

SOCIOCULTURAL AND SOCIOMATERIAL MEDIATION OF CHILDREN'S
CONNECTEDNESS-WITH-NATURE: A CASE STUDY OF HOBBITON



MASTERS THESIS SUBMITTED BY CHESNEY FENELLA WARD-SMITH FOR THE
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DEPARTMENT OF EDUCATION, RHODES UNIVERSITY, SUPERVISED BY
LAUSANNE OLVITT AND JACQUI AKHURST, AUGUST 2017

ABSTRACT

An increasingly large body of literature sees disconnection from nature as central to the convergent social-ecological crisis, rooted in anthropocentric ontologies. This study explored the potential for embodied, sociomaterial nature-based activities to engender shifts in children's perceptions of, and sense of connectedness with, nature. Equally it explored how children's socio-cultural-historical value positionings (SCHVP) mediated their perceptions of, and connectedness with, nature. The nature-based activities, spread over five-day camps, were located at Hobbiton-on-Hogsback, a centre that has existed for decades to provide experiential learning and graded exposure to natural spaces, aiming to increase environmental knowledge and nature-connection. The experiences of two groups of children from wide-ranging socio-economic and socio-cultural backgrounds in the Eastern Cape Province of South Africa were explored using interpretive case study methodology. Through semi-structured interviews and focus groups with selected children (aged 10-14) and the Hobbiton staff members who worked with them, as well as participant observation, data were collected and analysed thematically. This study was guided by a layered theoretical framework that included Deep Ecology as an under-labourer, and Cultural Historical Activity Theory (CHAT) as a substantive, analytical framework. *Interactions* between participants' SCHVP and the sociomateriality of the nature-based activities were analysed in relation to the children's nature-perceptions and sense of Connectedness-With-Nature. The findings highlight both the importance of the children's SCHVP *and* the sociomateriality of the nature-based activities in mediating their prior perceptions of, and connectedness with nature. The nature-based activities acted as a primary stimulus for developing environmental empathy, awareness and pro-environmental intentions. In essence, Hobbiton acted as a primary 'seed planter' towards greater feelings of Connectedness-With-Nature. However, recommendations are put forward for more decolonised, ethics-oriented and sociomaterial design of Hobbiton's nature-based activities, with an emphasis on integrating children's SCHVP into the pedagogical-design process *in relation* to the sociomaterial elements of the nature-based activities. Emically integrating the children's multiplicities of knowing, doing, valuing and being into the pedagogical-design process could contribute to the decolonisation of nature-based experiences in such contexts cultural, socio and political diversity.

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“We are meant to be taking care of our [Earth] but it doesn’t seem like we are doing that... If you are going to litter and have *plastic* as your ‘national flower’, then it is not going to work!”

(Mountain Mover 4, PAP234, [00:27:24.29]).

“The promise of wildness...is access to a sensuous world, and a way home and that outdoor life may provide a necessary part of this access...What may be required is a more profound disruption of one’s ontological positioning”

(Jickling, 2014, p.12).

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ABBREVIATIONS

ADHD: Attention Deficit/Hyperactivity Disorder

CHAT: Cultural Historical Activity Theory

CPP: Cape Parrot Project

UPC: Under-Privileged Camp

SCHVP: Socio-Cultural-Historical Value Positionings

1. INTRODUCTION

This chapter gives a brief overview of the local-global context of nature-disconnection in relation to the research focus area: Connectedness-With-Nature and how this comes about for children. The research interest and the story of the research/researcher are then introduced, followed by an outline of the research questions, aims and key concepts. Thereafter follows a brief overview of the case study context, Hobbiton-on-Hogsback, and its cultural history, goals, values and objectives. A brief biocultural history of the Eastern Cape is also presented. Finally, a short overview of each chapter is given.

1.1. NATURE DISCONNECTION AND THE MODERN WORLD

Our learning takes place in a new world of bright lights, blinking screens, sanitised homes, police sirens, car alarms and climate controlled rooms. We learn in a globalised culture of competition, contest and consumerism. If we are not learning in that world, then we are probably learning in an unpredictable world of hunger, thirst, depression, alcoholism, landlessness, drought, storms and cultural dislocation. Only a few get to enjoy the middle ground, with the majority languishing in the latter scenario. If we are lucky, we get to learn in supportive communities, in ecologically dynamic environments, where our inner imaginations and values are validated. Often our learning is constrained by the institutional cultures and practices of education and how it has come to be practiced. The 21st century is facing a harsher world than the century before, with the global climate inflamed and seething across the globe.

(McGarry, 2013, p. 1).

Within this unfathomably complex modernity, the phenomenon of perceived nature-disconnection has emerged, which is seen to be rooted in anthropocentric ontologies (Anderson, 2010; Bonnett, 2007). The focus of this study rests on the premise that, for contemporary consumerist societies, a fundamental ontological, psychological, emotional and physical perception of a disconnect from nature is central to the convergent social-ecological and material crises (Adams, 2006; Akhurst, 2010; Anderson, 2010). Taking an Ecopsychology perspective, this research problematises the perceived ‘human-nature disconnection’ in its perpetuation of the current social-ecological crisis. Towards addressing this issue, this study

explored Hobbiton's nature-based activities (nature-based activities) in their ability to engender shifts in children's perceptions of, and sense of connectedness with, nature, foregrounding the fact that these children were from very different socio-economic and cultural backgrounds (they occupied different socio-cultural-historical value positionings (SCHVP)). Further, this study sought to understand how children's SCHVP and their multiple modes of being, doing, knowing and valuing mediated their perceptions of, and connectedness with, nature. The purpose of this research was to understand better how background, socio-cultural context as well as onsite, sociomaterial context mediate children's perceptions of, and connectedness with, nature.

1.2.THE BIRTH OF THE RESEARCH

In order to situate myself within the research and to convey the nature of the research process in a simple way, below follows a synthesised narrative account:

I am a young, white, middle-class, South African woman. I have interests at the nexus of Environmental Education, Community Psychology, Transformative learning, wilderness experiences, and a love for working with children. I decided to merge these interests in a Master's thesis towards addressing a bigger ethical conundrum: the perceived disconnection between 'humans' and 'nature'. I then approached Hobbiton-on-Hogsback to be the case study site for my research, and subsequently participated in two Hobbiton camps for my fieldwork. However, the participating children were from very different socio-economic and socio-cultural backgrounds, which led me to believe that they had different cultural values about, perceptions of, and access to 'nature.' I then asked myself these questions: 'Do Hobbiton's nature-based activities acknowledge and integrate these differing environmental and cultural values into their camp designs, in ways that foster participants' Connectedness-With-Nature?' and, 'How do the physical elements of the nature-based activities help the children to connect with nature?' With these questions in mind, my research questions emerged and so the research unfolded...

1.2.1. Research question

How do children's socio-cultural-historical value positionings interact with the embodied and sociomaterial elements of the nature-based activities to mediate their perceptions of, and sense of connectedness with, nature?

Sub questions

- a) What are the children's perceptions and senses of connectedness with nature?
- b) What are the children's socio-cultural-historical value positionings and how do they mediate the children's perceptions of, and connectedness with, nature?
- c) What are the embodied and sociomaterial elements of the camps' nature-based activities, and how do they mediate the children's perceptions of, and connectedness with, nature?

These research questions are further underpinned by larger global social justice, socio-ecological nexus concerns, which foreground environmental education in the processes towards addressing climate change and Connectedness-With-Nature in socially, culturally and environmentally responsible ways (The Earth Council, 2002; UNESCO, 2016). Some of these concerns centre on how people can be urged to act in environmentally sustainable ways, when their basic human rights and everyday matters of environmental and cultural concern are not being adequately foregrounded and accommodated. Without addressing people's dynamic positionings in relation to their human welfare, a sustainably flourishing future (rooted in nature-reconnection) becomes a challenging and idealistic prospect (UNESCO, 2016). This also links to the sentiments of the Ahmedabad Declaration, in that "a key to sustainable development is the empowerment of all people, according to the principles of equity and social justice, and that a key to such empowerment is action-oriented education" (Paden, 2005, p.2). In this light, and in the global-local context of cultural and socio-economic multiplicity, the study challenges doxic¹ environmental norms and values that may constrain or absent more diverse ways of knowing, being and doing in relation to Connectedness-With-Nature within the global socio-ecological crisis. The study thus centralises the importance of more embodied,

¹ Doxic concerns Bourdieu's reference to the term. It denotes that which is implicit, assumed or yet to be unveiled.

ethics-oriented, and decolonised processes of nature-based learning towards nature-reconnection.

