be seen.

Visitors' narratives refer to the idea of staff making connections between observed behaviour and theories about the cause of that behaviour that were quite different to the visitors' perception of what they were seeing. With the PWF tours one concept that came through in visitors' narratives was an awareness of different perspectives in respect to interpreting whale behaviour. Visitors noted a divergence between how they conceptualise observed whale behaviour and the terminology or stated purpose suggested by guides (Box 4.8).

A contributing factor to differentiation in the shared experience may be that people's interactions can be influenced by their differences in perception. This can range from the value ascribed to a species or specific behaviour, to the proximity, duration or intensity of a wildlife encounter. The participants' narratives point to situations where visitors' and guides' perceptions of the significance of an encounter can either converge or diverge, and this convergence or divergence can affect the ideas shared and discussed by each actor. The next theme considers the extent to which visitors' recollections of what they shared and observed on the tours was observable to others.

Box 4.8: Visitors' descriptions of observed whale behaviour from in situ interviews

| Words used by visitors to describe observed whale behaviour and its purpose during PWF tour | Relevant quotes |
|---|---|
| Tail slapping | “So obviously, I learned, well it registered in my mind that what I was seeing was called tail slapping, even though I wouldn't call it that” (Visitor Three in situ interview). |
| Breached, head butt, frolicking, having fun, tail flap | “Apparently, they do most everything out of instinct. And it's, there's a reason for everything they do. So, they don't play like we do (laughs) But well I suspect that the smaller ones do... I would think that first of all, it that was a pretty big whale so I don't think he was frolicking, I think that there was a reason for it. You know, a small one with another small one, I would think that they were playing but this one looked like, because right after that he did the tail flap, and he did it three times and so he was, there was a reason for what he was doing” (Visitor Eight, in situ interview, PWF). |
| Playing, don't know | “Basically she [Guide Seven] says do you know why they do it [breach]? And I said I think they are playing and she says but we really don't know. And of course, unless we got inside the whale, we can observe what they do [laughs]. We can't talk to them” (Visitor Seven, in situ interview, PWF). |

4.3.3 Theme Two: Visitor agency in making sense of the experience

The agency of the visitor overrides other GVI factors in making sense of tour-related phenomena and in utilising or curtailing guide-visitor interaction in such processes. The agency of the visitor is the key determinant in understanding the impacts of GVI. The extent to which visitors share their own ideas and thoughts about phenomena in relation to what is 'collectively' seen and heard on tour is a critical factor in understanding the impacts of GVI.

Whereas Theme One referred to the separate qualities of the experiences, shared and individual, on a guided wildlife tour, Theme Two explores how visitors make sense of

their experiences. In particular, this theme uses the data to determine how the visitors' experiences on the guided tour connects to their past experiences and prior knowledge. The findings demonstrate that visitors utilise their agency through a range of strategies to make sense of tour-related phenomena. The findings also demonstrated that the agency of the visitor is fundamental in understanding the extent of visitor participants' individual experience in relation to the shared experience of a tour and to the meanings and ideas shared by the guides.

Visitors discern different patterns of thought about a phenomenon. They appear to categorise these thoughts as their own initial viewpoint and other ways of thinking about the same phenomenon. Visitors' narratives suggest that they are aware of a prior pattern of thought and also a nascent or emerging pattern of thought. They attribute this new pattern to transformations in their own thinking, a perception that they are paraphrasing something that was said to them, or to what they have seen during guided visitor wildlife interaction.

GVI in conjunction with a direct experience of relevant phenomena acts as a catalyst to creating episodic instances where, through comparison of existing and new patterns of thought about phenomena, inquiry is stimulated, a reaction is invoked, and attempts are made to reconcile or integrate new information with existing information. Visitors utilise a range of cognitive strategies to make sense of phenomena and information that they are exposed to. These strategies include, but are not limited to, assigning intentionality to the actions of living phenomena, comparing some aspect of the external phenomena with pre-existing knowledge and/or searching for new information, and integrating the new information with their pre-existing knowledge. In order to fully explain Theme Two, the following sections will elaborate on the five sub-themes that configure the theme.

Sub-theme 2.1: Filtering information and phenomena

The research indicates that the inclination of visitors to engage with guides and others during GVI determines the extent to which visitors equip themselves, bridge the gap between intangible ideas and tangible experiences and/or explore other intangible ideas deemed pertinent to what visitors have heard or thought about in relation to their guided experience.

Visitors' narratives of their tour experience provide insight into how visitors process the new information received during the course of the guided tour and also during their

overall experience. For visitors, both tourists and residents, the process of knowing about a phenomenon is not necessarily isolated to the guided part of the tour but includes also the wider context of all the phenomena experienced during the tour.

Visitor Seven's agency in negotiating the possible impacts of GVI can be noted through the examination of four episodes of his tour experience: firstly, his willingness to actively listen to what the PWF staff said; secondly, his confidence in his own ability to evaluate what is said in relation to his own needs; thirdly, his perception of how a person's age and perception of spirituality influence their learning and emotional connection and finally, the extent to which Visitor Seven's concern about agendas being 'imposed' on the interpretation of information affects his receptivity to GVI.

Visitor Seven stated that he was willing to listen to what was being said during the tour because he perceived that PWF had a level of expertise in conducting commercial whale watching tours. This can be discerned in his characterization of visitors and PWF staff in terms of their respective knowledge of the phenomena experienced during the tour. Visitor Seven sought to emphasise the distance between the experiences of the PWF staff and visitors, like himself, by emphasising the lack of knowledge of visitors and the demand to gain knowledge from the tour. Visitor Seven indicated the exoticness of whale watching for most visitors by distinguishing the visitors from the PWF crew through the term 'land lubbers':

We go out there and **we don't know**; we're 'land lubbers', we don't know any of this. It's all **mysterious** to us, that's why we pay our money and come and see. And so, I think **we're all willing to listen** to everything they say. (Visitor Seven; in situ interview, PWF)

One reason that he can say with a certain amount of conviction that the visitors on his tour were land lubbers is that almost two thirds of the passengers on that trip were his own extended family. Visitor Seven exuded a confidence in his own ability to mediate information provided to him during the tour. He indicated how he determined what was relevant and explained why he thought that terminology used to describe whale behaviour was not overly important. Visitor Seven often used specific terms interchangeably, such as fluke (a term for a tail) to describe a pectoral fin. During the tour, he used the term breach to describe a range of behaviours, and explained that it was just a sighting term used by the guides to describe what people could see.

He explained that Nigerians use a single word to describe all types of trees, and hence it was sufficient for him to describe all surface behaviour as a form of breach:

My wife and I spent two years in Nigeria. **It's interesting, words.** We would say to people in Nigeria, 'What kind of tree is that?' They'd say, 'A tree', and I'd say 'But it has oranges on it', 'yes', 'we'd call that an orange tree'. 'Tree'. 'This tree has avocados on it', 'yes'. 'What kind of tree is that?'. 'Tree'... very uniform... So, when I'm here, a whale that exposes himself. It is a breach as far as I know... So, **I'm like the Nigerians...** Exposure [of the whale above the sea surface is a] breach. (Visitor Seven; in situ interview, PWF)

For Visitor Seven, a spiritual dimension was an important part of the process of how he understood the behaviour of the Humpback whales on the guided tour, particularly in how he understood the breaching behaviour of one individual Humpback whale. Visitor Seven used the analogy of stabs of joy to describe not only how Humpback whales feel when they breach but also the joy of experiencing life:

I think when you are observing something then you can still get **thrills**. Knowing the electricity up the back of your spine and spiritual experience... sometimes just **learning concepts...** you see it and the **picture becomes clear** and you now comprehend. (Visitor Seven; in situ interview, PWF)

Visitor Seven cited his concern about the use of the prefix eco. He conveyed that he just wanted to enjoy the tour with his family and not have unwanted 'content' distract from the experience.

I didn't buy the tour because it was an eco-tour or anything else like that. I just wanted to go out with **my kids** and see if we could **see some whales** and so the context of the way they talk about what they're doing there is something that they introduced to me, **not something I was looking for.** (Visitor Seven; in situ interview, PWF)

He was also suspicious of the potential politicisation of ideas that might be associated with labels such as eco; for example, he believed that, on the basis of his engineering knowledge, that human-induced climate change was not possible.

I'm not anxious to spend a lot of time with people who... I see these people going out and they **see mankind destroying the world** and all this and I look at the world from an engineering standpoint and we're not even a bump in the macro, you know. We're going to change the temperature of the earth – I absolutely see that as complete and absolute **fraud**. I think **we should take care of neighbourhoods**. (Visitor Seven, in situ interview, PWF)

The impacts of GVI are mediated by the agency of the visitor in terms of the visitor's responsiveness to the people, ideas and phenomena they encounter on a tour. Visitors' narratives of their experience indicate that much of GVI occurs at an internal level, therefore other people are not privy to it.

Sub-theme 2.2: Stimulating inquiry

Visitors refer to a contrast between new information obtained through GVI and their previously held understandings of the phenomena observed on the tour. Visitors' narratives about their guided wildlife experiences indicate that GVI during a guided tour can stimulate inquiry for the visitor about the phenomena experienced in relation to their pre-experience knowledge and perceptions. A pattern in visitors' narratives about their guided wildlife experience is their perception of a relationship between phenomena connected to GVI and their pre-experience knowledge.

The visitors all recounted their perceptions of pre-existing knowledge at the time of their in situ interview and so the interview can be taken as the point of reference for prior knowledge versus new information; that is, what the visitor perceives they knew before the tour versus the knowledge arising out of the GVI and direct experiences with phenomena on the tour. A contrast process occurred for visitors where they juxtaposed prior information with new information. Visitors' narratives indicate that the new information about tour-related phenomena given to them during the GVI made them reflect on their pre-existing knowledge and perceptions of those phenomena.

In the visitors' discussion of different scenarios relating to their guided tours, their narratives show that the visitors are aware that they are thinking about phenomena on the guided tour in relation to some ideas connected to pre-experience conceptualisation. Anthropomorphism informed the visitors' direct experience of wildlife, and their reflection on what they learned. The anticipation of a direct encounter with whales and a lack of knowledge about their surface behaviour may have led visitors to anthropomorphise when speculating about whale behaviour: "I got very excited because I thought surely just like a human being they are going to get excited at sunrise, something happens when we see a sunrise, wouldn't an animal also?" (Visitor Three, in situ interview, PWF). Some of the visitors who made anthropomorphic remarks alluded to comments made by the guides in explaining humpback whale behaviour; "she (Guide Eight) just talked about the females sometimes go after the younger males, or the skinny males and the guys are just about trying for anything they can get" (Visitor Eight, in situ interview, PWF).

It is evident from visitors' narratives that the visitors appear to see a direct connection between the new information they are receiving on the tour and their pre-existing knowledge. Such connections may relate to previous direct experiences of the same or similar animal or plant species or similar types of journeys. Another pattern discerned in the narratives is that visitors perceive that new information given in the tours is often about processes of which they already had some pre-existing knowledge; for example, migrations or predator-prey relationships.

Visitors also explained how, as an initial response to phenomena on the tour, they made an attempt to contextualise the phenomena by comparison with their own pre-existing knowledge. For example, Visitor I was familiar with theories about the relationship between trees' growth and the topography of the place where they were planted, so when he saw the planted trees on Tiri the experience stimulated him to think about what he was seeing in the context of his pre-existing knowledge: "It was good just seeing all of those plants, you could actually see them planted, rows, and things like that. You can tell that people went in and did a big working bee." (Visitor I, reflective interview, SoTM). Visitor I credited Guide I with making him realise that it was birds that were the major attraction for visitors to the island, something he appeared not to have considered prior to the guided tour, "it was only until I got here when the tour guide said that is the birdlife that most people come here for" (Visitor I, in situ interview, SoTM).

Through GVI he was able to “appreciate them [birds] from there on” (Visitor I, in situ interview, SoTM).

So, while Visitor I was also knowledgeable about the science connected to the use of offshore islands in New Zealand as wildlife sanctuaries, his perceptions of Tiri appear to have stemmed from his understandings of the island in relation to plants rather than birds. Indeed, when asked in his reflective interview to recall what stuck in his mind about his Tiri experience, Visitor I’s first response was to refer to the plants:

I knew that that island had been restored but that was just a word, the word restored. I mean, how does it actually look like when you are physically there? So, when you walk past it you say, ‘Ah! **That’s what they’ve done** and they planted those trees’. And I was **quite impressed** with the bird life. (Visitor I, reflective interview, SoTM)

The discussion of how GVI appears to stimulate visitor inquiry centred on how visitors’ narratives refer to a contrast between their pre-existing knowledge, information given to them prior to the tour, and the new knowledge they have constructed themselves from what they heard said and/or from direct experiences of phenomena on the tour. The next section looks at the findings drawn from visitors’ narratives about how the visitors discerned an internal response to what they were thinking about and the stimulation of inquiry.

Sub-theme 2.3: Invoking a response

Visitors refer to enacting a personal response when making sense of the relationship of new information from GVI and pre-existing knowledge. GVI can provoke a response from visitors to take further action in relation to their awareness of ideas relating to phenomena connected to GVI. Visitors’ narratives make reference to a more active involvement in their GVI either at an internal level, by comparing new information with pre-existing knowledge or evaluating new information in relation to their pre-tour conceptualisation of knowledge, or at an external level, by verbally interacting with the guide. Visitors’ narratives about comparing new information with pre-tour knowledge indicates a phase where visitors suggest that they were actively thinking (an internal response) or asking a question or making a comment (an external response) about the phenomena being discussed in the GVI. In their discussion of episodes of GVI in their

tour, visitors further elaborated on a connection made between new information from GVI and pre-existing knowledge.

It needs to be stressed that in the visitors' narratives it is sometimes difficult to determine whether sub-theme two and sub-theme three occur separately or simultaneously. Nevertheless, a careful analysis of the narratives indicates that there are two distinct steps: initially there is recognition of contrasts between information (sub-theme 2.3), and then there is a more active approach in making sense of that contrast (sub-theme 2.4. For Visitor C, understanding of New Zealand bird species is connected not only to the birds themselves but also to his awareness of different types of geographical space and how characteristics of places may explain the behaviour or presence of different bird species (Narrative 4.1, Appendix 17).

This theme highlighted the commonality that appeared in visitors' narratives where they discussed how they made sense of new information received through GVI and/or a direct experience of phenomena on the tour, by comparing and contrasting the new information with their prior knowledge. The next section details how the visitors made reference to integrating the two sets of information.

Sub-theme 2.4: Integrating new information

Visitors reconfigure their pre-existing knowledge to incorporate new information obtained on the tour. Learning in relation to the integration of such information is perceived by visitors to have occurred in the short term and, to some extent, in the long term as well. The integration of new information was often discussed in the context of learning or visitors' level of interest in the phenomena observed or referred to during GVI. Exactly when the information integration process took place is difficult to generalise due to the varied location of such processes in each individual experience. Furthermore, the research method of inquiry imposed an arbitrary temporal dimension in respect to the timing of the field notes, the in situ and reflective interviews in relation to each of the visitors' experiences.

In narrating their experiences, visitors indicated that changes occurred in their knowledge of the behavioural relationships, both inter-species and intra-species, of animals encountered. Such changes were demonstrated through visitors' discussion of issues such as predator-prey relationships, competition for resources, human ecological impacts, and human-animal species relationships. Changes in intra-species knowledge was discerned when visitors discussed variation in animal behaviour at a geographical

level. In particular, visitors came to understand that Northern Pacific Humpback whales forage almost exclusively in Alaska, while their mating and birthing behaviour is restricted to waters around Hawaii. Visitors' narratives suggest that visitors incorporate new information by hearing non-elicited information from the guide, including the guides' response to other peoples' questions (active listening), and then rationalising that information in terms of their previous knowledge and following up on that rationalisation both during and after the tour.

In the visitors' narratives, there can be discerned an integration of information that they perceived to have changed in the context of the prior information they had about phenomena discussed. The visitors' narratives from the ten in situ interviews also suggest that the visitors integrate the information they receive during the guided experience with their pre-existing knowledge, a process they regard as 'learning'; however, the same connection to learning was not made by all ten visitors in their reflective interviews.

For example, Guide D responded to Visitor D's cause and effect question about the relationship between migratory birds, seed dispersal by birds and regeneration of Tiri through a clear refutation of such a relationship, and followed it up with a discussion of specific plants and their seed dispersal strategies. In this discussion, he highlighted that sometimes birds can have a negative impact on flax seed dispersal. While Visitor D remembered substantive details of these points in the in situ interview by the time of the reflective interview she had simplified the complexities into a story of how one bird species on Tiri played an important role in the dispersal of flax seeds. Much of the detail she initially remembered was lost.

In the in situ interview there was a clear distinction for Visitor D between two phases of GVI. In the first phase, she remembered asking a question about seed dispersal, and the second phase she connected the guide talking about the seeds of a specific plant to learning. In the reflective interview, Visitor D appeared to merge aspects of phase one GVI and phase two GVI. Phenomena discussed in the two phases were referred to by the visitor as learning outcomes of the tour in the reflective interview. The visitor's learning event appears to be an internal exploration of a relationship about birds in the planting of the island based on personal knowledge. When reflecting on learning outcomes in the second interview the visitor talked about a causal relationship about

birds in the planting of the island. The relationship between plants, seeds and birds on Tiri has a seamless quality that did not exist in how she discussed them previously:

I remember a bird being important for the flax. They would **spread the seed**, and spread it around the island okay, I also **remember hearing** about the island it was **deforested** because of farming and then **reforested out of a preservation act** and **I don't know** if that was a legal thing, or it was just people, peoples' concern to reforest the island. (Visitor D, reflective interview, SoTM)

There is an irony about what Visitor D remembered. She appeared to have 'created' a relationship that she had initially expected to be confirmed by the Guide when she asked the question about migratory birds and seed dispersal. The question was a metaphor for her overall interest in relationships between things in the landscape, birds, and the landscape itself. Her reflection on the learning referred to relationships that she attempted to predict through her study of things in the landscape, and her understanding of human-nature relationships as an archaeology student (Narrative 4.3, Appendix 17). The next sub-theme explores the agency of the visitor in the shaping of the information received during the guided tour.

Sub-theme 2.5: The agency of the visitor is the key determinant in the extent to which a shared experience of a tour occurs through GVI

The guide's ability to engage in visitors' learning processes is constrained by the extent to which visitors share their ideas, the guide's perception of the relevance of shared ideas from a specific visitor to the wider needs and interests of the tour group, and the nature of the phenomena being experienced, particularly whether it is intelligible to all participants on the tour. The guides were asked to reflect on the visitors' recollections of their guided tour experience. The guides' reflections indicate that there is a 'fog' attached to GVI, and if that fog was lifted – that is, if guides were more aware of the context of some GVI interaction, or non-GVI interaction, over certain issues – they may have modified their interaction with the visitor. One of the unexpected benefits of triangulating the experiences of the visitors through interviews with the guides and the field notes and memories of the participant observation phase is that it provides an insider dimension.

The exchange of ideas does not only occur through individual GVI but also in a context of overlapping social circles that includes one-on-one exchanges between guides and visitors, the immediate social circle of specific visitors, and the whole guided group as well. Visitor Eight described how both he and his wife learnt through listening to the guide respond to not only their questions but others' as well: "She had a lot of good information and she took questions that helped us learn. By taking questions she answered questions that my wife had in her mind but didn't ask, and somebody asked a question, and then she learnt from it" (Visitor Eight, in situ interview, PWF).

Visitors recognised that guides facilitate interaction on a tour but two variables that could affect visitors' engagement was their perception of the size of the guided tour group and peoples' self-awareness of how they may impact on the experience of others. Self-consciousness about dominating the social dynamics of the group inhibited some people from interacting with the group.

Visitors sometimes have information they want to share with the guide but not with the rest of the group. For example, Visitor Eight wanted to talk privately with Guide Eight on his tour. Guide Eight's role as lead naturalist on the vessel involved conducting the commentary over the PA system. To avoid his conversation being heard by the whole tour group, Visitor Eight covered the microphone when talking to Guide Eight. When the researcher shared his observation about Visitor Eight's action with the guide, she believed that it was a social issue that the visitor did not want to show off to the other visitors, adding that it was a visitor behaviour that she was familiar with:

I remember he [Visitor Eight] **didn't want anyone to hear it over the mike...** he said that one time he was watching whales, I believe it was in Alaska, and a whale came right up to the boat or underneath the boat and he didn't want people to hear that ... he didn't want to make other people **jealous...** It's kind of like a **courtesy** among people who whale watch a lot. They try not to **brag** because **every trip is so different.** You don't kind of want to make people bummed out that they didn't see it, that's why he covered the microphone. (Guide Eight; in situ interview, PWF)

By sharing with the guides what the visitors had said in their reflective interviews, the researcher was giving the guides an opportunity to explain how they may have

approached things differently. When Guide Six heard of Visitor Six's concerns about the proximity of the vessel to the whale, he said that, with hindsight, he could have changed aspects of his interpretation with the visitor:

All of a sudden, that's right, we were seeing some logging behaviour. That's something new for the season and gives you **an indication of something different**... Looking back at it... there's a lot you could talk about and there's probably **new information that I knew afterwards that I didn't know then**.

(Guide Six; reflective interview, PWF)

When listening to Visitor A's reflective interview, Guide A said she could relate to Visitor A's comments about how New Zealand birds sound different to English birds. While Guide A did not contextualize the regional variation of Tūi song in respect to the idea of dialects, she could easily understand the concept.

Visitor Three felt the PA commentary presented by the lead guide on PWF tours intruded on her experience, although she did not have the same reservations about interactions with the roving guide. While Visitor Three was at pains to emphasise the benefits the visitors derived from the information provided on the tours, as well as the role of guides in facilitating learning, she also wanted to make clear the importance of allowing a certain space for visitors during a guided wildlife tour, which would allow the visitor to also add a private dimension to their experience:

So, I had previously done some head curiosity, for me when I stepped onto that boat I already, mainly wanted to **experience without questioning**, and because the microphone was, I would say it was on for three quarters of the time there was talking, which for me again I can get irritated with but I'm also able to tune out.

(Visitor Three; in situ interview, PWF)

Visitor Three also considered that the size of the group might affect how much she could learn on a guided tour as well as the extent to which she would engage with others. She also noted that the nature of the questions and answers that she heard was a factor that limited the extent of her interaction with staff and other visitors.

Summary of Theme Two and its sub-themes

When prompted to explore their tour experience, visitors seem to be aware that they have a prior pattern of thought against which they compare their experiences on the tour. During this comparison process, a visitor's pattern of thought can have a nascent internal (developing) quality and/or an external quality in terms of the visitor's awareness of what they are seeing and hearing on the tour. The visitors' narratives also suggest that the comparison between the two patterns of thought firstly stimulates inquiry and then provokes a response. This, in turn, ultimately results in a situation where the two patterns of thought have been reconfigured in a way that appears to have an internal logic that is discernible to the visitor. These patterns are discussed in the context of cognitive dissonance (5.2) and curiosity (5.4).

4.3.4 Theme Three: The agency of participants in facilitating shared experience of a tour

Guide–visitor interaction facilitates memorable events. Theme One established that a shared space of experience empirically exists during a guided tour and that due to sensory and cognitive factors that arise during the tour the shared space of experience becomes differentiated into individual experiences. Theme Two explored the way that individuals make sense of the phenomena of the shared experience and their own individual perspective, which consists of pre-existing knowledge as well as their own unique perspective of the tour, which occurs through their sensory and cognitive perceptions. Theme Three now reports the findings where participants refer to the agency of guides, themselves and others in facilitating short-and long-term memorable experiences. Social interaction between a guide and a visitor can occur at a number of levels – one on one, through a visitor's inner social circle, and at the wider social circle level – and the visitors' narratives reveal that all of these levels of interaction were important in fashioning what visitors remembered from their trips, both immediately after the guided tour and more than ten months later. In the visitors' narratives, the guides' reflections and also the field notes, there are frequent references to a wide range of interaction contexts that relate to the experiences the visitors share about the impact of GVI. This indicates that the social context of GVI has an impact on visitors' inclination to share their ideas and thoughts. Social interaction was a factor in how it was said to build credibility about the guide and staff, how it helped shape the visitors' understanding of phenomena discussed, and how what was said during the tour aided visitors in their understanding or learning from the overall experience.

The social interaction component of GVI was pivotal in facilitating outcomes that brought about memorable experiences in respect to the following areas: building rapport, conveying credibility, inferring passion and enthusiasm, exploring, and facilitating learning.

Sub-theme 3.1: Rapport building creates pathways to a shared experience

In the context of this study, rapport building occurs when guides, visitors and others contribute to creating a space that allows for easy communication. It refers to how individuals' communication with others contributes to making communication easier between others. This, in turn, means that communication can move from the basic level of small talk, concern about safety and the novelty of the experience, to more in-depth discussions where ideas are explored and learning can take place.

In terms of rapport building by staff, this section will first report on how the staff on the guided experiences helped the visitors to feel safe on their tours. Next, it will report on how staff gave visitors the skills to observe phenomena on the guided experiences, and finally how they created a rapport with their visitors to facilitate communication.

Some of the visitors made reference to how the staff reassured them about the relative safety of the tour. Even for those who had been on similar guided wildlife experiences, the staff's attention to safety was cited as a factor in the rapport building (for example, between Visitor Three and Guide Three) and this will be discussed further on in relation other rapport-building factors. Visitor Five's comments on how the captain was aware of the needs of both whales and tour participants exemplify how the staff's focus on safety was an essential feature in building rapport between the staff and the participants on the tour:

For the whale, he didn't like, when we have seen a whale, **he didn't drive to that exact spot** looking for that whale to hop up in front of us. It would have been nice. Probably a little dangerous you know. So, I felt that he didn't **compromise** the whale and he didn't compromise us. **He tried to give us the best of both worlds.**
(Visitor Five, in situ interview, PWF)

When talking about their interaction with PWF staff, Visitors Three and Five recalled instructions or reassurances about safety on the tour, both the visitors' safety and that of the whales.

Visitors' on the SoTM tours recalled that during the GVI, staff provided them with skills to observe targeted phenomena. For example, Visitor E related how Guide E helped him adjust to being able to observe birds between the trees. Visitor E felt that Guide E had an ability to see things that he could not initially see, and in both his in situ and reflective interviews, Visitor E said the guide was able to orientate the visitor to observe things that the visitors would not have seen without the guide (Box 4.9). He did make reference to the fact that it took some time to get orientated to seeing phenomena. The role of the guide in helping Visitor E to see the birds, an indication of the guide's knowledge and skills, was still a key idea in Visitor E's reflective interview, a year after the tour.

Visitor E was aware that Guide E was seeing birds amongst the trees that he did not initially believe he could see; that is, Visitor E was aware that the guide could see something that was in contrast to his own perception of what could be seen even though both guide and visitor were looking in the same direction.

Box 4.9: Visitor E's quotes about 'getting your eye in' in situ and reflective interviews

Selected quotes from Visitor E

"And he could point things out which I'd have missed ... I wouldn't have had a clue! If we'd walked the track on our own; alright you've got little signs dotted along the way every so often but no, I wouldn't have spotted a tenth of what he'd spot." (in situ interview, SoTM)

"I mean, took a little while, you know, just to get your eye in to peering through all the branches and things but once you got your eye in, you know, I could spot things pretty easily. Initially he's pointing and I was thinking. 'What's he pointing at?' and then 'Aah, I've got it!'. You know, after that it got easier and easier as we went round really." (in situ interview, SoTM)

"The guide, for example, pointed out how, you know, to see, rather than just to look. I mean anyone can look but until he points out the little bird on the branch and there's somewhere buried in the bush and oh, God, I would never have seen that but gradually as you start going around you know, you get your 'eye in' and you learn to look, you know past the foliage and you can spot the birds and for me that was a huge difference because I'm sure if we, if these little critters remained quiet and you could just bumble along a path and peer left and right and not see anything." (reflective interview, SoTM)

Guides and visitors alike reported that they were able to get a sense of people's interests and concerns from both overt communication and also by 'reading people' (that is, interpreting signals such as body language). Guide I had a sense from his GVI with

Visitor I that he was dealing with a person that may have more extensive knowledge than himself (Box 4.10).

Box 4.10 Visitor and guide cross-reference quotes from in situ interviews

| Visitor I quote | Guide I quote |
|---|---|
| <p>“And, I, being at university... I’ve been to a number of talks where they talk about exactly what I’ve seen today about islands being like marine reserves for us. And they do a DNA analysis of the rats that come in. You see rats come on bits of logs or they swim. And they do a DNA analysis of rats caught, that have just infiltrated an island, rat free, and then suddenly some rats appear they look at the, catch them, look at the DNA and they match it with islands close by. In other words where do the rats come from? And things like that, so that’s why I made the comment that it was quite close, that they could swim”. (in situ interview, SoTM).</p> | <p>“I didn’t like to contradict him because he might be an expert on rats for all I know, so I didn’t want to contradict him and say no, it’s not swimmable for rats. So what I said was that there’s always a chance that rats can get here ... if they don’t swim they can even raft over here on a fallen tree or whatever or they can be introduced by boats but I said so far in the whole time Tiri’s been here or I said we’ve only ever had Kiore (Pacific rat - <i>Rattus exulans</i>), we’ve never had brown rats (Norway rat – <i>Rattus norvegicus</i>), we’ve never had black rats (Ship rat – <i>Rattus rattus</i>) here, we’ve only had the Kiore so we’re hoping that the situation will stay the same so they haven’t managed to swim across. What I don’t like to do is confront people and tell them they’re wrong. When someone says to me something which I think is not correct, I take the view that I wasn’t there and there’s just a possibility that what they are saying is true even if they said they saw a Golden eagle (<i>Aquila chrysaetos</i>) in downtown Auckland”. (in situ interview, SoTM)</p> |

The role of the guide during GVI and the agency of the visitor in mediating new information occur in the context of a wide range of possible social interactions at an individual level, immediate social-circle level and tour-group level. The visitors’ narratives provide insight into how social factors can influence whether information and ideas are shared or inhibited. The next section considers the social dimension of a guided wildlife experience in terms of understanding how the social dynamics of a tour group can facilitate or inhibit visitors from sharing their thoughts and ideas.

In highlighting the rapport building that occurred it is also important to note some of the factors that can create a challenge to rapport building. Consideration of these emphasises the skill of the guide and the specialness of the process of building rapport.

The following will be considered: Firstly, individuals’ concerns that they may impinge on the group if they spoke too much, secondly, judgements made within the inner social circle and how these judgements might influence how visitors perceive what the guides are saying, thirdly, the size of the group, and fourthly, the use of instruments such as a PA system.

The visitors' narratives revealed the visitors' perceptions of themselves as part of a distinct social circle. When discussing building rapport, visitors noted the views and ideas of members of their own social circle or the visitors' perceptions of that social circle in relation to the guide or tour group. This was an issue that I did not initially think about when observing the tours. Although I was aware of academic discussion of the social context of interpretation (for example, Dierking (1998)), I only accidentally became aware of the social dynamic through ethics protocols that allowed for people accompanying the participant to take part in the interview process (so as to ensure that the research had minimal disruption on the visitor's leisure time).

The fixed nature and size of SoTM tours compared to PWF tours suggests that GVI is more immediate for each visitor on a SoTM tour and also increases the possibility of each visitor making a contribution. The capacious nature of PWF vessels in relation to actual size of groups observed (no trip I observed was full) made it relatively easy for visitors to move from stern to bow, and mix with different people. Only on Visitor Seven's tour was there an instance on a PWF tour where one inner social group had a population larger than the rest of the visitors on-board whereas it occurred more frequently on SoTM tours observed. The nature of the inner social group and overall social make-up of the group also appeared to be issues that the visitors from both PWF and SoTM tours were aware of. The context of this awareness ranged from visitors knowing what other visitors may have wanted to ask but would not. Visitor Seven had many grandchildren with him on the tour and many of the questions he asked may have not been so much about creating his own rapport between himself and Guide Seven but perhaps making it easier for his grandchildren to talk to a stranger (Box 4.11). The number of specific social groups making up each observed tour group and the nature of familial relations within such groups were no items that I formally measured.

Other instances of where the interactive atmosphere of the tour group facilitated the provision of information were when guides provided visitors with the opportunity to touch things and when they incorporated previous discussions with visitors into the discussion further on. While the PA commentary on PWF tours reduced interaction for some visitors (for example, Visitor Three stated that she felt it was okay to 'switch off' from listening to the commentary), most people did not say anything about the PA affecting their experience.

Box 4.11: GVI incident between Visitor Seven, his grandson and Guide Seven leading up to use of hydrophone in field notes

0713 Start time of recording GVI below
 Guide Seven: Competition pod occurring. One whale will be victorious. These whales may hang out for a day. Very fluid social structures between adult Humpback whales
 Observer note: Visitor Seven says to his grandson (sixth passenger recorded in the fieldnotes): “breach”. The grandson says that it was not a breach
 Visitor Seven: Rolling
 Guide Seven: [to Visitor Seven) A breach is when they come fully out of the water
 Observer note: Grandson suggested to Guide Seven that the behaviour observed was spy hopping and then Visitor Seven asks about pregnancy rates of Humpback whales
 Guide Seven: Pregnant about 50% of the time
 Observer note: Grandson talks to Guide Seven about sighting a monk seal while in Hawaii
 0717 End of this particular GVI incident
 0720 Another GVI incident
 Fifth Passenger recorded in notes: Looks like something is out there
 Observer note: Boat stops and crew get out hydrophone. Sun directly in my eyes at six o’clock position on the boat. Guide Seven gathers the children around the hydrophone
 0721 End of recording of this incident

At other times, the information delivered over the PA actually built on GVI; for example, Visitor Eight noted how Guide Eight utilised the PA to incorporate something he had discussed earlier with her into part of the overall commentary for the whole tour group. Visitor Eight saw this as a reflection of the guide’s ability to integrate what someone said at a personal level, and which the guide thought as relevant to all of the visitors, into the whole group’s experience: “Well, she was kind of sharp because I had talked to her earlier about being up in Alaska and she brought that into the conversation for everybody; well she was sharing with everybody” (Visitor Eight; reflective interview, PWF).

Visitors noted how guides created an atmosphere where they felt able to explore ideas with the guides, which in turn, facilitated the provision of information. The most common expression of this idea was in relation to the use of questions. The most common expression of this was in relation to the use of questions. In his reflective interview, Visitor Six and his wife (Partner Six) commented on the crews’ ability to respond to questions and how the use of questions made the visitors feel involved. This can be seen in their conversational exchange between them in his reflective interview:

Partner Six: “They [PWF staff] were **really good at answering questions**... they made it a fun day out cause they were asking questions and answering [questions].”

Visitor Six: “**Interactive.**”

Partner Six: “**Interactive.**” (Visitor Six, reflective interview, PWF)

The perceived success or failure of a guided tour is based on the communication dynamic between participants. The findings show that both guides and visitors contribute to the creation of a rapport that facilitates memorable experiences; these memories demonstrate a sense of a shared experience between the participants involved in the same tour.

Sub-theme 3.2: Conveying credibility

The visitors’ perception of a guide’s credibility was not only related to the guide’s apparent knowledge but also to the organisation(s) that the guide was associated with. The visitor’s perceived status of the organisation was important, as was the expectation that the organisation would have standards in how it selected its staff. For Partner Six, the appropriateness of guide behaviour was based on the assumption that the organisations they were perceived to represent would provide training or select educated people and that the staff would utilise their knowledge and training to reduce the impacts on whales: “And that’s why we choose to take our whale watching tours with Pacific Whale Foundation is because they’re more educated and we feel they will take more measures to protect them” (Partner Six; in situ interview, PWF).

In explaining why she thought that Guide Three was credible, Visitor Three cited her first encounter with her guide when she was apprised of potential dangers to avoid upon embarking. Visitor Three felt this consideration of visitors’ safety was a major factor in establishing the credibility of Guide Three (Box 4.13).

The visitors’ perceptions about the education value of the guided wildlife experience related to their perceptions of both their guides’ education levels and also their ability to educate. The most common idea related to the education of the guides was their experience, although the guides’ association to the organisation(s) they work for and their connection to the wildlife site were also mentioned. Visitor Six felt that, collectively, PWF staff made an effort to protect Humpback whales, and this was directly observable for the visitors. This effort was instrumental in Visitor Six and his wife’s (Partner Six) decision to continue taking trips with PWF: “They definitely put an **effort** they’re very educational and they’re really **trying**... if they **weren’t taking measures then you wouldn’t support it**” (Visitor Six, in situ interview, PWF). Few visitors to Tiri knew the name of the SoTM, but some knew that the volunteers belonged to an entity that is connected to but is separate from the government body, the

Department of Conservation (DoC), which has overall responsibility for managing the island:

Well DoC are known for their almost **anti-human approach** to conservation. So, I wouldn't imagine anything that DoC is involved in would be inappropriate as of science of today; the fact that this was **a combination of volunteers and scientists** from the Auckland University and then with DoC. And that's why we are still allowed to go on the island. (Visitor A, in situ interview, SoTM)

The volunteer status of SoTM guides and the minimal educational attainment of PWF guides were both noted by visitors as factors that affected the perceived credibility of the knowledge the guides were imparting. Overall visitors had no clear perception of the guides on either experience (PWF or the SoTM tour) having any formal educational attainments, although some PWF visitors were aware that the guides on their tours were trained naturalists or had tertiary qualifications: "because of the whole thing behind this, their company [PWF]... they want people to volunteer; and most of these people [PWF staff] are like graduate students" (Visitor Eight; in situ interview, PWF).

Visitors were impressed by the guides' enthusiasm and desire to know and learn about the sites and phenomena they interpreted. There was an expectation that guides would be knowledgeable, but the visitors connected the guides' knowledge with their intense personal interest. The volunteer status of guides from SoTM appeared to help to establish the credibility of their knowledge. In her reflective interview, Visitor D had a perception that the guide was knowledgeable, and that this knowledge had derived from the guide's familiarity and own personal interest, as evidenced in his act of volunteering: "the tour leader was... definitely **excited** in showing what he **knew** about the place and because he was a volunteer... he did his **own research**... and I'm sure had **learned** a lot just by **observing**" (Visitor D, reflective interview, SoTM).

Box 4.12: Visitor quotes from interviews about sub-theme 3.2: Conveying credibility

| Visitor | Quote |
|---------------|---|
| Visitor Three | “She [Guide Three] was the one who met us down on the wharf, and I happened to be very close to where she was standing, so I took her to be a leader if you like. I found her very clear and to me, when people take a group of people and they don’t fail to talk about safety, I respect them highly so when she said, you know ‘be looking down, I’ll try and move the lines’ and everything, I respect that a lot, so I already had, a good sense then. Now, I didn’t hear her all the time because she was moving around the boat”. (in situ interview, PWF) |
| Visitor Five | “And so, that’s why I felt really good about the crew that selected because they put us at ease; they instantly started giving us information”. (in situ interview, PWF) |
| Visitor Eight | “She was very knowledgeable, she knew, she answered all the questions that everybody was asking”. (reflective interview, PWF) |
| Visitor D | “On a one to ten again, I think probably a ten, because I feel that he explained all the bird variety on the island really well, explained their eating habits, explained the vegetation and what they are feeding off, and history on the way in, and was very thorough?”. (in situ interview, SoTM) |

Another factor that influenced how visitors and guides responded to each other was the visitors’ perception of themselves and others. For example, Visitor I evaluated Guide I’s knowledge and passion in the context of his perception that as the guide was from another country then his interest and enthusiasm was perhaps greater than a New Zealand guide’s would be. Visitor I became aware of a level of informal training provided to SoTM guides through his own curiosity about whether Guide I knew about the architects of Tiri’s restoration plan:

Obviously, he has met both of them and he told me that they [the architects of the restoration programme] come over once a year, **they have like a guided tour for the guides**. So, in a sense, any hard questions about the ecology and things like that, the guides can ask them, because they've got research knowledge about it.

(Visitor I, in situ interview, SoTM)

While there was some individual visitor awareness of the guides’ educational levels, overall this was not a common component in the visitors’ discussions of their perceptions of the guides’ knowledge. The awareness that guides were connected to specific organisations or within a framework that could provide appropriate knowledge or training appeared to be adequate for visitors in their consideration of the credibility and appropriateness of the guides’ knowledge.

Knowledge as a word captures many of the ideas that visitors expressed about the guides' relationship with site phenomena and their role in interpreting it for the visitors. In the discussion about their interaction with guides and other staff on their tour, the visitors commonly referred to 'knowledge' and 'information'. The visitors appeared to use the two words interchangeably most of the time, although information provided by the guide was sometime qualified by its quality and this was not the case when visitors used the word knowledge: "There was some great information" (Visitor A, in situ interview, SoTM).

In this respect, Visitor Seven's frequent references to his family in relation to his experience was a factor in how he perceived his communication with guides and other PWF staff. Visitor Seven indicated several times during his interviews that interaction between himself and other family members played in a major role in his experience. The interaction between staff and visitors in respect to learning outcomes and overall experience of the trip was evaluated at a family level, which Visitor Seven made reference to when commenting on the credibility of the information provided on his PWF tour:

I heard a conversation coming off and some of the family, **we were glad** we got on this boat **instead** of just somebody who's out there **telling jokes...** they were **knowledgeable people** ... That **meant something** to many in our family, adults. Why did they value that? Because people like to learn something. (Visitor Seven, in situ interview, PWF)

Visitors viewed the information being provided by the guides to the visitors as pertinent to the tour. For PWF visitors, the role of providing information in a beneficial way was often seen in the collective context of the whole crew. Some visitors commented how the guide used information to provide the visitors with an understanding of what they encountered on the guided tour. The visitors also commented on their guides' ability to respond to their inquiries. Visitors related the knowledge of the guide to the setting, and indicated that they perceived that the guide was able to apply the knowledge they had in relation to where the tour took place.

Sub-theme 3.3: Inferring passion and enthusiasm

The sub-theme of inferring passion and enthusiasm relates to visitors' perception of the guides' personal enjoyment, interest and belief in their work, resources and the places where the tours go, and the effect the guides' passion and enthusiasm has on the visitors. Also, they commented on the intensity of the guides' enthusiasm. This sub-theme covers the emotional, intellectual and belief aspects of the perceived personal connection visitors felt the guides had to their work, the places and their phenomena. It also includes the representative nature of the guides' enthusiasm in terms of the people involved in the organisations they worked for as well, and how guides sought to share their enthusiasm with visitors.

The visitors perceived that the guides had an intense and eager enjoyment for the site, its phenomena and their work. They also thought that the enthusiasm that the guides conveyed stemmed from the personal pleasure they derived from the animals, plants and places encountered during their guided tour. Visitor D noted the surprise of Guide D at one spot on their tour at Tiri: "He was a **little more emphatic**, he was in **joy**, he was 'This is fantastic'. I think he was impressed of the amount of birds we were seeing at that one instance" (Visitor D, in situ interview, SoTM).

This intensity was not seen as temporary but rather a continued state that the guides felt for the phenomena they interpreted. When he was asked during the reflective interview what the guides did best, Visitor Six focused on the excitement the guides showed, an observation he made in the context of having done more than four trips. The perception that PWF staff saw whales throughout the season suggested to Visitor Six that the staff get genuine pleasure from seeing the animals: "One thing about the naturalist I thought... it was interesting to see the **excitement** of them [the PWF staff who] see these whales every year and that just goes to show how much **excitement** they have" (Visitor Six; reflective interview, PWF).

A key dimension to visitors' perceptions of the guides' enthusiasm was how the guides derived pleasure from their work, including the site and its associated wildlife experiences. Visitors used the words passion and love to describe the perceptions they had of how intensely the guides feel about their work. Visitor Eight, for example, had the impression that the enjoyment Guide Eight conveyed when talking about her work with the Humpback whales came from the intensity of her feelings: "I think her **enthusiasm** came through in what she was doing. I really think that she **loves** the whales" (Visitor Eight, in situ interview, PWF).

This joy was also seen as stimulating the guides' interest. The visitors were aware, too, of the personal commitment the guides have to their work. The voluntary nature of their work on Tiri was cited as evidence by visitors of the guides' enthusiasm for the island and its resources. Visitor I talked about the regularity of his guide's volunteering for SoTM, and saw this as an indication of the guide's passion for the island. Excitement was connected with volunteering and passion. Visitor I also felt that the fact Guide I is an expatriate was important, citing this as further evidence of the guide's passion, and he was greatly impressed that Guide I had educated himself about New Zealand biota:

I think it's very good. He's a **volunteer**, you know, he is genuinely **interested** in it, he's not being in a sense, being paid for it, he's doing it out of **love**... I actually haven't met that many Englishmen who are that **passionate** about nature... to come to New Zealand ... says that they have **to learn** a bit more. (Visitor I; in situ interview, SoTM)

Visitors felt the involvement of the guides in the site had a dimension that was outside pecuniary and intrinsic rewards. The enthusiasm of the guides anchored their commitment to the site and their work. While PWF were paid employees, Visitor Seven perceived that it could not have been money that kept one guide in their job: "It wasn't a way to earn a living" (Visitor Seven; reflective interview, PWF).

The comments about the guides' enthusiasm for their work, the site and its resources were also made in reference to the wider organisation or community that the guides were involved with. Volunteering was seen as a way guides demonstrated their enthusiasm for the place and resources: the love and pleasure that the guides experienced for the resources and sites were felt to be representative at Tiri of all the people who volunteer time in the restoration and management of the island, and in respect to PWF with the wider community of Hawaii. Visitor Five felt that the PWF staff wanted to share their excitement of the experience with the visitors.

The guides' passion on the PWF tours was also seen as indicative of the wider community of Hawaii's commitment to the whales. With SoTM guides there was a similar idea in visitors' reflection. In describing Guide I's interest in the island and its resources, Visitor I collectively described the volunteers involved in the island's operation, and acknowledged a wider group of New Zealanders who have a genuine

love for restoring New Zealand's biota and are conscious of their own impacts on the environment (Box 4.9).

The visitors thought that the fact that guides' enthusiasm was spilling over to others was motivating for the guides, volunteers and staff in their dealing with the visitors. The ability of the guide to convey their enthusiasm was important for visitors when it came to learning during a guided tour. Visitor C commented on the guide's enthusiasm in both his interviews: in the in situ interview, he felt that the guide's enthusiasm had helped him to learn more from his guided wildlife experience. In the reflective interview 10 months on, Visitor C felt that what the guide did best was passing on her love of Tiri and its birds to the visitors.