1.2.2. Theoretical framing and Key concepts

The research questions were explored from a layered theoretical stance. Deep Ecology, emergent from Arne Naess' (1986) work, was used as the study's philosophical underlabourer. The theory's focus is ecocentric, foregrounding the intrinsic value of all life, and the interdependence of all human and more-than-human-life and processes. Deep Ecology proposes a way to trouble our notions of self and our personal ontologies through asking 'deeper questions', attending to the 'why and how' of the way we live. In addition to Deep Ecology, second generation Cultural-Historical Activity Theory (CHAT) (Engeström, 2014) was used as a substantive, analytical framework in the study. CHAT foregrounds the historical emergence of socio-cultural and sociomaterial context in mediation, and this study provided a lens through which to investigate the mediation of children's Connectedness-With-Nature through Hobbiton's nature-based activities.

Within this layered theoretical framework, key concepts include: Connectedness-With-Nature, the Ecological Self, *Ubuntu*, Experiential Learning (EL), Ethics-oriented learning, and sociomateriality. These concepts are discussed in detail in Chapter 2.

1.2.3. Research context

Hobbiton-on-Hogsback, the case study site for this research, is an outdoor-education centre based in Hogsback, Eastern Cape, South Africa.

“Hobbiton is an Adventure-Based Experiential Learning centre unrivalled by any in South Africa for its beauty, diversity of activities and outreach programmes. Situated between waterfalls in the Amathole Mountains, with the clean air, indigenous forests and fresh water, it offers unique opportunities for old and young alike”

(Hobbiton-on-Hogsback pamphlet, 2015).

Hobbiton was born out of a dream to care for and inspire the victims of a society devastated by World War Two in order to help mend the wounds of war devastation (Webster, 2015). Initially, Hobbiton's goals were to provide a restorative space for so called 'underprivileged children' to explore themselves and the wonders of nature in Hogsback. Under the leadership of Mrs Jeanne Kohler, the Women's Volunteer Air Force organised camps to help socio-economically disadvantaged and orphaned children during and after the war. The first camp was organised in 1945 for 16 ten-year old socio-economically disadvantaged children in Hogsback. Since 1945, Hobbiton has continued to provide a safe and natural space for disadvantaged children towards promoting their psychological and physical well-being.

Since Hobbiton's inception, the organisation has changed through many hands, but its main objective has been first and foremost to provide a safe and natural space for disadvantaged children to come and explore themselves, their skills, their own personal growth and the natural environment around them. These explorations have also always been loosely undergirded by a Christian-based ethics of care for people and land (Webster, 2015). Over time, there has been a considerable shift towards psychological upliftment, not only through the acquisition of skills and confidence boosting, but also through experiencing the natural environment itself in Hogsback. In recent years, there has also been a strong push towards experiential, environmental education through nature-based activities such as hiking, tree-planting, ring-barking and swimming. The value-focus of Hobbiton has remained faithful to socio-economically disadvantaged children, although, in order to be self-sufficient and to provide the activities to all sectors of the community, Hobbiton also offers education and development programmes to paying clients, such as school groups, church organisations and corporate groups, to subsidise these camps.

The need for Hobbiton was and is still based on the premise that many disadvantaged children do not have access (financially and physically) to natural and safe spaces in their everyday lives, whether for recreational or cultural use (Muir, 2002; Webster, 2015). Hobbiton provides a safe and natural space in which to learn new skills, and learn about the natural environment through experiential activities. Hobbiton continues to provide such a necessary space to disadvantaged children in the Eastern Cape, and this resonates well with the fact that, while South Africa has many protected natural spaces, the majority of South Africans are inadvertently denied access to such places (Muir, 2002). Aside from local commonages (which are often neglected and degraded landscapes with little indigenous biodiversity), less-

privileged people often lack access to locally preserved and conserved spaces as a basic right, especially considering that the natural environment is often closely linked to cultural traditions (e.g. initiation practices) (Cocks, Dold & Vetter, 2012). This equates to a socio-cultural and socio-economic absence of access to natural spaces as well as structured nature-based experiences, illustrating how access to nature can be rooted in historical, socio-relational constraints (Mellor, 2015). ‘Nature’ and nature-based experiences may potentially be colonised spaces that inadvertently perpetuate attitudes, relationships and practices based on power imbalances and exploitation. Decolonised nature-based experiences will be explored in greater depth in section 2.3.4.

Under the leadership of Joshua Paton, Hobbiton continues to run as a Not-for-Profit Organisation, with the paying groups subsidising the ‘underprivileged camps’ as they are known. These camps run twice a year, in June and December, for approximately seven days (Webster, 2015). Hobbiton aims to provide disadvantaged children with an insight into a different lifestyle, a contrast to their everyday lives (Webster, 2015). During the camps the children are taught life-skills and personal development skills through social interaction and team-building activities. Further, there is a strong element of environmental education through the nature-based activities (section 4.1.2). All activities, nature-based and otherwise, are strongly underpinned by experiential education theory, which is based on the premise that learning is mediated through embodied practice (Itin, 1999). Further, as a core philosophy, all activities offered at Hobbiton must be voluntary, fun and experiential. Hobbiton’s main learning objectives for the disadvantaged children are: developing a sense of agency and self-efficacy through experiential activities, teaching valuable life-skills, sharing environmental knowledge, and providing a safe and fun space away from the normality of everyday life (Webster, 2015). Hobbiton also provides the transport to and from the towns in which these disadvantaged children live as well as a t-shirt, toiletries, Christmas presents, ample food and a safe, loving environment. In this way Hobbiton caters for the children’s basic needs. These elements are in alignment with the Children’s Rights Charter, which ensures that children’s rights to food, love, shelter and education are protected (Abrahams & Matthews, 2011). There are several core values that underpin Hobbiton’s practices, which include: ‘sanctity of life’: not harming any human or more-than-human creatures; ‘respect’ for the environment, for people, for Hobbiton, for oneself and; these values are loosely underpinned by Christian-based ethic, which centralises respect for all living and non-living things/creatures, with a core emphasis on custodianship (JI1; TI1; ISI456; Webster, 2015).



Figure 1.1: Hobbiton backdrop



Figure 1.2: Predominantly indigenous Amathole forest

1.2.3.1. A brief history of biocultural diversity in the Eastern Cape

The context in which this study is situated is underpinned by a complex socio-cultural-political and socio-economic history. Hobbiton is located in one of South Africa's economically poorest and most rural provinces, the Eastern Cape. The province's history reflects ongoing national struggles to transition from centuries of settler-colonial oppression to a fledgling democracy in which people and land can flourish.

When South Africa was under British colonial rule over a century ago, black people were restricted to owning only 7% of land (Rampehele, 1991). The Nationalist apartheid government (rising in 1948), established native reserves (known as 'independent homelands' or 'bantustans') to strategically keep black people out of urban areas while providing a steady supply of labour for white-owned enterprises (Durning, 1990; Rampehele, 1991). Most 'homelands' were on marginal, unproductive land bearing the region's characteristic red, fragile topsoil. These marginal spaces quickly became places of environmental degradation, poverty, deforestation and overgrazing; places where traditional family structures had unravelled under the economic sway of the commercial enterprises to which young men and women departed to seek employment. The pervasiveness of Apartheid rule across social, political and economic sectors of South African life ensured the institutionalisation of environmental racism, which has endured beyond democracy under black majority rule since 1994 (Olvitt, 2012).

In an extract from a book documenting the history of the Wildlife Society, an environmental NGO with predominantly white membership, Pringle, Bond and Clark (1982, p. 256) reflect – from a liberal white perspective – how the organisation grappled with these tensions during Apartheid:

... [In the late 1970s] the Society told its members. 'It surely behoves us to do all in our power to reach out to this section of the community... the black mind needs to be instilled with knowledge of the mutual benefits to be derived from striving to preserve instead of destroying nature.'

This illustrates the dominance of colonial perspectives in South African outdoor and environmental education centres, which can still be seen today. Well-intentioned strategies to

“reach out to” black communities so that their minds can be “instilled with knowledge” about how to live harmoniously and sustainably with nature reflect a deficit view of a perceived ignorant, destructive ‘Other’. Typically, pedagogies associated with such perspectives were, and are still etic² and focused on value change and behaviour modification.

In the early 1990s, the democratic turn introduced a culture of participation and emancipation to nature-based environmental education programmes. The emphasis, however, often focused on team-building exercises, ice-breakers and collaborative problem-solving. Pedagogies struggled to break through to any profound engagement with learner’s immediate, lived experiences and cultural identifications and capital. Reflecting on these times in South African environmental education, O’Donoghue (1999, p.20) noted with concern the trend towards individualised and superficial participatory methodologies and urged for, “critical review of the peculiar ideological power of participation as an icon of hope and freedom on a terrain of risk, alienation, separation and social conflict.”

The historical accounts of decades of land dispossession, forced removals, inequitable access to natural resources and dehumanising denial of access to health and sanitation services illustrates a picture of a province where people’s relationships with nature are characterised by disconnection and lack of care. More recent research around nature-culture relationships for the amaXhosa people in the Eastern Cape, presents a different picture of strong relationships with nature, but which, until recently has fallen outside of the explanatory capacity and implicit values frameworks of hegemonic, Western conservation discourses (Dold & Cocks, 2012; Cocks, Dold & Vetter, 2012). Cocks, Dold and Vetter (2012, p. 1) describe how young and old Xhosa villagers alike:

...portrayed a strong, although not always easily articulated, appreciation for nature, especially *ihlathilesiXhosa* (‘Xhosa forest’, vegetation types within the Thicket Biome). Activities such as collecting fuel wood and other resources, hunting and time spent at initiation schools were described as key opportunities for spending time in nature. The benefits of being in nature were ascribed not only to the physical experience of the forest environment and its biota, but also to the presence of ancestral spirits.

² Taking an etic stance concerns taking an ‘outsider’ rather than an ‘insider’ cultural perspective.

Being in nature thus contributes significantly to the physical, mental and spiritual well-being of local people, and is also integral to their sense of cultural identity.

In a similar study, Dold and Cocks (2012, p. 14) describe the importance of local forests and thicket as an educational environment for children: “Children collect fruit, hunt birds, swim, climb trees, make clay toys, carve fighting sticks and ketties (catapults), catch fish, and generally play in the forest”.

In another study that investigated how natural resources were used by rural, Eastern Cape children impacted by HIV/AIDS, McGarry (2008) found that the quality of children’s home diets was, on average, 60% lower than the Food and Agricultural Organization (FAO) recommendations. However, he found that 62% of the 850 children interviewed supplemented their diets with wild foods, with 30% supplementing over half their diet with wild foods. These snapshots of culturally and economically-imbued people-nature relationships represent the lived realities of many of the children who attend Hobbiton’s camps for disadvantaged children and are thus important to foreground here, before delving into the thesis.

1.3. THESIS CHAPTER OVERVIEW

Chapter 2 positions the perceived human-nature disconnect as a complex psycho-ontological wicked problem in its perpetuation of the socio-ecological crisis. The concept of ‘wilderness’ and the perceived human-nature disconnect are then historically traced. Towards addressing the problem of disconnection, the potential of nature-based experiences are explored in their capacity to engender greater Connectedness-With-Nature for children. Further, previous empirical research is reviewed for the transformative potential of nature-based experiences. Finally, this chapter fleshes out the study’s aforementioned key concepts and its layered theoretical framework of Deep Ecology (after Naess) and second generation CHAT (after Engeström, 1987).

Chapter 3 outlines the research design for the study, which includes justification of the interpretive case study approach. It then presents the aims of the research in relation to the research questions. The chapter further includes an overview and substantiation of the data-collection methods and tools as well as a detailed account of the data-analysis approach.

Finally, this chapter addresses concerns of reflexivity, research trustworthiness and research ethics.

Chapter 4 presents the first phase of the data presentation in two main sections. Section 1 is an overview of the case study context and Section 2 covers the initial phase of data presentation, which is structured according to the sub-research questions. The main components of this second section include “Participants’ Socio-Cultural and Historical Value positionings”, which addresses sub-questions (a) and (b) of the research, and “Sociomaterial Mediating Factors of Hobbiton”, which addresses sub-question (c) of the research.

Chapter 5 presents the second phase of the data presentation and addresses the main research question. It begins by outlining the Hobbiton activity-system components in relation to Engeström’s (2014) second generation activity triangle. This chapter focuses on the *interactions* between the various elements of the activity system, that is, the interactions between the children’s(subjects) SCHVP, the sociomaterial nature-based activities of Hobbiton (mediating artefacts) and the general value-ethos of Hobbiton (rules/norms/community) and how these interactions mediate the children’s perceptions of, and connectedness with, nature.

Chapter 6 discusses the main research findings in the form of five analytic statements, which are presented below:

1. The children’s SCHVP acted as strong implicit mediators of their developing perceptions of, and connectedness with nature.
2. The knowledge-based and sociomaterial nature of the nature-based activities mediated participants’ perceptions of, and connectedness with, nature.
3. Contradictory ‘loathe-love’ experiences during the nature-based activities mediated shifts in participants’ self and nature-perceptions as well as their Connectedness-With-Nature.
4. Particular value-divergences and value-convergences mediated shifts in participants’ perceptions of, and connectedness with, nature.
5. The nature-based activities were the primary mediators that shifted children’s environmental empathy and identification, nature-perceptions and ultimately fostered pro-environmental intentions.

The chapter mirrors the structure of chapters 4 and 5 by first discussing the role of participants' SCHVP, the mediatory role of the nature-based activities, and then the interactions between participants' SCHVP and the sociomateriality of the nature-based activities. A brief summary of the findings closes this chapter.

Chapter 7 presents an overarching conclusion for the study and includes a discussion of the study's shortcomings, possible future research pathways as well as recommendations for more ethics-oriented design of Hobbiton's nature-based programmes.

2. LITERATURE REVIEW

This chapter includes an overview of the current global and local social-ecological context of the state of the Earth and the social-ecological problems that we face. Taking an Ecopsychology perspective, it problematises the ‘human-nature disconnect’ in its perpetuation of the current social-ecological crisis. Towards addressing this issue, the transformative-learning potential of nature-based experiences is explored, firstly, through an historical overview of the concept of *wilderness*, and secondly, through empirical evidence for the transformative efficacy of nature-based experiences. The key concepts of the study, Connectedness-With-Nature, the Ecological Self, *Ubuntu*, Experiential Learning, ethics-oriented learning and sociomateriality, are also fleshed out in this chapter. Finally, this chapter outlines the study’s layered theoretical framework: Deep Ecology as a philosophical under-labourer and CHAT as a substantive, analytical and theoretical framework.

2.1. THE GLOBAL-LOCAL SOCIAL-ECOLOGICAL CRISIS AND NATURE DISCONNECTION

“There is as yet no ethic dealing with man’s [sic] relation to land and to the animals and plants which grow upon it. . . The extension of ethics to this third element in human environment is...an evolutionary possibility and an ecological necessity...”

(Leopold, 1949, p. 238).

Aldo Leopold expressed these ideas decades ago in his revolutionary essay, “The Land Ethic”. It is clear that today we have not yet accomplished this ‘ecological necessity’. Environmental crises - which are by nature social-ecological problems, such as species extinction, global warming, air and water pollution, poverty, water scarcity and wild-land destruction - are some of the most important problems we face today (UNEP, 2012a). Beneath this social-ecological crisis lies a far more doxic phenomenon at play. That is, the *human-nature disconnection*: a psychological, emotional and physical *perception* that humankind is separate from the more-than-human-world, which may reinforce an actual material disconnect (Adams, 2006; Akhurst, 2010; Driessnack, 2008; McGarry, 2013; Zylstra et al., 2014).

Our current era on Earth has been called the ‘Anthropocene’, acknowledging the impact of human activity in significantly changing the Earth’s atmospheric, ecological, and hydrological processes (Smith & Zeder, 2013; Steffen et al., 2016). Anthropocentrism assumes the universe to be essentially human-centred (Besthorn, 2002). An anthropocentric positioning, which is undergirded by assumptions of human dominion over nature, has been linked to modern climate-change symptoms. Essentially, the billions of humans who inhabit Earth tend to exploit its resources in ways that surpass its capacity to overcome the damaging effects (UNEP, 2012a). The depletion and degradation of key resources already constrains conventional development in various parts of the world. UNEP (2012a) maintains that the Earth System, which acts as a unified, self-regulating system, has been adversely affected by unethical and unsustainable human activities, now apparent on a planetary scale. Detrimental changes pertain to increases in global temperatures and sea levels and ocean acidification, all of which are linked to increased emissions of greenhouse gases, particularly carbon dioxide and methane (UNEP, 2012b). Further anthropogenic changes include extensive deforestation for commercial farming and urbanisation, resulting in rapid species extinctions due to habitat destruction. Moreover, the oil/resources peak (maximum extraction and exploitation of resources such as petroleum) is a major challenge interconnected with climate change and a key triggering factor in the socio-ecological crisis (Sorrell et al, 2012). Previously, such pressures on natural resources were less invasive and the Earth appeared to be able to manage the load of human consumption and production. However, during the latter half of the 1900s, the implications of numerous, diverse local changes compounded at increasing rates, have resulted in dire global consequences (UNEP, 2012b). Due to increased population pressures, accompanied by capitalist agendas, consumerism and globalisation, accelerated rates of production are now tolerated, which in turn legitimises current unsustainable conditions and practices (Herdering & Kearins, 2014).