Visitors' perceptions of the guides' enthusiasm suggest a dimension of joy that fuelled the visitors' interest to know more about what the guides were interpreting. Visitors became aware of guides' own personal pleasure during their interaction with the flora and fauna around them. Guides' joy and interest added to visitors' belief in guides' commitment to site resources and their work (Box 4.13).

Box 4.13: Visitors' quotes from interviews about their guides' enthusiasm and passion

| Visitor | Quote |
|---------------|--|
| Visitor Five: | "And you know that's something in general. Now we've been to Maui twice, and there's one thing, Jonathon, that I have to say, these people love this island. They love this beauty, they try to preserve it and take care of it, and I just think it's a thing that's just in the heart of the people here." (in situ interview, PWF) |
| Visitor C: | "Just gave us a bit of ... enthusiasm, a passion for it, for the birds and the island." (reflective interview, SoTM) |
| Partner E: | "The guide and the passion of people to give up their own time to make it happen...in a way it doesn't surprise me that people are so passionate about: (1) wanting to be involved in that and (2), wanting to share their knowledge and just joy that such a place has been created and that its being protected for everybody." (reflective interview, SoTM) |
| Visitor E: | "He [Guide E] was obviously very sort of passionate and dedicated person and he was also a very knowledgeable person and so he was able to make it very interesting and informative." (in situ interview, SoTM) |
| Visitor I: | "I think he does an excellent job. I mean, you saw a lot of groups, right, so they're all volunteers and all of them quite passionate about nature. They are probably very 'green' ... they have a green mentality, and, I just appreciate there are many people in New Zealand who have a sincere, what's the word? Passion to restore New Zealand back to a bit of what it was." (in situ interview, SoTM) |

There were some instances where visitors felt that their guides demonstrated a lack of discrimination in terms of how much of their knowledge they shared, which was an unfortunate outcome of their enthusiasm. Visitor D used the word enthusiastic in different ways to describe positive impacts from the guide; for example, she said one of the guide's strengths was how he provided information. However, Visitor D also felt

that his guide's enthusiasm meant that, at times, he talked too much. Visitor D liked the way the guide would stay quiet at times to observe the birds, but his talking required her to stay focused on what he was saying rather than just observing what could be seen.

I felt like, he **spoke too much** because he was so **enthusiastic** because during certain parts of the tour when we were, well he **was good about keeping quiet** when birds were coming to a certain area especially the bathing trough, but sometimes for me going on a natural hike per se, like for that enjoyment, I like to just **observe and not always have to be engaged**. (Visitor D; reflective interview, SoTM)

The enjoyment, interest and commitment of the guides in the phenomena they interpreted were things that the visitors believed were shared with them during the tour, and which stimulated their own interest. While guides were expected to be knowledgeable, the intensity of their interest, and their eagerness to share it with visitors had an infectious quality that was perceived as facilitating visitors' learning and interest in the phenomena encountered. There was, however, an indication that a guide's enthusiasm in sharing their knowledge may intrude on the experience of a direct wildlife encounter, which for most visitors is the focus of the trip.

Sub-theme 3.4: Exploring outcomes

The way visitors discussed guides' knowledge suggested visitors thought that guides were able to empower them to either utilise their time, their observations skills or intellect during the tour. Exploring occurred for the visitor when they reflected on the significance of what they had heard or experienced or attempted to elaborate on the ideas introduced during the GVI. Visitor Five's narrative of learning about marine debris gives an insight into the role of guides in helping visitors to explore and contextualise information heard during a guided tour, and also to orientate visitors to the whale watching experience (Box 4.14). The frequent discussion on predator-prey relationships is an example of the exploring process on guided wildlife tours; other than invertebrates being eaten and the presence of pest-control stations on Tiri, there was no real visual representation of the predator-prey relationship either on the island or the PWF tour. Predators and pests were, however, part of the mental furniture of both visitors and guides.

This section relates to the visitors' discussion of the guides' knowledge in three areas: firstly, the guides' ability to comprehend the needs of the visitors during a direct experience, secondly, the guides' ability to judge what was required of them such as responding to any specific incidents during a guided tour, and, thirdly, the needs of visitors.

The participation of guides during GVI helped visitors to use either their own ideas or what the guide was saying, or both, to make sense of the phenomena they were experiencing. The interactive component of knowledge gave visitors the opportunity to engage with guides when they felt the need for more information on an issue being discussed. Visitor C's quote below captures the typical strands of how visitors conceptualised the typical exchange of ideas between visitors and guides that occurred during guided tours. Guide C explained how Māori introduced the major mammalian pest, the Kiore or Pacific rat (*rattus exulans*), on Tiri:

Yes, **that's why I asked** the question: 'Why did they let them [Kiore] go?' Because you think, 'Well, if it's a rodent, why would you do it?' But **like she [Guide C] said** they were probably **a good eating rodent** as they were vegetarian, a form of **protein**. (Visitor C; in situ interview, SoTM)

Much of the exploration was through talking and listening about ideas but occasionally this exploration also involved the use of touching. There was more scope for the visitors on the land-based SoTM trips to use senses other than seeing or hearing. Guide D's use and distribution of seeds taken from plants he encountered made an impact on Visitor D: "you're seeing, you're smelling and you're hearing things, but you feel something and it does something else and I might not remember necessarily the seed or the plant it goes to, but it brings your mind into different levels" (Visitor D; in situ interview, SoTM).

A technique that was appreciated by Visitor A was Guide A's ability to link animals and plants in a way that gave an overall understanding of the phenomena being observed. In the reflective interview, Partner E remembered no specific examples but felt that the guide always made connections between birds and trees; these connections not only linked the flora and fauna, but also added a sense of the complexity of the island's ecosystem. In the reflective interview, Visitor D could not remember a specific bird

species discussed but had a sense of its contribution to the overall ecology of its environment (Box 4.14).

Another aspect about guides' knowledge was the visitors' perception that the guides edited or packaged the information delivered to them. SoTM visitors suggested that there was the potential for the guides to say much more information but they appeared to limit what they shared. SoTM visitors commented that guides retained the substance of relevant information but trimmed off any excess and targeted it to the specific group being guided. The guides' knowledge was made accessible to visitors through guides' ability to filter information in a way that met the needs of the visitors. The most common example about editing in the visitors' narratives was their guide's concern to not overload people with information, and how reference to guides packaging information through the use of storytelling. Visitor E speculated that part of the process of providing information was to filter it in a way that removed any unnecessary detail but gave visitors enough grasp of an issue that they could decide whether they needed more information.

Box 4.14: Visitors' quotes from interviews showing connections being made

| Visitor | Quote |
|--------------------|---|
| Visitor A (SoTM) | “And that was another thing about the guide, she stopped and talked about the plants because that was part of the biodiversity, and connected it to the birds.” (in situ interview) |
| Partner E (SoTM) | “So as we would go to a specific tree, it's like may be just be quiet here because this is where, and I can't remember what bird, but this particular bird likes to feed here or this has berries that they like so it was like all of the knowledge about the whole package of not just the birds are here and that's where they are, but the birds are here, and in certain places or they're not here at the moment because of certain conditions.” (reflective interview) |
| Visitor D (SoTM) | “Then he looked over and saw, I forget the name of the bird, and on the flax and he kind of connected the two and ... not that the whole valley was full of flax but connecting the fact to that birds do propagate seeds in certain areas and they are beneficial to landscape.” (in situ interview) |
| Visitor Five (PWF) | “a lot of them come in here with stuff caught on them. He was saying that a lot of times they see whales, and they have garbage and trash and stuff all over.them... lines, fish lines and stuff that they've picked up as they've travelled through, and plastic.” (in situ interview) |
| Visitor E (SoTM) | “Well he, in some ways; I don't know if he deliberately gave some information that... I guess he doesn't want to overload people with information so he would ... give you just a basic understanding so we could have just gone around, not asking any questions at all, and still come out of it quite fully informed. Some areas, I thought ‘That begs the question about this’.” (in situ interview) |
| Visitor A (SoTM) | “She could have gone on and on and on about Tūis but she didn't She mentioned the voice box – they had this little trill – suggested we all look and take photographs and then moved on. And that was much the same with Bellbird s, which were more numerous; she talked a little about them but didn't go into reams.” (reflective interview) |
| Visitor I (SoTM) | “Just from memory it was pleasant. It was done well, it wasn't overload, and it wasn't under-load, it was sort of pitched at the right level at least for me, and it was done at a leisurely rate, so it was informal, sort of, you could tell that you know, kids and families would attune to it quite well.” (reflective interview) |

Sub-theme 3.5: Facilitating learning

Guide–visitor interaction plays a role in visitors’ integration of new information with pre-existing knowledge. In their interviews, the visitors referred to interaction with the guide when discussing how they orientated themselves to the tour, and contextualised or explored ideas during the tour. Interaction referred to by the visitors in their narratives were the guides’ and other staff’s efforts to orient the visitor to the guided experience, to contextualise direct experiences of phenomena with pertinent information, and to explore ideas connected to phenomena.

Visitors narrate how information was provided to them from guides in both a solicited and unsolicited manner. Several visitors commented on the guides’ ability to provide information in response to the phenomena encountered and the perceived needs of the visitors (Box 4.15). In her reflective interview, Visitor Three characterised the provision of information by the guides as the ability to respond in real time to what was occurring and to relate it to the needs of the visitors. Visitor Three had the impression that there was nothing predetermined in the guide’s interpretation:

It seemed **fairly natural and responsive** to what was going on in the moment... for me, responsive also means that it’s informative... open to questions and also responsive to the environment and being in the **moment**... It didn’t appear to be **rote**...and that’s what I **appreciated**. (Visitor Three; reflective interview, PWF)

In their discussion of learning outcomes, the visitors appear to qualify the information obtained or phenomena seen from the tour as having a ‘new’, ‘unexpected’ or ‘unusual’ quality when compared with their pre-existing knowledge. The manner in which visitors compare the new information with pre-existing knowledge suggests that GVI can affect visitors’ pre-existing conceptual framework about phenomena.

Box 4.15: Role of guides in learning from visitors’ interviews

| Visitor | Quote |
|---------------|--|
| Partner Five | “I was very pleased, because I learned a lot just by listening to the guides explaining different things and how the whales live.” (reflective interview, PWF) |
| Visitor Seven | “They’re trying to make the bridge between mankind treating the environment the way it ought to be treated you know and you’re making an incursion in their [the whales’] life. I don’t see that as a total negative by any means. I think the whales may very well enjoy their interaction with us. ... and so, they are [the PWF crew] part of an organisation that’s been very thoughtful about that”. (in situ interview, PWF) |

One of the key devices that visitors utilised to explain learning outcomes was to refer to perceived key points both before and within the guided tour in respect to what they had known prior to the tour and then ‘now’ knew about some phenomena after GVI on their tour. When visitors discussed learning outcomes there were both implicit and explicit references to GVI. Although these references were more often made during the in situ interviews, i.e. in the short-term recollections, they were still a feature of visitors’ recollections in their long-term reflective interviews over 10 months later.

Explicit references to GVI can be seen in the text where visitors either noted what a specific guide had said or made a more generalised reference to what they had heard on the tour. Implicit references can be discerned in the field notes, the input of the visitors’ inner social circles during the interview process, and the recollection of the guides. In their interviews, the guides often recalled discussing a specific issue with a relevant visitor, including what they had to say about such an issue.

The GVI perceived by visitors to act as a catalyst for integrating new information with pre-existing knowledge was referred to through a number of interaction contexts such as staff commentary over a PA system on the PWF vessels as well as, on both tours, one-on-one discussions between a guide and visitor and visitors listening to a question-and-answer interaction between staff and other visitors.

Direct experiences of phenomena also triggered visitors’ recollection of information they may have heard on that tour or a previous tour. Visitor Six juxtaposed information that he identified as having received from a previous whale watch (that there is a whale behaviour called logging and that when the Humpback whales arrive from their migration they are tired), with observed whale behaviour on the current tour. Visitor Five’s thoughts about what she would tell her grandchildren about her experience indicates a process whereby she becomes aware that her understanding of phenomena has changed over time as the phenomena were contextualised in GVI and through explicit and internal engagement with others. For example, Visitor Five felt that the scale of the migration and the challenges the whales have to face, such as predators, is a difficult thing for her to fathom. When she explored ideas relating to predator–prey relationships, Visitor Five had initially thought that both Humpback whales and Orca (*Orcinus orca*) travel in groups, and that orca are able to counter the size advantage of Humpbacks by separating one individual from the group and then killing it.

In her in situ interview, Visitor Five stated that she asked a question about Orca and Humpback whales because she had been thinking about the size of the Humpback whale in the context of Orca (there is an implied relationship between the question she asked and information about the grouping patterns of Orca and Humpback whales). The PWF staff told her that Humpback whales differ from Orca in that they do not stay in groups. In response to this information, Visitor Five thought that the ability of Orca to operate in a group enabled them to neutralise the size advantage of the whale. Visitor Five indicates that information she then received from the PWF staff discounted her theory because Orca focus on Humpback whales' calves, which they are able to kill after separating them from their mothers. This was unexpected information for Visitor Five and also her husband, Partner Five. The gap between what she was thinking and the answer was a factor in making it interesting for her.

It's **unbelievable travelling** like that and surviving, there's so many, and I was asking them [PWF staff], and **my thought** was, the Humpbacks are big whales, and then they have the orcas. Well, the Humpbacks don't stay in groups, they said, like the orcas do. So, **my first thought** was, 'Wow, that's what they do – the orcas come in, in a group, and that's how they're able to kill a big, you know, Humpback.' **That wasn't the case.** He [Guide Five] said they separate the mum and the baby and they drown the baby, and I was, like, '**Wow, that was different!**' It wasn't something that you would think even. You know I was thinking **something totally different.** So, that was interesting to me. (Visitor Five, in situ interview, PWF)

It would appear that Visitor Five's chief conception of Humpback whales was of an adult female. The typical grouping of Humpback whales discussed during GVI is the mother-calf relationship, and the following dialogue recorded in the researcher's field notes has Visitor Five seeking confirmation that she had heard the information about the length of that relationship correctly: "So what you are saying, from the time born [the mother and calf] stick together for a year?" (Visitor Five, Field notes for Visitor Five's tour, PWF). To which Guide Five replied: "Yeah, that's right" (Guide Five, Field notes for Visitor Five's tour, PWF).

Within five minutes of this conversation, the field notes state that Visitor Five's husband, Partner Five, asked about predators of Humpback whales, given the animals size. In the notes made about the lead guide's response, Guide Five made reference to Orca and sharks, and noted that the major danger for a calf is separation from its mother:

Guide Five discusses this [predators of Humpback whales] and refers to the size of its tail; Calf's first year of life very susceptible to attack from shark and Orca; Tiger sharks are scavengers & refers to last year when calf beached itself at a surf beach and tiger sharks were spotted; Biggest threat is separation from mum (My paraphrasing of what Guide Five said, Field notes for Visitor Five's tour, PWF).

Visitor Five recalled asking a question about how Orcas attack Humpback whales, and in my interview with the lead guide, he stated that Visitor Five and Partner Five asked most of the questions. The field notes record that at the same time that the lead guide was answering her husband's question, Visitor Five was 'scanning horizon intently with photo [camera]'.

Knowledge of the phenomena was tied to the perception of the experience of the guides. This experience was viewed in the context of the guides' familiarity with the relevant phenomena. Visitors refer to guides and other staff when describing how they integrated new information with pre-existing knowledge. Often visitors connected that integration process to the concept of learning.

Visitors suggested that familiarity with a site and its phenomena also educated guides. The visitors did not discriminate between formal education and experience when discussing their guides' knowledge. However, there was certainly an association between knowledge and experience in some visitors' minds, with many comments about the guides' knowledge being based on the visitors' perceptions that the guides were experienced. For example, Visitor E surmised that the buddy guide who accompanied the trip had less experience than Guide E, while Visitor C had the perception that Guide C's knowledge was based on her experience: "And she [Guide C] knows about it. I'm guessing, I don't really know but she's more experienced than some others. I don't know... Is she? Put it this way, she came across as experienced" (Visitor C, in situ interview, SoTM).

Partner E said in the reflective interview that the familiarity of the guide with the location gave her the sense that the guide was able to anticipate what the visitors might see. In the process of attributing to guides the quality of having knowledge, the visitors indicated that they had their own processes of assessing whether the guides were knowledgeable by comparing the information provided by guides with their pre-existing knowledge. Visitors indicated that their knowledge not only came from the guide but also from other sources: “I mean, I’m only going by what the guide said and the few bits I’ve read” (Visitor A, in situ interview, SoTM).

The results suggest that there is a complex relationship between visitors’ perceptions of a guide’s knowledge and the role of this perception in their learning. The visitors on both PWF and SoTM tours clearly associated a guide’s knowledge with a tour’s educational potential. However, the extent, nature and temporal dimension of that relationship were different for all. The process of reflection that occurred during the interviews appeared to play a role in how the visitors organised the knowledge they had and, in that process, discern the role that the guided tour had played in the accumulation of that knowledge: “She said quite a lot about the interrelations between the different types of birds of what they had there, between the grub-eating birds and the nectar-feeding ones. So I remember quite a lot thinking back; it’s very educational” (Visitor A, in situ interview, SoTM).

Visitors felt that guides had a responsibility to utilise their knowledge to create in visitors an awareness and understanding of the consequences of human activity on the environment. Visitors asked questions based on a perception that the guide would know and would be willing to share that knowledge.

Visitor Seven indicated that evaluating a guide’s knowledge was not only done at an individual level but also within a social context, saying that he saw the guide’s knowledge as a critical factor that could facilitate learning for other members of his family. Some visitors recognised the moral dimension of the guides’ teaching, even though they differed in their opinion about aspects of it. For example, Visitor Seven was concerned about the possible intrusion of a moral dimension into the teaching as it may be based on ‘bad science’. Visitor Seven felt that it was important that people understand their own level of personal responsibility as long as there was an ‘objective’ stance in the science used:

That's why I say, **sometimes science gets very mixed up with funding and religion** and so you need to look at everything and see where is this thing going. I mentioned to you on the boat, what's happened obviously with some of these scientists that are **skewing** the data for proving whether we have man made warming of the earth or something and they want an outcome and they are scientists and PhD's and we've decided 'boy if there's somebody we can trust in this world, it's that scientist with that white coat on because this guy is pure. We can trust him because he's dealing with just data and he's always looking for the correct answer'. And then we find out, **no, he's a man and he likes funding** and he's **willing to lie** and cheat in order to come up with a funding outcome. (Visitor Seven, in situ interview, PWF)

Guides' knowledge was associated in visitors' minds with the ability or potential to provide learning outcomes. The relationship is complex as visitors' receptivity to learning depends on their perception of their own knowledge level and, as the next section considers, methods utilised by guides to deliver information.

4.3.5 Overall relationship between research questions, research instruments, findings and themes

A consistent feature of the research questions fashioned for the study was seeking a sense of connection in the experience of visitors and guides during a guided wildlife tour. As Theme One reported, it is possible to speak of a shared experience between visitors and guides during a tour but more elements are present in the recollection of both visitors and guides in the short and long term which overall constitute more of an individualised experience than a shared experience. The key catalysts for creation of both individual and shared experiences are sensory – that is, seeing, hearing, smelling, touching and even tasting, where appropriate, the phenomena on the tour – as well as the requisite cognitive perceptions of all phenomena apprehended and the verbal interactions that take place during a guided wildlife experience. The research has found that guides and other staff are one of the major variables in creating a shared experience of a tour. However, the extent to which a visitor's cognitive perceptions of phenomena

are part of a shared experience depends upon the visitor's decision to 'voice' their perceptions; that is, by asking questions or making comments.

The research questions are broad in scope and relate to the exploratory nature of the research. With a theoretical recognition of the importance of curiosity, affect and learning in facilitating behaviour outcomes relevant to site management goals and the organisational goals of tour providers, the research sought to establish what curiosity, affect and learning 'looked like' both during and after a guided tour. To that end, the research instruments were devised with the goal of seeking to observe instances of curiosity, affect and learning during a tour, and then to explore these instances with the visitors and their guides.

4.4 Conclusion

Theme One demonstrated that participants' inclination to allow GVI to be the interface between theirs and others' thoughts and ideas is the major determinant in understanding the impact of GVI on visitors' tour experience. The discussion of Theme One has sought to sketch the relationship in a tour between people's internal lives and the parts of their experience that are observable to others. It did this in part by reporting on the extent to which participants' recollection of their experiences related to the recollection of others.

Theme Two presented results relating to the participants' externalised perceptions of the 'inner life' of each tour. It sought to show how the visitors tried to make sense of what they heard or experienced on their tour by referencing it to some aspect of their pre-existing knowledge and prior experiences. The discussion then aimed to show how the visitors engaged with the new information at both an internal level and through external interaction in their attempt to integrate the new information with their pre-existing knowledge. Theme Two also explored the role the visitors ascribed to staff in the integration of new information and pre-existing knowledge and the visitors' agency in delineating what was to be shared with others to facilitate the integration of new and prior information. It also sought to comment on how the agency of the guide in facilitating learning outcomes was constrained by the agency of the visitor in respect to what is shared by the visitor with the guide.

Theme Three conveyed the heterogeneity of social factors that can influence both guides and visitors in what they share with each other. The discussion also demonstrated how the distinct attributes of individual wildlife encounters and the assumptions that

both visitors and guides have about these encounters can influence the nature and extent of GVI.

The three themes reported on the human experience of people during a tour and pointed to richness in the way people narrate memorable learning events in relation to the GVI that occurred during their guided wildlife experience. They also highlighted that much of the GVI that occurred was at an internal level and not readily observable to others. The next chapter seeks to understand the context of the research; that is, what the findings can tell us in relation to the place and role of curiosity, learning and affect in guided wildlife experiences where the sites they occur in, and the organisations that provide the tours, require the visitors to act in a certain way on-site.

Chapter 5 Discussion of findings

“[What did the guide do best?] Just gave us a bit of an enthusiasm, a passion for it, for the birds and the island”. (Visitor C, reflective interview, SoTM)

5.1 Introduction

The findings indicate that the shared experience of a tour is much more difficult to isolate or measure than the individual experiences derived from it. The study’s findings-based constituents of a shared experience between participants and individual experiences on a specific guided tour are to do with the senses, the notion of familiarity, and the degree to which there is consensus about what was seen or heard as well as its significance; that is, the structure of relevance that each tour participant imposes on the experience. Of the five senses, hearing and seeing were the only ones referred to by all visitors in the data, and are therefore the only senses that are fully discussed in this section.

Three key themes have emerged from the findings. The first of these is that a shared experience of phenomena during a guided tour diverges into individual experiences. The second theme is that visitors attempt to make sense of tour-related phenomena through a range of strategies that can include, but are not limited to, assigning rationality to the actions and behaviour of both the people and wildlife encountered during the tour. The findings show that visitors undertake a number of social strategies to facilitate their making sense of their experience, and so the third theme is that the social setting of the shared experience is an important aspect of understanding the role of guide–visitor interaction (GVI) during a guided tour.

The extent to which the guides and visitors can interact on the basis of a shared experience of a tour informs the extent to which the participants on the tour are able to fully interact with each other when seeing or hearing the actions or utterances of wildlife, staff or visitors. The discussion of the findings seeks to schematise at a heuristic level the relationship between awareness, learning and the factors in a tour that facilitate both a shared experience and the divergence into an individualised experience. The purpose of this inquiry is to understand how the shared experience of an animal during a guided tour can raise awareness of the need for personal conservation action by everyone involved in a tour.

A pivotal motivation for this study was to understand the relationship between guides and the concept of a teachable moment for visitors during a guided tour. The only generalisable feature of such moments that visitors discerned as incidents of learning were self-identified moments. In their reflection, visitors attributed information as coming from tour guides or other staff members, and having an impact of making the visitor aware of something new in relationship to the phenomena discussed at the time. In this chapter, the first part discusses the results in the context of key models and theories and the relevant research questions (Table 5.1). The second part proposes a model of GVI for guided wildlife tours.

Table 5.1: Key models and theories discussed in relation to the research questions

| | | | | |
|---|--|---|---|--|
| Research aim: Exploring what scenarios in guided wildlife tours facilitate visitors' receptivity for new information to examine whether guide-visitor interaction contributes to learning. | | | | |
| Research Questions | | | | |
| Can visitors and guides identify a situation within a guided wildlife interpretive experience where visitors are most receptive to learning? (Research question one) | What are the factors within a guided wildlife interpretive experience that influence visitors' receptivity to learning? (Research question two) | Can visitors' receptivity to learning be discerned through observable behaviour such as visible signs of affect or curiosity on the part of visitors? (Research question three) | What level of interaction do visitors seek from guides in the learning process of a guided tour? (Research question four) | What role do guides play in the facilitation and enhancement of learning during the guided wildlife tour? (Research question Five) |
| Theme One | Differentiation in the shared experience | | | |
| Theme Two | Making sense of the experience | | | |
| Sub-themes One to Five | 1: Filtering information and phenomena; 2: Stimulating inquiry; 3: Invoking a response; 4: Integrating new information; 5: Agency of the visitor is the key determinant in the extent to which a shared experience of a tour occurs through GVI. | | | |
| Theme Three | The agency of participants in facilitating shared experiences. | | | |
| Sub-themes Six to 10 | 6: Rapport building creates pathways to a shared experience; 7: Conveying credibility; 8: Inferring passion and enthusiasm; 9: Exploring outcomes; 10: Facilitating learning. | | | |
| Key models and theories discussed | | | | |
| Festinger's (1957) cognitive dissonance | Knapp's (1994; 2007) goals for programme development in environmental interpretation | MacCannell's (1999) marker concept | Knapp's (1994; 2007) goals for interpretation and Pine and Gilmore's (2011) four realms of experience | Marton & Tsui's (2004; Marton & Booth 1997) object of learning |

5.2 Research Question One: Can visitors and guides identify a situation within a guided wildlife interpretive experience where visitors are most receptive to learning?

Research Question One examined if visitors and guides identify situations within tours where visitors are most receptive to learning and if so the factors that influence visitors' receptivity to learning. The findings showed that visitors were able to locate scenarios from the tour where they were receptive to receiving information that was either substantively new or had an impact on existing knowledge. The concept of visitors' knowledge is used in this study to describe all a visitor "knows or believes to be true, whether or not it is verified as true in some sort of objective or external way" (Alexander, Schallert, & Hare, 1991, p. 317). In some of these scenarios information, perceived by the visitor to have come from GVI, contributed to a perceived learning event. A perceived learning event was discerned in the results through the connection relevant visitors made between information from GVI and their self-evaluation of what constituted learning in their reflective interview.

Johnson and McInnis (2014) use the term triggering events to describe how the process of learning commences for adults. They also note that learning can also begin with "a slow combination of occurrences that are hardest to pinpoint" (p. 132). They connect such events to cognitive dissonance where new information is rejected, or supersedes, or is reconciled with existing knowledge (Festinger, 1957; Orams, 1995).

The findings in relation to Research Question One show that both visitors and guides can identify situations where visitors are receptive to interaction though they did not specify situations where they were most receptive to learning. Visitors could locate points of reference in respect to their knowledge and familiarity with ideas connected to specific phenomena. With these reference points, they identified changes in their knowledge before and after the guided tour and from these points they self-assessed that learning had taken place.

Theme Two sought to show the characteristics of how visitors described the processes connected to what they remembered most and what they said they learnt in their reflective interviews (Appendices 11-12). Such characteristics resembled cognitive dissonance (Festinger, 1957). Cognitive dissonance is a construct that aids in understanding the agency of the visitor in determining the parameters of learning outcomes of GVI. Irrespective of the impact of the wildlife encounter and the

performance of the guide, visitors filter their experience with past experiences and knowledge. Although guides and interpretive programmes can utilise cognitive dissonance to provoke visitors to consider specific ideas and issues during GVI with wildlife, ultimately the visitor controls the process of integrating, assimilating or rejecting new information. Variable factors that affect such processes include visitors' pre-existing attitudes and beliefs (Appendix 17, Narratives 4.1 & 5.2). Cognitive dissonance informs the learning context of the proposed model for wildlife tourism (5.8.6).

5.2.1 Categorising knowledge and questions

A common feature in the GVI of the visitors connected to perceived learning events was the utilisation of questions by visitors. Questions are a recognisable form of sharing one's curiosity in social and learning environments (Berlyne, 1954; Dantonio & Beisenherz, 2001; Walsh & Sattes, 2005). The use of questions in learning has been associated with metacognition, which is the process of realising at the moment of instruction that some phenomena are harder to learn than others and thus may result in a person being less willing to accept new ideas as factual (Dantonio & Beisenherz, 2001). As a stage of cognitive development that occurs from adolescence metacognition is "the ability to think about thinking, to literally step outside one's self and think about what others think about, or even what others think about you" (Falk & Dierking, 2000, p. 30). Consisting of three forms of knowledge: declarative, conditional and procedural (Table 5.2), metacognition aids learners in situations when they are receiving new information. It is an active process of monitoring what is easier or possible to comprehend during learning.

Table 5.2: Components of metacognition

| Declarative knowledge | Conditional knowledge | Procedural knowledge |
|--|---|---|
| Factual knowledge that is sometimes described as 'knowing what'. | Determines appropriateness. Knowledge of when and where knowledge (declarative or procedural) could, or should be, applied. | Mental steps, processes or phases; how we arrive at information. Can be described as 'knowing how'. |

Source: Alexander et al. (1991); Dantonio and Beisenherz (2001).

Declarative knowledge encompasses people understanding their limitations and strengths when it comes to learning and includes the process of being able to explicitly state what they know (Alexander et al., 1991; Schraw, 1998). Procedural knowledge refers to how people both consciously and sub-consciously decide what are the best ways to solve problems such as how "to chunk and categorize new information"

(Schraw, 1998, p. 114). Conditional knowledge is described as a person's ability to determine when to use declarative or procedural knowledge (Table 5.2). For example, Visitor A could draw upon many experiences of Tūī, a common New Zealand bird, in contextualising the relevance of what Guide A said about them in relation to a specific direct encounter. However, though she knew some information about Kōkako (*Callaeas cinerea*), a rare and endangered bird, she had no previous experiences to connect to the commentary or direct encounter. Visitor A may have been much better prepared at a metacognitive level to incorporate new information about Tūī than Kōkako. This might explain why she spoke in such detail about Tūī compared to Kōkako in both interviews (Narrative 5.1, Appendix 17).

Forestell (1992; 1993) refers to questions by visitors as a key factor in helping guides understand what issues interest visitors during specific stages of a tour. For example, before direct encounters with whales, visitors may be preoccupied with personal safety or their anticipation of seeing a whale. Questions indicate visitors' receptivity to learning and by the end of a tour when visitors' interests are more about the welfare of whales: "Answers to their questions...emphasize the relationship between what they have just seen and their own knowledge and behaviour in other contexts" (Forestell, 1993, p. 274).

Productive questioning is cited as useful instructional device to facilitate students into thinking meta-cognitively. Productive questioning helps them to categorise what they already know, the appropriateness of new information in the context of the ideas discussed, and the steps needed to refine their thinking in relation to new and existing information. Productive questioning is a sequential process of interaction involving a series of questions and answers from both a teacher and learners; the process consists of initial 'core' questions and subsequent 'sequenced processing' questions (Dantonio & Beisenherz, 2001).

At a theoretical and training level, questions have been identified as having different purposes, from the simple question that focuses the learner on a single subject or comparison to the more complex questions that seek visitors to come up with solutions or think about the implications of certain behaviours (Ham, 1992). Questions are also part of the social practice that facilitates learning in formal learning environments (Dantonio & Beisenherz, 2001).

The challenge for developing a productive question strategy for wildlife tours is that the social unit it represents is a temporary formation. The setting where learning takes place is an important constituent of understanding learning (Nuthall, 2004). A tour is a venue for informal learning, and visitors have a range of needs that are harder to generalise about compared to formal learning environments. Grice's (1989) conversation maxims can help shed light on how to understand the communication of curiosity in social settings such as a guided tour.

5.2.2 Conversations and Grice's (1989) conversation maxims

Questions and other GVI on tours observed often resemble a series of extended conversations within the group. These intra-group conversations are connected to external events such as direct encounters with wildlife that occur simultaneously in the same space. Visitor Five's narrative of how she came to understand the predatory techniques of Orca when hunting Humpback whales, sheds light on how the conversational nature of listening and contributing during a guided tour aided her in absorbing new information (Sub-theme 3.5).

The analogy of a wildlife tour as an extended conversation between guides and visitors may contribute to understanding how tours act as venues where both visitors and guides identify situations where receptivity to learning can be identified and acted upon. With guided tours there is an assumption that guides will not only be able to explain things that visitors are not aware of, but also determine what is relevant to visitor needs (Beck & Cable, 2002; Ham, 1992; Tilden, 1977). Visitor D had a very positive attitude about guides in terms of their role in a tour: "I've only encountered very patient guides and I think their role is ... to give people knowledge and better understandings of their environment to make them more compassionate and conscious of our impact on certain landscapes" (Visitor D, in situ interview, SoTM). Dierking (1998) noted that social interaction between members of the same social circle and other visitors in museum settings when discussing exhibits played a role in learning. What the findings indicated was that visitors think about how their own conversational input can impact on others' experiences (Sub-theme 2.5). This section considers Grice's (1989) conversation maxims in respect to questions as a form of information exchange in social settings such as tours.

Grice (1989) defined and qualified a conception of conversation through the assumption that its purpose is "a maximally effective exchange of information; this specification is,

of course, too narrow, and the scheme needs to be generalised to allow for such general purpose as influencing or directing the actions of others” (p. 28) Grice’s maxim is based on a co-operative principle that states: “make your conversational contributions such as is required, at the stage, at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged” (Grice, 1989, p. 26). The convention of a guided wildlife tour is an assumption that the guide will facilitate conversation. Such conversation will be organised around phases of direct encounters with wildlife and the guide’s commentary in relation to the encounters or other relevant phenomena (Forestell, 1992, 1993; Lück, 2015; Orams, 1996). While visitors understand that the tour is for their benefit they are conscious of the needs of other people who are also participating in the tour. Participants such as Visitor Seven who had children and grandchildren present, and Visitor A, who was alone, are perhaps socially motivated to increase or limit their contribution to the overall GVI of a tour.

Questions, excepting rhetorical questions, in themselves are a form of conversation because they suggest a verbal exchange of information. An accepted purpose of a question is to address a gap in the information or knowledge of one of the people involved in the exchange. Grice’s maxims of conversation note four areas to be considered in ensuring the effective exchange of information: quantity, quality, relation, and manner (Table 5.3).

Quantity in the context of conversation focuses on contributions that are informative in a way that eliminates extraneous information. As cited in the findings Visitor A restricted the amount of questions she wanted to ask because of her consideration of the needs of other visitors (Sub-theme 2.5). Visitor E felt that the number of questions he asked negatively impacted on his memory of the tour: “I think for me, I was a victim of my own curiosity. I asked so many questions you end up with information overload, and at the time you think you will remember it, and obviously, you don’t” (Visitor E, reflective interview, SoTM). So, while questions may indicate receptivity to learning visitors’ ability or inability to self-censor their contribution can make it difficult for a guide to determine what topics they should elaborate on.

As reported in the findings, Visitor D linked Guide D’s propensity to talk with his enthusiasm for Tiri (Sub-theme 3.3). However, the amount of conversation she could tolerate while visiting a nature-base site was commensurate with her level of familiarity with the place. The challenge for planning a wildlife tour is finding a balance in

determining how much of the prepared talking points and just how often commentary should be provided during and after direct encounters. A judicious approach to talking can allow more opportunities to detect when visitors are more receptive to learning and when the experience is enough.

Quality means that all contributions to the conversation should be based on what the responder believes to be true, and the responder can cite evidence to support such an assertion. On wildlife tours, much of the knowledge that guides share stems from scientific knowledge in relation to observed behaviour (Spring, 2013). Grice (1989) uses the term relation to suggest that all contributions such as a question and answer are relevant to the context of the overall conversation. Much of the discourse in interpretation literature is about how to connect abstract ideas to what people comprehend through their senses on a tour (Beck & Cable, 2002; Ham, 1992). For example, Guide Seven's decision to incorporate the visible coastal wind-turbines into her commentary was alternatively assessed positively and negatively by Visitor Seven.

Table 5.3: Grice's (1989) Maxims of Conversations

| | Quantity | Quality | Relation | Manner |
|------------------|--|--|---|---|
| Maxims | #1 Make your contribution as informative as is required (for the current purpose of the exchange). #2 Do not make your contribution more informative than is required. | Try to make your contribution one that is true. #1 Do not say what you believe to be false. #2 Do not say anything for which you lack adequate evidence. | Be relevant. | Be perspicuous. #1 Avoid obscurity of expression. #2 Avoid ambiguity. #3 Be brief (avoid unnecessary prolixity). #4 Be orderly. |
| Grice's examples | If you are assisting me to mend a car, I expect your contribution to be neither more nor less than is required. If, for example, at a particular stage I need four screws, I expect you to hand me four, rather than two or six. | I expect your contribution to be genuine and not spurious. If I needed sugar as an ingredient in the cake you are assisting me to make, I do not expect you to hand me salt. | I expect a partner's contribution to be appropriate to the immediate needs at each stage of the transaction. If I am mixing ingredients for a cake, I do not expect to be handed an oven cloth (even though this may be an appropriate contribution at a later stage. | I expect a partner to make it clear what contribution he or she is making and to execute their performance with reasonable dispatch. |

Source: Adapted from Grice (1989 pp. 26–28).

Finally, manner relates to not complicating things needlessly through words that are not commonly used or ambiguous, and keeping to the point. Scientific language used in both PWF and SoTM tours is relevant in that it connects what is discussed on a tour to the language commonly used to describe wildlife. However, as reported in terms of how Visitor Seven perceived the relevance of terminology (Sub-theme 2.1), people will describe things in different ways and may be less inclined to use words that are not associated to how they comprehend things: “And there was one doing the tail slapping, although I wouldn’t call it that because I see it coming up vertically with the tail high” (Visitor Three; in situ interview, PWF).

Grice’s (1989) maxims in conjunction with the findings provide insight into how visitors appear to have self-censored their contributions to GVI during the tours. Consequently, there were moments when visitors did not indicate the impact certain instances of GVI had on their experience. This may have been because of the personal interest in an issue such as Visitor A’s theory on regional dialects in birdcalls was not relevant to the needs of others on the tour. Visitor A was quite willing to share a range of issues and seemed very interested and this was evident to Guide A especially as both were from the United Kingdom:

She was quite – a lot of English people do this, - she was quite **laid back** about everything, so it was hard, the **joy wasn’t so visible in her expression**, but I felt as though she was really enjoying it. I could be quite wrong, but she was quite **engaged**, because she was asking lots of questions. (Guide A, in situ interview, SoTM)

So even though she connected the information with an important learning event that stemmed from the tour Guide A would only have understood the impact of GVI as satisfying a need for some factual information. Grice’s (1989) conversation maxims reiterate key concepts of interpretation theorists about ensuring guides’ contribution to tours are relevant to the needs of visitors in relation to the resources of sites. Furthermore, Grice’s (1989) conversation maxims highlight that the contribution of at least two people are critical in the exchange of information during a tour.

5.3 Research Question Two: What are the factors within a guided wildlife interpretive experience that influence visitors' receptivity to learning?

While direct encounters with wildlife create opportunities for influencing visitors' receptivity to learning they also pose challenges for guides. An important consideration in understanding GVI was that some visitors have been in guided situations where they believed that the operators acted in a manner that is contrary to the best interests of the animal. For example, this was a factor that influenced Visitor Six's receptivity to learning but also raised questions for him about the possible impact of his PWF tour on Humpback whales. Visitor Six was concerned that the Humpbacks were exhausted from their annual migration and vulnerable to ship strike. He appeared to infer this from the milling behaviour of the pod of whales close to the Maalaea Harbour entrance. In part, this concern stemmed from his perception of another tour operator's behaviour when snorkelling on the same holiday in Maui but there was also a recurring concern for Visitor Six about the potential consequences of his PWF tour on the general welfare of Humpback whales in the HIHWNMS (Table 4.4).

Visitor's references to their guide's knowledge were often connected to the guide's role in orientating the visitor. This role ranged from helping to see wildlife as well as identifying animals in respect to species or sex and interpreting the behaviour of wildlife observed such as its possible significance (For example Visitor Six attempting to make sense of the stationary appearance of Humpback whales (Box 4.6). Unlike formal environmental education programmes the potential for learning in interpretive settings occurs through the voluntary engagement of the tour participants. Visitors indicated that a guide is perceived to be a 'knowledgeable other' based on their perception of what actually occurred on the tour and also the visitors' perceptions of the role of guides, other staff, and the organisations involved in the tours. The role of being a guide is seen as being another that is creating an identity for the person fulfilling that role that is bestowed or certain qualities associated with either the role or the organisation they are involved with in their conducting of the tours. The term other is used here to describe how visitors appeared to differentiate the guide from themselves in terms of qualities such as being knowledgeable, or a volunteer, or passionate about phenomena related to the tour.

In describing GVI visitors often distinguished guides from themselves and other tour members in a way that connects to the Vygotskian paradigm of learning that highlights

social interaction of learning and the notion of capable peers (Vygotsky, 1978). Visitors appeared to recognise story telling as a technique used by guides. Visitors suggested that its use by guides helped to make new information accessible to them (Narrative 4.1, Appendix 17 and Sub-theme 3.4). Stories manipulate information into a sequence that is not only intelligible for the audience but often incorporates a plot line designed to convey messages that are important for the storyteller (Beck & Cable, 2002; Riessman, 2008).

In their discussion of the role of tour guides as interpreters, storytellers and intercultural communicators, Weiler and Black (2015) noted a commonly cited phrase in interpretation literature: “Through interpretation, understanding; through understanding, appreciation; through appreciation, protection” (p. 54). They expanded on this by looking at the role of the guide in a guided experience:

By provoking visitors to think and feel, a guide can better help visitors to understand. By helping visitors to understand, a guide has a better chance of impacting a visitor’s appreciation and valuing of an object (e.g. wildlife, wildlife habitat, threats to wildlife). Finally, a guide can harness this appreciation to promote action that can help cultural and natural phenomena, resources, environments and destinations. (p. 54)

The creation of a narrative around a direct encounter by guides rather than just the provision of factual information is viewed as a catalyst that can aid in better understanding what is being communicated to them as the “real reason is mostly (98%) unconscious, requires emotion and narratives... people think in terms of unconscious structures called frames which have direct connections to emotional regions of the brain” (Finkler, 2014, p. 357). Story telling is seen as an important component in effective interpretation (Moscardo, 1999; Weiler & Black, 2015). Stories are also seen as instrumental in communicating science (Finkler, 2014).

What sets guided tours apart from many learning environments is the direct experience of the object that is being learned about, and that guides, unlike a teacher, have little knowledge about the individual visitor’s prior learning or the context of that learning (for example, previous classes or entry requirements to enter a course such as either age

or certain prerequisites). In guided tours, there are formal elements that can be connected to the teacher-student scenario of information dissemination. From both my observation of tours and volunteer work it appears that most visitors expect a guide to behave as a teacher would. It was often guides who initiated much of the discussion about what was experienced during the guided tour. A level of dominance in the group dynamics by guides was established in both marine and land-based tours observed. This suited most visitors (Box 4.14) but both Visitors Three and D noted that guide commentary could have an intrusive impact on their experience.

Much of the guide's communication on PWF tours is conducted over a PA system. The term, platform-based tours, is used to describe boat-based, kayak-based as well as land-based tours that make use of built structures that act as viewing platforms. The goal of such tours is to provide as many visitors as possible to see the same direct encounter and to have that encounter interpreted by one guide who can be heard by all passengers (Higham & Hendry, 2008). Even when Visitor Six and Partner Six took their baby into the cabin below the main deck they were still connected to Guide Six's commentary via the PA system. So, the level of shared experience of a tour is based on the dimensions of seeing and hearing rather than equal recourse for each visitor to be able to share their opinions or questions to the guide and the tour group as a whole. Passengers often share their own ideas through formalized processes of guides asking their own questions or soliciting questions from the tour group that they may have to repeat to the rest of the tour group over the PA in order that all can hear.

While land-based tours such as those conducted by SoTM are of a size and nature where most of the tour group can hear unassisted the guide speak, dominance on the part of the guide is exerted through the guide leading the way on a specified route and the level of shared interaction can be constrained by the physical realities of the space such as a narrow path that means that visitors at the back of the group may not be able to hear or be heard clearly. Visitor E commented on how he missed some of what Guide E was saying because for a part of the trip he was at the back of the tour group.

Such dynamics may help explain why the guide is attributed a major role in the dissemination of the information that the visitors refer to in their perceived learning outcomes and also the scenarios where new information was cited as causing the visitor to reconsider existing ideas or frameworks of information about phenomena related to the tours.

In a guided whale watch where the guide would represent an adult teacher or capable peer, learning is tied not only to the individual visitor's needs and discoveries but also to "the group's shared discoveries and the educator's imposed discoveries" (Forestell, 1993, p. 275). These three conditions of individual, group and guide stress the need for a strong level of uniformity in the experience to ensure that there is a clear strand of connection between the three conditions. The findings show that a tension exists for the guides in having to negotiate between the needs of the individual and those of the group as well as the guides' goals for discovery stemming from contact with wildlife.

Although guides appear to dominate the discourse of a guided tour, the findings also indicate that visitors are negotiating the information provided by the guides. When discussing what guides say visitors often connect the content with an evaluation of its quality or an insight into how the visitor evaluated the information provided by the guide. Visitors characterise what guides say with phrases such as 'made sense' or 'a good observation' or 'answered the question well'. Visitors also indicated that they contributed their own ideas and interests in what was being discussed through questions and comments directed to the guide. This suggests that guide visitor interaction facilitates active participation from the visitors despite the dominance of the guide during the guided tour. It also suggests a connection between the social space shared and the inner space of each individual in respect to instances of active listening referred to by the visitors and guides.

The findings also indicate that there are social factors that also constrain the potential for the sharing and dissemination of ideas during guided tours. There are some ideas in relation to the guides in respect to visitors' attitudes and ideas of 'types of guide' and 'types of people' which also infers that if the guides were such 'types' the visitors would have been less inclined to interact with them. For example, in praising her, Visitor C suggested that he perceived being a know-it-all was a characteristic of some guides. Visitor Eight used a similar phrase in making clear that Guide Eight was not providing information just to show off.

This highlights the important roles of peoples' beliefs and attitudes in respect to fostering goal orientated outcomes for guided tours (Ham, 2007). The findings suggest that the attitudes and beliefs that visitors share during tours or in interviews, can help interpretation planners understand how visitors may situate issues connected to site resources in relation to their worldview.

The findings demonstrate that tour participants can identify factors and situations within guided tours that influence receptivity to learning. The use of story-telling by guides was a factor that visitors recognised as aiding their receptivity to learning. The findings also indicate that guides have to balance the needs of individual visitors with those of the group, and that this is further complicated by the immediate and idiosyncratic nature of each direct encounter with wildlife. Visitors indicated that their individual agency in evaluating new information is an important factor in accepting information from guides. Social factors such as visitors' assumptions about guides at an individual or as a profession can also constrain the potential for the sharing and dissemination of ideas during tours.

5.3.1 Goals for programme development in guided wildlife interpretation

The individual circumstances of each visitor make it challenging to devise a universal framework through which to respond to the potential needs of all visitors. The informal nature of the learning environment further compounds the difficulty of devising and assessing measurable learning outcomes. Environmental educators are often accountable for measurable learning outcomes that assess the performance of each student and the suitability of the task to their needs and relevant learning goals.

Ideally the learning goals of wildlife tour guiding education should be predicated on what will contribute to the sustainability of the site and the welfare of the communities (ecological and human) who inhabit it. The goals also have to be flexible because the transformative aspect of visitors' experiences is dependent on their mind-set and knowledge base as well as the pertinence of the direct encounter experiences of wildlife. Knapp's (1994; 2007) environmental behaviour change model is a useful starting point that can give a guide the flexibility to tailor their commentary to meet the needs of both the visitors and the site itself. Lessons from formal environmental education can help interpretation planners refine existing techniques that engage participants in informal learning environments (Knapp, 2007).

Knapp's (1994; 2007) goals also relate to the findings of empirical research on the contribution of tour guiding to sustainability (Weiler & Black, 2015). The following sections will explore Knapp's (1994; 2007) goals only as they relate to face-to-face interpretation. While written and other interpretation media are often interconnected and, indeed, influenced visitors' experience during guided tour the focus of this study was on face-to-face interpretation.

When planning how to incorporate entry-level goals into interpretation, a guide's commentary should be set around the idea of making visitors cognitively aware of easily comprehensible aspects of the resources and the site (Knapp, 1994; 2007). With wildlife interpretation, this may involve conceptualising behavioural relationships between animals and the site such as feeding and reproduction (Forestell, 1992; 1993; Moscardo et al., 2004).

In the context of this study, the relationship between the Northern Pacific Humpback whale and the waters around Maui is primarily based on different phases of the whales' reproduction cycle (that is, from conception to birthing and rearing), whereas on Tiri, the relationships between the birds and the surrounding bush are not only based on reproduction but also on other biological needs such as food-gathering. As relationships between animals actually sighted and their environment can be so different from tour to tour, planners of interpretation programmes need to think carefully about how much information the visitors need to make their wildlife experience meaningful, as well as what wildlife encounters and other experiences are required to fulfil the goals of the tour (Table 5.4).

Table 5.4: Level one – entry-level goals for programme development in environmental interpretation

| |
|--|
| Information/awareness of site |
| This level seeks to provide the visitor with sufficient resource site information to permit him/her to be knowledgeable about aspects of the resource site. Goals at this level are formulated to provide opportunities for visitor to become cognitively aware of: <ol style="list-style-type: none"> 1. Ecology / natural history of the site. 2. Cultural history of the site. 3. Other pertinent site characteristics; e.g. visitor amenities. |
| Understanding of the site |
| This level seeks to provide the visitor with experiences that promote an understanding/comprehension of resource site information. Goals of this level are formulated to conceptualise: <ol style="list-style-type: none"> 1. The ecological relationships between the resource site and its immediate environment. 2. The cultural relationships between the resource site and its immediate community. 3. Other pertinent topics related to the resource site; e.g. economic relationship of resource site to region. |
| Awareness of site policies |
| This level seeks to provide the visitor with sufficient knowledge to permit him/her to become aware of the resource management policies and goals of the resource site. Goals at this level would offer experiences in interpretive programmes that: <ol style="list-style-type: none"> 1. Help visitors gain information pertaining to current resource site management policies. 2. Make visitors aware of the effect that these management policies have on the resource site. |
| Environmental sensitivity |
| This level seeks to provide the visitor with experiences that promote an empathetic perspective toward the resource site. Goals at this level would offer experiences to resource site that: <ol style="list-style-type: none"> 1. Foster an appreciation for the resource site. 2. Enhance enjoyment of the resource site. |

Source: Knapp (1994; 2007).

When planning how to incorporate ownership goals into interpretation, a guide's commentary should be set around the idea of enabling visitors to conceptualise their influence on the animals encountered as well as issues and implications arising through interactions between humans and the targeted animals (Knapp, 1994). PWF crews mitigate the potential impacts on whales by visitors during their tours by virtue of ensuring they stay on board the vessel. However, guides' commentary during the tour can also raise the visitors' awareness of the potential global-local nexus in their relationship with whales. For example, PWF guides discuss the impact of marine debris from sources such as commercial fishing and plastic-based packaging on the welfare of migrating whales (Forestell, 1992; 1993; Forestell & Kaufman, 2007). This may aid visitors to understand the potential implications of their domestic consumptive behaviour on ecological systems such as the Pacific Ocean (Narrative 4.2, Appendix 17 and Table 5.5).

Table 5.5: Level two – ownership goals for programme development in environmental interpretation

Resource site awareness issue

This level seeks to develop a cognitive awareness of how visitors and their collective actions may influence the quality of the natural resource site it further seeks to develop an awareness of how these same individuals may influence the quality of other environments. Goals at this level would offer experiences in interpretive programmes that would conceptualise:

1. How visitors influence the resource site and its environment.
2. How environmental problems and issues can occur through these interactions.

Resource site issue investigation and evaluation

This level provides for the knowledge necessary to permit visitors to investigate and evaluate natural resource site issues. Goals at this level would offer experiences in interpretive programmes that develop:

1. The knowledge needed to identify resource site issues.
2. The ability to analyse these resource site issues with respect to their ecological and cultural implications.
3. The skills needed to investigate and evaluate resource site issues.
4. The ability to use this knowledge and these skills to identify, investigate, and evaluate other environmental issues.

Source: Knapp (1994; 2007).

When planning how to incorporate empowerment goals into face-to-face interpretation, guides' commentary should be set around the idea of enabling visitors to share their experiences and use their knowledge to identify, differentiate and evaluate solutions for targeted animals in relation to the visitors' personal circumstances (Table 5.6). Taking this idea further, a tour should ideally enable and catalyse the visitors to apply their knowledge to relevant environmental issues in their own backyard (Ballantyne & Packer, 2011; Knapp, 1994). The goals here are predicated on the development of awareness and ownership goals so visitors understand their own agency when it comes

to responsible environmental behaviour. Such goals are developed through visitors' realisation of the connections between the site of the wildlife tour and visitors' home environment.

Table 5.6: Level three – empowerment goals for programme development in environmental interpretation

This level seeks to develop skills necessary for visitors to take positive/responsible environmental actions in regard to resource site issues. Goals at this level would offer experiences in interpretive programmes that develop:

1. The ability to identify and evaluate solutions for resource site issues.
2. The ability to evaluate these solutions in regard to their cultural and environmental implications.
3. The ability to differentiate the types and levels of actions possible in regard to solving resource site issues.
4. The ability to apply these actions skills to resource site issues.
5. The ability to use this knowledge to apply these action skills to other environmental issues.

Source: Knapp (1994; 2007).

Trying to connect local sites through interpretation to other sites or generalise local issues at a global level can be fraught with difficulties as “local values and meanings risk being subsumed” (Salazar, 2015, p. 123). There is no easy answer to this challenge. The overall story of the need to eradicate exotic mammalian predators to save New Zealand's native plants and animals involves a debate about protecting the last populations of the Kiore that is culturally significant to Māori (Department of Conservation, 2006; Veitch, 2002). The story of the Kiore for Visitor C was one connected to awareness raising when it came to understanding why Māori introduced them (Visitor C in Sub-theme Nine). Islands have been set aside for the survival of Kiore, and such decisions to maintain invasive exotic species close to sanctuaries for native species involved complicated understanding of cultural and ecological issues (Tahana, 2010). The tension between ecological restoration and preservation of the traditional heritage would be outside the scope of an introductory guided wildlife tour. It would suit an interpretive activity where participants investigate the issues relevant to a specific site, extending interpretation into environmental education (Sharpe, 1982b).

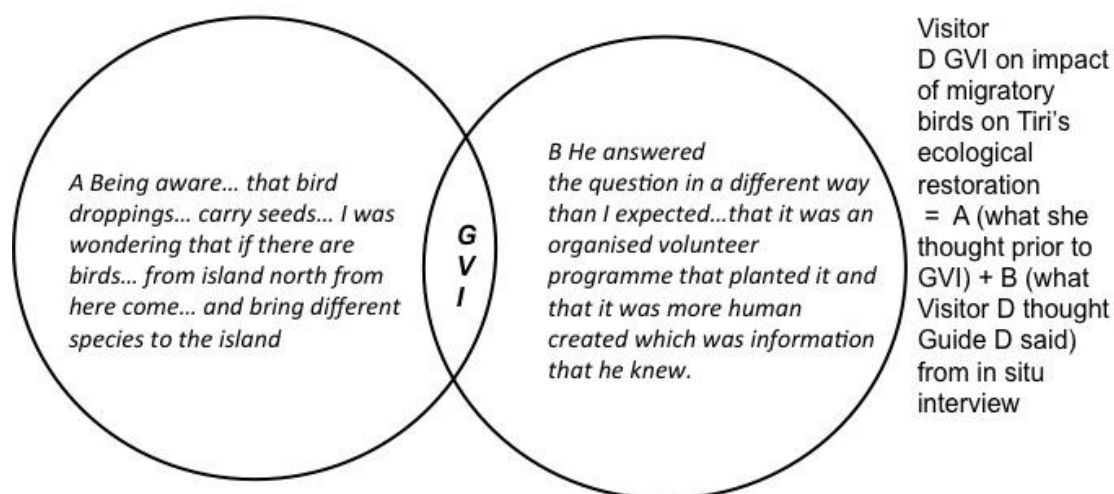
5.4 Research Question Three: Can visitors' receptivity to learning be discerned through observable behaviour such as visible signs of affect or curiosity on the part of visitors?

Both visitors and guides were able to interpret instances of visitor and guide behaviour as being representative of curiosity. Visitors' curiosity could be related to understanding practical issues connected to guides' commentary such as Visitor E trying to understand the feasibility of ant eradication on an entire island. Or it could be speculative such as

Visitor Three wondering if a perceived increase in the number of Humpback whales arriving early in Maui could be connected to climate change. Curiosity has been connected with constructive human behaviour such as educational attainment and scientific discovery, as well as behaviour disorders and criminal activities such as drug abuse and arson (Loewenstein, 1994). Curiosity has been discussed in the context of interpretation planning as a behavioural response on the part of the visitor that can be stimulated to contribute to learning and other site goals (Koran, Morrison, Lehman, Koran, & Gandara, 1984; Orams, 1997).

Falk and Dierking (2000, p. 115) noted the relationship between curiosity and learning, and suggest that mental stimulation is a characteristic of all mammals: “Curiosity and learning represent a feedback loop; curiosity evolved in order to facilitate learning, learning occurs in order to satisfy curiosity... the desire to promote then satisfy curiosity aptly characterises the motivation behind most free-choice learning” (p. 115). The focus of this study is on visitor curiosity and how it may affect the nature and extent of GVI during a guided wildlife tour.

Visitors C, D, Five, Seven and Eight all discussed incidents during GVI where guides said something that appeared not to fit into their understanding of ecological relationships, wildlife or human wildlife relationships (For example, Visitor D in Figure 5.1). Incongruity occurs when a person perceives discrepancies between new information and schematic representation of information that organise structures of existing information about an idea that renders some or all of the information to be irrelevant or wrong. Incongruity-based theories of curiosity posit curiosity as an active regulator in the development and maintenance of cognitive structures.



Perceived impact of Guide Visitor interaction(GVI) = Actually he did answer the question really well because...the farm animals were compacting the soil, so... the seeds they wouldn't be able to germinate anyway... I definitely have learnt a lot about the vegetation and the birds... On a scale of one to ten, I think probably a ten, because I feel that he explained all the bird variety on the island really well, explained their eating habits, explained the vegetation and what their feeding off, and history on the way in, and was very thorough (Visitor D, in situ interview, SoTM).

Figure 5.1: Visitor D's reflection on GVI where she perceived incongruity between her and Guide D's answering of a question

The concepts of drive and incongruity have been incorporated into theories of curiosity. In respect to drive theory, curiosity creates a sense of discomfort that can only be reduced through exploratory behaviour (Loewenstein, 1994). Curiosity is associated with learning when there is an amalgamation of new ideas or a reinforcement of existing ideas:

If the processes lead to a pattern of responses that the subject's prior learning enables him to accept as an adequate answer then the drive will be reduced. Since drive-reduction follows the rehearsal of the correct answer, the principle of reinforcement implies that the latter will become strengthened as a response to the question. (Berlyne, 1954, p. 183)

The concept of cognitive structures resembles Finkler's (2014) conception of frames in respect to how people cognitively organise the information they possess. Greenberger, Woldman, and Yourshaw (1967) defined a structure as a memory trace and identified schemes, attention and structure-building as key concepts in understanding incongruity.

The term marker was first used by MacCannell (1999) to describe pieces of information that can indicate an empirical connection between the visitor and a visitor attraction (Section 2.2.2). Markers can represent a memory trace between the visitor and the attraction visited, and can be understood as pieces of information that make an empirical connection between the tour and a learning event. In this research, it was possible to categorise information referred to by participants from the tour and GVI (i.e. markers) to different phases of the visitors' experience such as pre-visit, visit and post-visit. Such phases can also be understood as off-site and on-site markers (Leiper, 2004; MacCannell, 1999). A resident of California, Visitor D was already aware of how the ecology of off-shore islands on the West Coast of North America can be affected by seeds carried by migratory birds (Figure 5.1). Off-site markers then can represent visitors' pre-existing knowledge up to the time they commenced their tour and new knowledge accrued after their tour and in situ interviews. In addition, the data showed that on-site markers can be connected to information visitors became aware of either during the tour itself or while at the attraction. For example, see Visitor A's discussion of Tūi voice boxes (Narrative 5.1, Appendix 17).

Markers can provide insights into the way visitors' meta-cognitively structure the knowledge accrued during their trip. Identifying the sources of information visitors refer to as markers can help give insights into what they perceived they factually knew before and after the trip about site resources. It can also provide insights into visitors' understanding of wildlife in terms of changed, reinforced or stable perspectives about phenomena encountered (Narrative 4.3, Figure 5.1, and Table 5.2).

The individualised nature of markers alludes to an element of ambiguity they possess in terms of the role they play in influencing on-site visitor behaviour. They may misleadingly suggest to the visitor that an attraction has qualities that they do not actually possess and thus do not match with the reality of a visitor's experience of the nuclear element of an attraction:

Markers, information about nuclear elements, have an essential role in the process, linking tourists into attraction systems. This is not automatically productive, because tourists' needs are not always satisfied. In other words, attraction systems may be functional or dysfunctional, to varying degrees. (Leiper, 2004, p. 308)

The functional / dysfunctional dichotomy suggested by Leiper (2004) is a useful way in understanding sustainability in the context of visitors' expectations in relation to on-site behaviour. If the informative elements that motivate the visitor or influence their on-site behaviour are predicated on ideas or attitudes that are potentially destructive to site resources, then negative impacts can arise. Therefore, the informative elements that the attraction management or tour operators devise when planning visitor experiences are crucial for sustainable outcomes. Interpretation then is an important consideration in how to convey targeted information for visitors.

5.5 Research Question Four: What level of interaction do visitors seek from guides in the learning process of a guided tour?

This section seeks to understand the varied ranges of interaction contexts that visitors reported when describing how guides were involved in the way they learned things during their tour. It does so by exploring the role of guides in visitors' experiences through Pine and Gilmore's (1998; 2011) realms of experience model. It examines the level of facilitation sought by visitors from guides that involve visitors primarily in passive participation such as entertaining experiences, or active participation such as educational experiences.

The findings indicated that the guides' knowledge was often seen in the context of sharing information with visitors for the purpose of education. That the guides were knowledgeable was an anticipated factor and was critical in their role to facilitate learning. Visitors perceived that they had learned something on their guided tours and attributed their guides as the source of the new information that they recounted in their interviews. Visitors would frequently preface information that they knew with a reference to a guide, and often would suggest that the new information they had learned from their guide had changed their perspective.

In their model, Pine and Gilmore (2011) refer to the concept of a sweet spot for each service-based experience in terms of the right mix of participation, absorption and immersion for visitors. Through connecting Knapp's (1994; 2007) goals for interpretation with Pine and Gilmore's (2011) four realms of experience, sustainable tour outcomes (STO) can be argued to be the sweet spot of wildlife tour (Figure 5.2). The offering that organisations such as SoTM and PWF can provide in respect of a guided experience will depend on how well the experience is planned. This can include

the extent to which the tour can absorb visitors into the experience will determine its potential to be both entertaining and educational.

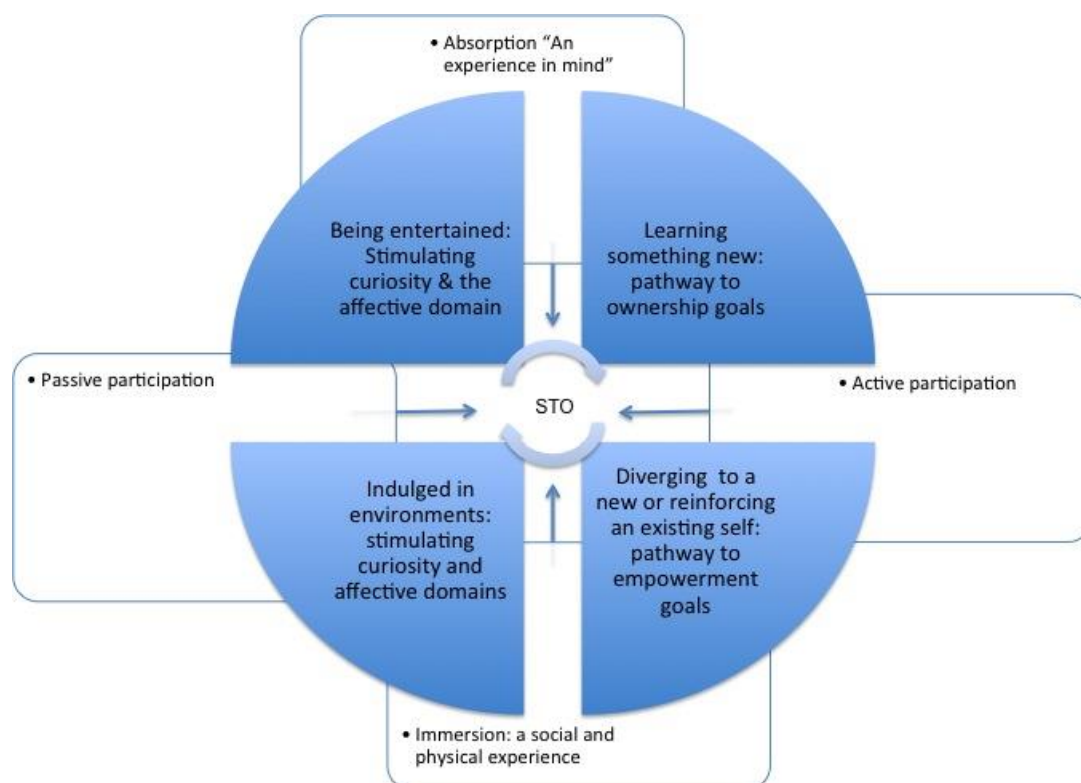


Figure 5.2: Four Realms of Experience in relation to sustainable wildlife tours. Sustainable tourism outcomes (STO) represents the “sweet spot” of a wildlife tour experience

Source: Adapted from Knapp (1994; 2007); Pine and Gilmore (1998).

The more transport bound or physically isolated the visitor is from the wildlife on tours, there is perhaps less likelihood of visitors perceiving a shared space existing between them and the wildlife. For example, Visitor Three struggled to reconcile her experience of a PWF tour with her perception of a wildlife experience. Visitors Three and D emphasised the benefits they derived from the information provided on their tours, and the role of guides in facilitating learning. However, they both suggested a need for guides to say nothing. For example, Visitor Three felt the need to be free of intellectual engagement. She connected the lead guides’ PA commentary as being outside of the experience she sought from the trip.

If the tour is characterised by a uni-directional style of guide commentary, the more potential that the experience will be an entertaining one based on observation and listening rather than a physically immersive or an intellectually absorbing experience. However, it is the agency of the visitor in respect to the degree they choose to

participate in their tour that determines the outcome of their experience. If the visitor chooses to be only passively involved in the experience, then the tour will mostly be entertaining, whereas more active participation will result in greater educational outcomes. The entertainment realm is represented as a passive experience for visitors (Oh, Fiore, & Jeoung, 2007). In the context of tours, the concept of an entertainment realm can be used to think of how the commentary provided by guides can help highlight the immediacy of the encounter and, also, describe it in a manner that is informative and humorous.

The more actively the visitor participates, then the greater the potential for the entertainment dimension to stimulate the visitor's curiosity and affective domain, thus transforming the tour from mere entertainment into more of an educational experience. Absorption is the process of bringing the experience into the mind of the visitor and, in that way, turning it into a memorable event "thus, to truly create an educational experience, a tourist must increase his knowledge and/or skills through educational events that actively engage the mind (for intellectual education) and/or the body (for physical training)" (Oh et al., 2007, p. 121).

A memorable event can be judged to be a learning event insofar that the indicators and measurements of such an experience are internal. It is the visitor who indicates that an experience was memorable and accordingly assesses by internal measurements the learning dimension of their own experience. To a certain degree, in the eyes of the visitors, the guides are connected to the event as much as the learning: [What was the most significant thing you learned?] "That's a good one. We were on vacation. I know there were some things that the woman had said on the ship about the whales. They don't eat [in Hawaii]" (Visitor Eight; reflective interview, PWF).

Pine and Gilmore (1998) suggested that the change from the experience being one of absorption to one of immersion is dependent on the visitor's physical involvement in the experience. The aesthetic realm is also at the passive levels of the experience, and can be used to think of how the guided tour provides visitors with the opportunity to see and be in the same environment as the wildlife. Thus, the nature of the behaviour of the animal(s) and the setting can both be factors in determining how memorable the experience is.

By identifying communication as one of the dimensions of being physically involved in an experience then a social dimension can be added to the immersive experience. In the context of a tour, the social dimension represents the domain where the visitor involves themselves with the other protagonists in the tour experience and the 'director' of the experience (that is, the guide). The analogy of a theatre experience can work for a guided wildlife experience if we see the performance as having commensurate elements of improvisation and participation from the 'audience', and all of the cast and crew.

Pine and Gilmore's (1998; 2011) discussion of the four realms of experience suggests that wildlife must have their opportunity to provide authentic performances that are not manipulated by the others. It is important that visitors feel that they are seeing natural behaviour. The escapist realm is about not only being in the environment where a memorable event can take place but also actively participating in it. The conventional approach to this is that any changes to visitors' existing routines that occur from the experience are confined to the experience:

Escapist experiences require that the tourist affect actual performances or occurrences in the real or virtual environment. In general tourism is a way for people to escape from their daily life and return to the routine after experiencing the extraordinary (i.e. non-routine life). (Oh et al., 2007, p. 121)

For many of the tourists on the guided wildlife tours studied in this thesis, visitor engagement with specific whales or birds and their environments during their tour was limited by the rules and operational procedures of PWF and SoTM. The findings suggest that GVI during SoTM and PWF guided tours represent activities that can foster entry and ownership goals but do not necessarily facilitate empowerment goals because it is difficult to create an escapist experience for visitors when interacting with endangered species within a protected area.

The educational realm is about people actively participating at a psychological level when it comes to comparing and evaluating existing knowledge with what they are experiencing on the tour. Visitors associated their guided tour experiences with the creation of learning outcomes when there was some dimension of a teaching process.

For an ecotourism operator, designing an optimal visitor experience involves using the entertainment realm and the aesthetic realm to reinforce the educational realm and the escapist realm in the context of exploring new behaviours that support conservation. For visitors, an optimal experience may be all four realms in equal measure or in proportion to what motivates them to involve themselves in the ecotourism experience.

Visitors have an opportunity to listen and enjoy the commentary of the guide and other staff in a way that does not necessarily require interaction, but at the same time their listening and seeing can trigger the visitor's affective domain as well as their curiosity and thereby provide them with the stimulus to participate more actively in the guided tour through, for example, socially sharing their observations and initiating or responding to question-and-answer cycles. The guide then further utilises their own initial plans, and the opportunities afforded by direct experiences and the active social participation of visitors, to facilitate the potential for visitors to learn something new at an absorption level. In alignment with these educational opportunities, the guide seeks to model activities that allow the visitor to either experiment with new behaviour, or reinforce this aspect of themselves as an active conservationist whose present and future actions have some degree of symbiotic relationship with the animals and environment experienced in the guided tour, either off or on site, and at a micro or macro level (Forestell, 1993; Forestell & Kaufman, 2007).

The findings show that visitors often actively participated in their experiences and interacted with others on the guided tour by commenting on what the guides had said, contributing their own observations, and initiating or responding to question-and-answer cycles. Participants can be seen as co-creators of their guided experience as their own contributions often informed the overall experience.

However, the findings also show that much of the visitors' active participation in the experience was in the domain of their mind; that is, the visitors listened and processed what they were seeing and hearing, they often did not share those ideas and thoughts with guides. As a result of the visitors' non-sharing, guides did not often have the opportunity, in the follow-up stages in the learning cycle and in the post-contact phases of the tour, to add more to the visitors' experience. To help illustrate this point better and to give more acknowledgement of the visitor as a co-creator of the experience (Richards, 2001; Richards & Wilson, 2007), the social component of the absorption-immersion axis needs to indicate that communication is an element of the physical

experience. Talking as well as doing allows the visitor to become more immersed in the experience. The act of talking contributes to the experience in a way that makes the ‘thinking’ dimension of the experience more visible to the other participants such as the guide. This will then provide better measurements of the degree to which visitors are actively participating in the guided wildlife experience.

The four realms of experience can help explain visitor agency in the context of the guided tour and ways that the experience becomes not only memorable for the visitor in terms of a satisfying experience but also in terms of development or reinforcement of conservation-supporting behaviours. By integrating Knapp’s (2007) different but progressive goals for visitor behaviour change, one can see that a tour can contribute to making a visitor more aware, even when they are participating only passively (Figure 5.2).

Furthermore, the more actively the visitor participates and the more they become absorbed in ‘an experience in mind’, the more opportunities arise for learning and for that learning to translate into ownership goals. Likewise, the more immersed the visitor becomes in the tour at a physical and social level, the more opportunities guides have to foster empowerment goals. The challenge, though, is that most guided wildlife tours are not built around a formal structured educational template (Orams, Forestell, & Spring, 2014), and so thought and careful planning is required to build a more immersive dimension into the tour structure. Such an immersive dimension would involve modelling and getting visitors to participate in conservation-supporting behaviour, resulting in the tour being transformed from a simple guided experience into a memorable and transformative wildlife tour (Forestell & Kaufman, 2007; Johnson & McInnis, 2014).

5.6 Research Question Five: What role do guides play in the facilitation and enhancement of learning during the guided wildlife tour?

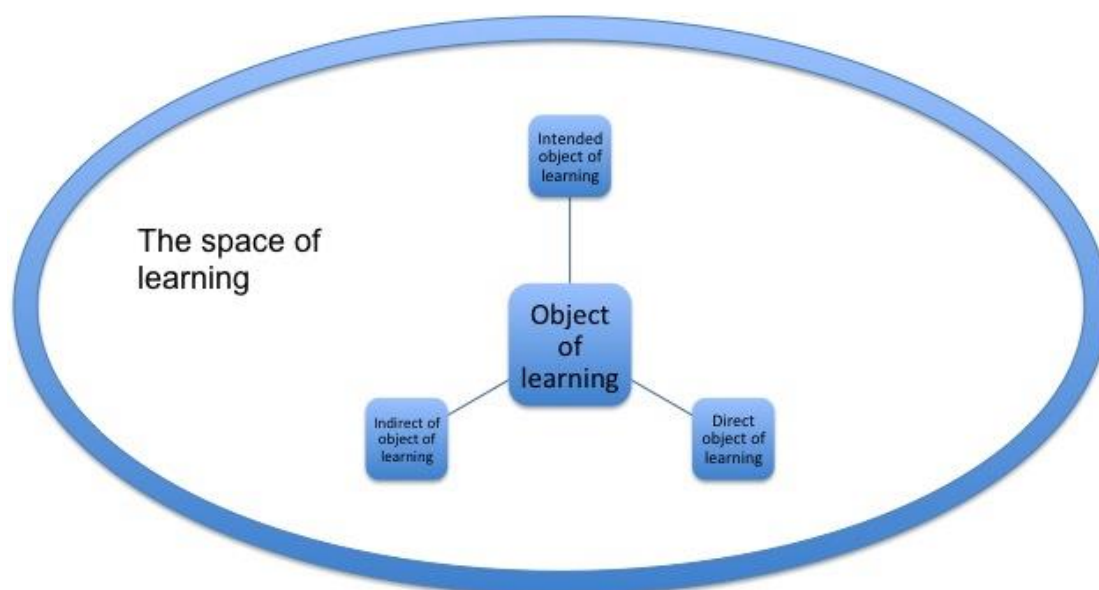
Knapp’s (1994; 2007) three levels of goals highlight the wide range of issues that can be considered as necessary for visitors to learn about. This section discusses the role guides play in facilitating and enhancing learning during a tour. It will explore how guides are perceived to have contributed to learning by examining such findings through the concept of the object of learning (Marton & Tsui, 2004).

Learning objectives, the object of learning, and learning intentions are different ways of conceptualising educational goals. Educational topics are always connected to objects because “learning is always the acquired knowledge of something, and we should always keep in mind what that ‘something’ is” (Marton & Tsui, 2004, p. 4). This can be a challenge for visitor attractions such as museums that utilise material objects such as weapons in relation to learning objectives about topics such as peace (Hooper-Greenhill, 1999b). In wildlife tourism, the objects focused on are the wildlife but the object of learning is formed around intangible ideas such as conservation, biology or ecology.

Marton and Tsui (2004) identify four components of a researched object of learning: the direct object of learning, the indirect object of learning, the intended object of learning, and the enacted object of learning. The direct object of learning is what the person is trying to learn, the one the learner focuses on. For example, Visitor D wanted to understand the role migratory birds played in the ecological restoration on Tiri, and GVI involved Guide D answering a question she had about it (Figure 5.1).

The indirect object is to do with the capabilities required to facilitate the act of learning: “remembering, discerning, interpreting, grasping, or viewing, that is the act of learning carried out” (Marton & Tsui, 2004, p. 4). In the findings of this study visitors remembered facts, discerned the relative importance of a series of facts, and interpreted the meaning of facts presented during the guided tour.

Marton and Tsui (2004) noted that while the learner is focused on the direct object of learning, the teacher should be focused on what and how students are learning, both the direct and indirect objects of learning. Furthermore, the teacher’s role is to focus on the intended object of learning. This means that the teacher needs to be aware of the progress of the learning (Figure 5.3). Some visitors referred to storytelling as a process that imparted information on guided tours. For example, Visitor D saw the experience as guides responding to what was being directly experienced by creating overarching storylines to educate the visitors.



Direct object: What the learner is focusing on learning: What is acted on.

Indirect object: The acts of learning carried out: Remembering, discerning, interpreting, grasping and viewing.

Intended object: The object of learning as seen from the teacher's perspective as evidenced by what the teacher says and does.

Enacted object: (The space of learning): What the students encounter. What is possible to learn in the actual setting. The researcher's description of whether, to what extent, and in what form the necessary conditions of a particular object appear in a certain setting.

Figure 5.3: The researched object of learning

Source: Adapted from Marton and Tsui (2004); Marton and Booth (1997)

Marton and Tsui (2004) noted that while the learner is focused on the direct object of learning, the teacher should be focused on what and how students are learning, both the direct and indirect objects of learning. Furthermore, the teacher's role is to focus on the intended object of learning. This means that the teacher needs to be aware of the progress of the learning (Figure 5.3). Some visitors referred to storytelling as a process that imparted information on guided tours. For example, Visitor D saw the experience as guides responding to what was being directly experienced by creating overarching storylines to educate the visitors.

The enacted object of learning is also known as the space of learning. It describes the "extent and in what forms the necessary conditions of a particular object of learning appear in a certain setting" (Marton & Tsui, 2004, p. 24). That setting may be a classroom, a museum, a guided tour, or a place where learning is researched. The space of learning observed in this study was typically the guided tours observed and the in situ and reflective interviews where the visitors and guides reflected on the significance of

GVI. For example, sites such as Tiri, tour operators' facilities such as PWF education classes, private businesses such as cafés in Lahaina, Maui, USA, and public spaces such as parks and the library in Lahaina.

Sometimes guides are initiators of learning about wildlife and their environment and at other times they have to respond to the specific interests of visitors about such wildlife. While guides seek to clarify misconceptions visitors have about wildlife, guides are not aware of what might be the direct object of learning for visitors. While in formal education contexts teachers have access to student feedback about what they have learnt, such as through assessment procedures (e.g. tests, exams and assignments), guides have few opportunities to assess the impact of their efforts in informing visitors' understanding of the wildlife and their host ecosystems. Furthermore, if much of what is being encountered during the tour is unfamiliar, uncomfortable or stressful for visitors, there is the likelihood that visitors will not retain any key messages that have been connected to specific wildlife species discussed.

A sustainable wildlife tour has to manage visitors' learning needs in relation to the welfare of the resources at a site. This might restrict the range of strategies that guides have available to engage visitors such as providing visitors to touch or taste plants. For example, Guide D provided an opportunity for visitors to be able to touch plants and seeds which appeared to contribute to how Visitor D from the USA integrated information about Tiri with existing information (Narrative 4.3, Appendix 17). However, one of the expected tasks of a SoTM guide is to discourage visitors from touching plants on Tiri (SoTM, 2009). The challenge for the effective management of a sustainable wildlife tour is to create an environment where the visitor is stimulated to think positively about potential constraints to their behaviour.

The space that is provided for visitors to learn on a guided tour may not connect to their expectations of what their tour is about. For example, Visitor Six suggested that a snorkelling trip he went on prior to his PWF trip did not meet his expectations as the tour operator fed the fish despite telling their customers not to. Visitor Six referred to this experience when he stated his concerns about the impact of vessels on Humpback whales in the HIHWNMS. However, he was supportive of the intentions of PWF and became a member even though he had a sense that the tour observed involved chasing whales. These factors, which are outside of the guide's control, may have a negative impact on any learning outcomes for the visitor. Guides have to manage a wide range of

visitors' expectation and needs in relation to education goals set by tour providers who need to tailor such expectations and goals to the realities of direct encounters of wildlife in protected areas (Figure 5.4).

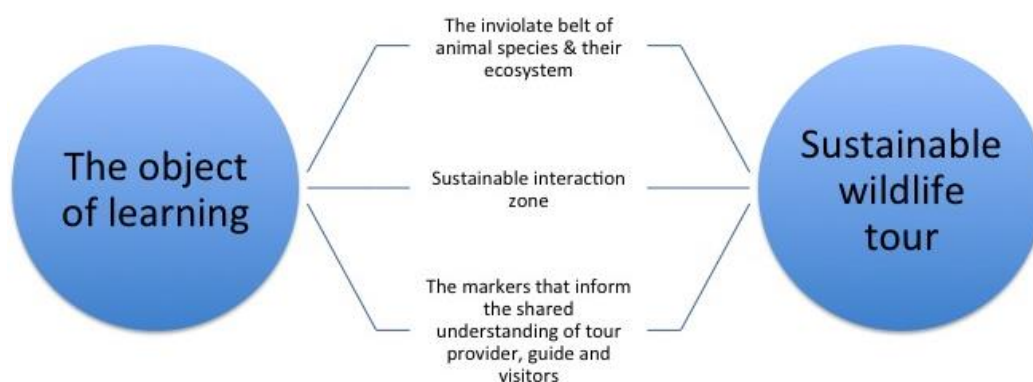


Figure 5.4: The object of learning on a sustainable wildlife tour

Source: Adapted from Gunn (1997); Knapp (1994; 2007); MacCannell (1999); Marton and Tsui (2004); Orams (1997).

Just as there is variation in the experience, there is also diversity in the knowledge base of visitors who participate in tours. A tour provider then needs to identify what is the possible range of learning outcomes that visitors may need to individually achieve in order that the interpretation goals can be met. The object of learning on a sustainable wildlife tour can be usefully seen as the constructed negotiation of a sustainable wildlife attraction between the tour provider, guide, visitor and a researcher. A researcher can help devise ways to measure and assess sustainable tour guiding outcomes.

5.7 Summary of discussion of findings

GVI contributes to visitors' learning outcomes. However, the findings show that visitor perceived learning events are a complex amalgamation of things they already knew and still want to believe, as well as attempting to integrate what they heard or saw on their tour. Visitors are receptive to learning but that learning corresponds to what learning opportunities they have been prepared for prior to the trip, what cues they provide guides to be able to discern how they can facilitate such learning during the tour, and what they are willing to follow up on after the tour.

Outside of ethical considerations about how animals and the natural environment should be treated irrespective of legislative requirements, protected natural areas have drawbacks as well as advantages as learning spaces compared to other environs. Even though elements such as scenic beauty, rarity and the opportunity to share the same space as wildlife enhance visitors' receptivity to learning, the opportunities for

interaction are constrained by the regulatory framework and natural setting. A way to conceptualise educational outcomes for a wildlife tour is that the tour guide seeks to facilitate an increased understanding about the wildlife, the site where the tour takes place, and what are achievable human actions to ensure a sustainable habitat for the focus animals. The guide also needs to have defined learning objectives to ensure that the structure of relevance used during a tour relates to learning and more sustainable outcomes.

Any model of learning involving GVI during a wildlife tour has to be flexible due to the differences that can occur from multiple wildlife encounters, and the range of visitors' knowledge that influence the possible and achievable learning outcomes. A model of learning needs to consider the possibility of multiple and variable animal encounters, which will consequently increase the number of pre- and post-contact phases within one guided experience. It then becomes challenging for the guide to assign the same level of focus on each encounter and deliver consistent and meaningful learning outcomes.

While the potential for each and every encounter to deliver desired learning outcomes exists, interpretative opportunities arising from the overall experience will be highly variable. Therefore, any model or generic approach to GVI needs to indicate that a guide must decide which contact scenarios provide the better interpretive opportunities to facilitate learning outcomes. This of course is a challenging process as a guide cannot assume that there may be more encounters or opportunities for learning during a tour, and so must make the most of the contact scenarios that have already occurred.

5.8 A Model of Guide-Visitor Interaction for Wildlife Tours

There have been a range of models that stress the potential for pro-active techniques for guides to enable them to anticipate GVI opportunities in wildlife tours which might contribute to more sustainable outcomes from guided tours (Forestell, 1992, 1993; Johnson & McInnis, 2014; Lück, 2015; Orams, 1996, 1997; Weiler & Black, 2015). The approaches advocated in these models have further been elaborated on in respect to the formulation of relevant content in the context of thematic interpretation (Ham, 2007), or specific site-based goals (Knapp, 2007) and modelling behaviour (Forestell & Kaufman, 2007). What has not been elaborated on so well is a more considered approach to the other actors and influences in the guided wildlife tour experience; that is, the visitor, the context and the infrastructure and services that facilitate or constrain interaction with the targeted wildlife. The findings from the study presented in this thesis suggest that the

5.8.1 The visitor

Results from this study show that all visitors come with an existing knowledge base, perceptions, belief systems, motivations and expectations and these all influence their engagement in the tour and the learning that may result. Prior knowledge of the wildlife and/or where the tour operates is a consistent characteristic in the reflection of all visitors about their tour experiences. Visitors' perceptions of prior knowledge in the light of amended knowledge or self-evaluation of whether learning occurred varied widely. Factors that explain this variability include familiarity with places (e.g. visitors being from another country or state within the same country), wildlife and specific biogeographical ecosystems. Visitors' pre-contact perceptions of their wildlife encounters are informed by a range of expectations based on information (such as promotional and marketing material), and/or previous experiences. These perceptions can relate to expectations of how close visitors may be to the wildlife, whether they will see rare species or unusual and/or spectacular behaviour exhibited while on the tour. These expectations are represented in the vertical axis of the model (Figure 5.5).

Visitors' motivations to participate on a tour need to also be viewed as a relationship between their own individual interests and the social context of their participation on the tour. The visitors (with the exception of Visitor Three) were part of an inner social circle ranging from friends, partners, nuclear and extended family to a tertiary institution-based group. While many visitors had a specific motivation to participate in their PWF or SoTM tours based on interests in wildlife or the natural environment, for others there was a more complex relationship between their own interests and the needs of others within their social circle. Visitors' belief systems were also an instrumental factor in how they perceived the value and utility of participating in a tour. Visitors in their interviews referred to an expectation that an educational experience was an important part of their tour experience.

5.8.2 Zone of infrastructure and services

Zone of infrastructure and services (ZOIS) refers to the range of services, equipment and materials that are used to facilitate access for the tour to achieve a direct encounter with targeted wildlife species. Examples include: boats, trails and tracks, viewing platforms, PA systems, guide books and binoculars. These are the items that require planning, investment and human labour to generate, and which also provide opportunities for revenue generation for stakeholders. ZOIS is derived from Gunn's

(1997) zone of closure element in his tripartite model of a visitor attraction (Section 2.2.2). Pearce et al. (2000) used the name ‘zone of service’ to describe the same dimension for visitor attractions. The use of the words infrastructure and services recognises that services such as boat-based tours are only possible through investment in boats and piers and other supporting human-made devices and materials.

The zone of infrastructure and services also relates to the services that are built around the needs of tourists. Gunn’s (1997) concept of zone of closure was a device to highlight the need for stakeholders to plan in a way that the commercial activities associated with tourism do not intrude on the attraction itself (Leiper, 2004). With both PWF and SoTM tours the commercial services that visitors rely upon when visiting a destination such as accommodation are clustered around the gateways of their respective tours (Auckland Harbour, Gulf Harbour, Lahaina and Maalaea). As with Higham and Lück’s (2002) discussion of urban-based ecotourism ventures, the urban setting of their gateways remove the need to develop infrastructure specifically outside of the needs of tourists for their tour that would have to be built if PWF and SoTM tours operated in rural or wilderness areas. Transportation networks, accommodation and other amenities that exist in towns and cities for local communities and other visitors also cater for the needs of participants on PWF and SoTM tours.

5.8.3 Zone of guide-visitor interaction

The zone of guide-visitor interaction (ZOGVI) is the space created by the zone of infrastructure for the tour to search for wildlife. SoTM visitors and guides on Tiri are able walk on the paths and platforms that intersect its forested areas. PWF vessels provide a platform for PWF visitors and guides to transverse the HIIHWNMS to search for pods of Humpback whales. Within the ZOGVI guides facilitate the visitors’ experience through attention to the following issues: Safety, orientation, interpretation and socialisation. ZOGVI is based on models of marine wildlife tours that elaborate the contact phases of tours and the implications such phases have for the roles of guides and visitors’ experiences (Forestell & Kaufman, 1990; Jonson & McInnis, 2014; Orams, 1997). ZOGVI is about understanding what physical, human and intellectual resources are available to guides to facilitate and enhance learning outcomes from a wildlife tour.

5.8.4 Zone of constraints

The zone of constraints refers to the legal, physical, psychological and social constraints that can potentially restrict the opportunities for tours to have either a direct encounter

with targeted wildlife, or a learning experience from the tour, and/or the quality of the experience. The legal constraints refer to legislation and rules around what is and what is not permissible during direct encounters with wildlife. In Hawaii and New Zealand, National Oceanic and Atmospheric Administration and DoC outline and monitor what is and what is not permissible for guides and visitors to do while on PWF and SoTM tours. Physical constraints refer to the geographical and human-made ‘barriers’ that separate the tour group from the wildlife. On PWF tours, it is the vessels, and on SoTM tours it is boardwalks, platforms and rails. Psychological constraints refer to what psychologically restricts from getting close to wildlife, learning or enjoying their experience. Theoretically visitors on the tours observed could have at anytime jumped off their vessel or walked off-track but either the perceived physical, social or legal ramifications of such an action persuaded them not to, or they never contemplated doing so. This concept owes much to Leiper’s (2004) elaborations on the relationships between nuclei and what surrounds them in his tourist attraction systems.

In discussing their experiences visitors from both PWF and SoTM tours identified things that seemed out of kilter to their expectations of their trips. Visitor Six’s experience suggests that personal concern that vessels were too close to whales prompted him to use GVI to identify the possible behaviour that the whales were exhibiting (Section 5.4). Visitor D’s experience suggests that her perception of concrete as a material for path construction in some areas of Tiri demarcated for her where her nature-based experience ended:

I also noticed, **pretty instantaneously** while we were walking from the beach back to the boat, closest to the toilet area, it turns from a dirt path into concrete and, it’s kind of, it’s invasive in my mind on the experience...it’s a natural reserve and, I can kind of understand for wheel chair accessibility and that, to the toilets but it was almost **automatic** that I noticed I walking on a different. [How did that affect your trip?] **I felt the trip was over**... I knew I was going to get back on the boat but it just brought me back to a sort of **civilised** sort of feeling. (Visitor D, in situ interview, SoTM)

As a member of SoTM I appreciate the time and effort taken by volunteers to construct pathways that can withstand the disparate levels of visitation at different parts of the island. Also, the concrete area she referred to was part of a project to replace the old pier as it was discovered that Argentine ants arrived on the island in some of the wood used in its construction (Pers. obs.). However, human structures have the potential to intrude on visitors' experiences. PWF vessels and SoTM built tracks make access to targeted wildlife possible but can also impose a sense of physical and psychological separation from the natural world that visitors want to experience at the sites visited.