At the crux of the social-ecological crisis lies the tension between protecting basic human rights such as health and wellbeing, as well as protecting and preserving the natural environment. Wright (2013, p.5), notes that, “understanding environmental sustainability is closely connected to the equality principle of social justice. Equality is a social justice principle among people in the world today. Sustainability is a justice principle for people in the future”. Further, promoting and actualising ethics of environmental and social *equality* (fairness, treating everyone the same) as well as *equity* (ensuring that people have what they need to prosper and live dignified lives) are vital towards addressing the socio-ecological crisis (Smit & Pilifosova,

2003). It is clear that neither goal (environmental or social) should be at the expense of the other, hence the turn towards interdisciplinary and transdisciplinary social-ecological based solutions (Krasny & Dillon, 2013).

Natural resources are being overexploited, a noteworthy loss of biodiversity is occurring (global populations of various vertebrates have declined by 52% in less than 50 years) while a marked rise of carbon levels is leading to climate change, associated with more extreme weather events (UNESCO, 2016). Toxic substances are increasingly found in air, water, soil, and flora and fauna. Parts of the planet face desertification, drought and land degradation (UNESCO, 2016). Simultaneously, billions of people remain locked into poverty, lack drinking water, fresh air, adequate food and nutrition as well as access to well-resourced education (UNESCO, 2016). Many families are displaced or trying to escape from political conflict. Vulnerable population groups (particularly disadvantaged women and children) may not have the resilience to adapt to environmental change because of an absence of agency, capabilities, material resources, information, and public health infrastructure, as well as the lack of effective governance. Further, those who are more financially privileged in more ‘developed’ parts of the world consume and produce at rates misaligned with environmental sustainability towards a flourishing future³ and thus have a negative impact upon those in more economically and environmentally vulnerable parts of the world. These nexus interactions highlight the complex socio-political and environmental nature of socio-ecological crises.

In South Africa, social-ecological challenges also include climate change, untenable development practices, overpopulation, rapid urbanisation and weak governance (UNEP, 2012b). South Africa faces these numerous inter-related social-ecological challenges despite its progressive environmental legislation. Whilst there is good environmental legislation in place and educational emphasis on environmental awareness, action towards environmental sustainability is compromised because of deeper social and cultural structures that do not actually support environmentally ethical life-style shifts (Price, 2015). Challenges are further exacerbated by unequal wealth distribution and poor economic growth, characterised by high levels of resource consumption and waste generation by wealthier society (DEAT, 2012). It is thus vital to underscore the systemic, multi-layered and complex social nature of the

³The term ‘sustainability’ is understood as: “the possibility that humans and other life will flourish on the Earth forever” (Ehrenfeld, n.d., as cited in Herdering & Kearins, 2014, p. 63). Understood in this manner, sustainability-as-flourishing has long-term connotations bolstered by cultural meaning and care.

environmental crisis, complicated by political instability, economic uncertainties, bureaucratic corruption, destabilisation of family and community units, loss of traditional cultural lifestyles and gender inequality and violence. Babugura, Mtshali and Mtshali (2010) maintain that the most onerous challenges are faced by impoverished Black women in rural areas with limited resources to ensure sustainable livelihoods. These women bear heavier burdens resulting from climate-variability impacts due to their socially and culturally constructed, gendered roles and responsibilities, with access to limited resources (Babugura et al., 2010). These examples illustrate the complex social, political, cultural and ecological nature of climate change problems in relation to the deeper issue of perceived human-nature disconnection.

These complex socio-ecological problems have been called ‘wicked problems’ and are by nature hard to define, ambiguous and shifting; they are unsolvable without transdisciplinary and context-emergent approaches (Australian Public Service, 2007; Krasny & Dillon, 2013; Rittel & Webber, 1984). How we deal with these problems necessitates deeper questioning of our very perceptions of ‘ourselves’ and our relationships and connections with nature. As has been argued by many others in the Ecopsychology space, these problems necessitate a radical shift in collective, psychological consciousness towards more ethically-driven, transdisciplinary collaboration in addressing social-ecological dilemmas (Buzzell & Chalquist, 2010; Krasny & Dillon, 2013).

2.1.1. Ethics-oriented learning in response to climate change and nature-disconnection

Environmental education processes appear to inherently *imply* an Earthly ethics of care and responsible decision-making, which ought to accompany environmentally ethical actions (Olvitt, 2010). However, the nuanced nature of people’s values and ethical deliberations underpinning such behaviour and the associated processes of ethics-oriented learning remain poorly understood. “Observations and experiences in environmental education in South and southern Africa suggest that the values associated with environmental practices are commonly taken for granted, under-examined or contradictory” (Olvitt, 2010, p. 73).

Ethics-oriented learning is understood to be key to society’s response to addressing complex socio-ecological problems (Olvitt, 2010), at the heart of which lies the conundrum of human-nature disconnection. It is thus important to unveil the doxic values that currently underpin the

global capitalist system: infinite and preferably exponential economic growth. Such values directly conflict with the goals of sustainability towards flourishing in that flourishing necessitates an ethical positioning that does not prioritise mass consumption and expenditure (Wright, 2013). As such, the values that will guide the path towards a flourishing future need to be made explicit and consciously framed outside and beyond the enclosed and enclosing nature of the market-driven values of Western modern society. Weston (2012) maintains that if we are to aim towards any form of real sustainability, there must first be a radical transgression of our current system, towards new human consciousness, wicked problem innovation and a fundamental sense of nature-connectedness. Wals (2007, p.35) further maintains, “We need nothing short of a new global ethic - an ethic which espouses attitudes and behaviour for individuals and societies which are consonant with humanity’s place within the biosphere; which recognises and sensitively responds to the complex and ever-changing relationships between humanity and nature and between people.” In this light, it is important to foreground and prioritise local people’s diverse modes of being, doing, knowing and valuing in relation to their daily practices and habits, their cultures and their environmental needs, when attempting to influence shifts in environmental ethics and nature-connectedness through top-down sustainability initiatives. People’s modes of being, doing, knowing, relating and valuing are strongly shaped by the various intersecting social, economic, cultural, historical, religious and environmental positionings that they occupy in our everyday realities (Crenshaw, 1991; Edwards-Groves, Kemmis, Hardy & Ponte, 2010; Engeström, Miettinen & Punamäki, 1999).

2.2. THE NEXUS BETWEEN PEOPLE’S VALUE POSITIONINGS AND NATURE-BASED EXPERIENCES, TOWARDS RECONNECTING WITH NATURE

Following these multiple concerns around the future of the Earth, this study sought to explore the nexus between children’s SCHVP and the potential of nature-based experiences towards bridging the human-nature disconnect. People’s SCHVP concern their intersectional backgrounds in terms of culture, socio-economic status, everyday local and global social norms, modes of being, doing, knowing and valuing in particular (that is, what people care about and how they act to care for it) (see section 2.4.1 on values and ethics). This focus on value positionings contrasts with the traditional focus on ‘behaviour change’ (e.g. Hargreaves, 2011; Whitmarsh, Lorenzoni, & O’Neill, 2012) in moving towards more sustainable futures, which tends to overlook how people’s own cultural and social value positionings mediate their environmental *behaviours* and perceptions of, and connectedness with, nature. More research

is needed to understand how people's lived SCHVP, *in relation* to the sociomateriality of nature-based experiences, mediate their perceptions of, and connectedness with, nature.

The focus of this study rests on the premise that for contemporary consumerist societies, a fundamental ontological, psychological, emotional and physical perception of a disconnect from nature or 'ecological apartheid' is central to the convergent social-ecological and material crises (Adams, 2006; Akhurst, 2010; Anderson, 2010; McGarry, 2013). Essentially, this 'blind-spot' is the inability to perceive and experience oneself as part of and dependent on nature (Zylstra et al., 2014). Moreover, the human/nature binary, entrenched in Western discourse, is intimately intertwined within doxic cognitive assumptions that divide holistic reality into gendered dualisms: mind/body, reason/emotion, civilised/primitive, light/dark. This means that humans conceptualise and perceive 'the environment' in contradictory, yet interconnected ways such as: human-nature, anthropocentrism-ecocentrism, androcentrism-gynocentrism, where the prior grouping is legitimised and prioritised, and the latter grouping ultimately serves the needs of the higher valued, less sustainable, prior grouping (Dickinson, 2014; Zylstra et al., 2014).