5.8.5 Zone of wildlife interaction

A former DoC ranger at a SoTM guides' talk recalled how a European visitor to Tiri sought him out to show him something special he had found on the island, an endangered Tuatara (*Sphenodon punctatus*) which he had captured and placed in his personal bag. It seemed that it was never his intention to remove the Tuatara from the island but he never explained why he took the Tuatara from its territory. The moral of the ranger's story was how guides need to be vigilant as some visitors' conception of what is permissible when interacting with wildlife contravenes rules as well as animal welfare (I. Price, pers. comm., 2010). This section explores how the agency of guides can foster goals to achieve educational outcomes.

When I reflect on the type of wildlife experiences that the participants wanted from their tour, I am reminded of Smith's (2007) phrase 'profound wildlife encounters'. Most of the visitors either experienced encounters on their tours or were able to compare them to other wildlife encounters that had either an intellectual, emotional or spiritual effect on them. Every experience was individualised although certain features such as spectacular wildlife behaviour were identified as constituents of such an experience. The agency of visitors during GVI in engaging the guide and facilitating wildlife encounters ranged from passive to active participation. The field notes point to numerous instances of visitors actively looking for wildlife and informing others when they saw them but I surmise that there were many visitors on the tours I observed who focused more on the people they were with or had to cope with personal matters such as motion sickness.

Zone of wildlife interaction (ZOWI) refers to what occurs during the interaction between visitors and wildlife. It is based on models of visitor attractions that delineate a specific phenomenon that is the focus of visitors' attention at a visitor attraction and either a psychological or empirically-established dimension about visitors' expectations

of their experience at the attraction (Gunn, 1997; Kotler, 1994a; Leiper, 2004; MacCannell, 1999).

The sum of visitors' experiences involves the peculiar characteristics of each specific direct encounters (e.g. proximity, rarity, behaviour, number and duration), the social and individual characteristics of each animal in the encounter (e.g. predator, prey, parent, juvenile, mate, competitor, and pack member), as well as guides' and visitors' perceptions of the wildlife (e.g. Corkeron's (2014) nasties, lovelies, commodities and irrelevancies typology). The zone of wildlife interaction may include interaction contexts such as observation (seeing), hearing, touching, and smelling. It may also evoke a range of responses in visitors (e.g. apprehension, excitement, fear, curiosity, joy, and connection/empathy).

The findings demonstrated that individual visitors were often interested in different qualities of the same wildlife species. Specific behaviours such as communication or foraging, the appearance of the animals, and or specific social groupings such as mother and calf were the most desired or appreciated elements of the visitors' experiences. For some visitors, the commentary provided by guides was a valued component of the experience while others had nuanced views of the benefits and problems with the commentary provided on their tours.

Not all birds are created equal in the eyes of tourists in determining which are worth paying money to see. For some visitors seeing birds that are rare could be the primary motivation, for others seeing or hearing birds in the context of intra-species behaviour such as nurturing or inter-species behaviour in relation to the food chain may be equally important. Also for some a charismatic association may or may not be a contributing factor to visit.

Rarity is often seen as a quality that warrants wildlife being perceived as a visitor attraction. Saddlebacks, Kōkako, and Takahē are endangered species with overall populations of less than 6000, 1500 and 300 respectively (Supporters of Tiritiri Matangi (SoTM), 2009). For Visitor C encounters with Saddlebacks were a highlight and so was an encounter with Kererū, a bird he sees in his own backyard. However, his experience of Takahē appeared to be out of proportion to the favourable reviews he had heard from other people (Narrative 5.2, Appendix 17).

5.8.6 Learning, experiencing, reinforcement, and stasis

Learning in the context of the model refers to the findings on incidents on tours when visitors realised that they had ‘questions’ that they did not anticipate they would need to ask or address before the tour. For some these ‘questions’ were not verbalised until when their interviews took place. This suggests that there is an internal dimension to the learning process where guides may not realise that GVI is having any impact on visitors’ experiences. Visitors conceptualised learning on the tours as something that was fun and pleasurable suggesting that there had to be certain optimal conditions for learning to occur for them. Although visitors did not specify such conditions they articulated many attributes that they believed that their guides had that contributed to their perceived learning outcomes.

Experiencing connects to the joy and pleasure of the experience in a way that separates out a desired wildlife encounter from learning. For example, Visitor Three made a clear demarcation between doing “head stuff” before the trip and learning after the trip while attempting to have little intellectual engagement during the tour itself. More or less she indicated that she learnt from the guides and the tour despite her inclination to just enjoy the experience of watching whales during a boat trip at dawn. When I asked all guides in their reflective interviews what they do differently now compared to when I observed them, most of the PWF guides referred to utilising silence more often when delivering their whale-watch commentary.

Reinforcement refers to how many visitors appeared to be aware of a demarcation between the extent that learning occurred for them through GVI and the degree to what they heard was a catalyst for recalling existing knowledge. Reinforcement as a concept is the borderland between learning, experiencing and stasis. Evaluating learning in informal learning environments such as guided tours is fraught with difficulties, and this makes researching the learning outcomes of visitors on such tours especially challenging (Knapp, 2007; Lück, 2015; Orams, 1995; Weiler & Black, 2015).

Reinforcement as an outcome is not necessarily a lesser outcome than learning. Visitors may already be familiar with much of the information content used by guides during GVI and the tour may have emphasised to them the importance of concepts connect to that information. Furthermore, it may have also reinforced for them the importance of maintaining existing conservation supporting behaviours.

Stasis suggests that for some visitors it is possible that the visit does not evoke emotion or provoke thought. The phrase ‘a pleasant experience’ used by Visitor Seven (Figure 4.1) captures how I attempt to conceptualise ‘stasis’. I am not suggesting that Visitor Seven’s experience was one of stasis but the shifts in how he characterised his experience in his two interviews point to the complexity involved in how visitors, let alone researchers, interpret their tour-related experiences. No visitors in the case studies indicated that this ‘stasis’ was their assessment of their experience, but there were some instances in individual cases where visitors appeared to de-emphasise the impact of the tour in the reflective interview in contrast to a more enthusiastic comment in their in situ interview.

I think of Guide A’s tour as an example of trying to differentiate between these four dimensions, where one visitor wore earphones on the tour and left after a short time on the tour. She stated that she had already done a tour before. While Visitor A and another person were constantly engaging with Guide A the two other visitors on the tour were circumspect in their interaction asking less than a handful of questions. It is possible to argue that the visitor with earphones learnt that a tour was not something that could contribute to her experience. Equally, what she heard reinforced things she was already aware of and so she decided that she would try a new way of experiencing Tiri by leaving the tour. I will never know because I never asked, nor did I choose to analyse the silences of the two gentlemen. I focused instead on the GVI of the two women who stayed on the tour throughout and, in reviewing what both said, I made a decision that I may learn more from interviewing Visitor A.

I do believe that visitors primarily come on a wildlife tour to experience wildlife. On Tiri they can choose to experience wildlife with or without a guide. On a PWF whale-watch the PA commentary is part of the experience for all visitors (excepting the hearing-impaired community). They can attempt to ‘tune out’ and focus on the wildlife, the scenery, or their social circle. At different times on the tour and afterwards, they may perceive the trip as representing either a learning, experiencing, reinforcing, or stasis dimension.

5.8.7 Summary of the proposed model

The proposed Model of GVI on Wildlife Tours seeks to provide greater clarity regarding the complex interactions that occur in these contexts. Results from this study suggest that a wide range of important factors affect visitor experiences and that many

of these factors are beyond a guide's control. Nevertheless, if guides understand the important influences of these other factors they can incorporate these into their planning for and delivery of interpretation and guiding services. Despite these challenges and the complexity of the context what is clear from this study is that GVI does contribute to visitors' learning outcomes. However, this learning occurs in a complex interweaving of factors such as what visitors already know, believe and seek to experience on a tour, what the infrastructure and services either facilitate or constrain, what the regulatory framework and other factors allow as well as what visitors experience on a wildlife tour. Existing models in the literature tend to focus on the educational outcomes of the interaction with wildlife but exclude the other influences that exist outside of the wildlife – visitor interaction. The model presented here extends this by explicitly including the important influence of other factors.

Chapter 6 Conclusion

“It’s just the nature of the way my brain is probably wired, you go into situations and some things will actually come to you as you are walking around. Especially when you’re with somebody really knowledgeable like a guide, and suddenly ‘oh actually, oh yes’ that person has noticed that as well. I’ve not done a study, you’d need to do a full empirical study, to see whether that was true or not. And I’m just talking about snippets as you are walking through the bush”. (Visitor A, reflective interview, SoTM)

6.1 Revisiting the research questions

The overall aim of this research was to gain a better understanding of guide visitor interaction (GVI) during guided wildlife tours. The findings indicated that GVI played an important role in augmenting a sense of a shared experience for guides and visitors arising from direct encounters with wildlife and contact with the natural world. The augmentative role of GVI is critical in maintaining a shared experience during the course of a guided tour. Many factors arise during a tour whereby the individualised sense of an experience becomes more of a lasting memory than the dimensions that reflect the shared experience of a tour. At one level, the data highlight the content of peoples’ experiences when it comes to concepts such as curiosity, affect and learning. These concepts are very difficult to discern in human experiences, particularly when they occur in the context of tourism activities. However, a careful analysis of the data was able to provide insights into how participants of observed tours contextualise their experience in relation to the concepts of curiosity, affect and learning. This research demonstrated how the participants made sense of their curiosity, learning and emotions to describe their own experience and of others in the tours they were involved in.

6.1.1 GVI and receptivity to learning

The research presented in this thesis demonstrated how complex the relationship between curiosity and affect during GVI and perceived learning outcomes is. The findings show that both visitors and guides can identify situations where visitors are receptive to interaction. The relationship between such situations and learning was problematic. At an individual level, certain visitors shared an experience that resembles

what the literature describes as teachable moments. Visitors were able to refer to incidents connected to their knowledge and familiarity with ideas about specific phenomena, and measure changes in relation to before and after the guided tour. Through such a process participants self-assessed that learning took place. Some visitors felt that the experience reinforced or reminded them of what they already knew.

In any given tour, there were a number of interaction contexts between guides and specific visitors and it seems very difficult to connect any specific moment on a tour with what visitors identified as a learning event. Guides felt that they were able to deduce or rationalise that a person was curious about a nominated phenomenon. Guides were also able to rationalise how visitors integrated information from the tour with their own understanding of that phenomenon. Visitors' interest in phenomena they experienced on a tour is observable to others when it was shared externally insofar that it could be approximated to the reflections of guides and also my field notes. Visitors' narratives made reference to a more active involvement in their GVI either at an internal level where they indicated analysing a contrast between new and old information, or evaluating new information in relation to an explicit level of verbal interaction with the guide. Interaction with guides can provoke a response from visitors to take further action in relation to their awareness of ideas relating to phenomena connected to GVI.

6.1.2 Factors that influence visitors' receptivity to learning

This research concluded that factors that influenced visitor receptivity varied but included comparisons in differences with phenomena such as wildlife with which visitors had some contextual familiarity elsewhere. Often the basis for this familiarity was how the wildlife experience was associated with previous mental constructs or perceptions of the wildlife during the tour. It is important to note that the factors that visitors reported as influencing their receptivity to learning or that can be deduced from analysis of the data are interwoven and so it was difficult to isolate a specific factor or distinct catalyst. A factor in visitors' receptivity to learning that emerged from the data was previous connections to phenomena. Visitors often noted their pre-existing perceptions of familiarity of phenomena they experienced on the tour. There is a relationship between contact phases and the visitors' attempt to orientate towards the experience, and explore and contextualise ideas about phenomena encountered. The nature and frequency of sightings and the aural experiences connected to visitors' expectations about wildlife tours was a factor in creating a more individualised

experience for visitors. A major impact on GVI is the visitors' and guides' perceptions of the phenomena encountered. This can range from the value ascribed to a species or specific behaviour, and to the proximity, duration or intensity of a wildlife encounter. Participants' narratives of GVI note situations where visitors' and guides' perceptions of the significance of an encounter can either converge or diverge, and this can impact on the ideas shared and discussed by each actor.

6.1.3 Observing receptivity to learning

The use of participant observation and field notes enabled me to detect incidents during the tour where visible behaviour on the part of the visitor could be connected to what the visitor perceived as learning outcomes in both the short and long term. A common indicator for associating curiosity with learning was questions asked by the visitors. The caveat on this is that in the study of individual visitors many of the questions that were recorded in the field notes could not necessarily be connected to the visitors' perceived learning outcomes. The impacts of GVI are mediated by the agency of the visitor in terms of their responsiveness to the people, ideas and phenomena they encounter on a tour. Visitors' narratives of their experience indicated that much of GVI occurs at an internal level, and as such other people are not privy to it.

6.1.4 GVI in the learning process of a guided tour

The only generalisable statement to be made is that the level of interaction that visitors seek from guides during a tour varies widely. Many visitors appear to be content with passive interaction during face-to-face interpretation such as listening and moving their attention to specific visual points referred to by the guide. Often that external passiveness was replicated at an internal level. Visitors' perceived learning outcomes were connected to instances where the only GVI that could be inferred was visitors' own descriptions of cognitively engaging with what was being said by the guides. The findings indicate that hearing non-elicited information from the guide, or the guides' response to other peoples' questions (active listening), were commonly connected to visitors' self-perceptions of incorporating new information with pre-existing knowledge. Visitors recognised that guides facilitated interaction on a tour but visitors' perception of factors such as the size of the guided tour group and peoples' self-awareness of how they may impact on the experience of others also inhibited people from interacting with the group.

6.1.5 Facilitation and enhancement of learning through GVI

Guides were ascribed a major role in the facilitation and enhancement of learning by visitors. Many of the concepts and ideas utilised by visitors in discussing their experience can be discerned through participant observation to have been used by guides during the tours observed. Participants indicate that guides contributed to creating a space that allowed for ease in communication and facilitated interaction. GVI ranged from small talk, concern about safety and the novelty of the experience to exploring ideas and learning. A feature of visitors' narratives was visitors' perceptions of themselves as part of a distinct social circle. In discussing ideas around rapport building visitors noted the views and ideas of members of their own social circle and those of others outside of that circle.

Furthermore, visitors accord guides a role in orientating them to the experience such as providing them with skills to enable them to see animals. Visitors' narratives also refer to the importance of guides explaining connections between observed phenomena and theories about the cause of behaviour seen. In doing so visitors noted what the guides said and compared it to their own perception of what they were seeing.

6.1.6 Emergent research question

The findings indicated that GVI was critical in facilitating and maintaining a sense of a shared experience of what occurred on a tour. Guides were ascribed a major role in the facilitation and enhancement of learning by visitors. The visitors' reflection of their experience in terms of ideas and concepts discussed and phenomena observed can be approximated to the reflections of myself, and the guides. The use of participant observation, field notes and the guides' interview transcripts enabled me to detect events during the tour where visible behaviour on the part of visitors can be connected to what visitors perceived as learning outcomes.

The findings indicate that the shared experience dimension of a tour is subordinated to factors connected to the visitors' individual experiences. Factors such as changes or reinforcement of pre-existing ideas are not often discussed in explicit GVI. Further research is needed to better understand the relationship between an individualised experience and a shared experience of a tour. The manner in which a shared experience becomes differentiated for individuals is through nuanced changes in individual contemplation of the same phenomenon (Cope, 2004). A research question that focuses on understanding the different learning objectives of guides and visitors and their

relationship to learning outcomes may develop understanding of divergence in peoples' experiences of the same tour. Marton and Tsui's (2004) conception of four different dimensions of the object of learning in researching learning may aid in developing how to research learning outcomes from both the perspectives of guides and visitors.

6.2 Limitations of the results

Certain issues relating to the limitations of the study have been addressed in the methods and findings chapters. As I researched guided tours and work as a guide I often needed to search for any personal bias when summarising the potential meanings of this research. Having been a guide made it difficult to see a tour solely from a tourist's perspective. Overall the interpretive framework used in the study has addressed the research questions in an appropriate manner. The reconnaissance strategies adopted in the field research transformed theoretical constructs into viable research tools that extracted data relevant to the research aim. Knowledge about the guided tour was produced during the research through agreement and disagreement with the participants about what occurred during the tour and the nature of the phenomena discussed. Procedures that were used to create an over-layering interpretation of the shared discussion of the guided tours involved the use of external reference points of research on methods and literature on interpretation as the method of showing how it corresponds to beliefs about guided tours in general. Triangulation in the case studies, intra-data comparisons between case studies and a four-stage approach to the coding process established the trustworthiness of the data and facilitated clear interpretations. Nevertheless, the research has a number of limitations.

Riessman (2008) in evaluating the strengths and weaknesses of utilising thematic analysis in relation to other methods with narrative inquiry noted its limitations in the areas of uniformity and the role of the researcher: "readers must assume, for example, that everyone in a thematic cluster means the same thing by what they say (or write), obscuring particularities of meaning-in-context. The investigators' role in constructing the narratives they can analyze tends to remain obscure" (Riessman, 2008, p. 76).

An important limitation was the potential bias in respect to language, culture, ethnicity and politics. English was a second language for some of the visitors and guides observed and interviewed during the field research. All but one of the participants in the 10 case studies cited English as their first language (the other language cited was sign language). Perceived homogeneity factors with the PWF case studies were that the

visitors were North American, and with the SoTM case studies from the United States, England and New Zealand. A saying attributed variously to Churchill, Wilde or Shaw notes that England and America are “countries separated by a common language” which highlights a challenge for research that examines the lived experience of people from other nations and cultures that use the same language. The ability to communicate through a shared language may mask subtle cultural differences in respect to phenomena such as learning, curiosity and affect. Although with the exploratory interviews with Whale and Dolphin Safari, I became aware that, for some participants, religious belief strongly informed their worldview, it was only in Maui that I became cognisant of how religion is a strong part of the identity of many North Americans. I may not have been sensitive enough to peoples’ religious beliefs in the early stages of the fieldwork.

Gender bias may have been a limitation of the research. Gender identity can be a determinant in how humans interact with each other in close proximity contexts such as guided tours and interviews. As there is the potential for bias to arise at a subconscious level, gender bias cannot be discounted. During both PWF and SoTM tours, comments on social interaction between animals utilised gender stereotypes. These stereotypes ranged from references to machismo-like male behaviour of the wildlife in courtship and mating rituals, an emphasis on maternal roles in relation to nurturing behaviour, and even some instances of homophobia and misogyny in respect to animal behaviour being connected to New Zealand politics. Certain gender stereotypes were explored and discussed when they were specifically connected to incidents arising from visitors’ experiences. As these stereotypes were discussed in context with the perspective of specific participants it is difficult for me to understand the extent such gender bias may have influenced the research findings.

Other aspects of bias that can affect qualitative research are the possibility of the researcher being too close to their research and the use of case studies within the interpretive framework (Porter, 2014). As a volunteer and guide with SoTM there is the danger that I privileged the perspective of GVI dynamics of SoTM tours over PWF tours. The platform-based nature of PWF tours, and their use of large vessels and a PA address system to communicate to visitors were different to the SoTM dynamic of a small group on a walking trail. I became aware of the differences in the reconnaissance phase while observing vessel-based Whale and Dolphin Safari tours in Auckland, and

then in Maui. The PWF whale-watch fieldwork initially focused on observing roving guides rather than the lead guides who used the PA system. This was because I mistakenly conceptualised the use of a microphone during a tour as a distancing factor that did not approximate GVI on a SoTM tour, and selected only roving guides on PWF tours to observe due to a perception that the use of a microphone negated certain aspects of GVI. I realised this was not the case during the interview process with PWF Visitor Three and from that tour onward I reconciled the natures of both SoTM and PWF tours to similar instances of guide-visitor interaction at a collective level and GVI in response to a specific incident generated by an individual visitor.

Potential flaws in CIT framework are a focus on incidents that I nominated through the use of field notes, and the structured elements of the interview process that sought to connect such discussions to the concepts of affect, curiosity and learning. Such a process can be potentially limiting in respect to what visitors shared in contrast, for example, to Knapp's (2007) and Benton's (2007) unstructured approach to interviews that focus exclusively on visitor recall and where the only interaction with the interviewer occurs in the commencement and closure of the interview.

This research sought to describe the nature of guide-visitor interaction in relation to the learning process of individual participants and what contributions GVI made to the learning process. Feasibility issues meant that the study was limited to two research sites, and the case studies to five guided tours from each site. While there were many similarities between the participants from the case studies there were also notable differences. Consumptive patterns of recreational animal encounters were a notable feature of the sharing of male participants at both SoTM and PWF case study participants (hunting and fishing) compared to female participants. However, the ramifications of this in relation to the findings are beyond the scope of this study.

6.2.1 Standards of validation and evaluation

A valid finding is "based on the more general understanding of validity as a well-grounded conclusion" (Polkinghorne, 1988, p. 175). Narrative research conclusions use reasoning that Polkinghorne defines as 'informal' in that "the argument does not produce certainty; it provides likelihood. In this context, an argument is valid when it is strong and has the capacity to resist challenge or attack" (p. 175). The narratives that constituted and informed this research were devised through key informants sharing their perceptions of what they experienced. In part their experiences related to a phase

of time when they were observed during a guided tour. Secondly, others such as guides conducting the tour, and inner social circle also shared their perceptions of the same incidents and events in a process. Therefore, the narratives devised for this research were, to a certain extent, contestable.

6.3 Implications of this inquiry

This thesis research showed that visitors report GVI as being instrumental in informing learning outcomes.

6.3.1 Contributions: The Model of GVI in Wildlife Tours

Guided tours in the context of sustainability and wildlife need to be more carefully considered in relation to understanding tours as a visitor attraction. This research has proposed a Model of GVI in Wildlife Tours. The model is derived from the findings of this thesis but also from the approach of other academics including the use of key elements of MacCannell's (1999) and Gunn's (1997) tourist attraction models. However, literature on integrating MacCannell's (1999) and Gunn's (1997) models have mostly focused on sociological, destination image, and site planning issues and only addressed resource protection at a general level (Leiper, 2004; Pearce et al., 2000; Richards, 2002).

The challenges for research involving multi-disciplinary areas of academic enquiry such as tourism and tour guiding is that it has to synthesise a variety of concepts in ways that do not overly simplify the original concept or move them too far out of its original context. The challenge for this study was putting the theories relating to psychology and education into a framework that puts sustainable tourism and tour guiding firmly in the centre of the discussion. The Model of GVI in Wildlife Tours is a potential framework to synthesise visitor management, education, sustainability, conservation and tour guiding as it creates a useful way of understanding the intersections between them and how they relate to the reality of the tourist experience of a site-based tour.

Within the Model of GVI in Wildlife Tours are elements that can better situate the welfare of animals at an individual as well as at a species level, and consider the relationship between proximity to wildlife and satisfaction levels and learning for visitors. Furthermore, it creates a space to consider the issues that Pearce et al. (2000) characterise as 'high touch' interaction, interpretation, animal welfare and sustainability overall. While adaptations such as Leiper's (2004) tourist attraction model still focused

on a tripartite model inherent in the other two, more theoretical and empirical inquiry can help better understand the role of the multiple zones affecting the visitor experience on wildlife tours.

In respect to interpretation planning for wildlife tours a more nuanced understanding of the functions of the interaction itself but also the zones of constraints, GVI and infrastructure and services may increase knowledge of the need to develop interpretation products or the structure of a guided tour in relation to the temporal, pedagogical and psychological phases of a tour (Forestell & Kaufmann, 1990; Johnson & McInnis, 2014; Orams, 1997).

Markers and interpretation are both defined in respect to their relationship with information. Both are media of information. A marker is an informative element in a model of a visitor attraction, and interpretation consists of information but is more than just information (MacCannell, 1999; Tilden, 1977). Further research could be made in exploring the relationship between markers, interpretation and information as Gunn (1997) and Pearce et al. (2000) explicitly refer to interpretation in their discussion of the tripartite nature of Gunn's (1997) model. More research into the role of interpretation for wildlife attractions is needed to understand the extent guides are a marker or one of the nuclei or both in a specific attraction and how that influences visitors' decisions to visit an attraction.

6.3.2 Implications for academia

Further discussion is needed on the use of participant observation when researching guided tours in the context of Seaton's (2002) framework for observing tours. This can aid in aligning ontological and epistemological stances to participant observation in relation to disclosure and non-disclosure to the research participants, and the extent that the researcher is an observer or participant (Figure 6.1).



Figure 6.1: Observer-participant and disclosure-non-disclosure continuums

Most of the data utilised in this research were based on observations of people, wildlife and other phenomena in the context of a specific guided wildlife tour. Dawkins (2009) makes a cogent argument in respect to the fallibility of actual observation and authentic testimony in respect to the authority of data collected by either. In using participant observation, I made personal judgements about what I thought people collectively saw and heard through GVI. Academic research on the failure for people to observe changes that occur when they are staring at phenomena has implications on using observation as part of the data collecting process. Change blindness as a term “refers to the surprising difficulty observers have in noticing large changes to visual scenes” (Simons & Rensink, 2005, p. 16). This thesis argues that participant observation in conjunction with interviewing both guides and visitors involved in a guided tour produces a rich data set that also helps better understand what a shared experience of a tour is, and what remains an individual experience. Research into the implications of change blindness and using participant observation as data collection tool that provide authentic testimony can create a better understanding of the value and potential pitfalls of observation in researching guided tours.

Data in the context of narrative research “are the traces of past events; they help uncover the events leading up to the phenomenon under investigation” (Polkinghorne, 1988, p. 174). What this study did was to situate narrative inquiry in the context of the recent past, reflecting on incidents that occurred in the same day and within 14 months of the tour. While many still connect narrative inquiry in the context of biography Riessman (2008) notes “there is considerable variation in how each investigator defines a narrative unit, ranging from the entire biography, or ‘life story’, to a bounded (spoken

or written) segment about a single incident” (pp. 74-75). The research shows that there are opportunities for researchers to focus on one person’s voice but be able to triangulate it with the experiences of others during the same experiences. This study demonstrates that narrative methods can accommodate different approaches to develop and analyse narratives of tour participants from interviews, field notes and memory (Riessman, 2008). For many guides, observation of their tours by management or peers is a part of their routine. Guides’ input into how visitors learn on tours can be a valuable contribution to the research process. The participation of the researcher in the actual tours and the involvement of both guides and visitors can aid researchers in understanding the complexity of learning during a tour.

6.3.3 Implications for tour operators

There is a wide range of expectations from tour operators and other stakeholders of the sites where tours take place about what face-to-face interpretation can accomplish. Education, satisfaction, and behaviour change are some of the goals connected as desired outcomes from guided tours. In respect to education, operating a sustainable tour in a protected area means that the learners’ needs are subordinate to resource protection requirements. This suggests that interpretation planning can draw from educational psychology literature pertinent ideas to facilitate rich learning environments. However, strategies to achieve optimal protection of a site’s resources from human impacts may curtail learner engagement with resources and diminishes learning opportunities. On the tours observed in this research seeing and hearing were the main ways that visitors engaged with their surrounds. The lack of engagement with other senses in interpretive settings can have implications on visitors’ learning outcomes and appreciation of sites visited.

A better understanding of what learning experiences can be delivered during guided tours is needed. Langer’s (1991) mindfulness model had been usefully tailored in respect to interpretation planning and creating multi-sensory learning environments (Moscardo, 1996, 1999; Pearce et al., 2000). The managed reality of many guided tour experiences is often a mono or bi-sensory experience where attempts to offer other sense engagement can potentially detract from the authenticity of the experience. Furthermore, the proximity to phenomena and/or the proximity of the guide to the audience, for tours using a PA system, can have an impact on the learning experience.

In this research guides played an important contributory role in visitors' satisfaction during a tour. Overall, visitors involved in the research appreciated the commentary of the guides but the issue of too much commentary needs to be considered. Thirty-seven in situ interviews and 19 reflective interviews were conducted with visitors and there were only minor references to guides speaking too much as well as only a few instances of such comments in the field notes of the 62 tours observed. However, a common response from the PWF guides in the reflective interviews to the question, "what do you do differently now compared to the guided tour observed?", was that they now attempt to minimise the amount they talk or allow for opportunities for silence during their tours. The amount of guide commentary was something that I noticed during the tours I observed with both SoTM and PWF. My sensitivity to this was in part due to attempting to transcribe or summarise the commentary. While SoTM guides volunteer to guide on a weekly or monthly basis, PWF guides commonly participate in at least three tours a day during the whale-watch season and provide the lead commentary on alternate tours. Both PWF staff and visitors constitute their audience on each tour while a 'buddy guide' may occasionally accompany a SoTM tour for informal training purposes. A better understanding of the extent that the commentary is influenced by the presence of other staff members, and the right level of commentary and silence could aid in providing a better guided tour product.

Reporting of behaviour change as a result of their tour was not a representative feature of the visitors' reflections in the 19 reflective interviews. The impact of the tour featured more in the visitors' discussion as a narrative of reinforcing existing behaviour. Too often there has been a dismissive reference to tourism products linked to the idea of ecotourism as 'preaching to the converted'. Perhaps a better context to understand the impact of guided tours is the notion of 'the reinforcement of existing behaviours'. Behaviour is not a static feature of human experience, and there should be more thought given to the value of tourism experiences that reinforce existing conservation-supporting behaviour.

6.3.4 Implications for interpretation planning

In planning interpretation, the Model of GVI in Wildlife Tours is a potential tool that can help planners define the limits and possibilities of how and when to engage visitors during a guided tour. Such an approach can also provide clear indications of what opportunities guides can utilise to maximise learning opportunities and protect the

resources of the site visited. Learning was an important part of the experience sought by the visitors involved in the guided tours studied. Guided tours provided visitors the opportunity for GVI at a level they feel comfortable with. An important goal of organisations such as SoTM and PWF is to communicate the science of the research connected with the wildlife experienced at their respective sites. For example, PWF communicate how, through fluke photo identification, it can be established that individual whales migrate from Alaska to Hawaii (Forestell & Kaufman, 2007).

Tour providers such as PWF and SoTM are important constituents of the free-choice learning environment that is available for the public in their learning. Other constituents include libraries and museums, and together they make up the informal infrastructure of learning outside of schools and universities (Falk, 2001). Forestell and Kaufman (1990), Orams (1997), and Johnson and McInnis (2014) have highlighted the importance of temporal and psychological phases in the learning experience in relation to direct encounters with animals. An important aspect in ensuring that it is possible for visitors to ‘follow up’ through each phase is to understand what is meant by infrastructure in relation to free-choice education. Falk (2001) referred to institutions such as libraries and museums when describing free-choice learning infrastructure. Such institutions have the potential to facilitate learning prior to a guided tour or in the post-tour stages. Interpretation planners could think about how to use other components of free-choice learning infrastructure such as libraries and museums in order to plan better the ante- and post- engagement phases of their learning programmes. This could facilitate better free-choice learning outcomes for tour participants. Both SoTM and PWF do similar work when it comes to facilitating school groups in relation to formal learning outcomes of the relevant institutions.

6.3.5 Implications for government

The discussion of sustainable tour outcomes in relation to GVI is part of a wider discussion on the wise use of resources and the public good. The ability of Supporters of Tiritiri Matangi (SoTM) and Pacific Whale Foundation (PWF) to provide educational tours is through institutionalised relationships between government and non-government organisations that allow the respective organisations to perform services that benefit the public good. SoTM can provide guided tours through partnerships with the Department of Conservation (DoC) and Fullers Ferries and the individual commitment of guides to volunteer their time. The investment PWF is able to make in

its training for guides and its public outreach programmes is, in part, facilitated through its not-for-profit status.

Some governments invest significantly in the formal education sector but “the free-choice learning community, in measures equal to or greater than the formal education community, acts as the public’s primary source of information about science” (Falk, 2001, p. 10). Tours focusing on sustainable tour outcomes and the public good can be usefully viewed as part of the infrastructure of free-choice education. For governments, the implications are about how they manage tourism activities that occur in public spaces and how they value free-choice education for their citizens. If legally protected natural areas are also sanctioned venues for recreational activities then thought must be given to providing access to visitors, on-site and off-site, to effective sources of education to ensure the protection of such sites.

Local, regional and national governments are often responsible for funding or informing the strategic direction of education programmes of institutions such as museums and libraries that are key components of the free-choice learning infrastructure.

Governments then could help provide strategies for free-choice learning that stimulates coordination between tour providers operating in legally protected areas and institutions such as libraries and museums to create better opportunities for learning outcomes for visitors from tours. Such involvement by governments can be beneficial to society as a whole as:

In the current information/knowledge economy, learning represents a fundamental source of capital, perhaps even superseding the industrial revolution triumvirate of money, labour, and land. From this perspective, the learning infrastructure is vital to the nation’s economic as well as intellectual and spiritual well-being. The education institutions that help to provide citizens with current and accurate knowledge and information, whether it is about health, politics, economics, or science, form the fundamental backbone of the knowledge economy. (Falk, 2001, pp. 11-12)

6.3.6 Implications for communities

The findings of the study indicated that, overall, guided tours were viewed by participants as beneficial in respect to learning outcomes or reinforcement of prior learning and trip satisfaction. Whether professionals or volunteers, guides were viewed by visitors as being involved in the organisations they work for, for reasons outside of personal selfish considerations.

Community groups throughout New Zealand have now become involved in ecological restoration, and SoTM, formed in 1988, was a pioneering group. The memorandum of understanding between SoTM and DoC acts as a template for new partnerships between government and local communities (Rimmer, 2008). According to Brown, Stephens, Peart and Fedder (2015) community-based

conservation projects vary in scale and scope, from small groups of individuals weeding a local reserve or fragment of privately-owned forest, through to large-scale multi-million-dollar Mainland Island projects with hundreds of volunteers and paid staff. Many community conservation initiatives are partnerships between a community group and other organisations such as the Department of Conservation, councils, NGOs such as WWF and the private sector. (p. 122)

As of 2010, DoC is involved in 400 partnerships with different groups, who coordinate the work of over 8000 volunteers and manage 300 annual conservation events (Brown et al., 2015). The benefits associated with community conservation range

from increased social capital for conservation, increased quality of life, raised awareness of the natural environment and learning of practical skills. Community involvement is widely regarded as a highly effective education strategy and builds the appreciation of individuals for the natural world. (Brown et al., 2015, p. 127)

Guided tours provided by community groups provide the potential for public outreach and fundraising. The cost of a guided tour at Tiri is minimal (from NZ\$2 at their inception to NZ\$10 per adult in 2015) and such pricing is viable through the volunteering commitment of each guide and free passage for guides by Fullers who

provide the ferry service to and from the island. This has meant that guiding revenue is one of the major sources of income for SoTM's ecological restoration work (Hayes Knight, 2009).

6.4 Looking ahead

Qualitative studies are defined by the specificity of their researched sites and communities and the qualities of the researcher involved. For the implications of this research to be viewed as contributions dissemination is required in order that findings and discussion can be further scrutinised at an academic level and at the level of practitioners. The hermeneutic process of research design, that defines the inquiry, does not arbitrarily cease with the writing up of the thesis. I intend to present at conferences, write relevant articles and devise workshops that can further develop the connection between the research and the study and practice of sustainable wildlife tours.

6.5 Final thoughts

The research methods of this study are underpinned by many of the tenets developed by practitioners of phenomenological research, and yet, in the writing of the methods and findings of the study there is little direct reference to phenomenology per se. The reason for this is due to the initial development of my methods when I came across literature that referred to the field of phenomenography (Marton & Booth, 1997). Their work on learning and awareness seemed relevant to my study but as a novice qualitative researcher, I was reluctant to navigate between the differences between phenomenology and phenomenography. I had access to research literature that provided templates to develop a research framework using hermeneutic inquiry, narrative methods, interviews, participant observation and the critical incident technique (Czarniawska, 2004; Plester, 2003; 2007). It was only after I finished my field research and was trying to align a narrative methods approach with thematic analysis that I delved deeper into understanding the relationship between narrative methods, hermeneutic inquiry and phenomenological inquiry. Polkinghorne (1983; 1988) who was important in this research at a direct and indirect level in devising the research methods is cited in research in both narrative inquiry and phenomenology (Cresswell, 2013; Czarniawska, 2004). Towards the end of my study, I found Van Manen's (2014) *Phenomenology of Practice* a very helpful text in understanding the intersections between hermeneutics and phenomenology, and if I started my study now, I would engage more specifically with both phenomenology and phenomenography.

This research connected specific incidents of GVI in the field and connected them to the outcomes from the perspectives of visitors, guides and the researcher. In doing so it has contributed a more complex picture of how we can understand the roles of both visitors and guides during wildlife tours. Outcomes-focused research is a key constituent of much of the academic literature of guided tours but GVI focused research is a less established field. Participant observation has been often used with research on guided tours but mostly in an adjunct manner to the primary data collection tools. This thesis has been able to put the focus firmly on GVI. This research illuminated that there is a range of strategies for the use of participant observation in conjunction with other data collection tools. Further engagement with GVI in research on guided tours can aid in refining models of dynamic disequilibrium, cognitive dissonance, curiosity and behaviour change in the context of informal education pedagogy.

The Model of GVI in Wildlife Tours is an important contribution to wildlife tourism and interpretation through its fusion of existing concepts of visitor attractions and a component that focuses on the multiple components of human-wildlife interactions. The goal is that the model is utilised to communicate and/or understand the influence of the various zones in the context of the welfare of animals and that contributes to a positive learning experience for the visitors. Further engagement with GVI as well as outcomes will provide better insights into the techniques utilised by guides and also help researchers schematise the interplay between the inner self and the external self of the visitor during a guided tour.

References

- Adamson, J. (1960). *Born free: A lioness of two worlds*. London, England: Collins and Harvill.
- Ajzen, I. (1992). Persuasive communication theory in social psychology: A historical perspective. In M. Manfredo (Ed.), *Influencing human behavior* (pp. 1–27). Champaign, IL: Sagamore Publishing.
- Alexander, P. A., Schallert, D. L., & Hare, V. C. (1991). Coming to terms: How researchers in learning and literacy talk about knowledge. *Review of Educational Research, 61*(3), 315–343.
- Andersen, M. S., & Miller, M. L. (2006). Onboard marine environmental education: Whale watching in the San Juan Islands, Washington. *Tourism in Marine Environments, 2*(2), 111–118.
- Angelides, P. (2001). The development of an efficient technique for collecting and analyzing qualitative data: The analysis of critical incidents. *International Journal of Qualitative Studies in Education, 14*(3), 429–442.
<https://doi.org/10.1080/09518390110029058>
- Archer, D., & Wearing, S. (2003). Self, space and interpretive experience: the interactionism of environmental interpretation. *Journal of Interpretation Research, 8*(1), 7–23.
- Armstrong, D. P., Richard, Y., Ewen, J. G., & Dimond, W. J. (2008). Avoiding hasty conclusions about effects of habitat fragmentation. *Avian Conservation and Ecology, 3*(1), 8. <https://doi.org/http://www.ace-eco.org/vol3/iss1/art8/>
- Atkinson, P., & Hammersley, M. (1994). Ethnography and participant observation. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 248–261). Thousand Oaks, CA: Sage.

- Attenborough, D. (1980). *The zoo quest expeditions: Travels in Guyana, Indonesia and Paraguay*. Sydney, Australia: Angus and Robertson.
- Aylesworth, G. E. (1991). Dialogue, text, narrative: Confronting Gadamer and Ricoeur. In *Gadamer and hermeneutics* (pp. 63–81). New York, NY: Routledge.
- Ballantyne, R., Crabtree, A., Ham, S. H., Hughes, K., & Weiler, B. (2000). *Developing effective communication and interpretation techniques*. Brisbane, Australia: School of Professional Studies, Faculty of Education, QUT.
- Ballantyne, R., & Packer, J. (2011). Using tourism free-choice learning experiences to promote environmentally sustainable behavior: The role of post-visit “action resources.” *Environmental Education Research*, 17(2), 201–215.
<https://doi.org/10.1080/13504622.2010.530645>
- Ballantyne, R., Packer, J., & Bond, N. (2007). The impact of a wildlife tourism experience on visitors’ conservation knowledge, attitude and behaviour: Preliminary results from Mon Repos Turtle Rookery, Queensland. In I. McDonnell, S. Grabowski, & R. March (Eds.), *Cauthe 2007: Tourism - past achievements, future challenges* (pp. 1483–1485). Sydney, Australia: University of Technology Sydney. Retrieved from
<http://search.informit.com.au.ezproxy.aut.ac.nz/documentSummary;dn=533966038960258;res=IELBUS>
- Ballantyne, R., Packer, J., & Hughes, K. (2009). Tourist support for conservation messages and sustainable practices in wildlife tourism experiences. *Tourism Management*, 30, 658–664. <https://doi.org/10.1016/j.tourman.2008.11.003>
- Balme, G. A., Hunter, L. T. B., Goodman, P., Ferguson, H., Craigie, J., & Slotow, R. (2010). An adaptive management approach to trophy hunting of leopards (*Panthera pardus*): A case study from KwaZulu-Natal, South Africa. In D.

- MacDonald & A. Loveridge (Eds.), *Biology and conservation of wild felids* (pp. 341–352). Oxford, England: Oxford University Press.
- Beaumont, N. (2011). The third criterion of ecotourism: Are ecotourists more concerned about sustainability than other tourists? *Journal of Ecotourism*, *10*(2), 135–148.
- Beck, L., & Cable, T. (2002). *Interpretation for the 21st Century: Fifteen guiding principles for interpreting nature and culture* (2nd ed.). Champaign, IL: Sagamore Publishing.
- Bennett, V. J., Beard, M., Zollner, P. A., Fernandez-Juricic, E., Westphal, L., & LeBlanc, C. L. (2009). Understanding wildlife responses to human disturbance through simulation modelling: A management tool. *Ecological Complexity*, *6*, 113–134.
- Benton, G. M. (2007). *Assessment of four goals in National Park Service cultural interpretive programs* (PhD dissertation). Indiana University, Bloomington, IN.
- Benton, G. M. (2009). From principle to practice: Four conceptions of interpretation. *Journal of Interpretation Research*, *14*(1), 7–31.
- Berlyne, D. E. (1954). A theory of human curiosity. *British Journal of Psychology*, *45*(3), 180–191.
- Boren, L. J., Gemmell, N., & Barton, K. (2008). The role and presence of a guide: preliminary findings from swim with seal programs and land-based seal viewing in New Zealand. *Tourism in Marine Environments*, *5*(2–3), 187–199.
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.
- Boyer, P. (1998). Cognitive tracks of cultural inheritance: How evolved intuitive ontology governs cultural transmission. *American Anthropologist*, *100*(4), 876–889.

- Bradbury-Jones, C., & Tranter, S. (2008). Inconsistent use of the critical incident technique in nursing research. *Journal of Advanced Nursing*, 64(4), 399–407. <https://doi.org/10.1111/j.1365-2648.2008.04811.x>
- Braunias, S. (2007). *How to watch a bird*. Wellington, New Zealand: Awa Press.
- Bremner, H. (2004). *Constructing, contesting and consuming New Zealand's tourism landscape: A history of Te Wairoa* (PhD thesis). Auckland University of Technology, Auckland, New Zealand.
- Brewer, J. D. (1994). The ethnographic critique of ethnography: Sectarianism in the RUC. *Sociology*, 28(1), 231–244.
- Brochu, L. (2003). *Interpretive planning: The 5-M Model for Successful Planning Projects*. Fort Collins, CO: National Association for Interpretation.
- Brochu, L., & Merriman, T. (2002). *Personal Interpretation: Connecting your audience to heritage resources*. Fort Collins, CO: National Association for Interpretation.
- Bronowski, J. (1973). *The ascent of man*. London, England: British Broadcasting Corporation.
- Brown, M. A., Stephens, T., Peart, R., & Fedder, B. (2015). *Vanishing nature: Facing New Zealand's biodiversity crisis*. Auckland, New Zealand: Environmental Defence Society.
- Burke, K. (1945). *A grammar of motives*. New York, NY: Prentice-Hall.
- Butler, D., Lindsay, T., & Hunt, J. (2014). *Paradise saved: The remarkable story of New Zealand's wildlife sanctuaries and how they are stemming the tide of extinction*. Auckland, New Zealand: Random House.
- Butler, J. R., & Hvenegaard, G. T. (2002). Interpretation and environmental education. In P. Dearden & R. Rollins (Eds.), *Parks and protected areas in Canada: Planning and management* (2nd ed., pp. 179–203). New York, NY: Oxford University Press.

- Butterfield, L. D., Borgen, W. A., Amundson, N. E., & Maglio, A.-S. T. (2005). Fifty years of the critical incident technique: 1954-2004 and beyond. *Qualitative Research, 5*(4), 475–497.
- Bybee, R. W. (2001). Achieving scientific literacy: Strategies for insuring that free-choice science education complements national formal science education efforts. In J. H. Falk (Ed.), *Free-choice science education: How we learn science outside of school* (pp. 44–63). New York, NY: Teachers College Press.
- Bybee, R. W., & McCrae, B. (2011). Scientific literacy and student attitudes: Perspectives from PISA 2006 science. *International Journal of Science Research, 33*(1), 7–26.
- Cable, S. (2014, December 3). The world's most disappointing destinations revealed: Egyptian pyramids, the entire city of Paris and even Stonehenge branded as overrated. *Mailonline*. Retrieved from http://www.dailymail.co.uk/travel/travel_news/article-2857340/The-world-s-disappointing-tourist-destinations-revealed-Egyptian-Pyramids-entire-city-Paris-Stonehenge-branded-overrated.html#ixzz4F6JtMQ00
- Carter, D. E., & Porter, S. (2000). Validity and reliability. *The Research Process in Nursing, 4*, 29–42.
- Chirban, J. T. (1996). *Interviewing in depth: The interactional-relational approach*. Thousand Oaks, CA: Sage Publications.
- Clandinin, D. J., & Murphy, M. S. (2009). Relational ontological commitments in narrative research. *Educational Researcher, 38*(8), 598–602.
<https://doi.org/10.3102/0013189X09353940>
- Clandinin, D. J., & Rosiek, J. (2007). Mapping a landscape of narrative inquiry. In D. J. Clandinin (Ed.), *Handbook of narrative inquiry: Mapping a methodology* (pp. 35–75). Thousand Oaks, CA: Sage.

- Cole, S. (2005). Action ethnography: Using participant observation. In B. W. Ritichie, P. M. Burns, & C. A. Palmer (Eds.), *Tourism research methods: Integrating theory with practice* (pp. 63–72). Wallingford, UK: CABI.
- Cope, C. (2004). Ensuring validity and reliability in phenomenographic research using the analytical framework of a structure of awareness. *Qualitative Research Journal*, 4(2), 5–18.
- Corkeron, P. (2014). Human attitudes and values: Tradition and transformation and zombies. In J. E. S. Higham, L. Bejder, & R. Williams (Eds.), *Whale-watching: Sustainable tourism and ecological management* (pp. 48–56). Cambridge, England: Cambridge University Press.
- Cresswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Cresswell, J. W., & Plano-Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Crow, G., Wiles, R., Heath, S., & Charles, V. (2006). Research ethics and data quality: The implications of informed consent. *International Journal of Social Research Methodology*, 9(2), 83–95.
- Czarniawska, B. (2003). Social constructionism in organizational studies. In S. Clegg & R. Westwood (Eds.), *Debating organizations: Point-counterpoint in organization studies* (pp. 128–134). Oxford, England: Blackwell.
- Czarniawska, B. (2004). *Narratives in social science research*. London, England: Sage.
- Dantonio, M., & Beisenherz, P. C. (2001). *Learning to question, questioning to learn: Developing effective teacher questioning practices*. Boston, MA: Allyn & Bacon.
- Dawkins, R. (2004). *The ancestor's tale: A pilgrimage to the dawn of life*. London, England: Weidenfeld & Nicolson.

- Dawkins, R. (2009). *The greatest show on earth: The evidence for evolution*. London, England: Bantam Press.
- Denzin, N. K., & Lincoln, Y. S. (2005). Introductory section to Part II: Paradigms and perspectives in contention. In N. K. Denizen & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed., pp. 183–190). Thousand Oaks, CA: Sage Publications.
- Department of Conservation. (2006). *Kiore/Pacific rat/ Polynesian rat: Exotic animal*. Wellington, New Zealand: Department of Conservation.
- DeSantis, L., & Ugarriza, D. N. (2000). The concept of theme as used in qualitative nursing research. *Western Journal of Nursing Research*, 22, 351–372.
- Dewar, K. (2000). An incomplete history of interpretation from the Big Bang. *International Journal of Heritage Studies*, 6(2), 175–180.
- Dewey, J. (1986). Experience and education. *The Educational Forum*, 50(3), 241–252.
<https://doi.org/10.1080/00131728609335764>
- Dierking, L. D. (1998). Interpretation as a social experience. In D. Uzzell & R. Ballantyne (Eds.), *Contemporary Issues in Heritage and Environmental Interpretation*. (pp. 56–76). London, England: The Stationary Office.
- Dobson, A. P. (1996). *Conservation and biodiversity*. New York, NY: Scientific American Library.
- Drury, J., & Stott, C. (2001). Bias as a research strategy in participant observation: The case of intergroup conflict. *Field Methods*, 13(1), 47–67.
- Durrell, G. (1960). *A zoo in my luggage*. London, England: Hart-Davis.
- Ecotourism Australia. (2015). Eco certification. Retrieved from
<http://www.ecotourism.org.au/our-certification-programs/eco-certification/>

- Ewen, J. G., Thorogood, R., Nicol, C., Armstrong, D. P., & Alley, M. (2007). Salmonella Typhimurium in Hihi, New Zealand. *Emerging Infectious Diseases*, 13(5), 788–789.
- Falk, J. H. (2001). Free-choice science learning: Framing the discussion. In J. H. Falk (Ed.), *Free-choice science education: How we learn science outside of school* (pp. 3–20). New York, NY: Teachers College Press.
- Falk, J. H. (2005). Free - choice environmental learning: Framing the discussion. *Environmental Education Research*, 11(3), 265–280.
- Falk, J. H., & Dierking, L. D. (2000). *Learning from museums: Visitor experience and the making of meaning*. Plymouth, England: AltaMira Press.
- Faulkner, B., & Russell, R. (2003). Chaos and complexity in tourism: In search of a new perspective. In B. Faulkner, L. Fredline, L. Jago, & C. Cooper (Eds.), *Progressing tourism research* (pp. 205–219). Clevedon, England: Channel View.
- Fennell, D. A. (2008). *Ecotourism* (3rd ed.). London, England: Routledge.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Finkler, W. (2014). A new science advocacy communication framework. In J. E. S. Higham, L. Bejder, & R. Williams (Eds.), *Whale-watching: Sustainable tourism and ecological management* (p. 352=364). Cambridge, England: Cambridge University Press.
- Fishbein, M., & Manfredo, M. (1992). A theory of behavior change. In M. Manfredo (Ed.), *Influencing human behavior* (pp. 29–50). Champaign, IL: Sagamore Publishing.
- Flanagan, J. C. (1954). The critical incident technique. *Psychological Bulletin*, 54(4), 327–357.

- Floberg, K. (2015). *Best practices in environmental education fields trips: The importance of curricular integration, preparation, and follow-up* (Unpublished masters thesis). University of Minnesota, Minnesota, MN.
- Fontana, A., & Frey, J. H. (2003). The interview: From structured questions to negotiated text. In N. K. Denzin & Y. S. Lincoln (Eds.), *Collecting and interpreting qualitative materials* (2nd ed., pp. 61–106). Thousand Oaks, CA: Sage.
- Forestell, P. H. (1990). Marine education and ocean tourism: Replacing parasitism with symbiosis. In M. L. Miller & J. Auyong (Eds.), *Proceedings of the 1990 Congress on Coastal and Marine Tourism* (Vol. 1, pp. 35–39). Newport, Oregon: National Coastal Resources Research & Development Institute.
- Forestell, P. H. (1992). The anatomy of a whalewatch: Marine tourism and environmental education. *Current: The Journal of Marine Education*, 11(1), 10–15.
- Forestell, P. H. (1993). If Leviathan has a face, does Gaia have a soul?: Incorporating environmental education in marine eco-tourism programs. *Ocean & Coastal Management*, 20, 267–282.
- Forestell, P. H., & Kaufman, G. D. (1990). The history of whale watching in Hawaii and its role in enhancing visitor appreciation for endangered species. In *Proceedings of the 1990 Congress on Coastal and Marine Tourism* (Vol. 2, pp. 399-407). Newport, OR: National Coastal Resources Research and Development Institute.
- Forestell, P. H., & Kaufman, G. D. (2007). Speaking from experience: Whale and dolphin watching boats as venues for marine conservation education. In M. Lück (Ed.) (pp. 63–67). Presented at the 5th International Coastal and Marine Tourism Congress, AUT University. Auckland, New Zealand: AUT University.

- Gadamer, H.-G. (1992). The limitations of the expert. In D. Misgeld & G. Nicholson (Eds.), *Hans-Georg Gadamer on education, poetry, and history: Applied hermeneutics* (pp. 181–192). New York, NY: State University of New York Press.
- Gadamer, H.-G. (1995). *Truth and method* (2nd revised). New York, NY: Continuum.
- Galbraith, M. (2013). Public and ecology: The role of volunteers on Tiritiri Matangi Island. *New Zealand Journal of Ecology*, 37(3), 266–271.
- Gill, P., & Burke, C. (2004). *Whale watching in Australian and New Zealand waters*. Frenchs Forest, Australia: Reed New Holland.
- Glenn, M. H. (2004). In search of research: A plea from the workshop of a practical interpreter. *Journal of Interpretation Research*, 9(1), 61–63.
- Greenberger, E., Woldman, J., & Yourshaw, S. W. (1967). Components of curiosity: Berlyne reconsidered. *British Journal of Psychology*, 54(3–4), 375–386.
- Gremler, D. D. (2004). The critical incident technique in service research. *Journal of Service Research*, 7(1), 65–89.
- Grice, P. (1989). *Studies in the ways of words*. Cambridge, MA: Harvard University Press.
- Guba, E. G., & Lincoln, Y. S. (1989). *Fourth generation evaluation*. Thousand Oaks, CA: Sage.
- Guba, E. G., & Lincoln, Y. S. (2008). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denizen & Y. S. Lincoln (Eds.), *The landscape of qualitative research* (3rd ed., pp. 255–286). Thousand Oaks, CA: Sage.
- Gunn, C. A. (1997). *Vacationscape: Developing tourist areas* (3rd ed.). Washington D.C.: Taylor & Francis.
- Gunn, C. A. (2002). *Tourism planning: Basics, concepts, cases*. (4th ed.). New York, NY: Routledge.

- Haggerty, K. D. (2004). Ethics creep: Governing social science research in the name of ethics. *Qualitative Sociology*, 27(4), 391–414.
- Hall, C. M., & Kearsley, G. (2001). *Tourism in New Zealand: An Introduction*. Melbourne, Australia: Oxford University Press.
- Hall, C. M., & Page, S. J. (2006). *The geography of tourism and recreation: Environment, place and space*. New York, NY: Routledge.
- Ham, S. H. (1979). *An exploratory study of on-site interpretation at Northwest Trek* (Master's thesis). Washington State University, Pullman, WA.
- Ham, S. H. (1992). *Environmental interpretation: A practical guide for people with big ideas and small budgets*. Golden, CO: Fulcrum.
- Ham, S. H. (2004). Interpretation isn't magic: An academic's view on the role of research in teaching interpretation. *Journal of Interpretation Research*, 9(1), 65–68.
- Ham, S. H. (2007). Can interpretation really make a difference? Answers to four questions from cognitive and behavioural psychology In *Interpreting world heritage 2007: Proceedings of National Association for Interpreters (NAI) international conference, Vancouver, Canada* (pp. 42-52). Fort Collins, CO: NAI
- Ham, S. H. (2013). *Interpretation: Making a difference on purpose*. Golden, CO: Fulcrum.
- Ham, S. H., & Krumpal, E. E. (1996). Identifying audiences and messages for nonformal environmental education - a theoretical framework for interpreters. *Journal of Interpretation Research*, 1(1), 11–23.
- Ham, S. H., & Shew, R. L. (1979). A comparison of visitors' and interpreters' assessments of conducted interpretive activities. *Journal of Interpretation Research*, 4(2), 39–44.

- Ham, S. H., & Weiler, B. (2002). Interpretation as the centrepiece of sustainable wildlife tourism. In R. Harris, T. Griffin, & B. Weiler (Eds.), *Sustainable tourism: A global perspective*. Oxford, England: Butterworth Heinemann.
- Hammersley, M. (2011). *Methodology: Who needs it?* London, England: Sage.
- Harrison, A. (1982). Problems: Vandalism and depreciative behaviour. In G. W. Sharpe (Ed.), *Interpreting the environment* (2nd ed., pp. 586–612). New York, NY: Wiley.
- Hartmann, R. (1988). Combining field methods in tourism research. *Annals of Tourism Research*, 15, 88–105.
- Hattie, J. A. C. (2009). *Visible learning: A synthesis of 800+ meta-analyses on achievement*. Abingdon, England: Routledge.
- Hayes Knight. (2009). *Audit Report to the Supporters of Tiritiri Matangi*. Auckland, New Zealand: Hayes Knight.
- Hearne, R. R., & Salinas, Z. M. (2002). The use of choice experiments in the analysis of tourists preference for ecotourism development in Costa Rica. *Journal of Environmental Management*, 65(2), 153–163.
- Hedgecoe, A. (2008). Research ethics review and the sociological research relationship. *Sociology*, 42(5), 873–886.
- Hein, G. E. (1999). The constructivist museum. In E. Hooper-Greenhill (Ed.), *The educational role of the museum* (2nd ed., pp. 73–79). London, England: Routledge.
- Hernadi, P. (1987). Literary interpretation and the rhetoric of the human sciences. In J. S. Nelson, A. Megil, & D. N. McCloskey (Eds.), *The Rhetoric of the human sciences* (pp. 263–274). Madison, WI: The University of Wisconsin Press.
- Herrera, C. D. (1999). Two arguments for “covert methods” in social research. *British Journal of Sociology*, 50(2), 331–343.

- Higginbottom, K. (2004). Managing impacts of wildlife tourism on wildlife. In K. Higginbottom (Ed.), *Wildlife tourism: Impacts, management and planning* (pp. 211–229). Altona, Australia: Common Ground Publishing.
- Higham, J. E. S., Bejder, L., & Williams, R. (2014a). Fostering the nascent “sustainability paradigm.” In J. E. S. Higham, L. Bejder, & R. Williams (Eds.), *Whale-watching: Sustainable tourism and ecological management* (pp. 365–378). Cambridge, England: Cambridge University Press.
- Higham, J. E. S., Bejder, L., & Williams, R. (2014b). Tourism, cetaceans and sustainable development: Moving beyond simple binaries and intuitive assumptions. In J. E. S. Higham, L. Bejder, & R. Williams (Eds.), *Whale-watching: Sustainable tourism and ecological management* (pp. 1–15). Cambridge, England: Cambridge University Press.
- Higham, J. E. S., & Hendry, W. F. (2008). Marine wildlife viewing: Insights into the significance of the viewing platform. In J. E. S. Higham & M. Lück (Eds.), *Marine wildlife and tourism management: Insights from the natural and social sciences* (pp. 347–360). Wallingford, England: CABI.
- Higham, J. E. S., & Lück, M. (2002). Urban ecotourism: A contradiction in terms? *Journal of Ecotourism*, 1(1), 36–51.
- Holloway, J. C. (1981). The guided tour: A sociological approach. *Annals of Tourism Research*, 3, 377–402.
- Hooper-Greenhill, E. (1999a). Education, communication and interpretation towards a critical pedagogy in museums. In E. Hooper-Greenhill (Ed.), *The educational role of the museum* (2nd ed., pp. 3–27). London, England: Routledge.
- Hooper-Greenhill, E. (1999b). Learning from learning theory in museums. In E. Hooper-Greenhill (Ed.), *The educational role of the museum* (2nd ed., pp. 137–145). London, England: Routledge.

- Howard, J., Thwaites, R., & Smith, B. (2001). Investigating the roles of the indigenous tour guide. *The Journal of Tourism Studies*, 12(2), 32–39.
- Hrycik, J. M., & Forestell, P. H. (2012). Change in focus of attention among whale-watch passenger occurs as a function of temporal phase of the tour. *Tourism in Marine Environments*, 8(4), 189–198.
- Hughes, M., Newsome, D., & Macbeth, J. (2005). Case study: Visitor perceptions of captive wildlife tourism in a Western Australian natural setting. *Journal of Ecotourism*, 4(2), 73–91. <https://doi.org/10.1080/14724040409480341>
- Huxley, T. H. (1887). On the reception of the “origin of the species.” In F. Darwin (Ed.), *The life and letters of Charles Darwin including an autobiographical chapter* (Vol. 2, pp. 179–204). London, England: John Murray.
- Iozzi, L. A. (1989). What research says to the educator - Part one: Environmental education and the affective domain. *The Journal of Environmental Education*, 20(3), 3–9.
- Jafari, J. (2003). Research and scholarship: The basis of tourism education. *The Journal of Tourism Studies*, 14(1), 6–16.
- Järviluoma, J. (1992). Alternative tourism and the evolution of tourist areas. *Tourism Management*, 13(1), 118–120.
- Johnson, G., & McInnis, C. (2014). Whale-watching: An effective education programme is no fluke. In J. E. S. Higham, L. Bejder, & R. Williams (Eds.), *Whale-watching: Sustainable tourism and ecological management* (pp. 128–145). Cambridge, England: Cambridge University Press.
- Kahn, P. H. (1999). *The human relationship with nature: Development and culture*. Cambridge, MS: MIT Press.

- Keelan, N. (1996). Maori heritage: Visitor management and interpretation. In C. M. Hall & S. McArthur (Eds.), *Heritage management in Australia and New Zealand* (2nd ed., pp. 195–201). Melbourne, Australia: Oxford University Press.
- Kellert, S. R. (1993). The biological basis for human values of nature. In S. R. Kellert & E. O. Wilson (Eds.), *The biophilia hypothesis* (pp. 42–69). Washington D.C.: Island Press.
- Kellert, S. R. (1996). *The value of life: Biological diversity and human society*. Washington D.C.: Island Press.
- Kellert, S. R. (1997). *Kinship to mastery: Biophilia in human evolution and development*. Washington D.C.: Island Press.
- Kellert, S. R. (2014). Biophilia and biomimicry: Evolutionary adaptation of human versus nonhuman nature. *Intelligent Buildings*, 8(2), 51–56.
<https://doi.org/10.1080/17508975.2014.902802>
- Kennedy, M. M. (1999). A test of some common contentions about educational research. *American Educational Research Journal*, 36(3), 511–541.
- Kerry, T. (2002). *Explaining and questioning*. Cheltenham, England: Nelson Thornes.
- Knapp, D. H. (1994). *Validating a framework for goals for program development in environmental interpretation* (PhD dissertation). Southern Illinois University, Carbondale, IL.
- Knapp, D. H. (2007). *Applied interpretation: putting research into practice*. Fort Collins, CO: National Association for Interpretation.
- Koran, J. J. J., Morrison, L., Lehman, J. R., Koran, M. L., & Gandara, L. (1984). Attention and curiosity in museums. *Journal of Research in Science Teaching*, 21(4), 357–363.
- Koran, M. L., Willems, P. P., & Dunckel, B. (2000). Situated cognition: Implications for visitor studies. *Journal of Interpretation Research*, 5(2), 5–13.

- Kotler, P. (1994a). *Marketing management: Analysis, planning, implementation, and control* (8th ed.). Upper Saddle, NJ: Prentice-Hall.
- Kotler, P. (1994b). *Principles of marketing* (6th ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Kukla, A. (2000). *Social constructivism and the philosophy of science*. London, England: Routledge.
- KwaZulu-Natal Tourism. (2008). *The strengths and weaknesses of qualitative research in understanding the behaviour of tourism and travel consumers* (Occasional research papers and ad hoc research projects No. 60). KwaZulu-Natal Tourism. Retrieved from <http://www.zulu.org.za/userfiles/1/file/ForInvestorandResearcher/Research/Occ%20PDFs/Occ%20papers%20PDFs/Occ%20paper%2060%20QualTourismResearch.pdf>
- Langer, E. J. (1991). *Mindfulness*. London, England: Harper Collins.
- Larsen, D. A. (2004). Research: A voice of our own. *Journal of Interpretation Research*, 9(1), 69–71.
- Leiper, N. (2004). *Tourism management* (3rd ed.). Frenchs Forest, Australia: Pearson Education.
- Lewis, B. (1980). *Interpreting for park visitors*. Philadelphia, PA: Eastern Acorn Press.
- Lindsay, K., Craig, J., & Low, M. (2008). Tourism and conservation: The effects of track proximity on avian reproductive success and nest selection in an open sanctuary. *Tourism Management*, 29, 730–739.
- Loewenstein, G. (1994). The psychology of curiosity: A review and reinterpretation. *Psychological Bulletin*, 116 (1), 75–98.

- Lovelock, B. (2003). Research Notes: International and domestic visitors' attitudes as constraints to hunting tourism in New Zealand. *Journal of Sport and Tourism*, 8(3), 197–203.
- Lück, M. (2002). Large-scale ecotourism - A contradiction in itself. *Current Issues in Tourism*, 5(3), 361–370. <https://doi.org/10.1080/13683500208667929>
- Lück, M. (2003a). Education on marine mammal tours as agent for conservation - but do tourists want to be educated? *Ocean & Coastal Management*, 46, 943–956. [https://doi.org/10.1016/S0964-5691\(03\)00071-1](https://doi.org/10.1016/S0964-5691(03)00071-1)
- Lück, M. (2003b). *Environmentalism and on-tour experiences of tourists on wildlife watch tours in New Zealand: A study of visitors watching and/or swimming with wild dolphins* (PhD thesis). University of Otago, Dunedin, New Zealand.
- Lück, M. (2015). Education on marine mammal tours - But what do tourists want to learn? *Ocean & Coastal Management*, 103, 25–33. <https://doi.org/http://dx.doi.org/10.1016/j.ocecoaman.2014.11.002>
- Lugosi, P. (2006). Between overt and covert research: Concealment and disclosure in an ethnographic study of commercial hospitality. *Qualitative Inquiry*, 12(3), 541–561.
- Lugosi, P., & Bray, J. (2008). Tour guiding, organisational culture and learning: lessons from an entrepreneurial company. *International Journal of Tourism Research*, 10, 467–479.
- Maat, V. (2009). *The dynamics of a singles holiday: The transformative potential of short-term singles travel*. (MSc thesis). University of Wageningen, Wageningen, Netherlands.
- MacCannell, D. (1999). *The tourist: A new theory of the leisure class*. Berkeley, CA: University of California Press.

- Machnick, L. K., Wright, B. A., & Hammitt, W. E. (2006). Perceptions and cognitions from an interpretive talk: Comparing visitor responses to expert reviews (pp. 509–516). Presented at the 2006 Northeastern Recreation Research Symposium. Bolton Landing, NY: Forest Service, Northern Research Station.
- Markwell, K., & Weiler, B. (1998). Ecotourism and interpretation. In D. Uzzell & R. Ballantyne (Eds.), *Contemporary issues in heritage and environmental interpretation: Problems and prospects* (pp. 98–111). London, England: Stationary Office.
- Marshall, M. N. (1996). Sampling for qualitative research. *Family Practice*, 13(6), 522–525.
- Marton, F., & Booth, S. (1997). *Learning and awareness*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Marton, F., & Tsui, A. B. M. (2004). *Classroom discourse and the space of learning*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Maslow, A. (1987). *Motivation and personality* (3rd ed.). New York, NY: Addison-Wesley.
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2nd ed.). Thousand Oaks, CA: Sage.
- Maxwell, J. A. (2012). *A realist approach for qualitative research*. Thousand Oaks, CA: Sage.
- Mayes, G., & Richins, H. (2009). Dolphin watch tourism: two differing examples of sustainable practices and proenvironmental outcomes. *Tourism in Marine Environments*, 5(2–3), 201–214.
- McArthur, S., & Hall, C. M. (1996). Interpretation: Principles and practice. In C. M. Hall & S. McArthur (Eds.), *Heritage management in Australia and New Zealand* (2nd ed., pp. 88–106). Melbourne, Australia: Oxford University Press.

- McClure, M. (2004). *The wonder country: Making New Zealand Tourism*. Auckland, New Zealand: Auckland University Press.
- McTaggart, D. (2002). *Shadow warrior: The autobiography of Greenpeace International founder David McTaggart*. London, England: Orion Publishing.
- Merriman, T., & Brochu, L. (2006). *The history of heritage interpretation in the United States*. Fort Collins, CO: Interp Press.
- Millenium Ecosystem Aseessment. (2005). *Ecosytems and human well-being: Opportunities and challenges for business and industry*. Washington D.C.: World Resources Insitute.
- Miller, G., Hudson, S., & Turner, R. (2005). Applying the mystery shopping technique: The case of Lunn Ploy. In B. W. Ritchie, P. Burns, & C. Palmer (Eds.), *Tourism research methods: Integrating theory with practice* (pp. 63–72). Wallingford, England: CABI.
- Morag, O., & Tal, T. (2012). Assessing learning in the outdoors with the field trip in natural environments (FiNE) framework. *International Journal of Science Education, 34*(5), 745–777.
- Moscardo, G. (1996). Mindful visitors: Heritage and tourism. *Annals of Tourism Research, 23*(2), 376–397.
- Moscardo, G. (1999). *Making visitors mindful: Principles for creating quality sustainable visitor experiences through effective communication*. Urbana, IL: Sagamore Publishing.
- Moscardo, G. (2008). Interpretation. In M. Lück (Ed.), *The encyclopedia of tourism and recreation in marine environments* (pp. 249–252). Wallingford, England: CABI.
- Moscardo, G., Woods, B., & Saltzer, R. (2004). The role of interpretation in wildlife tourism. In K. Higginbottom (Ed.), *Wildlife tourism: Impacts, management and planning* (pp. 231–251). Altona, Australia: Common Ground Publishing.

- Motloch, J. L. (2001). *Introduction to landscape design* (2nd ed.). New York, NY: John Wiley & Sons.
- National Oceanic and Atmospheric Administration. (2016a). Resource protection: Ocean etiquette. Retrieved from http://hawaiihumpbackwhale.noaa.gov/res/ocean_etiquette.html
- National Oceanic and Atmospheric Administration. (2016b). Resource protection: Regulations. Retrieved from <http://hawaiihumpbackwhale.noaa.gov/res/regulations.html>
- Neil, D., Orams, M. B., & Baglioni, A. (1996). Effect of previous whale watching experience on participants knowledge of, and response to, whales and whale watching. In *Encounters with Whales 1995 proceedings* (pp. 182–188). Canberra, Australia: Australia Nature Conservation Agency.
- Nelson, M. P., Bruskotter, J. T., Vucetich, J. A., & Chapron, G. (2016). Emotions and ethics of consequence in conservation decisions: Lessons from Cecil the Lion. *Conservation Letters: A Journal of the Society for Conservation Biology*, 9(4), 302–306.
- Newsome, D., Dowling, R. K., & Moore, S. A. (2005). *Wildlife tourism*. Clevedon, England: Channel View.
- Newsome, D., Moore, S. A., & Dowling, R. K. (2013). *Natural area tourism: Ecology, impacts and management*. Bristol, England: Channel View.
- Norman, I. J., Redfern, S. J., Tomalin, D. A., & Oliver, S. (1992). Developing Flanagan's critical incident technique to elicit indicators of high and low quality nursing care from patients and their nurses. *Journal of Advanced Nursing*, 17, 590–600.

- Nuthall, G. (2004). Relating classroom teaching to student learning: A critical analysis of why research has failed to bridge the theory-practice gap. *Harvard Educational Review*, 74(3), 273–306.
- Nuthall, G., & Alton-Lee, A. (1993). Predicting learning from student experience of teaching: A theory of student knowledge construction in classrooms. *American Educational Research Journal*, 30(4), 799–840.
- O'dell, T. (2007). Tourist experiences and academic junctures. *Scandinavian Journal of Hospitality and Tourism*, 7(1), 34–45.
<https://doi.org/10.1080/15022250701224001>
- Oh, H., Fiore, A., & Jeoung, M. (2007). Measuring experience economy: Tourism applications. *Journal of Travel Research*, 46(2), 119–132.
- Orams, M. B. (1995). *Managing interaction between wild dolphins and tourists at a dolphin feeding program, Tangalooma, Australia: The development and application of an education program for tourists and an assessment of "pushy" dolphin behaviour* (Doctoral thesis). The University of Queensland, Brisbane, Australia.
- Orams, M. B. (1996). An interpretation model for managing marine wildlife-tourist interaction. *Journal of Sustainable Tourism*, 4(2), 81–95.
- Orams, M. B. (1997). The effectiveness of environmental education: can we turn tourists into greenies? *Progress in Tourism and Hospitality Research*, 3(4), 295–306.
- Orams, M. B. (2001). Types of ecotourism. In D. B. Weaver (Ed.), *Encyclopedia of ecotourism* (pp. 23–36). Wallingford, England: CABI.
- Orams, M. B. (2002). Feeding wildlife as a tourism attraction: a review of issues and impacts. *Tourism Management*, 23, 281–293.

- Orams, M. B., Forestell, P. H., & Spring, J. (2014). What's in it for the whales? Exploring the potential contribution of environmental interpretation to conservation. In J. E. S. Higham, L. Bejder, & R. Williams (Eds.), *Whale-watching: Sustainable tourism and ecological management* (pp. 146–162). Cambridge, England: Cambridge University Press.
- Orange, C. (2004). *An illustrated history of the Treaty of Waitangi*. Wellington, New Zealand: Bridget Williams Books.
- Pacific Whale Foundation. (2015). Conservation. Retrieved from <http://www.pacificwhale.org/conservation>
- Pastorelli, J. (2003). *Enrichening the experience: An interpretive approach to tour guiding*. Sydney, Australia: Pearson Education.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Pearce, P. (1988). *The Ulysses factor: Evaluating visitors in tourist settings*. New York, NY: Springer.
- Pearce, P., Benckendorff, P., & Johnstone, S. (2000). Tourist attractions: Evolution, analysis and prospects. In B. Faulkner, G. Moscardo, & E. Laws (Eds.), *Tourism in the 21st Century: Lessons from experience*. London, England: Continuum.
- Pepi, D. (1994). The mechanics of nature appreciation. *Journal of Environmental Education*, 25(3), 5–14.
- Pernecky, T. (2012). Constructionism: Critical pointers for tourism studies. *Annals of Tourism Research*, 39(2), 1116–1137.
<https://doi.org/10.1016/j.annals.2011.12.010>
- Pernecky, T., & Jamal, T. (2010). (Hermeneutic) phenomenology in tourism studies. *Annals of Tourism Research*, 37(4), 1055–1075.
<https://doi.org/10.1016/j.annals.2010.04.002>

- Phillimore, J., & Goodson, L. (2004). Progress in qualitative research in tourism: Epistemology, ontology and methodology. In J. Phillimore & L. Goodson (Eds.), *Qualitative research in tourism: Ontologies, epistemologies and methodologies* (pp. 3–29). London: Routledge.
- Piaget, J. (1970). *Structuralism*. New York, NY: Basic Books.
- Pine, B. J. I., & Gilmore, J. H. (1998). Welcome to the experience economy. *Harvard Business Review*, 76(4), 97–105.
- Pine, B. J. I., & Gilmore, J. H. (2011). *The experience economy* (Revised). Boston, MS: Harvard Business Review Press.
- Plester, B. (2007). *Laugh out loud: How organisational culture influences workplace behaviour* (PhD thesis). Massey University, Auckland, New Zealand.
- Plester, B. A. (2003). *“Workhard-play hard”*: Using humour at work (Masters thesis). Massey University, Auckland, New Zealand.
- Plog, S. C. (2004). *Leisure travel: A marketing handbook*. Upper Saddle, NJ: Pearson Prentice Hall.
- Polkinghorne, D. E. (1988). *Narrative knowing and the human sciences*. Albany, NY: State University of New York Press.
- Polkinghorne, D. E. (2004). *Practice and the human sciences: The case for a judgment-based practice of care*. Albany, NY: State University of New York Press.
- Pontin, D. (2000). Interview. In D. Cormack (Ed.), *The research process in nursing* (pp. 289–299). Oxford, England: Blackwell Science.
- Porter, B. A. (2014). *Marine tourism as a supplemental livelihood: An exploration of remote fisheries-based communities in the Philippines* (PhD thesis). Auckland University of Technology, Auckland, New Zealand.

- Powell, R. B., & Ham, S. H. (2008). Can ecotourism interpretation really lead to pro-conservation knowledge, attitudes and behaviour? Evidence from the Galapagos Islands. *Journal of Sustainable Tourism*, 16(4), 467–489.
- Query, J. L., Kreps, G. L., Arneson, P., & Caso, N. S. (2001). Toward helping organisations manage interaction: The theoretic and pragmatic merits of the Critical Incident Technique. In S. L. Herndon & G. L. Kreps (Eds.), *Qualitative research: Applications in organisational life* (2nd ed.). Cresskill, NJ: Hampton Press.
- Quinton, A. (1999). Epistemology. In A. Bullock & S. Trombley (Eds.), *The new Fontana dictionary of modern thought* (3rd ed., p. 279). London, England: Harper Collins.
- Ragin, C. C. (2006). The logic of qualitative comparative analysis. In A. Sica (Ed.), *Comparative methods in the social sciences* (Vol. IV, pp. 164–185). London, England: Sage Publications.
- Randall, C., & Rollins, R. B. (2009). Visitor perceptions of the role of tour guides in natural areas. *Journal of Sustainable Tourism*, 17(3), 357–374.
- Reis, A. C., & Higham, J. E. S. (2009). Recreation conflict and sport hunting: Moving beyond goal interference towards social sustainability. *Journal of Sport and Tourism*, 14(2–3), 83–107.
- Reynolds, P. C., & Braithwaite, R. W. (2001). Towards a conceptual framework for wildlife tourism. *Tourism Management*, 22, 31–42.
- Richards, G. (2001). The experience industry and the creation of attractions. In G. Richards (Ed.), *Cultural attractions and European tourism* (pp. 55–69). Wallingford, England: CABI.
- Richards, G. (2002). Tourism attractions systems: Exploring cultural behaviour. *Annals of Tourism Research*, 29(4), 1048–1064.

- Richards, G., & Wilson, J. (2007). Tourism development trajectories: From culture to creativity? In G. Richards & J. Wilson (Eds.), *Tourism, creativity and development* (pp. 1–33). London, England: Routledge.
- Riessman, C. K. (2008). *Narrative methods for the human sciences*. Thousand Oaks, CA: Sage.
- Rimmer, A. (2008). *Tiritiri Matangi: A model of conservation* (2nd ed.). Auckland, New Zealand: Tandem.
- Robinson, P., Lück, M., & Smith, S. L. (2013). *Tourism*. Wallingford, England: CABI.
- Rodger, K., Moore, S. A., & Newsome, D. (2007). Wildlife tours in Australia: Characteristics, the place of science and sustainable futures. *Journal of Sustainable Tourism*, 15(2), 160–179.
- Roggenbruck, J. W., Loomis, R. J., & Dagostino, J. (1990). The learning benefits of leisure. *Journal of Leisure Research*, 22(2), 112–124.
- Rorty, R. (1979). *Philosophy and the mirror of nature*. Princeton, NJ: Princeton University Press.
- Rorty, R. (1982). *Consequences of pragmatism*. Brighton, England: Harvester.
- Ross, G. A. (1998). *The Psychology of tourism* (2nd ed.). Melbourne, Australia: Hospitality Press.
- Ryan, C., & Dewar, K. (1995). Evaluating the communication process between interpreter and visitor. *Tourism Management*, 16(4), 295–303.
- Ryan, C., & Martin, A. (2001). Tourists and strippers: Liminal theater. *Annals of Tourism Research*, 28(1), 140–163.
- Sagan, C. (1980). *Cosmos*. New York, NY: Random House, Inc.
- Salazar, N. B. (2008). *Envisioning Eden: A glocal ethnography of tour guiding* (PhD dissertation). University of Pennsylvania, Philadelphia, PA.

- Salazar, N. B. (2015). The local-to-global dynamics of world heritage interpretation. In L. Bourdeau, M. Gravari-Barbas, & M. Robinson (Eds.), *World heritage, tourism and identity: Inscription and co-production* (pp. 121–130). Aldershot, England: Ashgate.
- Saldana, J. (2013). *The coding manual for qualitative researchers* (2nd ed.). London, England: Sage.
- Schänzel, H. (2010). *Family time and own time on holiday: Generation, gender and group dynamic perspectives from New Zealand* (PhD thesis). Victoria University of Wellington, Wellington, New Zealand.
- Schänzel, H. A., & McIntosh, A. J. (2000). An insight into the personal and emotive context of wildlife viewing at the Penguin Place. *Journal of Sustainable Tourism*, 8(1), 36–52.
- Schluter, J., Seaton, P., & Chaboyer, W. (2008). Critical incident technique: A user's guide for nurse researchers. *Journal of Advanced Nursing*, 61(1), 107–114.
- Schraw, G. (1998). Promoting general metacognitive awareness. *Instructional Science*, 26, 113–125.
- Schuh, K. L., & Barab, S. A. (2008). Philosophical perspectives. In J. M. Spector, M. D. Merrill, J. Van Merriënboer, & M. P. Driscoll (Eds.), *Handbook of research on educational communications and technology* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Schwandt, T. A. (1994). constructivist Interpretivist approaches to human inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 118–137). Thousand Oaks, CA: Sage.
- Seaton, A. V. (2002). Observing conducted tours: the ethnographic context in tourist research. *Journal of Vacation Marketing*, 8(4), 309–319.

- Shackley, M. (1996). *Wildlife Tourism* (1st ed.). London, England: International Thomson Business Press.
- Shapiro, K. R. (2006). *Whale watch passengers' preferences for tour attributes and marine management in Maui, Hawaii* (Master of Research Management thesis). Simon Fraser University, Burnaby, BC, Canada.
- Sharpe, G. W. (1982a). An overview of interpretation. In G. W. Sharpe (Ed.), *Interpreting the environment* (2nd ed., pp. 2–26). New York, NY: John Wiley & Sons.
- Sharpe, G. W. (1982b). Marine interpretation. In G. W. Sharpe (Ed.), *Interpreting the environment* (2nd ed., pp. 526–558). New York, NY: Wiley.
- Sharpley, R. (2006). Ecotourism: A consumptive perspective. *Journal of Ecotourism*, 5(1–2), 7–22.
- Sieber, J. E. (2004). Using our best judgement in conducting human research. *Ethics & Behavior*, 14(4), 297–304.
- Silverman, D. (2006). *Interpreting qualitative data: Methods for analyzing talk, text and interaction*. Thousand Oaks, CA: Sage.
- Simons, D. J., & Rensink, R. A. (2005). Change blindness: Past, present and future. *Trends in Cognitive Sciences*, 9(1), 16–20.
- Smaldone, D. (2006). Meaning making: Connecting interpretive models. In P. Caputo (Ed.), *National Interpreters Workshop November 7-11, 2006* (pp. 124–125). Albuquerque, New Mexico: National Association of Interpreters.
- Smith, L. D. G. (2007). A qualitative evaluation of profound wildlife encounters. *Journal of Dissertation*, 1(1), 1–172.
- [https://doi.org/http://www.scientificjournals.prg/journals2007/j_of_dissertation.h
tm](https://doi.org/http://www.scientificjournals.prg/journals2007/j_of_dissertation.htm)

- Spring, J. (2015). Caught in the crossfire: Using participant observation to research guided tours. In M. Lück, J. Velvin, & B. Eisenstein (Eds.), *The social side of tourism: The interface between tourism, society and the environment* (pp. 127–139). Frankfurt am Main: Peter Lang Verlag.
- St. John, M., & Perry, D. (1993). A framework for evaluation and research: Science, infrastructure and relationships. In S. Bicknell & G. Farmelo (Eds.), *Museum visitor studies in the 90s* (pp. 59–66). London, England: Science Museum.
- Stamation, K., Croft, K., Shaughnessy, P. D., Waples, K. A., & Briggs, S. V. (2007). Educational and conservational value of whale watching. *Tourism in Marine Environments*, 4(1), 41–55.
- Steinmetz, G. (2006). Odious comparisons: Incommensurability. In A. Sica (Ed.), *Comparative methods in the social sciences* (Vol. IV, pp. 186–225). London, England: Sage Publications.
- Stewart, E. J., Hayward, B. M., Devlin, P. J., & Kirby, V. G. (1998). The “place” of interpretation: a new approach to the evaluation of interpretation. *Tourism Management*, 19(3), 257–266.
- Stewart-Harawira, M. (2005). *The new imperial order: Indigenous responses to globalization*. Wellington, New Zealand: Huia Publishers.
- Supporters of Tiritiri Matangi (SoTM). (2009, September). Supporters of Tiritiri Matangi Guiding Manual. Auckland, New Zealand: Supporters of Tiritiri Matangi.
- Suri, H. (2011). Purposeful sampling in qualitative research synthesis. *Qualitative Research Journal*, 11(2), 63–75.
- Swarbrooke, J. (2002). *The development and management of visitor attractions* (2nd ed.). London, England: Routledge.

- Tahana, Y. (2010, June 3). Rare rats off the hook as DoC gives them island sanctuary. *New Zealand Herald*. Retrieved from http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10649358
- Teshome-Bahiru, W., & Negashe-Wossene, J. (2007). Anthropological field researches in the 21st Century: Scope, challenges and ethics. *Anthropologist Special Volume, 3*, 7–18.
- Tilden, F. (1977). *Interpreting our heritage* (3rd ed.). Chapel Hill, NC: University of North Carolina.
- Timothy, D. J., & Boyd, S. W. (2003). *Heritage tourism*. Harlow, England: Prentice-Hall.
- Tolich, M. (2002). Pakeha “paralysis”: Cultural safety for those researching the general population of Aotearoa. *Social Policy Journal of New Zealand, 19*, 164–178.
- Tribe, J., & Airey, D. (2007). A review of tourism research. In J. Tribe & D. Airey (Eds.), *Developments in tourism research* (pp. 3–14). Oxford, England: Elsevier.
- van der Haar, D., & Hosking, D. M. (2004). Evaluating appreciative inquiry: A relational constructionist perspective. *Human Relations, 57*(8), 1017–1036.
- Van Manen, M. (1990). *Researching lived experience: Human sciences for an action sensitive pedagogy*. Albany, NY: SUNY Press.
- Van Manen, M. (2014). *Phenomenology of practice: Meaning-giving methods in phenomenological research and writing*. Walnut Creek, CA: Left Coast Press.
- Veitch, C. R. (2002). Eradication of Pacific rats (*Rattus exulans*) from Tiritiri Matangi Island, Hauraki Gulf, New Zealand. In C. R. Veitch & M. N. Clout (Eds.), *Turning the tide: The eradication of invasive species* (pp. 360–364). Gland, Switzerland and Cambridge, England: IUCN SSC Invasive Species Specialist Group.

- Voss, C., Tsiriktsis, N., & Frohlich, M. (2002). Case research in operations management. *Journal of Operations & Production Management*, 22(2), 195–219.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard.
- Wagar, J. A. (1982). Research in Interpretation. In G. W. Sharpe (Ed.), *Interpreting the environment* (2nd ed., pp. 630–642). New York, NY: Wiley.
- Wallin, H. E. (1982). Urban interpretation. In G. W. Sharpe (Ed.), *Interpreting the environment* (2nd ed., pp. 392–412). New York, NY: Wiley.
- Walsh, J. A., & Sattes, B. D. (2005). *Quality questioning: researched-based practice to engage every learner*. Thousand Oaks, CA: Corwin Press.
- Wang, N. (1999). Rethinking authenticity in tourism experience. *Annals of Tourism Research*, 26(2), 349–370.
- Watkins, L. (1987). *The billion dollar miracle: The authentic story of the birth and amazing growth of the tourism industry in New Zealand*. Auckland, New Zealand: Inhouse Publications.
- Wearing, S., & Neil, J. (1999). *Ecotourism: Impacts, potentials and possibilities*. Oxford, England: Butterworth-Hennemann.
- Wearing, S., Stevenson, D., & Young, T. (2010). *Tourist cultures: Identity, place and the traveller*. London, England: Sage.
- Weaver, D. B. (2006). *Sustainable tourism: Theory and practice*. Oxford, England: Butterworth Heinemann.
- Weaver, D. B. (2008). *Ecotourism* (2nd ed.). Milton, Australia: Wiley.
- Weaver, D. B., & Lawton, L. (2014). *Tourism management* (5th ed.). Milton, Australia: Wiley.

- Weaver, D. B., & Oppermann, M. (2000). *Tourism management*. Milton, Australia: John Wiley & Sons.
- Webster, L., & Mertova, P. (2007). *Using narrative inquiry as a research method: An introduction to using critical event narrative analysis in research on learning and teaching*. London, England: Routledge.
- Weiler, B., & Black, R. (2015). *Tour guiding research: Insights, issues and implications*. Bristol, England: Channel View.
- Weiler, B., & Davis, D. (1993). An exploratory investigation into the roles of the nature-based tour leader. *Tourism Management*, 14(2), 91–98.
- Weiler, B., & Ham, S. H. (2001). Tour guides and interpretation. In D. B. Weaver (Ed.), *Encyclopedia of Ecotourism* (pp. 549–563). Wallingford, England: CABI.
- Westphal, M. (1999). Hermeneutics as epistemology. In J. Greco & E. Sosa (Eds.), *The Blackwell guide to epistemology* (pp. 415–435). Malden, MS: Blackwell.
- Wheeller, B. (2003). Alternative tourism: A deceptive ploy. In C. Cooper (Ed.), *Classic reviews in tourism* (pp. 227–234). Clevedon, England: Channel View.
- Wilson, C., & Tisdell, C. (2001). Sea turtles as a non-consumptive resource especially in Australia. *Tourism Management*, 22, 279–288.
- Wilson, E. O. (1984). *Biophilia*. Cambridge, MA: Harvard University Pres.
- Wilson, E. O. (1998). *Consilience: The unity of knowledge*. London, England: Little, Brown and Company.
- Winter, T. (2007). *Post-conflict heritage, postcolonial tourism: Culture, politics and development at Angkor*. London, England: Routledge.
- Wittern, A. K., & Berggren, A. (2007). Natal dispersal in the North Robin (*Petroica longipes*): The importance of connectivity in fragmented habitats. *Avian Conservation and Ecology*, 2(2), 2. <https://doi.org/http://www.ace-eco.org/vol2/iss2/art2/>.

- World Commission on Environment and Development (WCED). (1987). *Our common future (also known as "The Brundtland Report")*. New York, NY: Oxford University Press.
- Yeoman, I., & McMahon-Beattie, U. (2014). New Zealand tourism: Which direction would it take? *Tourism Recreation Research*, 39(3), 415–435.
<https://doi.org/10.1080/02508281.2014.11087009>
- Yin, R. K. (2003). *Case study research: Designs and methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Zeppel, H. (2008). Education and conservation benefits of marine wildlife tours: Developing free-choice learning experiences. *The Journal of Environmental Education*, 39(3), 3–17.
- Zeppel, H., & Muloin, S. (2008). Marine wildlife tours: Benefits for participants. In J. E. S. Higham & M. Lück (Eds.), *Marine wildlife and tourism management: Insights from the natural and social sciences* (pp. 19–48). Wallingford, England: CABI.
- Zeppel, H., & Muloin, S. (2014). Green messengers or nature's spectacle: Understanding visitor experiences of wild cetacean tours. In J. E. S. Higham, L. Bejder, & R. Williams (Eds.), *Whale-watching: Sustainable tourism and ecological management* (pp. 110–127). Cambridge, England: Cambridge University Press.

Appendices

Appendix 1: A bestiary of the social and physical world of the field research

Introduction

As discussed in the research design, the interpretive framework of this thesis adheres to a hermeneutic approach to academic inquiry. The foundation stones of academic inquiry are observation of the natural world and the interpretation of written texts. Discovery of laws of nature underpin all scientific study and endeavour but, for a large period of time, precedence was given to the authority of written texts in relation to an orthodox world-view that permeated social and religious institutions (Bronowski, 1973; Sagan, 1980). Knowledge can be “derived from interaction among groups of individuals and the artefacts in their environment, both of which create reality” (Schuh & Barab, 2008, p. 72).

For most studies, it is enough for the researcher to identify the relevant philosophical stances that frames and informs the research project. However, with sustainable tourism research, the researcher should consider the nature of research conducted by stakeholders of the relevant sites. When it comes to protected natural areas such as Tiri and The Hawaiian Islands Humpback Whale National Marine Sanctuary (HIHWNMS), much of the research derives from study of the natural sciences. Many eminent scientists are sceptical of research in the area of the social sciences that are devised and carried out outside of a positivistic scientific tradition (Dawkins, 2009; Wilson, 1998). This has implications in terms of research into the sustainability of protected areas where both recreation and conservation are legally mandated as required activities. The research community of such areas will consist of academics in the fields of natural and social sciences. If there is a substantive difference in their philosophical views on the nature and accumulation of knowledge a lack of consensus of what constitutes legitimate research may have implications for the long-term viability of the protected area.