Taking an Ecopsychological approach, Sewall (1995) understands the human-nature disconnect as a 'collective myopia', a form of psychic numbing that decreases awareness of the world's pain: ozone depletion, increasing poverty, and biodiversity loss. This further blinds the majority of people to the severity of Earth's condition and its connection to an unsustainable future. Collective myopia is also related to rapid industrialisation, urbanisation, consumerist ideology and a technology-laden existence, which together sustain our sense of disembodiment from our natural environments (Akhurst, 2010). It would appear that despite an increasingly materialistic world, we have become disembodied within and from ourselves as well as the more-than-human world (Sewall, 1995). This can be seen as a fundamental crisis of *relation* (Bauman, 1993; Zylstra et al., 2014).

For the study at hand, the perceived human-nature disconnect is seen as a complex nexus issue of: non-reflexive human self-perception, an absence of emotional, embodied nature connection and relational, whole-systems awareness as well as weaknesses in ethics-oriented nature-based pedagogical processes (that is, pedagogical processes that negate rather than embrace people's SCHVP in nature-reconnection learning processes).

2.2.1. A crisis of relation and perceived disconnection

For decades, calls for society to ‘reconnect with nature’ have become common in various disciplines including Environmental Education, Environmental Ethics, Ecopsychology, and popular environmental discourse (McGarry, 2013; Zylstra et al., 2014). However, there appears to be a lack of awareness in government, business, and the general populace about the value of nature-connectedness and its relevance to societal problems (Zylstra et al., 2014). This disconnection from nature has even been labelled ‘nature-deficit-disorder’ among children (Driessnack, 2008; Louv, 2009). This is a label used to address the cost to children as they are increasingly deprived of embodied contact with nature and free play outdoors.⁴

Within the nature-disconnection conundrum, this study problematises conceptualisations of the ‘bounded self,’ as a doxic ‘wicked problem’ of our time. The ‘bounded self’ refers to common perceptions of ourselves as bounded, separate individuals who have become detached from one another and the Earth. Responding to this disconnection necessitates a radically self-reflexive gaze, enabled through a collective transdisciplinary shift of conceptualisations of self (Frantz, Mayer, Norton & Rock, 2005). This call for nature-reconnection is rooted in the Deep Ecology first proposed by Norwegian philosopher, Arne Naess, which moves beyond the individualism of Western culture towards seeing ourselves as fundamentally part of the Earth (Macy, 1995; Naess, 1986) (section 2.4.1). The fact that both direct contact with nature and unstructured outdoor play have decreased at alarming rates in more affluent, western segments of society, highlights the need for more nature-based learning and play (Burdette & Whitaker, 2005; Taylor, Kuo, Spencer & Blades, 2006). Perceiving ourselves as *part of* nature, and *vice versa*, requires us to recognise the materiality of human existence, moving beyond a traditional transcendent world-view. Further, reconnecting with nature may require deeper understandings into how our socio-cultural-historical-material positionings mediate our ontologies, epistemologies, lived experiences, ethical responses to the natural world and our actual capacities for change (Crenshaw, 1991; Engeström, 2000). This is an important pillar of the study: heeding the call for nature-reconnection (psychologically, physically, and emotionally) in ways that recognise and build on our lived socio-cultural-historical-environmental realities. In this regard, an Experiential Learning platform may prove useful towards addressing the

⁴ This label has been critiqued in its ‘absence of deeper cultural examination and alternative practices’ (see Dickinson, 2013, p. 315)

nature-disconnection conundrum. In an ideal world, such a platform would be conceived of as an educative, ethics-oriented, embodied experience, guided by culturally relevant beliefs and values, through which to renegotiate our relationship with the more-than-human world. In this light, the interest of this research was to explore the transformative value of embodied nature-based experiences for children in mediating shifts in their perceptions of, and connectedness with, nature, whilst foregrounding their nuanced SCHVP.

2.3. WILDERNESS AND NATURE-BASED EXPERIENCES

2.3.1. The concept of wilderness

The modern call for nature-reconnection is often linked to the concept of ‘wilderness’ and ‘wilderness’ experiences. The term ‘wilderness’ stems from an old English word meaning “the place of wild beasts” and tends to signify spaces that are ‘untrammelled’ by humans (Akhurst, 2010; Nash, 2014). The concept of ‘wilderness’ in this sense is a subjective human construct steeped in cultural values (Nash, 2014). Cronon (1995) writes that far from being separate from humankind, ‘wilderness’ is a human embellishment, a product of historical civilisation and modern globalisation. In this way, the wilderness protection debate relies on conceptions of natural value premised on a nature/society dualism, which is evident in modern ontologies (Vanderheiden, 2002). Seen in this light, the term ‘wilderness’ may only serve to further reify the human-nature binary. Despite this criticism, in its common current conception, ‘wilderness’ enjoys growing popularity in its need for protection as a place ‘out there’, but as Freud and Jung have noted, also within the human psyche there exist potential ontological spaces that may offer opportunities for bridging the human-nature dichotomy.

This study argues for a more realistic, contextual re-conceptualisation of ‘wilderness.’ ‘Nature’ needs to be re-conceptualised as part of daily life and understood from an emic cultural perspective (Weston, 2012). ‘Emic’ here concerns taking an *insider perspective* with regards to perceptions of, and connectedness with, nature. Ultimately, however, what is of uttermost importance is the re-conceptualisation of the human self within the bigger picture of the Earth. This study does not argue for nature-based experiences as an overarching panacea for the human-nature disconnect, but rather views such experiences as potentially transformative opportunities for integrated personal and environmental learning within South Africa’s rich context of biodiversity.

2.3.2. Tracing the perceived human-nature disconnect

Taking a Euro-American stance, Nash (2014) traces human ‘separation’ from nature back to arboreal humankind several million years ago when humankind thrived in extensive forests. However, around five to six million years ago,⁵ humankind took to the grasslands due to climactic change, which reduced the area of forest available to humans. During this time, humankind’s activities predominantly concerned hunting and gathering and there appeared to be no meaningful ‘human-nature’ distinction (Nash, 2014). With the advent of herding and agriculture the ‘civilisation process’ ensued, driven by human socialisation and economics in the pursuit of progress through land cultivation, and in turn, the self. Hobbes’ notion of ‘self-preservation’ and the Social Contract are relevant here in that preservation of the human self was rationally sought out by means of entering into a ‘civilised’ social contract with fellow human beings to ensure protection from the wilderness (i.e. ‘The State of Nature’) (Millen, 2006). ‘Wilderness’ thus became othered in ways that prioritised and entrenched anthropocentric ideology.

‘Wilderness’ then became a feared space that humankind no longer occupied (Cronon, 1995). With further domestication of animal and plant life, the human-nature dichotomy became increasingly reinforced. ‘Civilisation’ constructed ‘wilderness’ as that which was ‘unknown’, ‘dark,’ ‘savage’, and ‘barren’ (Cronon, 1995; Nash, 2014). Thus, ancient biases against the wild may be deeply rooted in the human psyche and in the endeavour to maintain order and transform the environment, driven by desires for self-preservation. Interestingly, this resonates with modern capitalist values of individualism and the materialistic preservation of the self.

Religion too has played an important part in wilderness conceptualisation. Many of the world’s most authoritative forces on wilderness were (and still are in Christian populations) Biblical as seen through its reference several times in the King James’s Version, to refer to places on the fringes of ‘civilisation,’ where human actions, morals and values could become questioned (Cronon, 1995). With particular reference to the Old and New Testaments, man [sic] is seen as master of the universe, and nature, a place of sin, ungodliness and temptation (Nash, 2014). Thus, the roots of the current socio-ecological dilemma may also partly be rooted in western

⁵ Although these figures are much contested in modern archaeology (McNulty, 2010).

Christianity's view of nature in that religious interpretations largely determined how nature was treated (Hussain, 2002).

This is in stark contrast to 'non-Christ-centric' knowledge systems, which inadvertently became, and still are, constructed as 'other' by dominant Western discourses and ideologies (Ivakhiv, 2005). Early Pagan traditions centralised nature in everyday life: perceiving the divine as immanent in the whole of life and the universe (Ivakhiv, 2005). This is in contrast to Abrahamic traditions, which foreground a transcendent God, and human dominion over nature, thereby constructing 'it' as inferior. Such dichotomies still exist between indigenous and western knowledge systems (Grieves, 2008). This historical tension between transcendent and immanent worldviews, coupled with current modernisation and consumerism, have perhaps further entrenched the physical and emotional disconnection between humankind and nature⁶.