Pernecky (2010) highlights a problem in the relationship between constructionism and reality for researchers who fail to subscribe to a realist ontological stance. As discussed in the study, for Pernecky, the conception of constructionism utilised by many researchers is a malconstruction in relation to how they attempt to resolve the contradictions between construction and realism as highlighted in everyday experiences:

Both realists and constructionists would acknowledge that experiencing a turbulent flight over the Atlantic Ocean: the burning of hot coffee that just landed on the knees of a passenger, and the bags falling from the luggage compartment; are not a fantasy or a mere product of the imagination. Constructionists do not necessarily dispute reality per se, what many a constructionist does reject is the possibility of objectivism and “objective knowledge”; a view that truth and meaning dwell in phenomena independently of consciousness, and thus knowledge independent of the inquirer, the social processes, and culture (Crotty, 1998). The crux of misunderstanding, it appears, rests on the fact that one must distinguish between reality on the one hand and construction of meaning on the other (p. 1124).

The challenge that Pernecky (2012) sets the researcher is to provide readers with some sense of the researcher’s approach in distinguishing between reality and the construction of meaning that exists in the findings of their research. This is done by the researcher through adopting an intuitive ontological stance in explain how the idea of reality was approached in the study. Boyer (1998) defines intuitive ontology as “a set of principled expectations and inferential dispositions concerning various aspects of experience” (p. 876).

This section explores the data of the study in respect to the lived experience descriptions (LEDs) of the participants in relation to phenomena that can be generalised into the following broad domains, person, animal, plant, behaviour, artefact and theory. It does this through connecting such naïve theories to a concept of truth as perceived by the research in relation to empirical research that centres around observations about lived experience. The section contains an excerpt of the fieldnotes, and two narratives that explored visitors’ experiences in the context to Burke’s (1945) irony/synecdoche trope. Narratives can be “understood as a spoken or written text giving an account of an event/action or series of events/actions, chronologically connected” (Czarniawska, 2004, p. 17). This then may help the reader to understand the connection between the findings of this thesis and the fieldwork.

Field notes commentary: An hour of commentary from Guide Six commentary in field notes during Visitor Six's observed tour with visitor comments removed (follows on from the commentary in Box 4.7).

GUIDE SIX: Did you guys hear that? You saw why they are called it [humpbacks]. Perdunkle [throw] (<0657).

GUIDE SIX: [I] recognise its' tail. Like our finger print; [it has] notches on the [trailing] edge [of the tail]. I definitely recognise that tail. [Discusses fluke identification]; over 7'000 [flukes] identified. (<0715).

GUIDE SIX: [Question to a child about weight] (<0716).

GUIDE SIX: Peter; how big were you [when you were] born; six pounds? [Peter says he doesn't know] (<0723).

GUIDE SIX: [addressed to the children] What makes them a mammal? What characteristics make them a whale? (<0730).

GUIDE SIX: Why do they do that? Why do they breach? (<0742).

GUIDE SIX: Any theories why they breach? [<0745] V8 Clean themselves – parasites & barnacles. Over a tonne of barnacles can be attached to them; whale lice. [A breach] maybe a way of getting rid of predators – orca; maybe [for] looking around – getting a bird's eye view (<0748).

GUIDE SIX: Why do HBW come to Maui? [A visitor says] warmer water. [These days we think it is to do with predators]. As food sources deplete in Alaska, [HBWs] move down here; [Maui is a nutrient deficient place for HBWs]. [<0752].

GUIDE SIX: Scientific name of HBW? [<0758].

Ironies

I found that in constructing narratives from the interviews and field notes that a section was needed to address the anomalies and perceived contradictions that often arose when making sense of, firstly, the data stemming from different people undertaking the same tour, and secondly, the commonalities in the experiences of all visitors and/or changes in individual visitors' perceptions of their experience between the in situ interview and the reflective interview.

Predictability of seeing a whale

One of the deciding factors that led to the interview with Visitor Five was that she appeared to be given information from the roving guide whom the researcher was observing, which she then used with her husband, Partner Five, at a later stage in the tour. The information related to how guides try to ‘guesstimate’ when a whale that has just submerged may reappear. Initially in the in situ interview Visitor Five did not recall the GVI between herself and the roving guide. It then became clear that a reason for this was that an initial exchange was followed up on by Guide Five (the lead guide, who was then subsequently involved in the interview process), and Visitor Five was fully able to discuss the GVI in respect to what she perceived Guide Five had said rather than from her interaction with the roving guide. The discussion of the guesstimating formed one strand of how Visitor Five perceived how a number of PWF staff had empowered her to watch, listen and learn on the tour.

In part, Visitor Five’s concern about trying to predict when she may see a whale was due to the unexpected breach of a whale during a fishing trip she had been on the day before (Narrative 4.2, Appendix 1). No direct encounter during the PWF tour matched the intensity of feelings Visitor Five had experienced during her unexpected first encounter with the whale on the fishing trip. However, in her in situ interview, Visitor Five did emphasise the learning nature of her experience on the guided wildlife tour. Even so, the importance of the idea of being able to ‘guesstimate’ when a whale may surface, which she had learned during her whale watch experience, disappeared from her memory and there was a change from Visitor Five’s sense of empowerment in predicting the whales’ surfacing behaviour in her in situ interview to a sense of bewilderment about predicting when a whale could be seen in her reflective interview.

In the fieldnotes, towards the end of the tour she made the following comments about a pod of whales that had surfaced: “When we just passed them they were under the water... probably went under for their six to seven minutes” (Visitor Five fieldnotes). While in the in situ interview, Visitor Five was effusive about her ability to locate whales, in the reflective interview, it was the unpredictability of whales that she emphasised:

I guess what I was trying to say... I guess that, to me, **it wasn’t predictable**. There was times when you saw the tail and you sit there long enough, like two or three

minutes, and you might see them come up to spray and the tail again, but there was times when you see a spray and a tail and then it was gone, you didn't see it again. So, you **didn't know** where they had went or if the boat had turned. But it wasn't where I could look at one and say, 'Oh, he sprayed, so sit there and look in the same spot and he's gonna spray again in three minutes.' **That didn't happen.** (Visitor Five; reflective interview, PWF)

Visitor Five's interviews cover most of the ideas present in the themes derived from the analysis of all of the visitors' interviews; in particular, a perception of having learnt much about whales because of GVI, a passion to repeat her tour experience again, and a determination to make changes in her personal lifestyle in relation to what she perceived was the negative impacts that humans have on whales. However, the direct encounter on the PWF tour, her intentional whale watch trip, did not match the accidental encounter on the fishing trip.

Fan-tailed bird

In going through Visitor D's experience, we can discern a theme, identifying specific bird species through a range of thematic fields, sexual dimorphism, inter-species behaviour, species' behaviour, naming, population dynamics or visual cues (Marton & Booth, 1997; Marton & Tsui, 2004). While the ideas in the thematic field are complementary as strategies to identify a specific bird species they may compete with each other in what visitors perceive as being of most importance. The interaction of different thematic fields about wildlife before and during tours has implications for what is remembered after tours.

What I identified as a Hihi or stitchbird, Visitor D described by a range of names connected to its tail:

The next one, was a kind of a timid bird, I think it was a **fan feathered bird**? It was the female, and he [Guide D] said well what I understood of her, how he described why it was called the **fantail bird**, was that when they land, the back end come up it's a fan kind of. So, that bird came down, kind of timid though, sat

on the edge and kind of looked around and then kind of gone in a little bit. (Visitor D, in situ interview, SoTM)

The ideas that become the focus of Visitor D's awareness in respect to the "fan-tailed bird" by the time of her reflective interview suggest to the researcher that it would be difficult for someone to read her narrative by itself and connect it to a Hihi, specifically because of a lack of a recognisable name or identifying features that did not confuse it with another bird species such as the Fantail (Plates 1, 2 & 3).

[What do you remember most vividly from your trip to Tiritiri Matangi?] Probably because we're speaking right now, the interview that you conducted with me, but besides that, nature-wise, **the fantailed birds**. I think, we saw quite a bit of those. (Visitor D, reflective interview, SoTM)

The theme of an experience of an animal during a guided tour for each participant becomes individualised in respect to which thematic fields become focused on and what ideas in the thematic fields are ultimately relegated to the margin.

[What was the most significant thing you learned about the fantailed birds?] They enjoyed bathing in the water, and so the man [Guide D] who was leading our tour he was really keen to just stop at different bathing areas and watching the birds come and I remember **the fantails** coming down the most frequent and more in numbers than the other birds around. So, that was the most significant thing for me and the **fan-tailed bird**. (Visitor D, reflective interview, SoTM)

In going through Visitor D's experience, one can discern both a theme and thematic fields. Indeed, Visitor D identified individual bird species through a range of thematic fields: sexual dimorphism, inter-species behaviour, species' behaviour, naming, population dynamics and visual cues. While the ideas in the thematic field are complementary as strategies to identify a particular bird species, they also compete with each other at a structural level in respect to what is perceived as being of most importance to the individual at the time of the experience, and this has implications for

what is remembered after the tour. The ideas that had become the focus of Visitor D's awareness of the "fan-tailed bird" by the time of her reflective interview suggest to the researcher that it would be difficult for someone to read her narrative by itself and connect it to a Hihi. This is because her narrative lacks a recognisable name or identifying features that did not confuse it with another bird species such as the Fantail.

In her in situ interview, Visitor D's recollection of the "fan-tailed bird" indicates richness in her understanding of the inter-species behaviour of Hihi. By the stage of her reflective interview, however, there is a lack of richness in the ideas Visitor D expressed about the behaviour of the Hihi. Visitor D's reference to Hihi using the bird bath to clean itself, for example, does not distinguish the Hihi from other birds, while Visitor D's reference to Hihi numbers lacks context, especially as the Hihi is an endangered species and proportionately are a small component of the overall bird population on Tiri. By the time of her reflective interview, Visitor D has so many competing ideas relating to Hihi – both her own ideas and the ideas she recalled had been expressed by others during the encounters – that her own individual meanings lacked a structure that could allow them to be easily understood by others.

Images for fan-tailed bird narrative

| | |
|---|-----|
| Plate 1: Fantail (<i>Rhipidura fuliginosa</i>) | 285 |
| Plate 2: Fantail with tail up (<i>Rhipidura fuliginosa</i>) | 286 |
| Plate 3: Male Stitchbird, Hihi (<i>Notiomystis cincta</i>) with tail up | 287 |



Source: Reproduced with permission from Martin Sanders.

Plate 1: Fantail (*Rhipidura fuliginosa*)



Source: Reproduced with permission from Martin Sanders.

Plate 2: Fantail with tail up (*Rhipidura fuliginosa*)



Source: Reproduced with permission from Martin Sanders.

Plate 3: Male Stitchbird, Hihi (*Notiomystis cincta*) with tail up

Appendix 2: Sample documents to gain consent for research

The following documents are a sample of the measures taken by myself as well as others to inform relevant stakeholders of the nature and potential consequences of my research in relation to their involvement with the research sites. They are

1. An exemplar of the letters sent to Māori tribal entities to gain consent for research
2. A supporting letter from SoTM to the Department of Conservation for consent to conduct research on Tiri
3. Information sheet for presentation I made to inform PWF staff of the observations I wanted to do on their vessels
4. Pre-amble to sign up form for PWF naturalists
5. Captain's introduction of the researcher to passengers at the start of each PWF trip that I observed
6. Information sheet requesting SoTM guides to participate in my research

Exemplar of the letters sent to Māori tribal entities to gain consent for research

Terence Hohneck

Jonathon Spring

Manuhiri Omaha Kaitiaki Ora Trust Board

PhD student

PO Box 57, Leigh 0947

Applied Humanities

mokotrust@ihug.co.nz

AUT University

cc to: ngatimanuhirirmu@ihug.co.nz

09 422 6548

Wednesday 9 September 2009

E te rangatira, tēnā koe,

E pōuri ana ahau mo tāku whakararuraru i a koe.

RE: Notification of proposed PhD study on Supporters of Tiritiri Matangi (SoTM) guiding programme 2010-2011.

I hope you are well. My name is Jonathon Spring, and I am preparing to do a PhD study on how people learn during guided wildlife tours. I would like to conduct research on guided tours on Tiritiri Matangi, and I am writing this letter to

1. Notify you of the study due to your recognised relationship with Tiritiri Matangi
2. Invite your comments and ideas on the study.

My study involves joining a guided tour on the Island, observing it and then interviewing the guide and at least one visitor about the trip. I am interested in how and why visitors become curious when in contact with wildlife, and how that curiosity is managed during the tour. Below is further information on my PhD proposal and how it relates to Tiritiri Matangi as a research site.

At this stage I have submitted my formal proposal and ethics applications to the relevant committees at AUT University. I would like to start the study in late January 2009.

Thank you for considering this matter.

E hiahia ana ahau kia rongō i āu whakaaro mo runga i tenei.

Yours Faithfully

Jonathon Spring

**Supporting letter from SoTM to the Department of Conservation for consent to
conduct research on Tiri**



5 October 2009
Department of Conservation
Private Bag
Auckland

re: Guiding research proposal – Jonathan Spring

On behalf of the Supporters, I am writing to express our support for a research application by Jonathon to research some of our guides.

Jonathan has gone to some lengths to ensure the research will not have any significant impact on our guides. In particular:

- he has provided us with extensive details about what he plans, and the efforts he will be taking to minimise the impact.
- He has already talked to our guides en masse at a guiding meeting in July.
- The participants will all have voluntarily agreed to participate, so there is no issue of coercion or guides being researched against their will.
- Jonathon has a detailed process with clear limits on what each guide will be asked.
- He will also limit the impact in any given day

Yours sincerely

Peter Lee
Chairperson

Information sheet for presentation I made to inform PWF staff of the observations I wanted to do on their vessels

What's the Kiwi doing on Maui? The "teachable moment" and nature-based guided tours.

Jonathon P. Spring
Ph 64 9 845 5606
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jonathons@ais.ac.nz
jonspr89@aut.ac.mz

Abstract

Guided tours provide valuable learning opportunities where conservation messages can be delivered to the visitor. The term "teachable moment" can be used to describe the process where the visitor seeks information from the naturalist to aid their learning. The high variability of each guided tour makes it difficult for interpretation programme planners and naturalists to prepare and to structure the content of a tour to anticipate a teachable moment for each visitor. This presentation explores how teachable moments may occur during nature-based guided tours and the implications this has for interpretation research.

The inspiration for the research comes from a series of articles and presentations by Greg Kaufman and Paul Forestell in the 1990s on the potential of whale watch tours as venues for raising awareness about environmental and conservation issues.

Biography

Jonathon's interest in interpretation stems from his professional work as a tour guide and voluntary work in conservation. With ecological restoration programmes playing a role in increasing restrictions to recreational activities in New Zealand's regional and national parks, Jonathon is concerned with finding ways to get recreational users to appreciate and value this conservation work. As well as guiding on Tiritiri Matangi Open Scientific Reserve, Jonathon is involved in the ecological restoration work done by Ark in the Park in the Waitakere Ranges. Since 2003, Jonathon has been a Lecturer in the Tourism Management Programme at AIS St Helens.

The Maui equivalents to Ark in the Park and Tiritiri Matangi are the restoration projects in and around Haleakala National Park and on Kaho'olawe.

Pre-amble to sign up form for PWF naturalists

Research into the **'VISITOR-GUIDE INTERACTION'** on guided tours done by
Jonathon Spring
PhD Student
AUT University
jonspr89@aut.ac.nz

REQUEST TO PWF NATURALISTS FOR YOUR PARTICIPATION IN THIS RESEARCH

Your help would be really valuable to the project. Please let me know how you would like to be contacted to discuss your involvement in the research. Please contact me if you have any questions. Thanks in advance for your support!

Captain's introduction of the researcher to passengers at the start of each PWF trip that I observed

Jonathon is all the way from New Zealand. He's doing a PhD Study on learning during guided tours and he will be with [name of naturalist being observed] during the trip [on snorkeling tours the following was used: "he will be with _____ during the fish and reef tour"].

He may ask one or two of you to participate in the research.
If you want to know any more please don't hesitate to ask him. There is also a laminated information sheet on his PhD study at the bar.

Information sheet requesting SoTM guides to participate in my research

Jonathon Spring
 PhD student
 Applied Humanities
 AUT University
 Auckland, New Zealand
 021 506 053
jonspr89@aut.ac.nz
jonathon.spring@gmail.com

Wednesday 18 November 2009

Name of Guide
 Supporters of Tiritiri Matangi

Dear ,

RE: Expression of interest in participating in research on visitor-guide interaction during a wildlife encounter on Tiritiri Matangi

I hope you are well. Firstly I want to thank you for your expression of interest in participating in the field research for my PhD “Making ecotourism work: Exploring the ‘teachable moment’ on guided wildlife tours”. I have received my ethics approval and I thought I would update you on the study and the planned fieldwork at Tiritiri Matangi during 2010 and 2011.

There are at least three areas of possible involvement for you in the study:

The observation of the tour you guide which will last for the duration of the trip;
 The interview after the guided tour if one of the visitors consents to an interview. The interview will be for 20-45 minutes. Where it happens depends on what suits you. I’d suggest when having the tea or coffee I will make for you after the tour;
 The possibility of a second interview will only occur if one of the visitors on our trip consents to being involved in a second interview. The second interview could also last up to 45 minutes. Where and when such an interview happens will be based on what suits you.

Although I will be observing the whole tour, the focus of the research is those moments of contact with wildlife when there is some element of interaction between yourself and one of the visitors (see the abstract below for further information on this). There may be many such moments on the tour but I intend to focus only on one for the interviews afterwards. The moment selected will depend on which of the visitors agrees to participate in the interviews.

I will make contact with you from January 2010 onwards to check if you still wish to be involved in the research, and work out when you next plan to guide. I will then send you out a participants’ information sheet. When we meet on the day of the trip I will have a consent form for you to sign.

Thanks for your time. If you would like more involvement in the study other than the areas outlined above, please don’t hesitate to ask. I just need to run it by my PhD

supervisors but the goal of the study is to involve participants as much as possible in the whole PhD process.

Yours faithfully

Jonathon Spring

Appendix 3: Ethics approval letter

Please see Appendix 4 for explanation of section B.7. referred to in the following letter.



MEMORANDUM

Auckland University of Technology Ethics Committee (AUTEK)

To: Michael Luck
 From: **Madeline Banda** Executive Secretary, AUTEK
 Date: 24 September 2009
 Subject: Ethics Application Number 09/205 **Making ecotourism work: Exploring the 'teachable moment' on guided tours in wildlife tourism settings.**

Dear Michael

I am pleased to advise that the Auckland University of Technology Ethics Committee (AUTEK) approved your ethics application at their meeting on 14 September 2009, subject to the following conditions:

1. Provision of an assurance that the consent form is for use by both the guides and the individual tourists;
2. Provision of an assurance that participants will be given an Information Sheet that they can take away with them, as well as the laminated sign version;
3. Amendment of the Information Sheets as follows:
 - a. Inclusion of advice about the risk that the research may take the fun out of the event, and how this will be mitigated;
 - b. Inclusion in the section titled 'An Invitation' of advice that this research forms part of a PhD;
 - c. Provision of more detailed information about the research in the section titled 'What will happen...' including explicit advice about how group consent will be sought at the beginning before boarding the boat.

AUTEK commends the researcher and yourself on the quality of the application, with particular praise for the well constructed response to section B.7 of the application and the carefully considered consent processes.

I request that you provide the Ethics Coordinator with a written response to the points raised in these conditions at your earliest convenience, indicating either how you have satisfied these points or proposing an alternative approach. AUTEK also requires written evidence of any altered documents, such as Information Sheets, surveys etc. Once this response and its supporting written evidence has been received and confirmed as satisfying the Committee's points, you will be notified of the full approval of your ethics application.

When approval has been given subject to conditions, full approval is not effective until *all* the concerns expressed in the conditions have been met to the satisfaction of the Committee. Data collection may not commence until full approval has been confirmed. Should these conditions not be satisfactorily met within six months, your application may be closed and you will need to submit a new application should you wish to continue with this research project.

When communicating with us about this application, we ask that you use the application number and study title to enable us to provide you with prompt service. Should you have any further enquiries regarding this matter, you are welcome to contact Charles Grinter, Ethics Coordinator, by email at ethics@aut.ac.nz or by telephone on 921 9999 at extension 8860.

Yours sincerely



Madeline Banda

Executive Secretary

Auckland University of Technology Ethics Committee

Cc: Jonathon Peter Spring jonspr89@aut.ac.nz

Appendix 4: Conducting ethical research

Part one: The Treaty of Waitangi and its relationship to ethical research in New Zealand

One of the things I loved about doing my research at AUT University was that so many of my fellow PhD candidates were from overseas. One of the biggest challenges I had in conversations with them was talking about the relevance of the Treaty of Waitangi when it came to their research topic (I never had the opportunity to discuss the topic with a fellow student from New Zealand). The Treaty is the founding document of the New Zealand nation. It established the basis for the settlement of other peoples to live amongst the sovereign Māori tribes in New Zealand (Orange, 2004). Our national day is called Waitangi Day, and for most of my life it has seemed to be a day where commemoration of broken promises was needed rather than celebration of nationhood. When it came to creating one nation of different peoples in New Zealand expediency often took precedence over ethics.

At a personal level, I could see the relevance of considering the Treaty when it came to developing an ethical stance to my research. However, like all my fellow PhD students I struggled to see how I could specifically address the Treaty of Waitangi when it came to my research. When I was compiling the appendices I re-read the ethics approval letter (Appendix 3) and I wondered what was “Section B.7” that they commended me for? I believe that it has relevance to any researcher who chooses to use participant observation to research guided tours. Furthermore, it may aid future students who are struggling with addressing the Treaty of Waitangi when it comes to gaining ethical approval for research, a requirement at most tertiary institutions in New Zealand. If there are Māori terms here that are unfamiliar then you should be able to google them or refer to a number of excellent websites that define Māori concepts. Alternatively you can contact me at jonathon.spring@gmail.com

B.7 How does the design and practice of this research implement each of the three principles of the Treaty of Waitangi (Partnership, Participation and Protection) in the relationship between the researcher and other participants?

To answer the issues referred to in B.7., I will firstly consider how the design and practice of the research implement in the relationship experience is informed by

personal beliefs, experience and conduct in my relationships with people at a personal and formal level, and then deal with each principle specifically.

My personal involvement with Māoritanga stems from my relationship with my daughter. Through her whakapapa connections with Taranaki Whānui, I realised that it was incumbent on me as a father to understand more about Māoritanga. At the same time my involvement with the bicultural committee at my workplace made me realise that I was often involved in issues and procedures that I was ignorant about. This was painfully obvious when I went to Te Paepae at Parihaka in 1991 and mispronounced a saying which changed the meaning of the recited proverb.

To learn more about Māoritanga, I started attending an evening Māori course at Auckland Institute of Technology (now AUT University) in 1991. I then started full-time courses at Taranaki Polytechnic in 1992, and then started a BA with a Māori major in 1993 which I completed at Auckland University. In that time, I had to attend wananaga and noho marae which required me to be aware and sensitive to protocols in the acquisition of knowledge and one's personal conduct that not only related to Māoritanga in general but also to the tikanga of specific hapū and marae.

Through my involvement with Māoritanga during my education and also my personal family life, I have learned that there are many political and social issues that an outsider can become aware of. There is often pressure on outsiders to become involved in matters that are beyond the scope of what is appropriate and can put their own safety at risk. I have therefore always been keenly aware of assessing what is appropriate and inappropriate in terms of my conduct with people from any culture, social group or organisation. These principles have informed my work as a tutor and lecturer, and my volunteer work with community groups where I have come into daily contact with people from many different cultures.

Finally on this matter, I just wish to say that I respect and acknowledge that the matters raised above to some may not be deemed relevant to others but from my personal perspective the issues that pertain to the Treaty of Waitangi cannot be dealt without considering one's own personal experience.

The research aims of this study are to explore the learning process on guided wildlife tours. While this research is not ethnically focused on Māori nor specifically engaged with Māori, the principles of partnership, participation and protection have relevance in

respect to Māori hapū who have mana whenua status at the research locations in New Zealand, Māori as part of the wider society of New Zealand and the Indigenous Hawaiʻan communities in Maui.

Partnership: In the Treaty of Waitangi, partnership refers to the establishment of a relationship between specific Māori hapū and the Crown. In the case of New Zealand, from a research point, partnership requires the researcher to work together with Māori communities to ensure that their individual and collective rights are considered and protected. In the context of this research, the concept of partnership requires the researcher to ensure that the rights of the individuals, communities and organisations involved in this research are considered and protected.

The research project represents a partnership between the researcher (AUT) and the research participants (guides and the respective organisations they work for, visitors who take part on the tours, and communities who are stakeholders and/ or hold mana whenua status at the sites where research occurs. For Tiritiri Matangi, contact has been made with Supporters of Tiritiri Matangi (who hold the guiding concession), the Department of Conservation (DoC) and 360 Discovery. Discussions are still ongoing, but the researcher has discussed the proposed research to a meeting of guides on 6th July 2009 and members of the group were invited to the D9 oral presentation on 31st July 2009. The Department of Conservation provided the researcher with contacts for the Māori communities with links to Tiritiri Matangi (Ngāti Wai, Ngāti Manuhiri, Ngāi Rehu, and Ngāti Paoa) to inform them of the research.

The consultations with Penguin Place are still at a level where contact is with the owner only, but contact will be made with the relevant Māori Communities there through the channels of Penguin Place, or, if appropriate, The Yellow-eyed Penguin Trust and Department of Conservation. In respect to Pacific Whale Foundation, an e-mail was sent by the researcher explaining how New Zealand originated research needs to be informed by the three principles of the Treaty of Waitangi and asked them for their advice in making contact with the relevant communities in Maui.

The important aspect is that the appropriate channels are used to achieve the goals of partnership with the individuals and organisations directly involved in the research and the wider community. For the New Zealand sites, the research involves areas where there are endangered wildlife whose welfare are under the protection of the Department

of Conservation which has clearly defined Treaty of Waitangi responsibilities in its general policy.

Participation: The concept of participation requires that Māori are extensively involved in the overall research process involving Māori. Māori will not be specifically targeted in this research. However, Māori and indigenous Hawai'ian communities will be offered involvement wherever possible in this research. This research will be inclusive to all wishing to participate in planning, carrying out fieldwork and disseminating results.

Participation in this research project will be voluntary and all of the participants' opinions and ideas will remain anonymous and confidential. No individual participants, businesses or individual responses will be able to be identified. The observations and interviews of this study have been designed and will be implemented to ensure, as best is possible, that participants are comfortable, do not feel threatened and have the option to withdraw from this research at any time.

Protection: A central principle in the Treaty of Waitangi is the duty of active protection of Māori on the part of the Crown. This principle requires the researcher to actively protect all aspects of Māori individual and collective rights and culture (which includes but is not limited to values, practices, norms, beliefs and language) in the research process.

The principle of protection is valued by this researcher and all measures will be taken to ensure that all participants (including Māori, Native Hawai'ian and all other cultural groups) are protected. The researcher will strive to ensure that the well-being, privacy, security and rights of research participants are being maintained at all times. All data will be kept confidential and anonymous and no participant will be identified in reports or publications emerging from this study. (Spring, Ethics application for PHD study at AUT University)

Part two: Negotiating my research's potential for harm and risk in the context of participant observation

The discourse of harm or risk in terms of academic research can be summarised as relating to misrepresenting, exploiting, harming or removing the anonymity of the research subjects and harm to the researcher (Crow, Wiles, Heath, & Charles, 2006;

Hedgecoe, 2008; Sieber, 2004). The age of the research participant has been identified as an issue in respect to the safety of participants in relation to their ability to fully understand the implications of their agreeing to participate in research. For research based from AUT, only people aged 20 and over are permitted to give their own consent to participate in research. For those younger than 20, consent from a parent or guardian is required.

In guided tours, the risks for the guide and other employees associated with the tour relate to concerns about how the findings may affect their jobs. A researcher then has to detail the steps taken to ensure the involvement of professional and volunteer staff is consensual and that their welfare will be protected (informed consent and anonymity) (Tolich, 2002). One dimension of the temporal setting for visitors is that their involvement occurs during their leisure time. The transient nature of the tourist population at sites has been cited as a factor which differentiates research on tourists from other communities when it comes to ethical issues such as disclosure and informed consent (Hartmann, 1988).

The transient nature of some populations when researching tourism phenomena combined with the presence of more stable populations in the form of the host community, guides or the tourism workers creates a problem with determining how to incorporate full or non-disclosure in research. A responsive approach to studying guide-visitor interaction can include both the perspective of visitors and guides in researching the phenomena associated with guide-visitor interaction during a guided wildlife tour through consensual observation of the interaction.

With field research on guided tours, a researcher must gain permission from a range of stakeholders who are involved with the site, the tour providers, and the activity itself. From May 2009 onward, the researcher made contact with PWF and SoTM to gain permission to conduct field research on their guided tours. A meeting with representatives of PWF in Auckland in June 2009 facilitated acceptance of the research proposal that enabled field research to commence from November 2009. In November 2009 during a special staff meeting, the researcher then presented his research proposal to a range of staff, and PWF naturalists (the official designation for PWF guides) were given the opportunity to sign up to participate in the research. For PWF passengers, the research project was announced, during the general introduction by the captain and

individual visitors were asked to participate in an interview at the end of the whale watch commentary.

Permission to do field research at SoTM involved six specific stages of engagement on the part of the researcher. Firstly, a proposal was submitted to its research committee. Acceptance was conditionally given in July 2009 provided that individual volunteer guides agreed to participate in the research. Secondly, in August 2009 the researcher attended a SoTM Guide meeting where the research proposal was discussed and the implications of participation for guides was explained. Thirdly, a formal proposal was submitted to the Department of Conservation (DoC), the public entity responsible for Tiri. The researcher also had to gain permission from Fullers, (the operator of the only scheduled ferry service to Tiri) to be able to interview visitors on the return trip from the island. This was done and Fullers provided a discounted rate for travel to the island for the researcher. Finally, from October 2010 the field research occurred. After the formal welcome to the island, biosecurity announcements, and allotment of visitors to tour groups, the guiding coordinator introduced the researcher to the tour group of the guide being observed. The researcher then briefly explained the research, and provided them with the opportunity to read the participant information form. The researcher then stepped away while the tour group decided whether or not the researcher would accompany them on the tour.

Glossary of Māori words for Appendix 4

Hapū: A kinship group that is often translated to mean subtribe. It is a section of a large kinship group and the primary political unit in traditional Māori society.

Mana whenua: Territorial rights, power from the land, authority over land or territory, jurisdiction over land or territory. It is the power associated with possession and occupation of tribal land.

Marae: It specifically refers to a courtyard - the open area in front of a Māori meeting house (wharenuī) where formal greetings and discussions take place. It is commonly used to describe the complex of buildings around the marae.

Māoritanga: Māori culture, Māori practices and beliefs, Māoriness, Māori way of life.

Noho marae: Term used to describe staying overnight at a Māori meeting house for a range of reasons such as education, tourism or sport.

Parihaka: Parihaka is a famous Māori community that was formed in the Nineteenth Century in Taranaki from members of the Taranaki, Ngāti Ruanui, Te Atiawa, and Ngāti Tama tribes but also many other different Māori tribes and sub-tribes. It is famous because its members used passive resistance techniques to prevent the official confiscation of Māori land. It was invaded on the 5th November 1881 by a New Zealand colonial army. The story of Parihaka is a representative example of the ruinous treatment of Māori by successive New Zealand governments.

Taranaki Whānui: A term that was used when I was studying Māori in Taranaki to refer to Māori tribes and sub-tribes in the geographical region of Taranaki such as Te Atiawa, Taranaki, Ngāti Ruanui, and Ngāti Tama. Taranaki is also the name of a specific Māori tribe, and also a mountain that dominates the region.

Te Paepae: Abbreviated name for Te Paepae o Te Raukura, one of the two main meeting houses of the Parihaka community. When visiting Māori communities on a formal basis it is normal to go through an official welcoming ceremony that is usually conducted at a designated meeting house.

Tikanga: Has a wide array of meanings but suggests customary practice or protocol, the correct procedure to do something.

Wānanaga: Formally refers to tribal knowledge, lore, and learning about such things as important traditional cultural knowledge. It is also now a technical term for a tertiary institute. When I was studying Māori, it was used to describe a temporary school to learn something specific for our studies.

Source: Māori Dictionary. Retrieved from <http://maoridictionary.co.nz>

Appendix 5: Participant information sheet (SoTM exemplars)

Visitor Participant Information Sheet

Participant Information Sheet
(Visitors)



Date Information Sheet Produced: Wednesday 18 August 2010

Project Title: Making Ecotourism work: Exploring the ‘teachable moment’ on guided tours in wildlife tourism settings

An Invitation

Thank you for taking the time to consider this request. You are invited to participate in a PhD research study being conducted by Jonathon Spring of AUT University. I would appreciate the opportunity to observe the tour you intend to join. After the tour, I would like to conduct interviews with up to two visitors on the tour. Your participation is entirely voluntary and you may withdraw at any time without any problems for yourself or the research.

What is the purpose of this research?

This research is being conducted in order to get a better understanding of learning during a guided tour. I am interested in evidence of people becoming curious while on the trip. I want to explore the cause for that curiosity and how that curiosity is managed during the trip.

How was I chosen for this invitation?

You were chosen because the guide you plan to accompany has agreed to participate in the observation. If you agree to stay on the tour and allow me to accompany the tour then you will contribute to a better understanding of how learning occurs on a guided tour.

What will happen in this research?

Before the trip commences you will be made aware of the research by a general announcement. You will have time to read this information sheet. The guide will introduce me and check that you are comfortable with the idea of myself observing you while on the trip if you choose to be with this guide. The guide and myself will step away from the group to give you time to consider whether to participate or not. I plan to watch, listen and make notes during the guided tour. I am particularly interested in what happens when we come into contact with wildlife. I use a logbook that you can read at any time. I will make notes about what I see, what is said, and done by you, other people, and the wildlife. At some point after we have made contact with wildlife I will move away from the group, and write notes or record a memo using my i-pod. At no time will there be any audio-recording of the actual tour. You can also listen to any memos recorded. After the trip I will ask if it is possible to interview one or two of the group after the trip at a time that best suits you or them. I will be asking you about what your experiences and referring to incidents that occurred during the trip.

How will the people under 16 years of age be affected by this research?

My focus is on people aged 20 years of age and older. I may write notes about children’s involvement in the tour but its only people aged 20 years and older who I will interview after the tour. Your children may be curious about what I am doing. I can always answer any questions that they may have. If you feel that they need more information about what I am doing I have an assent form for children with me that I can provide you with.

What are the discomforts and risks?

Well, You might feel a bit strange seeing me taking notes on the trip, and you may think I am writing negative things about you. My presence may detract from your enjoyment of the tour. My biggest concern is that you may think I am judging what you are doing. You may think that you can be identified as a result of this research. Learning for some can be a very private experience and they may not want people to observe how they learn or have fun while on a guided tour.

How will these discomforts and risks be alleviated?

If you feel uncomfortable and that my presence takes the fun out of the trip, you can let me, or the guide know and I can stop at anytime. The most important thing is that you have an enjoyable experience. I don't want to intrude on your leisure time. You can at any time look at what I have written down. All notes are confidential and stored anonymously, and cannot be linked to you. I will use pseudonyms in the writing up of my results.

What are the benefits?

The research will help provide a clearer picture of how learning occurs and what factors influence learning on a guided tour.

How will my privacy be protected?

Your details will be confidential and not distributed to anyone other than me as the principal researcher. No individual will be identified in any of the publications relating to this research.

What are the costs of participating in this research?

This research will last for the duration of the trip. You may be asked to participate in follow up interviews related to the tour. The first interview will be for at least 20 minutes. There is a possibility of a second interview. The second interview will last for at least 45 minutes. Costs may arise due to where we decide to meet. You don't have to participate in the interviews.

What opportunity do I have to consider this invitation?

The time you have is now before the trip starts. At anytime during the trip you can change your mind. It is very easy for me to walk away from the trip. You can just say "no thank you" or "code red" and I will walk away. There is no problem with you doing so.

How do I agree to participate in this research?

To participate in this research, simply stay with the guide.

Will I receive feedback on the results of this research?

The results of this research will be published in a written report for all participants. I can send it to you if you wish to receive it. Just use my e-mail address listed below and send me your contact details. A copy of this information sheet is available for all who participate in the research at the end of the tour.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Associate Professor Michael Lück: email mlueck@aut.ac.nz, phone +64 9 921 9999 ext 5883

Concerns regarding the conduct of the research should be notified to the Executive Secretary, AUTEK, Madeline Banda, madeline.banda@aut.ac.nz, 921 9999 ext 8044.

Whom do I contact for further information about this research?

Researcher Contact Details: Jonathon Spring: email jonspr89@aut.ac.nz, phone 09 921 9999 ext 5833

Project Supervisor Contact Details: Associate Professor Michael Lück: email michael.lueck@aut.ac.nz, phone: +64 9 921 9999 ext 5833

Approved by the Auckland University of Technology Ethics Committee on 20 October 2009, AUTEK Reference number 09/205.

Guide Participant Information Sheet

Participant Information Sheet

(guides)



Date Information Sheet Produced: Wednesday 18 August 2010

Project Title

Making ecotourism work: Exploring the ‘teachable moment’ on guided tours in wildlife tourism settings

An Invitation

Thank you for taking the time to consider this request. You are invited to participate in research being conducted by Jonathon Spring of AUT University. I would appreciate the opportunity to observe a tour you conduct. After the tour, I would like to interview you. If one of the visitors on your tour agrees to participate in a follow up interview, I would like you to consider also taking part in a more in-depth interview.

Your participation is entirely voluntary and you may withdraw at any time without any problems for yourself or the research.

What is the purpose of this research?

This research is being conducted in order to get a better understanding of learning during a guided tour. I am interested in evidence of people becoming curious while on the trip and explore the cause for that curiosity and how that curiosity is managed during the trip.

How was I chosen for this invitation?

You were chosen because of the work you do as a guide. By agreeing to allow me to observe the tour and interview you afterwards you will contribute to a better understanding of how learning occurs on a guided tour.

What will happen in this research?

I plan to watch, listen and make notes during the guided tour. I am particularly interested in what happens when we come into contact with wildlife. I use a logbook that you can read at any time. I will make notes about what I see, what is said, and done by you, other people, and the wildlife. At some point after we have made contact with wildlife I will move away from the group, and write notes or record a memo using my i-pod. At no time will there be any audio-recording of the actual tour. You can also listen to any memos recorded. After the trip I will ask if its possible to interview one or two of the group after the trip at a time that best fits you or them. I will be asking you about what your experiences and referring to incidents that occurred during the trip. I will use the notes I made to help structure the interview. I will not talk to anybody unless I am specifically asked a question or someone makes small talk with me.

What are the discomforts and risks?

Well, You might feel a bit strange seeing me taking notes on the trip, and you may think I am writing negative things about you. My biggest concern is that you may think I am judging your work as a guide. You may think that you can be identified as a result of this research. Guiding is very challenging and I may distract you from your task or take the fun out of the experience.

How will these discomforts and risks be alleviated?

If you feel uncomfortable and that my presence takes the fun out of the trip, you can let me know, and I can stop at anytime. The most important thing is that you are able to focus on your work and have an enjoyable experience. I don’t want to intrude on your peace of mind. You can at any time look at what I have written down. All notes are confidential and stored anonymously, and cannot be linked to you. I will use pseudonyms in the writing up of my results.

What are the benefits?

The research will help provide a clearer picture of how learning occurs and what factors influence learning on a guided tour.

How will my privacy be protected?

Your details will be confidential and not distributed to anyone other than me as the principal researcher. No individual will be identified in any of the publications relating to this research.

What are the costs of participating in this research?

This observation will last for the duration of the trip. The interview after that will be for 45 minutes. The possibility of a second interview will only occur if one of the visitors on our trip consents to being involved in a second interview. The second interview will also last up to 45 minutes. Costs may arise due to where we decide to meet. You don't have to participate in a second interview.

What opportunity do I have to consider this invitation?

I will contact you at least one day before the trip and check if you are still happy to sign the consent form for the first interview.

How do I agree to participate in this research?

To participate in this research, you just need to sign the consent form.

Will I receive feedback on the results of this research?

The results of this research will be published in a written report for all participants. I can send it to you if you wish to receive it. Just use my e-mail address listed below and send me your contact details. A copy of this information sheet is available for all who participate in the research.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Associate Professor Michael Lück: email michael.lueck@aut.ac.nz, phone +64 9 921 9999 ext 5883

Concerns regarding the conduct of the research should be notified to the Executive Secretary, AUTEK, Madeline Banda, madeline.banda@aut.ac.nz, 921 9999 ext 8044.

Whom do I contact for further information about this research?

Researcher Contact Details: Jonathon Spring: email jonspr89@aut.ac.nz, phone 09 921 9999 ext 5833

Project Supervisor Contact Details: Associate Professor Michael Lück: email michael.lueck@aut.ac.nz, phone: +64 9 921 9999 ext 5833

Approved by the Auckland University of Technology Ethics Committee on 20 October 2009, AUTEK Reference number 09/205.

PhD Synopsis provided with all initial requests to participants and organisations

Making ecotourism work: Exploring the ‘teachable moment’ on guided wildlife tours

My PhD topic is on identifying a teachable moment on nature-based wildlife tours. The main research aim is to explore guided wildlife tours to establish the scenarios where visitors are most receptive to learning and to examine whether that learning is enhanced through visitor-guide interactions.

The study will consider the learning process on a guided tour from two perspectives, the visitor and the guide. It seeks to understand what behaviour can alert the guide to such phases, how learning is consolidated through visitor-guide interaction, and what factors within a guided wildlife tour act as a catalyst for such phases (Figure 1).

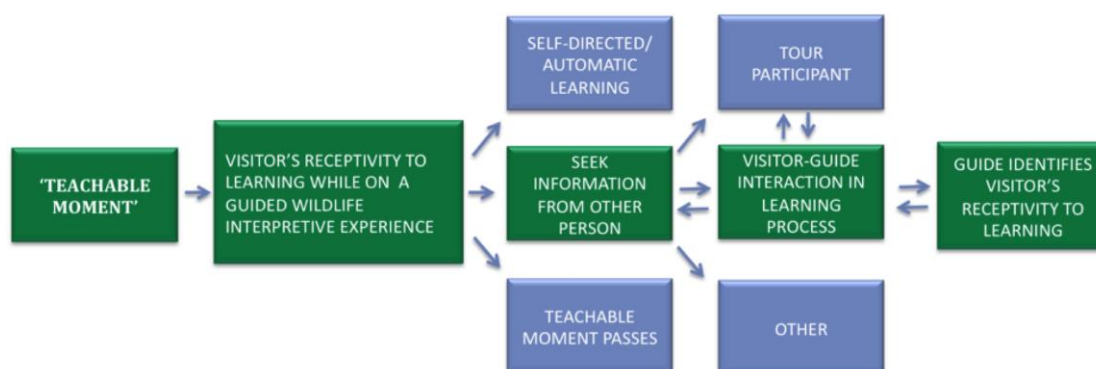


Figure: 1 The ‘teachable moment’ in context of visitor-guide interactions

The benefits of the research for the guides and organisations taking part in the research is that they can have empirically-derived research on guided tours that involves a multi-layered perspective of the same guided tour. The voice of the guide is often left out in research into the visitor’s experience, and this research provides a way to address this. The research gives visitors the opportunity to share their experiences and know that what they share will contribute to understanding the visitor’s experience on guided wildlife tours.

My research focuses on employees, volunteers and visitors who are aged 20 years or older though people under the age of 20 years old may be present. When conducting field research I would be looking to be able to

1. Observe guided tours
2. Interview a sample of visitors
3. Interview employees or volunteers who guide or give interpretive talks
4. Study written training manuals for interpretive talks and other relevant material

My field work will involve the tours undertaken by Supporters of Tiritiri Matangi (SoTM) at Tiritiri Matangi and Pacific Whale Foundation (PWF) around Maui, Hawai’i. I am researching at PWF because Paul Forestell and Greg Kaufman based their writings about the ‘teachable moment’ and guided wildlife tours on their experience of PWF marine wildlife tours. Tiritiri Matangi was chosen because of my experience as a guide there.

Contact: Jonathon Spring jonspr89@aut.ac.nz

Appendix 6: Consent and confidentiality agreement forms

Consent Form



Project title: Making ecotourism work: Exploring the ‘teachable moment’ on guided tours in wildlife tourism settings

Project Supervisor: Associate Professor Michael Lück

Researcher: Jonathon Spring

- I have read and understood the information provided about this research project in the Information Sheet dated Wednesday 18 August 2010.
- I have had an opportunity to ask questions and to have them answered.
- I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.
- I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way.
- If I withdraw, I understand that all relevant information including tapes and transcripts, or parts thereof, will be destroyed.
- I agree to take part in this research.
- I wish to receive a copy of the report from the research (please tick one):
 Yes No

Participant’s signature.....

Participant’s name:.....

Participant’s Contact Details (if appropriate):.....

Date:

Approved by the Auckland University of Technology Ethics Committee on 20 October 2009, AUTEK Reference number 09/205. Note: The Participant should retain a copy of this form.