2.3.3. The transformative potential of nature-based experiences

Today, the potential for natural spaces as transformative learning sites remains a rich one both from psychological and educational perspectives. Various 'wilderness' pioneers, including Henry Thoreau, John Muir, Aldo Leopold, Ian Player and Andrew Muir, have advocated for an experiential and psychological reconnection with nature as a deep spiritual necessity. American wilderness romanticist, Thoreau, strongly maintained that the preservation of the world lay in the wellbeing of nature. In his varied wilderness journeys, Thoreau claimed to have felt a strong, transformative connection with nature, onto which he inscribed a sense of sacredness, embedded within the context of the Americanisation of the frontier lands (Cronon, 1995). This turn to 'wilderness as sublime' fostered a romanticised conceptualisation of 'wilderness' in the American mind (Cronon, 1995). Despite this, for Thoreau these experiences (influenced by his own value positioning) were life-changingly transformative learning journeys.

John Muir further captures this sense of romanticised sublime wilderness in his writings on Yosemite and the Sierra Nevada. On Yosemite, Muir (as cited in Cronon, 1995, p.12) highlighted the embodied nature of his experience:

⁶ Note that I refer to the majority population when I speak of being disconnected from nature in the *modern, western* world. There are indeed cultures that integrate nature into sacred cultural practices, for example, traditional isiXhosa male initiation, which involves solo wilderness experiences (Cocks et al., 2012).

...These blessed mountains are so compactly packed with God's beauty, no petty personal hope or experience has room to be. Drinking this champagne water is pure pleasure, so is breathing the living air, and every movement of limbs is pleasure, while the body seems to feel beauty when exposed to it as it feels the campfire or sunshine, entering not by the eyes alone, but equally through all one's flesh like radiant heat, making a passionate ecstatic pleasure glow not explainable.

Concerning wilderness encounters, John Muir asked: "Why should man [sic] value himself as more than a small part of the great creation?" (as cited in Scott, 1974, p.234). Muir's reflections on these embodied learning experiences speak volumes in the turn towards seeing ourselves as one small part of the Earth.

Aldo Leopold (1970, p.12), best known for his book, *A Sand County Almanac*, wrote: "The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land". In essence, "A land ethic changes the role of Homo sapiens from conqueror of the land-community to plain member and citizen of it. It implies respect for his [sic] fellow-members, and also respect for the community as such" (p.13). In relation to modern environmental ethics and the ontological turn towards seeing ourselves relationally, Leopold epitomised the relational extension of ethics as a learning process in ecological evolution.

Ian Player (founder of the Wilderness Leadership School in South Africa), in his work *Zululand Wilderness: Shadow and Soul*, quotes the learning experience of a young Australian man who reflected on his nature-based journey in Africa:

Amongst this wider range of opportunities came the chance...in a stimulating and non-stressed environment for introspection, reflection and for establishing in my mind a more complete picture of myself and my own relationships with all those other components that go to make up our own Spaceship Earth(Player & Steele, 1997, p.20).

Despite the positive, transformative potential of nature-based experiences, 'wilderness' is also controversially associated with sites of crimes. Using the term "bubble-wrap generation", Malone shows how certain urbanised and relatively wealthy parents often relay a sense of uneasiness about nature to youth. Discourses of anxiety, stranger danger, overrepresentation of

violence and ‘terrorism’ by media convey the outdoors as dangerous (Malone, 2007; Valentine & Mckendrick, 1997). Furthermore, while the call for embodied nature-reconnection becomes more widespread, hiking in natural spaces in South Africa has become contested due to increasingly high rates of lethal crime. Muggings, rapes and murders along hiking trails have increased considerably over the last few years. Weston (2012, p.85) maintains that today, people’s concerns centre far more around encountering other humans in natural spaces, “gun nuts, meth-makers.... rather than predatory animals.” In an interesting effort to curb crime in natural spaces Namibian government officials aim to implement ‘Operation Omake’, an initiative that urges the general public to clear bushy areas so as to stop them being used as hideouts by criminals, despite the likelihood that such an operation would negatively impact indigenous tree and plant species (“No Environmental Clearance For Operation Omake”, 2016).

The increasingly common occurrence of women who are raped by men in wilderness settings in South Africa speaks to the parallels drawn by eco-feminists between global and local patriarchal violence against women and the violence against and exploitation of nature. Warren (2010) maintains that patriarchal domination over women is conceptually and historically bound to the domination of nature. Warren (2010) further argues that racism and speciesism are merely forms of hierarchical discrimination akin to sexism. Despite these alarming cases and eco-feminist parallels, there is an array of more promising literature, which points to the psychological and educational benefits of embodied nature-based experiences.

2.3.3.1. Nature-based experiences as embodied, sociomaterial encounters

Essential to this study are the concepts of Experiential Learning and sociomateriality in relation to nature-based experiences. Experiential Learning has become increasingly popular in educative processes over the past few decades in that it challenges the hegemonic logic of institutionalised, expert knowledge (Dewey, 2013; Fenwick, 2007; Kolb & Kolb, 2005). Essentially, Experiential Learning concerns how growth in understanding and learning occurs through real-life, embodied experiences. Generic theorisations of Experiential Learning stipulate a structured process of embodied-learner engagement through linear processes of action, reflection, abstraction, and application (Itin, 1999). Learning is seen as “the process whereby knowledge is created through the transformation of experience: knowledge results from the combination of grasping and transforming experience” (Kolb & Kolb, 2005, p. 194).

Carver (1996, p. 9) describes the holistic approach of Experiential Learning: "...it addresses students in their entirety - as thinking, physical, emotional, spiritual and social beings." Further, experiential understandings can add transformative and expansive dimensions to learning which "...add flesh and life to the bones so often polished smooth and white by analytical thought" (Jickling, 2009, p. 168). Essentially, Experiential Learning "results from synergetic transactions between the person and the environment" (Kolb & Kolb, 2005, p. 198). This highlights the importance of contextual synergies, which can drive and underpin effective learning processes, contrary to the emphasis on dissonances and contradictions in socio-cultural learning theories (section 2.4.2.4).

As much as the theory of Experiential Learning has broadened understandings of learning and expanded potential pathways for progressive forms of alternative learning, it has also been critiqued from a critical decolonisation perspective (Fenwick, 2007). Critiques of the theory vary from Cartesian dualisms being inscribed onto Experiential Learning processes (i.e. that there is a dualism at all between mind and body within the nature-based learning context), to critiques of its emphasis on disembodied reflection on experience (reflection sessions often occur outside of the nature-based learning context), and further, its exclusion and enclosure of alternative ecologies of experience through normative and often imposing approaches to Experiential Learning processes (alternative experiences of the physical natural context are often inadvertently subjugated by normative pedagogies) (Fenwick, 2007). Such criticisms are important for the study at hand, considering its concern for the decolonisation of nature-based pedagogies towards opening up spaces for embodied, nature-based experiences that centralise the importance of the participants' SCHVP as well as the sociomateriality of nature-based experiences themselves.

'Sociomateriality' is also a key concept here considering the implicit notion that nature-based experiences are unquestionably 'embodied'. The term 'sociomateriality' is underpinned by a diverse range of theoretical families including socio-technical studies, complexity theory and new feminist materialisms, among others (Fenwick, 2015). The shared premise is that "...there are no clear, inherent distinctions between social phenomena and materiality" (Fenwick, 2015, p. 1). Practices themselves comprise of interwoven social and material forces, which continuously assemble and reassemble. Further, "objects, events, identities and knowledge are understood to be performed into being through these social and material relations" (Fenwick, 2015, p. 1). Examples from education research show how learning itself is a sociomaterial

matter, how materials actively mediate learning, and how educational processes are fluid sociomaterial achievements (Fenwick, 2015). Moreover, the sociomaterial milieu of learning contexts is critical in that learning cannot realistically be considered if the emphasis only centres on internal individual cognitive processing (Daniels, 2008). Sociomateriality is about moving from a subject-centred view of learning, to acknowledging that social, contextual and material elements of the more-than-human world mediate learning. In this study, the sociomaterial consists of “objects, bodies, technologies and settings”, all of which “...permit some actions, and prevent others” (Fenwick, 2015, unpagged). In this light, the sociomaterial nature of the nature-based activities and experiences focused on in this study was a key focal point for understanding the mediation of Experiential Learning in relation to experiences of Connectedness-With-Nature.

It thus becomes clear that, in order to understand and develop an ethics of care for nature, we have to experience nature in an embodied, personal way (Herdering & Kearins, 2014). The psychological benefits of nature immersion are diverse, with a growing array of literature supporting its role in well-being, personal and community restoration and spiritual health (e.g. Akhurst, 2010; Pretty et al., 2007; White & Hendee, 2000). Restorative perspectives have been highlighted by Ulrich's (1983) psycho-physiological stress reduction framework and Kaplan and Kaplan's (1989) attention restoration theory. Wilson's (2007) biophilia hypothesis predicts that one's psychological health is associated with one's relationship with nature and that humans tend to associate with natural, life-like processes, serving our biological needs. Ecopsychologists contend that a capacity to live in balance with nature is essential to human emotional and spiritual well-being in accordance with the wellbeing of nature. Such a view is generally consistent with the healing traditions of indigenous peoples past and present, but largely absent in modern Western psychological life and theory (Anderson, 2014; Roszak, Gomes & Kanner, 1995). In a culture of western modernity that values scientific knowledge over intuition, verbal communication over embodiment, rationality over empathy, and action over reflection, embodied nature-based experiences may offer a method to recentralise emotional nature-connection (Akhurst, 2010).

2.3.3.2. Empirical evidence for the efficacy of nature-based experiences

There is ample evidence to suggest that nature-based experiences can have powerful positive environmental and psychological effects on humans. In a comprehensive quasi-systematic

literature review (using 71 studies) of the effects of immersion in nature for children in the UK, Gill (2011) reported that spending time in nature promotes healthy development, well-being and positive environmental attitudes and values. Other findings reveal links between childhood nature-experiences and associated positive views about nature stretching into adulthood (see Wells & Lekies, 2006)⁷. Some studies have found that increased time spent in green spaces (parks, gardens or forests) appears to reduce symptoms in attention-deficit/hyperactivity disorder (ADHD); the “greener” the natural setting, the greater the symptom relief (Kuo & Taylor, 2004; Taylor, Kuo, & Sullivan, 2001). On the contrary, indoor activities, such as gaming or watching TV, as well as outdoor play in man-made areas, appear to exacerbate ADHD symptoms (Louv, 2009). Further, an absence of regular affirmative experiences in natural settings has been associated with the fear and dislike of natural spaces (Gill, 2011).

Johnson (2002) has identified several psychological and spiritual benefits of nature-based experiences. These include “the enduring”, “the sublime”, “beauty”, “competence”, “experience of peace”, and “self-forgetting”. “The enduring” refers to having a sense of the eternal cycles of time, change, and ecological systems in nature. “The sublime” concerns experiencing the immensity and interconnectedness between humans and nature. Experiencing a sense of “beauty” (often through overcoming challenges during the experience) may help to engender spiritual peace, humility and comfort in natural spaces. Experiencing a sense of “competence” through the challenges of wilderness experiences is particularly important. Nature-based challenges are often experienced as empowering, leading to increased self-efficacy and calmness (Johnson, 2002; Kaplan, 1995). Further, Johnson (2002) maintains that sensing the enduring aspects of nature, the reduction of daily concerns due to experienced awe in nature, experience of beauty, feelings of self-competence, and the attention-focusing effect, may all contribute to a sense of peace. Finally, “self-forgetting” concerns the ability to identify with the enduring elements of nature through diminished identification of the self with individual egos. This connects deeply with the call for expanding our notions of ‘individual self’ to include nature (section 2.4.1.1), akin to Leopold’s call for the ecological extension of human ethics.

⁷Here it is important to note that not all children physically, emotionally or psychologically experience nature in similar ways.

From a South African perspective, Akhurst (2010) conducted a psychological study that explored the nexus between wilderness and therapeutic experiences. She reflects that wilderness experiences can provide a unique opportunity for increased mental and emotional functioning, cognitive freedom, imagination, and increased opportunity for spiritual states. Further, embodied, nature-based experiences may foster healing through challenging one's sense of identity in daily life. This emphasis on embodiment contrasts with the traditional focus of psychotherapy as 'the talking cure' in aiding psychological healing (Akhurst, 2010).

Ferreira (1998) has explored the value of hiking for environmental advocacy and maintains that increasing interest in outdoor activities, especially hiking, shows that people are seeking alternative ways in which to become embodied in natural spaces. Hiking can provide an experiential opportunity for environmental education through exposing people to cases of environmental deterioration and preservation, which may foster more environmental awareness and concern that lead to environmental action and advocacy (Ferreira, 1998).

Beyond these positive findings on the efficacy of nature-based experiences for environmental education and psychological wellbeing, it is clear that there are deeper layers of learning to connect with nature to explore in South Africa in terms of its complex history and the colonial approach often taken to nature-based pedagogies.

2.3.4. Decolonising nature-based experiences

Today, South Africa is the one of the only African countries to make provision for the protected area category "Wilderness Area" in its legislation. However, in reality and in light of the Eastern Cape's bio-cultural history (section 1.2.3.1), far more western tourists have had access to these wilderness areas than have local Black South Africans. The legacy of Apartheid endures in that Black people were (legally) and are still inadvertently excluded and denied access to public nature reserves, picnic areas, beaches and hiking trails (due to financial and geographical barriers). Muir (2002) maintains that for many Black South Africans, protected areas are not only reminders of discrimination but also reminders of forced relocation. There are also prominent tensions between wilderness preservation obligations and the need to ensure that all people have quality living conditions, as well as addressing land-restitution injustices after apartheid (James, 2000; Magome & Murombedzi, 2003). A more doxic and under-

researched area concerns the colonisation of nature-based pedagogies, which is central to the study at hand.

Child-oriented, experiential nature-based pedagogies in South Africa have tended to foreground environmental behaviour-change largely from an etic perspective. That is, traditional nature-based pedagogies in South Africa introduce Western conservationist values into contexts of heterogeneous embodiments and understandings of Connectedness-With-Nature. Essentially, this means that children participating in these programmes are encouraged to take on environmental values that are often disconnected from their socio-cultural-historical and economic contexts, as well as from their everyday understandings of, and experiences in, nature and their lived environmental concerns (Muir, 2002; Zazu, 2007). Few nature-based pedagogies work emically, from the ground up, towards understanding how children's own lived socio-cultural-historical, economic and social-ecological contexts mediate their Connectedness-With-Nature in ways that may be far more powerful than disembodied, sometimes even alienating, outdoor learning programmes (Masuku van Damme & Neluvhalani, 2004). In this light, understanding the interplay between participants' positionings and sociomaterial aspects of nature-based pedagogies could enable more relational, emic understandings of how children learn to connect with nature through structured nature-based experiences, and potentially guide the development of more progressive associated pedagogies. Part of this shift towards more emic nature-based pedagogy involves the transformation of pedagogies that privilege colonial accounts and values of people-nature relationships at the expense of developing children's reflexive engagement with their own embodied experiences and traditional bio-cultural identifications with nature. Embodied pedagogies alone are insufficient towards fostering a sense of Connectedness-With-Nature in that they may well (even inadvertently) sustain imperialist narratives, relationships and practices that subordinate and control certain groups of people and the natural world.

Decolonised stances can introduce a critical, reflexive edge to nature-based learning processes that might otherwise risk being little more than well-intentioned but socio-culturally disembodied efforts to reconnect children with nature. Most teacher education programmes still reflect neo-liberal discourses, colonial content and knowledge hierarchies that fail to, "embrace learning in all its complexity, informed by culture, experience, environment, and the more-than-human world" (Sanford, Williams, Hopper & McGregor, 2012, unpagged). Educators writing about decolonising pedagogies point to the significance of open, generative

dialogue, reflexivity and relationality towards enabling authentic, historically-situated learning processes. For example, Asher (2005) draws on post-colonial and feminist theories (in particular the work of HomiBhabha, 1994) to highlight the potential of ‘hybrid spaces’. These are spaces of inbetween-ness where children and educators can “validate their particular histories/life stories and at the same time (...) rethink relations of oppression” (Asher, 2005, p.1103) and where unequal cultural power can shift and become fluid (Williams & Tanaka, 2007).

Currently in South Africa, little has been researched and published about the role of decolonised pedagogy in nature-based education. Much recent educational research interest, funding and innovation has focused on strengthening classroom-based environmental education processes due to national curriculum revisions (Schudel, 2016) and responsiveness to post-apartheid nation-building and international advancements of Education for Sustainable Development (O’Donoghue, 2007). Nature-based education in South Africa has recently receded, as the concept of ‘nature’ has been gradually replaced with more utilitarian or scientific concepts such as ‘natural resources’ or ‘biophysical environment’ in policies and curricula (Ashwell, 2010). Part of this diminishing focus on nature in environmental education programmes may be due to the urgency of addressing environmental injustices and sustainable-development agendas in South Africa’s democratically emerging state. Furthermore, prominent environmental educator’s critiques of nature-based education in the 1990s may also have undermined confidence in the relevance and political appropriateness of its typical pedagogies in a post-apartheid setting, considering that nature-based education was historically linked to ‘whites only’ access to nature reserves (Ashwell, 2010).