Socio-demographic and specific interests forms

These forms were added to the other side of the consent forms

Socio-demographic information (For visitors)

(Italicised sections are the information that was used for SoTM participants)

Sex: Male / Female

Nationality: _____

Age: _____ or circle one of the following:

20-24 25-34 35-44 45-54 55-64 65-74 75-84 85+

Occupation _____ Or Other _____

Formal Education (please state what stage of formal education you undertook and any specific academic qualifications)

Primary _____

Secondary _____

Tertiary _____

Informal Education

a. I take guided tours when exploring the natural environment of the places I visit when on holiday

Always Often Occasionally Never

b. I will take other guided tours to explore the natural environment of Hawai'i (*New Zealand*) **Yes / No**

c. I read books about the natural environment of the places I visit when on holiday

Always Often Occasionally Never

d. I read books about the natural environment of Hawai'i (*New Zealand*) **Yes / No**

e. I watch documentaries about the natural environment of the places I visit when on holiday

Always Often Occasionally Never

f. I watched documentaries about the natural environment of Hawai'i (*New Zealand*) **Yes / No**

g. I search for information on the internet about the natural environment of the places I visit when on holiday

Always Often Occasionally Never

h. I searched for information on the internet about the natural environment of Hawai'i (*New Zealand*) **Yes / No**

Socio-demographic and other information (for guides)*(Italicised sections are the information that was used for SoTM guides)*

What's your favorite humpback whale behavior? / *What's your favourite animal behaviour that you can see on Tiritiri Matangi?*

What humpback whale behavior do you most enjoy interpreting to your visitors? / *What animal behaviour do you most enjoy interpreting to your visitors on Tiritiri Matangi?*

What plant do you enjoy most interpreting to your visitors on Tiritiri Matangi?

Sex: Male / Female

Nationality: _____

Age: _____ or circle one of the following:

20-24 25-34 35-44 45-54 55-64 65-74 75-84 85+

Current Occupation: (PWF) Naturalist Or Naturalist/Purser Or Other

(SoTM) _____ Retired; former occupation: _____

Formal Education (please state what stage of formal education you undertook and any specific academic qualifications)

Primary _____

Secondary _____

Tertiary _____

Any specific qualifications related to guiding/ interpretation?

How long have you worked as a naturalist?

For PWF / SoTM ___ years ___ months ___ days

Elsewhere ___ years ___ months ___ days

How many organisations/companies have you guided for? _____

Typically, how many guided trips do you do you between 1 December – 15 May / *1 December – 31 March?*

___ per day ___ per week ___ per month.

Typically, how many guided trips do you take between 16 May – 30 November / *1st April – 30th November?*

___ per day ___ per week ___ per month.

What are the boats you currently work on? Ocean Discovery / Ocean Explorer / Ocean Intrigue / Ocean Odyssey / Ocean Quest / Ocean Spirit / Ocean Voyager

What track do you prefer to guide on Kawerau Track / Wattle Track

What percentage of your guiding do you spend on each track: Kawerau Track ___%_Wattle Track ___%

Confidentiality Agreement



Project title: Making ecotourism work: Exploring the ‘teachable moment’ on guided tours in wildlife tourism settings

Project Supervisor: Associate Professor Michael Lück

Researcher: Jonathon Spring

-
- I understand that all the material I will be asked to transcribe is confidential.
 - I understand that the contents of the tapes or recordings can only be discussed with the researchers.
 - I will not keep any copies of the transcripts nor allow third parties access to them.

Transcriber’s signature:.....

Transcriber’s name:.....

Transcriber’s Contact Details (if appropriate):

.....

Date:

Project Supervisor’s Contact Details (if appropriate):

Associate Professor Michael Lück: email michael.lueck@aut.ac.nz, phone +64 9 921 9999 ext 5883

Approved by the Auckland University of Technology Ethics Committee on 20 October 2009 AUTEK Reference number 09/205

Socio-demographic and specific interests forms

These forms were added to the other side of the consent forms

Socio-demographic information

(Italicised sections are the information that was used for SoTM participants)

Sex: Male / Female

Nationality: _____

Age: _____ or circle one of the following:

20-24 25-34 35-44 45-54 55-64 65-74 75-84 85+

Occupation _____ Or Other _____

Formal Education (please state what stage of formal education you undertook and any specific academic qualifications)

Primary _____

Secondary _____

Tertiary _____

Informal Education

a. I take guided tours when exploring the natural environment of the places I visit when on holiday

Always Often Occasionally Never

b. I will take other guided tours to explore the natural environment of Hawai'i (*New Zealand*) **Yes / No**

c. I read books about the natural environment of the places I visit when on holiday

Always Often Occasionally Never

d. I read books about the natural environment of Hawai'i (*New Zealand*) **Yes / No**

e. I watch documentaries about the natural environment of the places I visit when on holiday

Always Often Occasionally Never

f. I watched documentaries about the natural environment of Hawai'i (*New Zealand*) **Yes / No**

g. I search for information on the internet about the natural environment of the places I visit when on holiday

Always Often Occasionally Never

h. I searched for information on the internet about the natural environment of Hawai'i (*New Zealand*) **Yes / No**

Socio-demographic and other information*(Italicised sections are the information that was used for SoTM guides)*

What's your favorite humpback whale behavior? / *What's your favourite animal behaviour that you can see on Tiritiri Matangi?*

What humpback whale behavior do you most enjoy interpreting to your visitors? / *What animal behaviour do you most enjoy interpreting to your visitors on Tiritiri Matangi?*

What plant do you enjoy most interpreting to your visitors on Tiritiri Matangi?

Sex: Male / Female

Nationality: _____

Age: _____ or circle one of the following:

20-24 25-34 35-44 45-54 55-64 65-74 75-84 85+

Current Occupation: (PWF) Naturalist Or Naturalist/Purser Or Other

(SoTM) _____ Retired; former occupation: _____

Formal Education (please state what stage of formal education you undertook and any specific academic qualifications)

Primary _____

Secondary _____

Tertiary _____

Any specific qualifications related to guiding/ interpretation?

How long have you worked as a naturalist?

For PWF / SoTM ___ years ___ months ___ days

Elsewhere ___ years ___ months ___ days

How many organisations/companies have you guided for? _____

Typically, how many guided trips do you do you between 1 December – 15 May / *1 December – 31 March?*

___ per day ___ per week ___ per month.

Typically, how many guided trips do you take between 16 May – 30 November / *1st April – 30th November?*

___ per day ___ per week ___ per month.

What are the boats you currently work on? Ocean Discovery / Ocean Explorer / Ocean Intrigue / Ocean Odyssey / Ocean Quest / Ocean Spirit / Ocean Voyager

What track do you prefer to guide on Kawerau Track / Wattle Track

What percentage of your guiding do you spend on each track:

Kawerau Track ___ % Wattle Track ___ %

Confidentiality Agreement



Project title: Making ecotourism work: Exploring the ‘teachable moment’ on guided tours in wildlife tourism settings

Project Supervisor: Associate Professor Michael Lück

Researcher: Jonathon Spring

-
- I understand that all the material I will be asked to type is confidential.
 - I understand that the contents of the notes or recordings can only be discussed with the researchers.
 - I will not keep any copies of the transcripts nor allow third parties access to them.

Typist’s signature:.....

Typist’s name:.....

Typist’s Contact Details (if appropriate):

.....

Date:

Project Supervisor’s Contact Details (if appropriate):

Associate Professor Michael Lück: email michael.lueck@aut.ac.nz, phone +64 9 921 9999 ext 5883

Approved by the Auckland University of Technology Ethics Committee on 20 October 2009 AUTEK Reference number 09/205

Note: The Typist should retain a copy of this form.

Appendix 7: Selecting the 10 case studies.

This section contains information that gives some overview of the processes undertaken that resulted in the selection of the 10 case studies used. It contains the following:

1. An excerpt from the ethics application for my PhD
2. Research ready: From pilot study to a research ready process
3. Case studies in the context of complete data sets
4. An overview of the qualities of the ten case studies

1. An excerpt from the ethics application for my PhD

When I wrote my ethics application I was expecting that three sites would be used and that there might be the possibility of having up to two visitors interviewed from each tour observed. The second interviews are referred to as extended interviews which is what the reflective interview with one visitor on the PWF snorkelling tour was. That interview as well as the fact that the in situ interviews I had conducted up to that point were much longer than anticipated and covered most, if not all relevant points, were important factors in my decision to not conduct extended interviews with PWF participants during my fieldwork in Maui but focus on collecting the in situ interviews and decide upon the focus and nature of the reflective interview at a later stage.

In response to the question, ‘How many participants will be selected?’ in my ethics application, I wrote the following:

From each site (three sites) up to 15 guides will be selected at each of the three sites (upper limit = 40), and 15-30 visitors from each site (upper limit=80). In total there are 120 participants. However it is unlikely that there will two visitors interviewed during from every tour observed. From this group there will be up to 27 extended interviews with visitors (upper limit = 18) and guides (upper limit = 9). The reason for selecting this number is to gain a rich picture of the learning process on a guided tour. Up to 15 tours for each site will provide a variation of different phenomena at the site.

In the end, I had 83 participants (41 visitors and 42 guides) who contributed 122 interviews (83 in situ interviews and 39 reflective interviews).

2. Research ready: From pilot study to a research ready process

I am still searching for a term that describes the pilot study phase of the PhD journey. Pilot study suggests that the researcher refined their data collection methods to a point that what was done at the pilot study could be replicated in the spaces where the data collection would take place but there is also a “research ready” phase that the qualitative researcher needs to reach if they use participant observation and semi-structured interviews. What I achieved in my pilot study was develop my research instruments in so far that I could engage meaningfully with guide visitor interaction through observation and interviews.

I was not research ready until:

- I understood how my attitude to the use of a PA commentary affected my perceptions of what constituted face-to-face interpretation (at some stage the participants have recourse to look at each other in the face even though they might be in a boat or bus).
- I had come across a situation that tested how I could respond to ethical dilemmas during fieldwork (alcohol, the touching of protected phenomena during an observed tour, and the concerns of a participant about the implications for their work due to their involvement in the study)

This research ready stage then did not occur until my whale watch observations at PWF. All my observed snorkelling tours and dolphin tours were part of my “pilot study”.

3. Case studies in the context of complete data sets

For my PhD, a complete data set consisted of a participant observation of the relevant tour, in situ and reflective interviews with a visitor and a guide from that tour. When it came to trying to decide which of the proto-case studies I would include for the research when I was deciding that I would have six case studies, I wrote the following:

5th July 2012 - If I was to isolate six interview sets, then I guess it would be from the PWF, Visitors 3, 5, 6, 7 & 8 (V3G3, V5G5, V6G6, V7G7 & V8G8) and from SoTM then it would be Visitors A, B, G and L (VAGA, VBGB, VGGG, VLGL).

As mentioned previously, with PWF there were only six proto-case studies with complete sets of data (Table 1).

Table 1: Participant of PWF whale watch tours

| # | Groups | Visitor | Visitor | 1 st guide | 2 nd guide | Logbook |
|---|-----------------------|-------------------|----------------------|------------------------|-----------------------|---------|
| | Case study (CS) | In situ interview | Reflective interview | In situ interview | Reflective interview | |
| | Proto-case study (PS) | | | | | |
| 1 | V3G3 (CS) | X | X | X | X | X |
| 2 | V5G5 (CS) | X | X | X G5 X Roving guide | X G5 | X |
| 3 | V6G6 (CS) | X | X | X | X | X |
| 4 | V7G7 (CS) | X | X | X | X | X |
| 5 | V8G8 (CS) | X | X | X | X | X |
| 6 | V9G9 | X | No response | X | X | X |
| 7 | V10G10 (PS) | X | X | X | X | X |
| 8 | V11G11 | X | X | X | No response | X |
| 9 | V12G12 | X | No response | X | X | X |

At the time of this entry I was still finalising my transcriptions of my SoTM reflective interviews. Of the four SoTM participants cited here I ended up only using Visitor C (see Table 2).

Table 2: Participants of SoTM guided tours who participated in reflective interviews

| # | Groups Case study (CS) Proto- case study (PS) | Visitor In situ interview | Visitor Reflective interview | Guide In situ interview | Guide Reflective interview | Logbook entry |
|----|--|---------------------------------|------------------------------------|-------------------------------|----------------------------------|--|
| 1 | VAGA (CS) | X | X | X | X | X |
| 2 | VBGB (PS) | X | X | X | X | X |
| 3 | VCGC (CS) | X | X | X | X | X |
| 4 | VDGD (CS) | X | X | X | X | X |
| 5 | VEGE (CS) | X | X | X | X | X |
| 6 | VFGF (PS) | NR - notes | X | NR - notes | X | Partial rain – unsuccessfully attempted to write via i- pod* |
| 7 | VGGG (PS) | X | X | X | X | X |
| 8 | VHGH (PS) | X | X | X | X | X |
| 9 | VIGI (CS) | X | X | X | X | X |
| 10 | VJGJ (PS) | X | X | X | X | X |
| 11 | VK GK (PS) | X | X | X | X | X |
| 12 | VLGL (PS) | X | X | X | X | X |
| 13 | VMGM | Audio destroyed Rain | X | Audio destroyed Rain | X | Partial - rain |

* with VFGF I wrote field notes up from memory after the in situ interview with GF on the island and then again after the interview with VF after leaving the boat.

4. An overview of the qualities of the ten case studies

The unique qualities that determined the selection of 10 case studies are briefly discussed in this section starting with the PWF group and then moving on to the SoTM visitors. Visitor Three emphasised her determination not to engage in any conscious learning during the tour. She also indicated that one of the key reasons that she engaged in GVI was based on how Guide Three conducted herself during the tour. Visitor Five insisted that she knew absolutely nothing about Humpback whales. If it was possible to create a continuum ranging from those most to least affected by GVI then Visitor Five's reflection suggests she was one of the visitors who had a profound experience.

There was a 'Doubting Thomas' quality to Visitor Six's reflection. There was an ambiguity present in how he discussed the nature and implications of the human-whale interaction he observed on his PWF tour. Also in the in situ interview both his partner and their aunt shared their reflections. This provided an interesting dynamic to his case study that was not featured in the others. Visitor Seven seemed determined to present a depiction of himself as being too old to learn anything new, and yet the field-notes suggest a high level of curiosity and GVI with Guide Seven. Also on his PWF tour, a significant proportion of the 34 passengers were his children and grandchildren. Visitor Eight depiction of his PWF tour was as the culmination of four previous whale watches at different locations. Also, the field-notes and the recollections of Guide Eight and Visitor Eight created the best depiction of how GVI at an individual level between Guide Eight and Visitor Eight informed the overall GVI of the tour.

More than any other visitor interviewed, Visitor A appeared to be disinterested in participating at the beginning of the tour. During the in situ interview Visitor A discussed, in an unsolicited fashion, indicated that she was aware that others may have thought her not interested in the tour. Unlike any other visitors, she explained how she made a conscious attempt to engage with the Guide to demonstrate her interest. Visitor C was the only visitor to suggest that a negative perception of the guide was transformed to a positive assessment by the end of the tour. Visitor C also provided a different perspective on ecological restoration project. He had been involved in restoration projects in New Zealand designed to benefit exotic species.

Some of the conditions of Visitor D's tour did not appear conducive to learning. Two of the most significant phases of GVI for Visitor D occurred on a road where there was no

shelter from the sun. I was struggling to stay focused and yet the GVI that unfolded gave me important insights into the nature of GVI. Visitor D's experience also spoke of lost opportunities for GVI from my perspective due to 'accidents' such as being on the Wattle Track instead of the Kawerau Track. Visitor E's experience highlighted how intangible ideas can be the focus on GVI in a way that seemed quite different from the other trips. His depiction of himself in the reflective interview as a 'victim of his own curiosity' also provided an interesting dimension to the findings. Finally, Visitor I suggested that it was GVI that made him realise how significant the birdlife on Tiri acted as a factor for why other visitors came to the island. This perspective was so different from any of the other visitors I had interviewed. Also, Visitor I had a level of academic and professional understanding of ecological restoration projects that was not perceptible in the reflection of the other visitors.

Appendix 8: In situ interviews

Table 1: Relationship between Research Questions and the questions in the in situ interviews

| Research Questions | Interviews Visitor (V) | Guide (G) |
|--------------------|----------------------------|-----------------------|
| One | V Q2, Q3, Q4 & Q6. | G Q2, Q3 & Q6. |
| Two | V Q2, Q3, Q4, Q7, Q8 & Q9. | G Q2 & Q3. |
| Three | V Q2, Q3, Q4 & Q5. | G Q2, Q3, Q4, Q5 & Q6 |
| Four | V Q2, Q3 & Q7. | G Q2 & Q3 |
| Five | V Q2, Q3, Q7 & Q8. | G Q2 & Q3 |

Visitor's Form

Date _____ Track: Wattle / Kawerau (SoTM) _____ Boat (PWF) _____
 Visitor(s) _____ Guide _____

1. SoTM Conditions (relevant to the experience)
 - a. Visibility
 - b. Temperature
 - c. Rain: constant / drizzle / occasional / none
 - d. Wind: strong / light / occasional breeze / none
 - e. Conditions underfoot
 - f. Number of other people on tour
 - g. Ease of viewing

1. PWF Conditions (relevant to the experience)
 - a. Visibility
 - b. Temperature
 - c. Sea conditions: calm / slight / moderate / rough
 - d. Number of other visitors
 - e. Viewing position

2. Nominate an incident
 - a. Help to set the scene
 - b. Check if that is the incident that they wish to discuss

3. Their reflection
 - a. Let them talk about their experience

4. Interest
 - a. Confirm if they experienced a level of interest
 What word or words would you use to describe your level of interest in the encounter with the _____?
 - b. Comparison of level of interest
 From the most _____ (referring to words used by visitor in 3.a.) to the least _____ you have ever experienced where would you place the level of _____ you have experienced in an encounter with wildlife?
 N.B. If visitor believes this is their first encounter with wildlife then use the term "animal" from then on.
 - c. Establish what they mean by the words used to describe the level of interest they expressed they had
 What do those words _____ mean to you?
 N.B. check if they would relate these words relate to their conception of curiosity. If they have used term "curiosity" see how it relates to other words they have used

5. Affect

- a. Confirm if they experienced a level of affect during the wildlife encounter
What words would you use to describe how you felt when you encountered the _____?
 - b. Level
From the most _____ to the least _____ you have ever experienced in an encounter with wildlife where would you place the level of _____ you experienced when you encountered the _____?
 - c. Establish what they mean by words used to describe how they felt

What do those words _____ mean to you?
6. Learning
 - a. Do you think you learnt anything today?
 - b. How would you describe the role of the naturalist in the learning that you experienced from the wildlife encounter?
 - c. Establish what they mean by learning during a wildlife encounter?
What words would you use to describe what learning during a wildlife encounter means to you?
 - d. Comparison of levels of learning
From the most significant learning experience to the least you have ever experienced where would you place the level of learning you believe you ever experienced in an encounter with wildlife?
 - e. What do _____ (words used in 6c.) mean to you
 - f. Importance of _____ (words used in 4.a.) for them when learning
 - g. Importance of _____ (words used in 5.a.) for them when learning
 7. Authority of information provided by the guide
Explore with the visitor the credibility of the information provided by the guide
 8. Appropriateness of naturalist's behaviour towards the wildlife encountered.
The appropriateness of the naturalists' behaviour in terms of conduct when encountering wildlife in terms of proximity and other factors pertinent to specific encounter (N.B. In terms of PWF boat-based encounters this refers to proximity of boat to wildlife)
 9. Previous experiences
 - a. Your first memorable experience of encountering wildlife that forms CIT
 - b. Your first memorable experience of encountering wildlife
 - c. Reflecting on the encounter in comparison with other wildlife encounters, do you feel it is an encounter you will treasure?
 10. Is English your first language?
 11. Do you believe that you have understood clearly what has been asked of you during the interview(s)?

Guide's Form

Date _____ Track: Wattle / Kawerau (SoTM) Boat (PWF)
 Visitor(s) _____ Guide _____

1. SoTM Conditions (relevant to the experience)
 - a. Visibility
 - b. Temperature
 - c. Rain: constant / drizzle / occasional / none
 - d. Wind: strong / light / occasional breeze / none
 - e. Conditions underfoot
 - f. Number of other people on tour
 - g. Ease of viewing

1. PWF Conditions (relevant to the experience)
 - a. Visibility
 - b. Temperature
 - c. Sea conditions: calm / slight / moderate / rough
 - d. Number of other visitors
 - e. Viewing position

2. Refer to the incident nominated
 - a. Help to set the scene
 - b. Check if that is the incident that they wish to discuss

3. Their reflection
 - a. Let them talk about their experience

4. Curiosity
 - a. Confirm if they believe that the visitor experienced curiosity
 What are signs for you that suggest that your visitors are experiencing curiosity about something?
 - b. From what you observed, what words would you use to describe the curiosity experienced by the visitor during the encounter?

 - c. Comparison of level of curiosity
 From the most curious visitor to the least curious visitor that you have ever observed where would you place _____ 's (the visitor) level of curiosity during the guided wildlife tour?
 - d. Establish what they mean by words they used to describe the visitor's curiosity
 What do those words (in 3a.) _____ mean to you?

5. Affect
 - a. Confirm if they observed the visitor experiencing a level of affect stemming from the wildlife encounter
 What words would you use to describe how _____ (the visitor) felt when they encountered the _____ .
 - b. Comparison level of affect
 From the most _____ to the least _____ that you have ever observed a visitor experience where would you place the level of _____ 's
 _____ ?
 - c. What words would describe how you felt during the encounter?
 - d. Establish what they mean by words used to describe affect
 What do those words _____ (5.a) mean to you?
 What do those words _____ (5.c) mean to you?

6. Learning
 - a. Do you think the visitor learnt anything today?
 - b. How would you describe the role of the naturalist in facilitating learning during a guided wildlife tour?
 - c. Establish what they mean by learning during a guided wildlife tour
What words would you use to describe the learning that occurs on a guided wildlife tour?
 - d. Comparison of levels of learning observed
From the most significant learning experience to the least you have ever observed a visitor experience where would you place the level of learning you believe _____ (the visitor) experienced?
(Let guide talk and then incorporate the word 'evidence' in getting them to corroborate what level of learning they believe the visitor experienced)
Ask Question "Did you hear observe or hear any evidence that suggests that _____ (the visitor) learnt anything?"
 - e. How important is curiosity for learning?
Refer to the words given in 3a. as well

- f. The importance of _____ (words used by naturalist in 5.a and 5.c.) for learning.
7. Authority of information provided by the guide
Explore with the naturalist the credibility of the information provided by the naturalist
8. Appropriateness of naturalist's behaviour towards the wildlife encountered.
Explore with the naturalist the appropriateness of the naturalists' behaviour in terms of conduct when encountering wildlife in terms of proximity and other factors pertinent to specific encounter (N.B. In terms of SoTM boat-based encounters this refers to proximity of boat to wildlife)
9. What from SoTM in terms of training do you believe helped you most in that encounter?
10. In terms of the whole trip what is the most challenging thing for you when facilitating learning during a guided tour?
11. Previous experiences
 - a. Their first memorable experience of encountering the wildlife that forms CIT?
 - b. Their first memorable experience of encountering wildlife?
 - c. Reflecting on the encounter, in comparison with other interactions with visitors during a guided tour do you feel it is an encounter that you will treasure?
12. Is English your first language?
13. Do you believe that you have understood clearly what has been asked of you during the interview(s)?

Appendix 9: Reflective interviews

Table 1: Relationship between Research Questions and the questions in the reflective interviews

| Research Questions | Interviews Visitor (V) | Guide (G) |
|--------------------|------------------------|------------|
| One | V Q2, Q9, Q10 & Q11. | G Q12. |
| Two | V Q3, Q4, Q6. | G Q2, Q12. |
| Three | V Q3, Q11, Q13 & Q14. | G Q12. |
| Four | V Q5, Q12. | G Q12. |
| Five | V Q5, Q12. | G Q12. |

Visitor reflective interview

Second visitor interview Visitor transcript form:
 Date Trip
 Visitor(s) Guide

1. What do you remember most vividly from your trip to Tiritiri Matangi / whale watch trip?
2. What was the most significant thing you learned?
3. How did you learn that [unpack the experience to locate the Teachable Moment (TM)]?
4. What was important in you remembering that?[unpack the experience to locate the TM].
5. What did the naturalist/guide do best?
6. What really surprised you about what you experienced?
7. Did the trip remind you of things you already knew?
8. Who did you share your experience with?[during the trip/after trip].
9. Do you think you've done anything different since going on the trip? [provide prompts afterwards]
10. Here's what I think you told me about what you learnt
11. With the learning, in some respects you speculated in learning do you think you speculate often?
12. Here's what I think you told me about the role of the naturalist/guide [expand].
13. Here's what I think you told me about curiosity.
14. Here's what I think you told me about what you felt [emotional connection].
15. Words and phrases
16. Interviewer factors: Did the knowledge that you were going to take part in this interview affect what you have discussed here?
17. Photographs

Guide reflective interview

Guide visitor interview Guide transcript form:
 Date Trip
 Visitor(s) Guide

1. What do you remember from the tour?
2. Focus on what visitor said naturalist did
3. Balancing your own interests and the visitor's needs
4. Are there such things as a predictable curiosity and a genuine curiosity?
5. What are effective ways to make people think about environmentally responsible behaviour?
6. What would you want visitors to learn from your tour?
7. What's the best advice you've received about guiding or best example you've seen of guiding
8. Have you changed anything in the way you've guided since we last talked?
9. Here's what I think you told me about the role of the naturalist/guide [expand].

10. Here's what I think you told me about curiosity.
11. Here's what I think you told me about affect [emotional connection].
12. Reflect on the overall guide-visitor-wildlife encounter and learning
13. Interviewer factors: Did the knowledge that you were going to take part in this interview affect what you have discussed here?
14. Photographs

Appendix 10: Exemplars of analysis - coding – interactive words in NVivo.

This excerpt was taken from my NVivo work where 418 phrases were analysed from the in situ interviews of the visitors from the 10 case studies. At this stage I was using Hawaiian (for SoTM participants) and Māori names (for PWF participants) as pseudonyms for the participants. If in the GVI the visitor referred to somebody aside from staff or family members I used Māori words for numbers (see phrase 418. Tahi is Māori for “one”).

Table 1: Coding of interactive words in NVivo

| Quoted phrase | Text | Topic | Word | Subject | Action | Object | Other | Visitor | Guide | Other person |
|---------------|--|--------|---------------|---------|-------------|--------|-----------|-----------|-------------|--------------|
| 1 | Again the guide pointed it | Alohi | to point | guide | identifying | it | observing | observing | identifying | |
| 2 | he was able to point it out | Niele | to point | guide | identifying | it | observing | observing | identifying | |
| 3 | he cleared this | Niele | to clear | guide | doing | it | observing | observing | doing | |
| 4 | he tried to egg the | Niele | to egg | guide | doing | it | observing | observing | doing | |
| 5 | he walked over | Niele | to walk | guide | moving | it | observing | observing | moving | |
| 6 | he actually started conversing with it | Niele | to converse | guide | talking | it | observing | observing | talking | |
| 7 | he got a little closer and | Niele | to get closer | guide | moving | it | observing | observing | moving | |
| 8 | he pulled one of the | Niele | to pull | guide | doing | it | observing | observing | doing | |
| 9 | he was playing with the | Niele | to play | guide | doing | it | observing | observing | doing | |
| 10 | he exposed food for the | Niele | exposed | guide | doing | it | observing | observing | doing | |
| 11 | Initially he’s pointing and I was thinking “what’s he pointing at” | Malana | to point | guide | identifying | it | observing | observing | identifying | |
| 12 | he could point things out which I’d | Malana | to point | guide | identifying | it | observing | observing | identifying | |

| Quoted phrase | Text | Topic | Word | Subject | Action | Object | Other | Visitor | Guide | Other person |
|---------------|---|----------|--------------|------------------|------------------|----------------------------|--|---------------------------|----------------------------|------------------|
| 407 | she is telling about things that she | Kaumatuā | to tell | guide? | telling | about things | that she | reflecting | guide? Talking | |
| 408 | You want the guide there to tell you about | Kaumatuā | to want | ? | wanting | the guide | there to tell you about | reflecting/ evaluating | theoretical | |
| 409 | she was very honest in telling us what she knew and what she was speculating and what was her opinion and what was fact | Ngarutoa | to be honest | guide? | being honest | visitor + o.p. | in telling us what she knew and what she was speculating | reflecting/ evaluating | talking/disclosure | |
| 410 | they told us that they | Ngarutoa | to tell | guide? Crew? | telling | us (visitor + o.p.) | that they | observing | guide? Talking | crew? Talking |
| 411 | You could tell she knew a lot of whales | Ngarutoa | to tell | ? | discerning | guide? | | reflecting/ evaluating | guide? Knowing | |
| 412 | They told us the | Ngarutoa | to tell | guide? Crew? | telling | us (visitor + o.p.) | the | observing | guide? Talking | crew? Talking |
| 413 | don't just tell me that this | Koa | to tell | ? | not just telling | me (visitor) | that this | reflecting/ evaluating | | |
| 414 | she told me a story behind it | Koa | to tell | guide? | telling | me (visitor) | a story behind it | reflecting/ evaluating | talking/providing story | |
| 415 | they're telling their narration of the knowledge that | Niele | to tell | guide? Staff? | telling | narration of the knowledge | that | reflecting/ evaluating | guide? Structuring talk | |
| 416 | and now that he's told me, | Malana | to tell | guide? | telling | me (visitor) | | reflecting/ evaluating | guide? Talking | |
| 417 | he could have told me anything | Malana | to tell | guide? | telling | me (visitor) | anything | reflecting/ evaluating | guide? Talking | |
| 418 | and he told me that Tahī | Pono | to tell | guide? | telling | me (visitor) | that Tahī | observing | guide? Talking | |

Appendix 11: Exemplars of analysis: Initial analysis of reflective interviews-

Table 1: What was the most significant thing you learned? From reflective interview

| | Q1: What was the most significant thing you learned? | Analysis |
|----|---|---|
| V3 | <p>I think it was just that, I may have this wrong, but I seem to remember, that's its only the pacific hump back whales that come into that particular area off the coast of Maui, so, amongst the whales I mean, so that was surprising to me, if that was a true fact! I didn't verify it, it was that particular fact, you know, it wasn't a whole bunch of different types of reproducing whales, coming through there of migrating whales, it was that particular type. And also actually as I'm speaking, I also remembered [that I think it was said that every year the song of the whales, now I can't remember if it was male whales, the facts I'm not recalling them exactly, but that the communication song changes every year in some way, so I found that fascinating too.</p> | <p>13. Only pacific humpback whales that come to particular coast of Maui and not other species 13b not a 100% sure as focused on own experience of a direct experience rather than commentary over loudspeaker 13c knowing that it is unique made her receptive to the information, and also comparison with other regions where there were more whales coming through 13f just retained that it was only one whale coming through 14. only males sing and the song changes every year 14a links the song to the migration process, qualifies her understanding if its only males but is clear that the song changes every year, does know why song changes, speculates that it could be to hold the group together. Makes clear that she does not know the purpose of the song but is fascinated by the fact that it's not the same song. 14c Information was new and contrary to what she would have thought as a person with little knowledge about whales, assumed that the song would have been the same. Suggests that just like humans whales change and evolve. Indicated a level of intelligence or ability to adapt that she had not previously associated with whales.</p> |
| VA | <p>There was plenty of things that I did not know, like that there was two voice boxes in, in a Tūi's throat and that's the reason why you have got the higher and almost subsonic, sorry, ultra sonic sounds that come out in trills.that was one of the big things. The different colours of birds, you know like the males and female were completely different and that was interesting and And just knowing that it had all been, it was kind of like a private endeavour that had created this island which was quite, yeah I think that was the most memorable thing about Tiritiri Matangi.</p> | <p>6. Tūi voice-boxes; Tūi have almost ultrasonic call which is due to the two voice boxes. 6a learnt it from the guide during direct encounter with Tūi. 6b Stayed in her head because it was so unusual. She associates a "bonging" noise with New Zealand birds, and believes that the noise is a product of their voice box design ('kind of to do with the way their voice boxes are really'). Just stuck in her head. 6c noticed that the "bonging" noise was also a characteristic of the Kōkako that she also saw on the tour. Notes it was unusual to see a Kōkako . 7a learnt it (dimorphism) as guide pointed out different bird species as they did the walk 7b Knew that dimorphism occurs because of role of male birds making colourful to attract female. Remembered one incident where there was a bird with white head and a black body and the female was completely different, could have been mistaken for a sparrow 8. Tiritiri Matangi a type of private endeavour 8a read about it in the brochures and also reiterated by the guide ('the lady who took the walk') 8c what she meant by private endeavour was that it was not a DoC initiative but a group of people who decided to restore the island and ensure that birds were translocated there. red while travelling to a specific place made it memorable. The act of travelling makes you more aware of things.</p> |

Table 2: What do you remember most vividly from your trip? From reflective interview

| | Q1: What do you remember most vividly from your trip? | Analysis |
|----|---|---|
| V3 | I think it was, it was more a global feeling, in other word it was the whole environment, so being out there early in the morning, having it still be night sky, you know, still seeing stars, the sunrise, it's kind of a whole sequence, but I guess if I had to say one thing, the one thing was when I saw that particular whale breaching just as the sun rose over these mountains so, it was that particular sighting. I mean, that's the specific event that I remember, but like I said, for me it's the whole sort of feeling of being out at that time, and for that trip, it was the whole environment, it was special for me, cause I don't normally go on a boat either, so everything was you know, the early morning, it was the timing the early locomotion, um just the whole thing was unique. | Q1 V Second interview Remember most (1) whole environment (2) transition from night to day (3) Whale breaching as the sun rose (4) the novelty of the boating experience (5) whole environment reinforced (6) uniqueness of the experience |
| V6 | Um, like you said, we gotta go back here about 10 months so, definitely I would say the proximity, like the distance from the whales that we approached I felt, and I had mentioned previously about I just felt they were a little close and it felt almost like we were chasing down the whales rather than watch the whales almost, if that makes sense? Ah, and um, other than that, you know like, I don't know if this applies to it, but I just feel that there should be limitation to how many boats can be out at once while your whale watching, especially when you get into their peak season their breeding season, their calving season. But really that's a small area and there's a lot of boats and a lot of whales there right? Yeah, we did do another trip after, um, let me think, I don't know it's a great experience like positive things are, you know, it's great that they're aware and they seem to be well educated and ah, there's definitely lots of educational information there. and ah, [P6: very good at educating us]. Yeah, especially the whale foundation, I understand there is a lot of different outfits that you can pick and that one we were definitely that we were impressed with. | (1) Proximity to whales approached (2) Too close (3) chasing rather than watching whales (4) need to limit boat numbers whale watching (5) Particular need to limit boat numbers in peak season when whales calve and breed (6) small area with lots of boats and whales (7) staff were educated (8) Provide much educational material |
| VA | I think that it was the number of different types of species of birds and the fact that it had been all created. The habitat had all been created, that was what my memories are of that place. | (1) variety of bird species (2) Tiritiri Matangi had been created (3) habitat had been created |
| VC | How am I going to put this, just how the birds were sort of like in their natural. Well had sort of become very comfortable with being able to be on the ground and, umm, that sort of thing, so, I suppose it was like non-frightened. | (1) Birds in their natural, had become comfortable on the ground (2) birds were non-frightened |
| VD | Probably because we're speaking right now, the interview that you conducted with me, but besides that, nature-wise, umm, the fantailed birds I think, we saw quite a bit of those. | (1) the interview (2) the fantailed birds due to the their numbers |
| VE | Just an overall impression of a very enjoyable day's trip. Umm, not something I've done before, umm the weather was perfect, the guide was on the day. I remember coming home thinking, this has been a really neat day out. I thoroughly enjoyed it | (1) overall impression of an enjoyable day (2) something new (3) perfect weather (4) the guide (5) Reflecting how enjoyable it had been on the actual day |

Appendix 12: Exemplars of analysis: Analysis of GVI and field notes

Table 1: The reportage of exchanges of information

| Forms of communication | Datum | Role of participant reporting information exchange | Purported role of other involved in exchange | Other action taking place |
|---------------------------------------|---|--|--|---|
| Body language | So that's why I stood up and got in front of her to say "no I am interested, I'm just lazy and like to sit down" (Visitor A, in situ interview, SoTM) | Sitting and standing | The guide observing | Participant communicating a message through her physical actions |
| Body language | Initially he's pointing and I'm thinking "what's he pointing at?" (Visitor E, in situ, interview SoTM) | Observing | The guide making a hand gesture | Guide communicating a message through his physical actions Participant thinking as a response to the communication. |
| Verbal language (interpretation) | Well he actually explained it very well, Ailani said that the Wood Pigeons are the laziest birds (Visitor I, in situ, interview, SoTM) | Listening | The guide speaking | Participant making a judgement about what the guide said |
| Verbal language (comment) | I also was surprised when the girl talking said, I think she said that the sightings are fairly regular, (Visitor Three, in situ, interview, PWF). | Listening and thinking | Unidentified person speaking | Participant expressing surprise at what the guide said |
| Verbal language (Question and answer) | She says "do you know why they do it And I said "I think they're playing" and she says "but we really don't know"(Visitor Seven, in situ, interview, PWF). | Listening and speaking | Speaking and listening | Guide eliciting a response through asking question. Participant responding verbally to the question. Guide responding to visitor's answer |
| Verbal language (not specified) | Yeah, I was listening to her (Visitor Eight, in situ, interview, PWF) | Listening | Speaking | none |

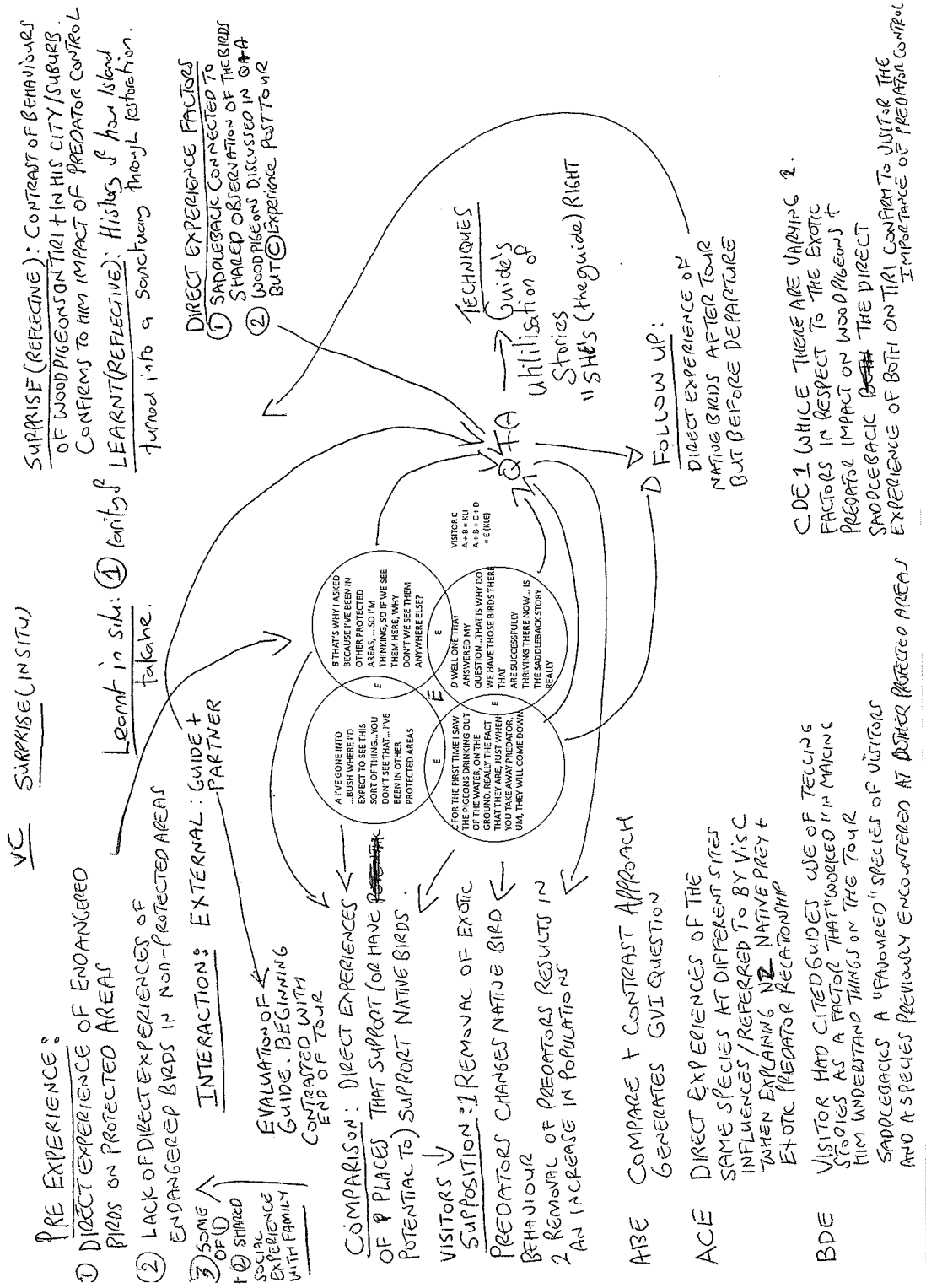
Table 2: Analysing explicit GVI in the field notes

| Visitor / Guide (PWF/SoTM); Inner social circle (ISC) recorded versus | Key encounter scenarios involving verbal exchanges between guide and visitor interviewees | Total recorded encounters involving verbal exchanges | Initiator | Interpretation (observed but not heard) | Question recorded (observed but not heard) | Answer (observed but not heard) | Comment (observed but not heard) | Follow up from the initial start point to exchange i.e. Reply to Answer; RA Reply to Comment; RC | Interpretation (observed but not heard) | Size of tour group and size of visitors inner circle (ISC) (including the visitor interviewee) |
|---|---|--|-----------|---|--|---------------------------------|----------------------------------|--|---|--|
| Visitor Three (PWF) | 2 | 2 (2/2) | √ | | (√) | | √ | √ | | 50/1 |
| Guide Three (roving guide) | | | √ | (√) | | (√) | (√) | √ | (√) | |
| Visitor Six (PWF) | 3 | 3 (3/3) | √ | | √ (√) | | √ | (√) | | 47/5 |
| ISC: Partner Six (wife) & Aunt Six | | | √ | | √ | √ | | | | |
| Guide Six (lead guide) | | | | | | √ (√) | √ (√) | | √ (√) | |
| Visitor A (SoTM) | 9 | 23 (9/23) | √ | | √ (√) | √ (√) | √ (√) | √ (√) | | 5/1* |
| Guide A | | | √ | √ | √ (√) | √ (√) | √ (√) | √ (√) | √ | |
| Visitor D | 6 | 10 (6/10) | √ | | √ | √ | √ | √ | | 11/?* |
| Guide D | | | √ | √ | √ | √ | √ | √ | √ | |

* Visitor A's partner participated in her in situ interview but took another tour. During the tour, one visitor left the tour group.

* Visitor D was part of an overseas tertiary group who were accompanied on this tour by some New Zealand tertiary staff and students. She was alone in the interview but had a sense of herself as both an individual and part of a social group that made up most if not all of the tour group.

Appendix 13: Exemplars of analysis - SoTM / PWF brainstorm



Appendix 14: Visitors' reflection on post-tour behaviour change

Visitor Five

Question Nine: Do you think you've done anything different since going on the trip?
[provide prompts afterwards]

Researcher: Do you think in that respect we can do anything different though? Can we do anything different as individuals?

Visitor Five: We can do [something] different [as individuals] You know every now and then I start looking at things like buying the little paper [bags], I don't know about in New Zealand but we still use plastic bags here and there everywhere and I tend to use less and less plastic because its harmful. (Visitor Five, reflective interview, PWF).

Researcher: And you've thought about that in terms of also the whales or just in general?

Visitor Five: I've thought about it in terms of whales. And cruise ships and the different things because at one point they were saying that if I remember that the whales were protected species because people were killing them and then of course we do things that are destructive to their environment and it kills them, they, ships hit em and different things like that and so I think about the impact and I think that every little thing you can do, has made me more aware, that is a creature I wouldn't wanna destroy. (Visitor Five, reflective interview, PWF)

Visitor Six

Question Nine: Do you think you've done anything different since going on the trip?
[provide prompts afterwards]

Visitor Six: We haven't actually been on a trip since then, we haven't done nothing different on, and as far as my everyday living um, you know I never, I can't see, I've definitely educated people aside from the whales which I learnt from the whale foundation

too was the garbage, like the dumping in the ocean and how there's, like the currents that collect garbage that's in the ocean path. And how they know like there's things that they are tangled up on them and they think it's coming from the sea of garbage that we have that's the size of Texas or whatever the heck they said. And things like that that make me more cautious aware of like garbage and stuff like, I'm definitely more conscious on littering, I pay more attention on that kind of stuff for sure. (Visitor Six, reflective interview, PWF)

Researcher: You feel like you guys are not contributing to that, you already had things in place did you?

Visitor Six Yeah, definitely we are 100% recyclers and you know we're definitely green people right. The province that we live in British Columbia is very very green recycling orientated so its, you know I can't say I do it more, but I always have, but I have definitely told a lot of people about that beer garbage out in the ocean. (Visitor Six, reflective interview, PWF)

Visitor Seven

Question Nine: Do you think you've done anything different since going on the trip?
[provide prompts afterwards]

Visitor Seven: Probably not, I'm pretty well fixed at what I do, so I don't think the trip changed me in anyway. (Visitor Seven, reflective interview, PWF)

Visitor C

Question Nine: Do you think you've done anything different since going on the trip?
[provide prompts afterwards]

Visitor C: No. (Visitor C, reflective interview, SoTM)

Visitor D

Question Nine: Do you think you've done anything different since going on the trip?

[provide prompts afterwards] Visitor D: Oh, no, I wouldn't say. Not that I could think of off the top of my head. (Visitor D, reflective interview, SoTM)

Researcher: Conservation wise then, you know, I guess in terms of the environment, are there things that you already do?

Visitor D: Yes, well, I recycle, definitely, and I use re-useable bags, and, you know, if I ever buy sodas or things, which I don't normally do, but if they do have those little rings of, those plastic rings, you know? I usually chop them up and, I try to be as conscious in those realms as possible. Conserving water and things like that. I don't, I usually ride a bicycle instead of, or taking public transport. (Visitor D, reflective interview, SoTM)

Researcher: And so the same things that you were doing before, are essentially the same things, there's been no major change in that idea and philosophies for you?

Visitor D: Not necessarily, I've always appreciated birds, maybe not to the extent that volunteers on Tiri would have, but yeah, I think, having that experience, I wish that there were more, specifically here in California, because I know that there are a lot of, right now our national parks and state parks especially are being hurt because of our government taking money away from certain programmes and just on that natural level of not having the priority to preserve things, I think, in knowing that other places do have that priority, it upsets me but not to the point that I've actually, honestly done anything active about it, other than, you know, being aware. (Visitor D, reflective interview, SoTM)

Visitor E

Question Nine: Do you think you've done anything different since going on the trip?

[provide prompts afterwards]

Visitor E: Um, to be honest, probably no [I would say, um, we joined the friends of Tiri and, ah, we need to renew the subscription now don't we? I think

Partner E: Yep, and we've read that, so no we have because I've read their little magazine

Visitor E: We read the magazine

Partner E: When it comes so [53s] like that. I certainly look at the Tūi that comes at the tree outside our window, kind of

Visitor E: In a new light

Partner E: In a new light [laughs] [1m2s]. in some way though I'm a bit worried now because there was this big poplar which was absolutely ginormous got cut down with a crane the other day, it took three days to cut it down it was so big and the tui use to hang out in the poplar, so I'm a bit worried, but

Visitor E: But in terms of our own little backyard we got a backyard the size of a handkerchief, so there's no sort of planting or anything really that we can do to encourage more

Partner E: The plum tree fell down and we put up the

Visitor E: Oh, we put in the [a variety of tree], but see we're the dubious owners of two cats as well so they'd probably be very pleased if we encouraged more birds [1m48s] but no, truthfully, no nothing much has changed to be honest. It was a really enjoyable day but you know it wouldn't make me say "right now I want to give up every other weekend and go over there and do some volunteering myself" [2m8s]

Appendix 15: ‘The gates of heaven and hell are adjacent and unmarked’

One of the aspects of this research that helped me gain an understanding of GVI during wildlife tours was the quantity of people who chose to participate in the study and the amount of time each personally spent responding to my questions about ephemeral episodes within an ephemeral event. For the visitors this was a tremendous effort as often we discussed only instances of their tour rather than a chronological retelling of the whole event. For the guide it was a monumental effort. Some of the PWF naturalists in the case studies of this research were interacting with tour groups of up to 50 people. I often would note up to at least 15 visitors on a tour who made some contribution to the overall GVI of the tour. That they were able to recall so much and contribute is a testament to them and the organisations that they work for.

The title of this appendix is a quote from Carl Sagan when he contrasted how Earth is a liveable planet for us compared to other planets of the solar system such as Venus. It spoke to me of how I could easily have fallen in despair if I had made the decision to start letting go of the specific stories of many of the participants who enriched this research. One of the challenges was when I had to remove from the data the tours from both PWF and SoTM where the guides were most responsive to the learning opportunities available in their settings. I still have seared in my memory the face of one of the guides at the end of the interview when they thought through the possible consequences of their actions. I choose not to give any more detail about these cases. I personally believe that they could have been used, that everything that occurred on these tours constituted acceptable behaviour. I realised that to continue using the data would have resulted on having to focus in detail on a number of issues that were peripheral to the experience of most of the participants. The problem was with me and wanting to keep hold of all the information I had so far gathered. I have used the concept of ‘convenience sampling’ to describe my sampling strategy. It was not convenient it was always difficult in deciding what incidents and stories I would not use. J.R.R. Tolkien created a fascinating idea when he told how the dragon, Smaug, knew of every item on the treasure bed he slept on. It did not matter if it was a priceless jewel or a coin, if any of it were stolen the dragon would know and exact a terrible revenge. I prized every interview I made with the participants, and I would agonise over the implications for each participant and for the research itself if I decided not to include it amongst the final case studies.

In my ethics application I made the following statement in relation to the question “State how the information will be gathered and processed”:

The number of tours observed (upper limit = 40) and first phase interviews (upper limit = 120) is designed to provide a rich and varied understanding of the learning process. In the process of those interviews the researcher will identify informants whose experience may be able to provide a deeper understanding of the learning experience (upper limit = 18). Then the researcher will conduct second phase interviews with the guides who conducted the relevant tours (upper limit = 9) to provide context to those interviews. (Spring, ethics application for PHD study at Auckland University of Technology).

Before the pilot testing I initially had this vision of being able to conduct quick-fire interviews with participants on the vessels after the observation as we returned back to port and from there gain a commitment from the visitor to participate in a follow up interview that could delve more deeply into the points already discussed. The nature of GVI on the Whale and Dolphin Safari demonstrated that this was possible. However it also showed that realistically it was only possible to do one interview with a visitor on the vessel. As outlined in the summary of the field research (Section 3.9) ethical issues saw me decide to conduct PWF in situ interviews after the vessel returned to port. Participants were very generous with their time, and I collected interviews that were so rich in detail that they precluded the need for the reflective interview in its original conception. It also changed the dynamic of how I narrowed down the interviews used. I had 10 in situ interviews from PWF visitors and I envisioned only needing four or five. All warranted inclusion in the analysis but I was coming to realise that it was difficult to provide the level of detail I sought for each tour within the scope of a qualitative PhD research. My supervisors who had experience with mixed methods research offered advice about a range of strategies that I could use that would still give voice to all the participants. I attempted to tailor such strategies to my research but finally I realised that I needed to retain a focus on a small group of case studies. When it came to arranging reflective interviews with PWF participants, I limited my attempts to contact specific individuals. If they did not respond to either the e-mail or phone-call request then I would not further pursue the matter. Visitor Nine was going to participate and then

decided not to. This was the only time that I actually interviewed a guide in a reflective interview before the visitor. I had already notified Guide Nine that an interview was going to take place with Visitor Nine and scheduled the interview with him. From the 10 PWF visitors who gave in situ interviews, seven gave reflective interviews. As Guide 11 did not respond to e-mail or phone requests I could no longer use Visitor 11 as a case study for this research. That left me with six proto-case studies. I thought that through the analysis stage I could reduce the case studies down to two or three but I just could not let go of anymore.

The problem of having to let go of data got worse when it came to my SoTM fieldwork. I have outlined in the summary of field research (Section 3.9) why I decided that to conduct in situ interviews with every tour that I observed. What I want to add here is some further context about that decision in relation to differences between professional and volunteer guides at the sites. Most of the PWF naturalists I observed would normally do three tours a day. Each tour would last at least two hours and in between the tours and at the end of the tour they would have to do cleaning and general maintenance work. At least one of those tours would be as the lead naturalist. In that role they would have to talk for much of the duration of the tour. At the end of an observation if I decided not to follow up with in situ interviews they did not appear to be too concerned. Also there was the chance for me to observe them again either on that day or another day. For some SoTM guides their day on Tiri was a weekly event but for most it was much more infrequent. There was only one tour a day for a SoTM guide. The research relationship I initiated with many of the SoTM guides started on 6th July 2009 when I gave a talk on my research to a meeting of guides and where they may have signed up. I then sent e-mails to them and talked over the phone to arrange the day I would observe one of their tours. Sometimes we would meet on the boat to the island and make small talk. They may have already seen me observe another tour or conducting in situ interviews with visitors on the vessel during the return trip back to Auckland. It may have come as a shock for some when, after all the preparation I had made to observe their tour, I told them that I did not need to interview them. As I mentioned in the fieldwork summary, I sensed that some of those guides might have seen my decision as a critique on their performance. It was not. I just had not been able to identify incidents of GVI where I could see some clear element of follow up from either the relevant visitor or the guide.

My decision from January 2010 to include interviews with every observation for each subsequent observed SoTM tour created major challenges for me in choosing what data to omit or use but I do not regret making that decision. I would like to thank every visitor on the 62 tours I observed for tolerating my presence. I am indebted to the 83 visitors and guides who took part in the in situ interviews. Furthermore I am grateful to their family members who sat with us during the interviews and either participated or listened. While only the data from 10 of those 62 tours were specifically used in the findings chapter none of this could have happened without the involvement and input of all those visitors, guides and staff members. Thank you.

Appendix 16: Visitor/guide demographic information

| Visitor | Sex | Nationality | Age | Age | Overall purpose | Occupation | Formal | Study | Social |
|---------|-----|-------------|-----|-------|---------------------|---------------|------------|---|--------|
| V3 | F | | 43 | 35-44 | | Writer/editor | Tertiary | BA UCB/MS Comms Ohio University | 3 |
| V5 | F | American | 57 | 55-64 | On holiday | Retired | Secondary | | 2 |
| P5 | M | | 59 | 55-64 | On holiday | Retired | Secondary | | 2 |
| V6 | M | | 31 | 25-34 | | Rig manager | Primary | Grade 12 | 5 |
| P6 | F | Canadian | | 25-34 | On holiday | Nurse | Tertiary | University of Alberta BSCN | 5 |
| A6 | F | Canadian | | 45-54 | On holiday/Visiting | Registered | Tertiary | BScN Nursing | 5 |
| V7 | M | USA | 75 | 75-84 | On holiday | Retired | Tertiary | Engineering Degree Masters | 26? |
| V8 | M | USA | 59 | 55-64 | On holiday | Retired | Tertiary | Logistic Degree | 2 |
| P8 | F | USA | | 45-54 | On holiday | Nurse | Tertiary | Masters and post-masters, started PhD | 2 |
| VA | F | | | 45-54 | | Retired | Secondary/ | A levels / BA (Hons), MA (Hons), MFA, BSc | |
| VC | M | | | 45-54 | | Sales | Secondary | UE | 5 |
| VD | F | USA | | | | | | | |
| VE | M | | 53 | 45-54 | | Finance | Tertiary | Business Studies Diploma | 4 |
| PE | F | | 52 | 45-54 | | Planning | Tertiary | Masters | 4 |
| VI | M | | | 45-54 | | Teacher | Tertiary | | |

| Guide | Sex | Nationality | Age | Age group | Occupation | Formal Education | study |
|--------------|------------|--------------------|------------|------------------|--|-------------------------|--|
| G3 | F | USA | | 25-34 | <i>all removed for confidentiality</i> | Tertiary | <i>all removed for confidentiality</i> |
| G5 | M | USA | 30 | 25-34 | | Tertiary | |
| G6 | M | USA | 33 | 25-34 | | Tertiary | |
| G7 | F | USA | 22 | 20-24 | | Tertiary | |
| G8 | F | Canadian | | 25-34 | | Tertiary | |
| GA | F | British/NZ | | 45-54 | | Secondary | |
| GC | F | NZ | | 65-74 | | Tertiary | |
| GD | M | NZ | | 65-74 | | | |
| GE | M | NZ | | 45-54 | | Tertiary | |
| GI | M | NZ | 62 | 55-64 | | Primary/Secondary | |

Appendix 17: Narrative as representations of data

The following are the unedited narratives of data that appeared in Chapter Four as narrative sections. The following narratives include boxes which come from interviews and field notes that are examples that are data relevant to the narrative

- Narrative 4.1: CIT and learning events narrative for Visitor C (cited in 4.2.1 Critical incidents and perceived learning events connected to observed tours)
- Narrative 4.2: Visitor Five's narrative on interaction with PWF staff (cited in 4.2.6 What role do guides play in the facilitation and enhancement of learning during the guided wildlife tour? (Research Question Five)).
- Narrative 4.3: Learning for Visitor D in the context of two phases of GVI (Cited in 4.3.3 Sub-theme 2.4 Integrating new information).
- Narrative 5.1: Visitor A's and Guide A's GVI during an encounter with a Tūī (Cited in 5.2.1 Categorising knowledge and questions).
- Narrative 5.2: Visitor C's perceptions of different New Zealand bird species (Cited in 5.8.5 Zone of wildlife interaction)

Narrative 4.1: CIT and learning events narrative for Visitor C

For Visitor C, understanding of New Zealand bird species is connected not only to the birds themselves but also to his awareness of different types of geographical space and how characteristics of places may explain the behaviour or presence of different bird species. Visitor C was aware of Saddlebacks having previously encountered them during boating trips in New Zealand waters. Visitor C also understood the impact of exotic mammalian predators on the variety and distribution of New Zealand native bird species. GVI connected to a direct encounter on his observed tour resulted in Visitor C asking a question about the distribution of Saddlebacks (Box one).

Visitor C contrasted his experiences on Tiri with similar types of sanctuaries, mainland forested areas and his suburban home environment. For example, Visitor C asked Guide C about the distribution of Saddlebacks. The rationale behind his question appears to be an intersection between an external phenomenon, i.e. seeing Saddlebacks on Tiri on a guided tour, and an internal phenomenon, i.e. wondering what the difference is between places where he has seen Saddleback and the places he would expect to see Saddleback but has not (Narrative 4.1). Visitor C then appears to suggest that the rationale for asking the question is that it represents his response to contextualising contrasts between pre-existing knowledge and new information. Visitor C knew of protected areas that had Saddlebacks, and in this manner they are similar to Tiri; he was also thinking about places that remind him of Tiri, such as the Urewera Ranges, which should have Saddleback birds but do not. The quality that Tiri and places such as the Urewera Ranges share is the potential to 'see things like this': native species such as the Saddleback that he does not normally see elsewhere in New Zealand. Saddlebacks act as a metaphor for "things like this". Saddlebacks became extinct in both the North and South Island of New Zealand (collectively known as the mainland of New Zealand) due to disease and exotic mammalian predators (Hutching, 2004). However, while Visitor C has now seen Saddlebacks on Tiri, and another protected area, that was an island as well, he has still never seen them in the Urewera Ranges and Lake Waikaremoana, areas legally protected for the conservation of native species (Box one).

Box one: CIT question from perspectives of Visitor C and Guide C from interviews and field notes

Interviews

“He asked ‘why don’t we see them on the main land?’, and I don’t know if it was that stage. I said that Saddlebacks (*Philesturnus carunculatus*) are not great flyers”. (Guide C, in situ interview, SoTM)

“I’m interested in birds. I hunt a lot and I’ve gone into the Ureweras. Like bush where I’d expect to see this sort of thing [initial proposition]... I’ve been around [Lake] Waikaremoana... You don’t see that [existing knowledge]. So I’d never, I suppose I started to think ‘Well, why don’t ya?’ So that’s why I asked [‘Why don’t you see Saddlebacks outside protected areas?’] [existing knowledge / direct experience interface] because I’ve been in other protected areas, only two or three, but the one that stands out in my mind, where there’s a heap of Saddlebacks and that’s in the Queen Charlotte Sound [existing knowledge]. And that was another island like this. So I’m thinking, so if we see them here, why don’t we see them anywhere else?[clarification]”. (Visitor C, in situ interview, SoTM)

Fieldnotes

Guide C: Sounds like we are hearing Saddleback. Kōkako (*Callaeas cinerea*) and Saddlebacks are members of the Wattlebird family.

Visitor C: That’s the one we want to see

Guide C: Funny bird [Saddleback] in North Island; stripes of yellow are a feature of Saddlebacks in North Island. First feathers [form] saddle [re juvenile birds in North Island]. First [feathers and juvenile birds] different [in] South Island. [South Island juveniles called the] Jack Bird.

Visitor C: Why don’t we see them in areas outside [specific term used by Visitor C but not recorded]

Guide C: [Saddlebacks] don’t fly well, [from an evolutionary perspective, Saddlebacks are] on [the] way to not flying...

1116-1123 time of recording

The status of being protected though is not the perceived difference of Visitor C’s question about the distribution of Saddlebacks. Visitor C implies that something happened that explained it to him, the reason places such as the Urewera Ranges cannot fulfil their potential. The answer is due to exotic mammalian predators, referred to by Visitor C as “stoats and cats, and ferrets”. “Protected” then appears to be used by Visitor C in a narrower sense than legally protected: places where predator control is successful enough to allow people to “see things like this [Saddlebacks]”.

Visitor C then appears to suggest that the rationale for asking the question is that it represents his response to contextualising contrasts between pre-existing knowledge and new information. Visitor C knew of protected areas that had Saddlebacks, and in this manner they are similar to Tiri; he was also thinking about places that remind him of Tiri, such as the Urewera Ranges, which should have Saddleback birds but do not. By the time of the reflective interview, Visitor C did not appear to have an overview idea of the habitat and distribution of Saddlebacks but he still connected his personal experiences of seeing them to sanctuaries (Box two).

Box two: Visitor C’s reflection about his interest in Saddlebacks in reflective interview

“[after I shared with him about what he said about learning in in situ interview] the Saddlebacks... It’s the old story I think, if you don’t see them that very often, they have more of a mystique... I don’t know, it must be habitat [of Saddlebacks], because you don’t, I’ve never seen them on the shore [the North Shore of Auckland]. The only other time I’ve seen a Saddleback, in the Marlborough Sound. On another type of island that’s a bit of a sanctuary, I can’t remember the name of it”. (Visitor C, reflective interview, SoTM).

Changes in Visitor C's assessment of Guide C from between the start of the tour and the in situ interview

Visitor C indicated that one of the factors in determining his level of engagement with the guide on his SoTM tour was the opinions of his family members. Visitor C was in a family group. In terms of his receptivity to external efforts from the guide to equip himself for the trip, he cited interaction with his wife that suggested there was initial resistance or concerns about the suitability of Guide C raised by his wife (Box three).

Box three: Visitor C's allusion to a revised evaluation of Guide C from in situ interview

"I'll tell you right up, we quite liked Guide C. Originally my wife even made the point that she looked like she may be one of these; she was worried she was going to be one of these "know-it-alls", fricking greenies [initial evaluation] which is ok, I don't want to mean that in a derogatory way but just too much know it all, talk down. But we all found her really believable and I think of a good sound knowledge. So she got our respect because of that. So she was credible and believable and she told stories [attributes]. So that was good. And she had a really reasonable easy-going nature [revised evaluation]". (Visitor C in situ interview, SoTM).

The guide's use of stories aided Visitor C in understanding that it was the presence of exotic mammalian predators that was the decisive factor in determining whether endangered bird species could survive in their natural habitat. Guide C's story about the Saddleback illustrated to Visitor C the vulnerability of endangered birds due to their ground-based behaviour. A variable to consider though is the post-tour opportunity on the island for Visitor C to observe the behaviour of New Zealand Wood Pigeon or Kererū (*Hemiphaga novaeseelandiae*). Visitor C had a personal affection for this bird species and it is a factor in his understanding of a perceived relationship between protected areas and the behaviour of native birds (Box four).

Box four: Visitor C's reference to New Zealand Wood pigeons in the context of different bird behaviour on Tiri from in situ interview

I even noticed a Wood Pigeon, I have never seen a Wood Pigeon, in my life, on the ground. And there was one here today we saw him in a stream, suckling in the stream [direct experience / existing knowledge interface]. They never do that. We see Wood Pigeons, I live on the North Shore, we see them, and they're always in the trees, they're always high up [existing knowledge] (Visitor C, in situ interview, SoTM).

Visitor C's discussion of how Guide C was evaluated by both himself and his wife gives insight into the varied nature of the social dynamic that pervades tour groups. His tour only consisted of members of his wider family unit and Guide D but his narrative does not include anyone but his wife when it came to evaluating Guide C.

The complexity of Visitor C's attitudes towards conservation, recreation and specific native bird species.

To fully understand the depth of Visitor C's investigation and evaluation of phenomena connected to GVI, it's important to understand that he had strong opinions about the value of certain animal species and conservation strategies that affected recreational activities. Visitor C was quite selective in what species of animals he valued and those he did not consider of interest. He had an avid dislike of Pūkeko (*Porphyrio melanotus*), and the endangered status of a species was not a primary reason for him to value a bird species. For Visitor C it was unrealistic then to try to reintroduce species such as Kiwi (*Apteryx* spp.) into mainland areas where they were extinct or critically endangered (Box five).

Box five: The perceived value of New Zealand wide re-introduction of endangered species such as Kiwi from reflective interview.

"Trying to protect Kiwi in like the Waitaks [Waitakere Ranges] or the Kaimanawas are just about irrelevant. I've done lots of bush hunting and I've never seen a Kiwi, and probably

didn't ever want to, but if you, but if I knew that they were around, and you made it so that they were cool, and, non-threatened on Tiritiri, or other areas, well then you'd go and see them... So perhaps, perhaps trying to save Kiwi everywhere is just, not worth the, the sauce is not worth the shake, you know? It is too hard". (Visitor C, reflective interview, SoTM).

"That's sort of where you get to in the end, its like, you're just going to have to pick areas which is what we've done with other conservation areas is what, um, make it like Tiritiri, and Hens and Chicks. And I know that there are places down Hamilton way [Maungatautari Ecological Island], you know where the guide that took us [has a connection with]... and they have the, big fences that go down under the ground and up and you can create areas so maybe if you want my , I suppose my thought is that's fine but you can't do it everywhere and its probably, you're just fighting an unwinnable battle trying to do it everywhere". (Visitor C, reflective interview, SoTM).

In the reflective interview, Visitor C voiced concerns about the universal application of sanctuaries, attempts to conserve native species throughout New Zealand, and the "misrepresentation" of hunters and their conservation efforts through acclimatisation societies. Visitor C created the nomenclature 'true hunters' to distinguish between two sets of hunters. In a similar manner he identified a section of the public whose support for conservation measures such as protected areas lacked understanding of the issues compared to his qualified support (Box six).

Box six: Visitor C's opinions on the relationship between 'true hunters' and conservation from in situ and reflective interviews.

"I've probably got an interest in birds because, and this is a weird thing about a hunter as well, you have a respect for your prey so, I've hunted birds, and I can still enjoy them without a gun but I hunt more for the table. Ducks, pheasants, and things like that. That's normally how the hunter does and has a good respect, I suppose in relation with your game. And in fact, in the end you actually become the, I know there was a teal there, and it said that one of the issues with teals was hunters, you know duck shooters, and the wetlands being demolished and all that but if we didn't have any duck shooters probably there would be no wetland. Cause a lot of these wetlands, especially down in the Hauraki and that, have been created through the acclimatisation society which was [focused on creating habitats for] hunting. And every year I pay \$80". (Visitor C, in situ interview, SoTM)

"[Opinions re hunting, conservation and protected areas] Hunting and conservation go hand in hand. I mean often people don't understand this, hunters are the best conservationists. And for many reasons, but one of the big ones was that the, a true hunter, does have respect for the environment and prey, and that, they create their environment too". (Visitor C, reflective interview, SoTM)

Visitor C felt that the conservation mechanisms that brought about marine sanctuaries appeared to marginalise knowledgeable communities such as fishers and hunters, and enfranchise ignorant communities. Visitor C had a concern that there was a segment of the New Zealand Population, the 'average person', who do not critically think about the implications and issues associated with conservation work in the same way that recreational hunters and fishers who are more familiar with the animal species and habitats that are the subject of proposed conservation reserves (Box seven).

Box seven: Visitor C's opinion on marine reserves

"You know the same arguments been bandied around with marine reserves. So yes have some, and we all think that's great. Goat Island is fantastic but the issue from our point of view, and I'm a fisherman as well and a diver. What happens is, they go around and ask, average joe blog on the street, "do you want a marine reserve?" and they go "yeah, yeah" that's a cool idea and then that's put down as a person who wants a marine reserve. They know nothing of the argument. I think they assume if you have more marine reserves, you'll have more fish... I don't think if you made all the coastlines a marine reserve it probably wouldn't get us more fish. It may have a small

impact, it won't have a massive impact but the average person would assume it would. And that's what frustrates us". (Visitor C, reflective interview, SoTM)

Visitor C valued the conservation work that had occurred on Tiri but was wary of attempts by people to apply the same approach indiscriminately applied to all of New Zealand. Visitor C did not believe that it was feasible to do so (Box five). However Visitor C, in the context of GVI, was able to accept or see common ground between his own ideas and those of Guide C. In terms of one of the key ideas Visitor C wanted to explore at an intra-species level was the geographic distribution of Saddlebacks, and why sanctuaries appeared to act as a variable in respect to where in New Zealand he had seen Saddlebacks. Visitor C appeared to accept Guide C's thesis in respect to how sanctuaries reduced the impact of exotic species: "Well one that answered my question would be why, that is why do we have those birds successfully thriving there now" (Visitor C, in situ interview, SoTM). Overall Visitor C has a positive view of the guided wildlife experience but his perception of the tour as a learning experience (Figure 4.3).

In summary, during the tour there was an interface between a direct experience of Saddlebacks, Visitor C's existing knowledge and GVI in trying to understand the geographical distribution of Saddlebacks. Visitor C reconciled new and existing information about the behaviour of birds, and also the impact of exotic mammalian predators in a manner that made sense to him. Visitor C cited Guide C's interpretive skills as a contributing factor in understanding the complex relationship between native birds and conservation. Visitor C appeared to be discriminating in determining credible sources of information. Despite an initial concern about Guide C's he came to believe that she was indeed credible and an effective communicator.

**Narrative 4.2: Visitor Five's narrative on interaction with PWF staff (cited in 4. 2.6
What role do guides play in the facilitation and enhancement of learning during
the guided wildlife tour? (Research Question Five)).**

Visitor Five's experience during and after her PWF tour demonstrates the important role of rapport between visitors and guides during a guided tour. Visitor Five's primary motive to take a whale-watch tour was to have a direct experience that was comparable or surpassed her first ever encounter: "I've never seen anything more exciting and exhilarating in my life" (Visitor Five, in situ interview, PWF). Visitor Five's narratives of her tour experience exemplified how the staff's focus on safety was an essential feature in building rapport between the staff and the participants on the tour. The term 'equipping' relates to the ideas expressed in the narratives where visitors are discussing how instances of GVI is linked to them adjusting themselves to the experience. In terms of equipping themselves for the experience visitors referred to orienting themselves in respect to seeing phenomena during the tour and establishing the credibility of the guides and their respective organisations they are involved with. Safety was a major issue for Visitor Five, for example, because her first encounter with whales, during an earlier fishing trip, had been unexpected. Indeed, safety was a constant theme that came up in both of Visitor Five's interviews. Her narratives reveal the responsiveness of the PWF staff to her anxiety, as she cited a range of staff members, from the person who took her booking in the shop to the guides and captain on the vessel, who talked about safety (see Box one).

Box one: Selected comments from Visitor Five on equipping visitors in connection to safety.

"You know what, when you are talking about people's lives, I don't think you can be too cautious, and like I said, when I, this morning when we went into the shop, I was a little concerned, I had asked the lady in there, her name is [?]. And I said, '[?]', I said, 'I've heard that those whales sometimes will turn a boat over.' And she said, 'Yes, they do.' She said, 'But we're very careful.' She said, 'When we get within a hundred yards or whatever we cut the motor down', and she talked about the motor and it running and stuff, and how once it cut down she's never known, said whales don't attack, you know, they don't attack, so they, something about that motor noise, they draw to ... And I believed her. So the information gave me more ease." (Visitor Five, in situ interview, PWF)

[What did the guide do best?] What impressed me, I felt even though the whales were huge... I felt safe because I didn't feel they were going to do anything outside of the norm to put us in any kind of danger... I want to see it and I was able because the crew made me feel safe, as if they knew what they were doing. (Visitor Five, reflective interview, PWF)

Two common phenomena referred to in visitors' narratives were searching for wildlife and safety. Visitor Five's narratives of the experience referred anticipating the surface behaviour of humpback whales and her safety in respect to an encounter with whales. Visitor Five felt safe, and that crew were experienced and informative as they gave her the ability to look around rather than focus on one spot for whales. Orienting in terms of safety was an idea expressed in visitors' recollection of their interaction with PWF staff. Visitor Five referred to a number of interactions prior to and during the tour with different PWF staff ranging from a person at the booking counter, to the two guides and captain of the vessel where she emphasized that the outcomes of those interactions was that she felt safe and was able to focus on the guided experience. The sense of ease that Visitor Five believe the PWF staff conferred on her was also a point she reiterated in the reflective interview: Information provided by the PWF staff helped visitors to orientate themselves to the experience. For example, Visitor Five felt that the staff orientated her to the whale-watching process in a way that enabled her to continue searching for whales but also listen to the commentary provided. She initially had a sensation of being transfixed to one spot if a whale had previously surfaced there. Information provided by guides made visitors feel comfortable and orientated them to the experience:

“So I thought they were really good in giving you the information to help you enjoy ... it gave me time. Instead of just staring there for six minutes at nothing, I could scan the horizon and see if we saw more. I wasn't scared to leave my view from there.” (Visitor Five, in situ interview, PWF)
It should be stressed that this confidence in predicting whale activity was a short term outcome that was not present in Visitor Five's understanding in her reflective interview:

I don't think we got to watch them enough to know how long they stayed down before they come up again. I couldn't tell you that they travel in a certain direction before they turn or anything. I don't remember him saying anything as far as expected behaviour from them. (Visitor Five, reflective interview, PWF)

Visitor Five's narratives refer to anticipating the surface behaviour of humpback whales and the management of her own concerns for her safety in respect to an encounter with whales. Through her interactions with PWF staff, Visitor Five started to feel safe, and as she perceived that the crew were experienced and informative, she relaxed enough to be able to look around rather than focus on one spot for whales. The rapport created between Visitor Five and the PWF staff was perceived by her to have facilitated learning (Box two).

Box two: Visitor Five describing her perception of PWF staff

... So I'm looking, first off I'm going to trust who I'm with, because I know they know more than me. So I'm going to listen to that guide and the person telling me, because I wanted to enrich my experience, I'm looking to them for information because you know this Captain's been on this boat for 30 years, this person here is a naturalist, they're doing this, this person here does that. So I'm confident that everybody on that boat working knows more than me. So I don't need to run with what I think, I need to stop and listen. Because I know that I don't know. And I want to gain something from the experience. I want to learn. And so that's why I felt really good about the crew that selected because they put us at ease, they instantly started giving us information. It wasn't like you just sat there on the boat and you looked out (Visitor Five, in situ interview, PWF).

In the long term, her experience of the tour made Visitor Five aware of the efforts undertaken by other people to protect and monitor Humpback whales (Box three). Visitor Five's guide visitor interaction shows a wide range of social interaction between herself, her husband, and a number of PWF staff. Visitor Five's understanding of the impact of her interaction is that the staff made her feel secure and comfortable enough to engage in the learning process.

Box three: Awareness of human impacts on Humpback whales

And cruise ships and the different things because at one point they were saying that if I remember that the whales were protected species because people were killing them and then of course we do things that are destructive to their environment and it kills them, they, you know ships hit em and different things like that and um so yeah I think about the impact and um you know I think that every little thing you can do, has made me more aware, that is a creature I wouldn't wanna destroy (Visitor Five, reflective interview, PWF).

The building of a connection between staff and Visitor Five through an interest in whales was widened further when she and her husband, Partner Five, realised that it was an interest shared by others. Visitor Five and Partner Five would often follow up from the other in relation to comments and questions to and from staff, and other visitors. This social interaction made them aware just how many people had an avid interest in whales. Furthermore this new found passion for whales for both Visitor Five and Partner Five was something that facilitated social interaction during the rest of their stay in Maui. That learning created in the long term for Visitor Five a sense of awareness about the role people can play in the welfare of the humpback whale (Box four). It also reinforced a sense for her an appreciation of the people of Maui and how they care for the environment. Finally it made Visitor Five think of only going to Maui, a place that she had visited previously and never encountered whales, only during whale watch season

Box four: Perceptions of other peoples' interest in whales and the environment

How many people there are that's really intrigued and watching these whales do what they do [is what really surprised me about what I experienced]. I didn't realize that many people was into whales. [Both] People on the boat, and plus the people in the area (Partner Five in Visitor Five, reflective interview, PWF).

And you know that's something in general. Now we've been to Maui twice, and there's one thing Jonathon that I have to say, these people love this island. They love this beauty, they try to preserve it and take care of it, and I just think it's a thing that's just in the heart of the people here. It's something that I, I feel a lot. You know, you go to some countries you know and people just, they don't care about the animals, you know they dump stuff in the water, they don't try to preserve anything. I don't see that here, at all (Visitor Five, in situ interview, PWF).

The irony in Visitor Five's narratives about her experience is that in terms of direct encounters with whales, the encounters on the observed trip did not surpass the direct encounter of her deep sea fishing trip. It would appear that the highlight of the PWF trip was her interaction with the staff. Visitor Five did cite whales as the thing she remembered most on her tour in her reflective interview but she also mentioned that she did not get to see as much of the whales as she wanted to.

Narrative 4.3: Learning for Visitor D in the context of two phases of GVI (Cited in 4.3.3 Sub-theme 2.4 Integrating new information).

Phase one of GVI

Visitor asks question re role of migratory birds in seed dispersal on island and their contribution to ecological restoration:

I said no, because they didn't... And I thought that she meant forest birds because it's a short hop to [the islands of] Little Barrier and Kawarau to here [evaluating]... So I included that in my answer, and so (coughs) you could quite justifiably expect that Kererū and Tūi... could feed on Little Barrier and fly here... And do the drop here [equipping]. Well I could be wrong, but nothing seemed to eventuate from that... because of the hard pan once again, it would just fall on "stony ground" (Guide D, in situ interview, SoTM).

Phase two of GVI

Within 25 minutes of Visitor D's question about seed dispersal, Guide D interprets the seeds of three trees and discusses seed dispersal:

I know these plants like at the base had these spiky things and this great big thing that had these little pods or seeds that came off it, he was saying that some birds get impatient for the nectar so they go to the base of the seed instead of waiting for the seed to actually open, so on particular plants when you saw the absence of these seeds, you knew this bird had fed on this plant (Visitor D, in situ interview, SoTM).

Narrative of Phases of GVI in relation to perceived learning outcomes from in situ and reflective interviews

Visitor D in her narrative about why she asked the question about the role of migratory birds in seed dispersal in the restoration of Tiri, refers to a comparison phase between information attributed to Guide D and information that she connected it to. Guide D discussed the role of how sea bird faecal matter was initially instrumental in making the soil of Tiri fertile during a shared experience of seeing a seabird fly over them on the guided tour, Visitor D asked whether birds had contributed to the restoration of Tiri through bringing seeds from other islands (Figure 5.1 and Box one). Visitor D was already aware that Tiri was not a pristine environment and that ecological restoration had occurred there. Guide D was familiar with the concept of the dispersal of seeds by birds and understood the question in the context of forest birds such as the Tūi that did migrate between Tiri and other places at a regional level. However Guide D discounted the idea and explained it in the context of how the impacts of agriculture and pastoralism had compacted the soil in such a manner that inhibited the natural germination of seeds on Tiri.

What the guide did in GVI

Guide D used visual stimuli (island vista and Cormorant) to narrate a story of re-planting of the island. He answered question and explained why her hypothesis (did migratory birds play a role in the reforesting of the island) was wrong. Guide D examined visitor's hypothesis and gave specific reasons why it could not have occurred during the historical planting of the island.

Guide D then included an element of her question, seeds, into the interpretation and gave visitors the opportunity to touch the seeds. The visual effect of the seeds spilling out of the flax pod and inclusion of a visitor were elements included in Visitor D's recollection. On three separate occasions Guide D discussed seeds, with kowhai, Pohutukawa and Flax seeds. Visitor D was one of two visitors who held the kowhai seeds. With the flax, the visitor in the first interview remembered that the guide had discussed a bird in the context of damaging the flax (Kakariki destroying the flax buds before they had a chance to flower), and took them out of their pods and gave them for visitors to touch. Visitor D felt that the Guide D explained well the ecological relationships between birds and the vegetation on the island that include the history of the island. In a response to a question about where she would place this learning experience in respect to guided tours, she said:

On a one to ten again I think probably a ten, because I feel that he explained all the bird variety on the island really well, explained their eating habits, explained the vegetation and what their feeding off, and history on the way in, and was very thorough [evaluating] (Visitor D, in situ interview, SoTM).

Guide D's ability to use the features of the landscape such as the horizon and mundane objects such as seats to explain the restoration project resonated with Visitor D:

He said that in one particular location where there was a seat there. It once had a panoramic view of the ocean and now you can barely see except out of this window that the habitation allows you, and it was only 14 years that vegetation took to grow [new knowledge]. And just I think that knowledge and understanding and the questions that come with that is intriguing for me (Visitor D, in situ interview, SoTM).

Visitor D described the learning process of the guided tour in the context of story telling where Guide D integrates what is occurring at any given moment on the tour with prepared information and visitors' input with overarching storylines to educate visitors.

Box one: field notes from Visitor D

Visitor D Field notes

Vis D Field Notes (Pax = 11)

Q = Question, A = Answer, R = Reply, C = Comment, S = Synopsis, I = Interpretation, E = Encounter

Incident 1. E: cormorant Guide D I: In discussing history of farming then incorporates coromorant through discussing the role of bird droppings in the fertility of Tiri. Guide D Q: any questions Visitor D Q: seed dispersal through migratory birds Guide D A: No & reason why; hooves of farm animals compacting soil.

Outcomes of GVI

At the time of the in situ interview, Visitor D perceived that she had learnt something in the context of information from GVI. Visitor D did believe that Guide D answered the question about the role of migratory birds in seed dispersal very well. Visitor D believed that the tour was very much a learning experience in respect to the bird and plants especially because of the connections the guide made between the animals and plants as well as recounting the history of the island. Visitor D believes that she learnt a lot and ascribes a role to the interview process in enabling her to recall much of it. She felt that she had learnt much about animals and plants but was unsure about whether the animals and plants were as prevalent on the mainland as they were on Tiri. Visitor D learnt about the variety of birds and their feeding habits in relation to plants on the island as well as its history.

The way Visitor D had structured information from GVI about seed dispersal and birds at the time of the in situ interview appeared to have been reconfigured or forgotten by the time of the reflective interview. She could not remember the context of the discussion but instead referred to a perception that Guide D may have misunderstood her question about seed dispersal:

I remember him not, necessarily not being knowledgeable but not believing that they or he maybe didn't understand my question correctly, I don't know, I just don't remember the discussion really going far (Visitor D, reflective interview, SoTM).

Narrative 5.1: Visitor A's and Guide A's GVI during an encounter with a Tūī (Cited in 5.2.1 Categorising knowledge and questions).

For Visitor A and Guide A the sustained and visible demonstration of a Tūī singing appeared to alter the way they involved themselves in GVI. For Guide A, the spontaneity of the encounter led her to include commentary that she would not have otherwise included. Guide A was not actually going to talk about Tūī as she had directed the group to the place to discuss a tree variety (Kohekohe). The Guide's 'voice box' comments referred to in Visitor A's interviews, were recorded by the researcher on the tour (Box one). The field note entry also suggests that Guide A's decision to interpret the direct encounter with the Tūī was a response to what was occurring in real time rather than what was planned. Guide A's interpretation of the Tūī in respect to its vocal chords was not a consistent feature of her guiding, and her decision to use it for the observed tour was based on the needs of the moment in respect to the tour group and what was visible or audible (Box one).

Box one: Excerpts from Visitor A's Field notes and Guide A's reflective interview

Guide A: See Tūī opens mouth but can't hear anything. That's [because its] outside our hearing range. Two voice boxes, able to open and close them independently. So why a range of sounds? (Tūī on perch vocalizing with white [throat] feathers showing). So can hear "du bu". Now reason brought here not to look at Tūī but to look at this tree. (Visitor A Fieldnotes).

Guide A: Yes [I talked about two voice boxes] although it's something I haven't talked about recently. But as you would know, you get so much information and you know, you only impart a small amount of it during the guided tour. But I kind of went through a phase of talking about – and it kind of depends what other birds are around whether you get the opportunity to talk about Tūīs in that depth (Guide A, reflective interview, SoTM).

Visitor A saw a relationship between her observations about Bellbird and Tūī possessing regional dialects in their calls and information received by the Guide about Tūī having two voice boxes. Visitor A appears to believe that the two pieces of information provided about Tūī by Guide A are relevant in understanding regional variation in the song of Tūī and Bellbird s during a direct experience of a Tūī perched on a tree and singing. When asked whether she was trying to differentiate between Tūī and Bellbird s in respect to their calls, Visitor A indicated that she believed that there was regional variation in the call of both species throughout New Zealand. In discussing her theory she then referred to information she attributed to Guide A about how the calls of the Tūī goes out of the range of human hearing and that Tūī have two voice boxes (Box two).

Box two: Visitor A's initial observation on dialect differences

Well it's something that's interested me [when trying to differentiate between the Tūī and bell bird in terms of their song], as we've gone around New Zealand is literally there's a dialect, the dialect differences relating to the bell bird and the Tūīs in their call. The ones in Stewart Island, the Tūīs you know tend to be as we say, tuning into Radio Luxemburg, that's when the guide said they go out of the range for our ears. And said there was two voice boxes, and it's amazing that in different places around New Zealand the Bell Bird will have a slightly different call and the Tūī will have a slightly different call depending on where they are (Visitor A, in situ interview, SoTM).

Visitor A appears to have used the analogy of dialects to ensure that the researcher would understand what she was saying during the in situ interview; that the variation in birdcalls is comparable to regional dialects belonging to the same language. Visitor A did not realise that scientists use the term 'dialect' in their analysis of regional variation of birdsong within the same species. Visitor A cites a place, Stewart Island as being the only other place besides Tiri where she had heard as much birdsong as she had done today, and where the sound of the Tūī is like the sound made when 'tuning into Radio

Luxembourg'. 'Tuning into Radio Luxembourg' is a metaphor for how the high pitch sound of the Tūi sounds to a human being while it may still be intelligible to another Tūi.

In the narrative where both Visitor A, Guide A and the researcher saw a Tūi and heard some of its' calls, the identification of the bird as a Tūi was accepted by all. The concept of the Tūi having a range of sounds that was part of Guide A's interpretation was an idea that Visitor A was familiar with. Visitor A connected the range of sounds that Tūi and Bellbird s can make with the notion of regional variation of birdcalls. The idea shared by Guide A that this variation stemmed from Tūi possessing two voice boxes was not a familiar idea for Visitor A before the SoTM tour. In both the in situ and reflective interviews, Visitor A made a connection between the ideas of regional variation of calls, that is dialectal differences and the anatomical feature of having two voice boxes. Visitor A however did not choose to share the idea of dialectal difference amongst Tūi with Guide A and so it is not part of the shared experience of Visitor A's tour.

Box three: Most significant thing learnt and remembered most vividly by Visitor A from her reflective interview

Visitor A: Well, [in respect to the most significant thing I learnt] there was plenty of things that I did not know, like that there was two voice boxes in, in a Tūi's throat and that's the reason why you have got the higher and almost subsonic, sorry, ultra sonic sounds that come out in trills, that was one of the big things (Visitor A, reflective interview, SoTM)

Visitor A: I think that it [what I remember most vividly] was the number of different types of species of birds, umm, and the fact that it had been all created. The habitat had all been created, that was what my memories are of that place (Visitor A, reflective interview, SoTM).

While Visitor A did remember in her reflective interview being aware of a variety of birds when it came to her perception of what she had learnt from her tour she identified information connected to Tūi as representing the most significant thing that she learned (Box three). While she did recall encountering Kōkako on the tour it did not appear to imprint itself in her memory in the way that ideas connected to Tūi' seemed to (Box four)

Box four: Visitor A's first reference to Kōkako in her reflective interview

I noticed that some of them [the bird species encountered], not really more interesting but more on the brink [of extinction] have more of this "bonging" noise, you know, like the Kōkako, was it the Kōkako, the little greyish bird we saw, it's quite rare with the blue, the blue wattle crow that we saw and it has quite a "bonging; bong, bong, bong" noise. Well it does anyway, and we saw one of them actually, that's very unusual to even see one of those [Kōkako] (Visitor A, reflective interview, SoTM).

Narrative 5.2: Visitor C's perceptions of different New Zealand bird species (Cited in 5.8.5 Zone of wildlife interaction)

Visitor C's comments on birds provide an insight into how visitors may categorise specific species or attributes of wildlife at the same site in terms of what they value as being important for them. His experience also suggests that a variable for him in terms of invoking a response was his personal attitude towards the specific bird species encountered. The following is a selection of Visitor C's comments on birds from in situ and reflective interviews:

| | |
|------------------------------------|--|
| Bellbirds | “Yes I see Bellbirds when I'm hunting but not in a tree. The Bellbird has got a beautiful song but it is a boring, it's an average little bird”. (Visitor C, in situ interview, SoTM) |
| Birds | “You know, I've probably got an interest in birds because, and this is a weird thing about a hunter as well, you have a respect for your prey so, I've hunted birds, and I can still enjoy them without a gun but I hunt more for the table, ducks, pheasants, and things like that .(Visitor C, in situ interview, SoTM) |
| Dawn chorus | “And we love the dawn chorus but from our boat. Our favourite thing, because fishing is good early too. So we call it the dawn chorus, we get to the Hen and Chickens, our favourite fishing spot, and fish close in. And its magic, when you get a still day and we've got our, we are right up against the rocks. And you can hear, you can hear the dawn chorus. You can see the pigeons. You don't necessarily see the Saddlebacks. Because they are a little bit smaller”. (Visitor C, in situ interview, SoTM) |
| Kererū | “I love them, Kererū but I've been seeing them all my life... They're just beautiful birds. Well I planted that Pūriri tree for the sole purpose of attracting [a wood pigeon to our garden. We get Tūi in the Pohutukawa tree, and I planted the Pūriri for the direct purpose for that. Because I know they get the berries and I know they love them”. (Visitor C, in situ interview, SoTM) |
| Kiwi (Apteryx spp.) | “See the Kiwi is an interesting thing. I don't want the Kiwi to die out but to be quite honest, its boring and nobody ever sees it so I know we all go on about Kiwis a lot. But I have a suspicion that islands like Little Barrier or Hen and Chicks or Tiritiri and many down the South Island are probably the natural places to have Kiwi”. (Visitor C, reflective interview, SoTM) |
| Pūkeke | “I hunt, I shoot ducks and Pūkeke ... I don't like Pūkeke actually because they cause a bit of damage. They kill birds; pheasants and things... They're aggressive things. They'll pull up seedlings, They do well. They are everywhere”. (Visitor C, in situ interview, SoTM) “I hate Pūkeke ... well those mongrels kill birds”. (Visitor C, reflective interview, SoTM) |
| Saddlebacks | “I've always known that they are around, I can't remember, I might have seen one back in the 70s. I know what a Saddleback is. I know they are sort of rare... I've read about these birds... but I don't see them every day”. (Visitor C, in situ interview, SoTM) “I don't know [what stands out for him about the Saddleback] probably because it is quite rare and its distinctive, isn't it?”. (Visitor C, in situ interview, SoTM) |
| Takahē (Porphyrio hochstetteri) | “I think that it is the first time that I had seen a Takahē. They are down in the South Island. I knew that it was like a Pūkeke”. (Visitor C, in situ interview, SoTM) |

“She [Guide C] talked about Takahē, you know, valley I didn’t know that, so its obviously some valley, down in the South Island”. (Visitor C, in situ interview, SoTM)

“Funny enough, people rave about the Takahē but it wasn’t the main thing I remember. It was just a big Pūkeko”. (Visitor C, reflective interview, SoTM)

Tūi

“You see the Tūi. We have Tūi. living in my tree. I love Tūi but when I’m over there I want to see something different”. (Visitor C, in situ interview, SoTM)