2.3.4.1. Local nature-based initiatives

In light of these critiques, Muir (2002), co-founder of the Wilderness Foundation in South Africa, has made a valuable contribution to decolonising nature based pedagogies through his emphasis on African wilderness values that include a conscious focus on emic cultural-nature values for local peoples. The Wilderness Foundation has established an experiential wilderness programme called *Imbewu*, a four-day beginner wilderness experience (Muir, 1999). This initiative allows vulnerable South African youth to reclaim their right to protected natural spaces. Muir (2002) notes that the participating youth often experience and begin to appreciate wilderness as irreplaceable and inspirational to the human spirit.

Other nature-based programmes and initiatives in South Africa are beginning to be recognised for their Experiential Learning potential, however it remains to be seen whether these programmes foreground and unveil participants' own values and beliefs into their approaches, that is, are these learning processes values-based and ethics-oriented from the start? Some examples of outdoor education organisations include: SEED, Earth-Child and Soil for Life in the Western Cape, as well as Umthathi, Forestways and Hobbiton-on-Hogsback in the Eastern Cape. A more recent example of the benefits of hiking is "Hiking With iDaki", established in Cape Town, 2016. This initiative seeks to bring Black youth together in natural spaces, which were historically inaccessible and which are currently not often occupied for recreational purposes. This initiative seeks to challenge stereotypes about 'all Black people' being 'dangerous' in natural spaces, and to decolonise natural spaces through mobilising Black youth hiking in such spaces (LeadSouthAfrica, 2016).

Further promising empirical evidence for nature benefits includes mixed methods research on the effectiveness of Earth-Child Project's (Cape-Town based NGO) nature-based activities and 'living classrooms' for socio-economically disadvantaged children. Smit (2010) found that Earth-Child's experiential, nature-based learning programme, which includes yoga practice, worm-farming and nature-based camps and hikes as well as gardening initiatives, integrated into daily school curricula, are effective in raising self-esteem, improving social and emotional support through building meaningful relationships, as well as improving environmental awareness, knowledge and advocacy. Such findings are positive, but the question remains whether such activities and processes are values-based and ethics-oriented. That is, do such programmes foreground children's own value positionings in relation to their cultural perceptions of, and identifications with, nature? Wals (1994, p.178) notes that, "Nature experiences and people's perceptions of nature are an essential part of environmental education, but only when connections are made with everyday life and with the environmental challenges people face, as individuals and as society as a whole".

Overall, strong arguments have been made for an experiential, 'wild pedagogy', advocating environmental learning through embodiment, which in turn may also contribute to individual wellbeing and positive shifts in self and nature perceptions (Jickling, 2014; Weston, 2004). However, in light of the social-ecological, socio-cultural and socio-economic challenges South Africa currently faces, it is pertinent to foreground people's SCHVP in heeding calls for a

nature-reconnection. These findings highlight the importance of socio-cultural-historical, personal biographical, as well as contextual factors in shaping people's perceptions of, and connectedness with, nature (Muir, 2002). It is thus vital for outdoor educators to foreground bottom-up, ethics-oriented praxis in developing nature-based learning programmes through integrating emic nature-culture values and experiences into the pedagogy-design process. In essence, the process of connecting with nature necessitates an emphasis on participants' personal positionings and how these inevitably mediate shifts in perceptions of, and connectedness with, self and nature. The heart of such a learning process is ethical in nature. That is, through personal, critical, embodied reflexivity on the human-nature disconnection, we might begin to forge new, expanded senses of self and nature, or at least in theory, particularly if these learning pathways begin from ethics-oriented, emancipatory starting points. Perhaps, through this consciousness shift, we might begin to engender an ethics-oriented change towards a relational ethic of Earth-care (Jickling, Lotz-Sisitka, O'Donoghue & Ogbuigwe, 2006).

It is here that Community Psychology, Transformative-Transgressive learning, and ethics-oriented learning approaches can complement one another in heeding calls for decolonised nature-based pedagogies for multi-cultural participants. Community Psychology foregrounds critical systems-thinking, relationality, the importance of context, community collaboration, assets-based strategies and an explicitly value-based praxis towards advancing social justice and social action (Nelson & Prilleltensky, 2010; Prilleltensky, 2001). Ethics-oriented learning (section 2.1.1) centralises the importance of making values explicit in action-oriented Environmental-Education processes. Transformative-Transgressive learning theory foregrounds transdisciplinary, collaborative approaches that seek to trouble *status quo* values, towards challenging wicked problems (Lotz-Sisitka, Wals, Kronlid & McGarry, 2015). These cross-disciplinary approaches all emphasise ethics-oriented, collaborative, action-oriented, bottom-up, relational strategies towards changing practice. If these combined complementary approaches could be the starting point for the collaborative design of embodied nature-based initiatives, participants might begin to see new paths for perceiving and connecting with nature in ways that foreground and resonate with their everyday lives and value positionings.

2.4. LAYERED THEORETICAL FRAMEWORK: A RELATIONAL, SOCIO-CULTURAL-HISTORICAL STANCE

The discussion thus far has drawn connections between the global-local environmental crisis and people's increasing disconnection from nature, accelerated by hegemonic consumerist lifestyles and anthropocentric values. The discussion has also introduced the concepts of wilderness and nature-based experiences as potentially transformative for self, social and environmental learning. The next section foregrounds a relational-value approach to understanding people's relationships with nature. Following on from this is an introduction to the study's philosophical underlabourer, Deep Ecology, which centralises ecocentric dispositions towards connecting with nature and acting for the flourishing of Earth and humankind. The chapter then turns to CHAT, the study's substantive, analytical theory, which foregrounds socio-cultural-historical context in the processes of mediating Connectedness-With-Nature.

Before delving into this study's theoretical framework, it is important to review how values and ethics are understood from an environmental perspective within the study. Values concern what people care about, and the ways in which they *act* (embodied practice) to care for what they value. Values are seen as *practices* rather than abstract guiding principles, because we tend to *act* for the things that we care about. We thus will values into being through our bodily existence (Nietzsche, 2010). When values and intentions are discussed in this study, they are conceptualised as enacted, embodied practices.

Ethics concerns the socially established ways of differentiating between 'right' and 'wrong' in relation to people's matters of concern (their values) (Dietz, Fitzgerald & Shwom, 2005). Both values and ethics are understood to be *relational* from a socio-ecological, ontological perspective. The field of Environmental Ethics is based on the idea that morality ought to be extended to include the relationship between humans and nature in a fundamentally relational manner (Kortenkamp & Moore, 2001; Leopold, 1970). This necessitates processes of open, ethical reflexivity through making explicit the values (what people care about) that guide the processes of learning to connect with nature. Ethics in this study is conceptualised as a *process* of personal, self-reflexive critical inquiry, that is inherently relational, open-ended, pluralistic and always shifting with the changes of time and space (Jickling, 2005; Olvitt, 2012). Conceptualised in this way, ethics becomes deconstructed as fixed, abstract principles that we

live our lives by, and rather emphasises the fluid, relational, embodied, sociomaterial and socio-cultural-historical nature of ethics. The logic of centralising ethics-oriented, sociomaterial, Experiential Learning in relation to nature-based experiences and objectives of Connectedness-With-Nature is to emphasise the importance of making values and the sociomaterial nature of nature-based experiences more explicit in contextually-mediated learning processes. Deep Ecology speaks directly to the relational, ethical processes of learning to connect with nature in critical and embodied ways.

2.4.1. Deep Ecology

Deep Ecology is a *relation-oriented* environmental-ethics framework, which “...takes the vantage point that moral agents are situated in morally relevant relationships with humans and non-humans, and that the justification of actions and principles will take these particular relationships into consideration” (Kronlid 2003, p. 156, as cited in Kronlid & Öhman, 2012). Further, Deep Ecology addresses the social sources of violence done to both human and more-than-human nature, identifying the historical, cultural, political, and economic roots of our eco-psychological crisis (Fisher, 2013). In essence, Deep Ecology aligns with the call for how “deep changes in understanding about the interrelationships between people and their life-support systems are required [that are] deeply connected to a fundamental re-orientation of the place of humanity in nature” (Lotz-Sisitka, Belay & Mukute, 2012, p.59).

Norwegian activist and philosopher, Arne Naess, first introduced the term ‘Deep Ecology’ in 1973. Naess (1986) emphasised the need to radically surpass superficial responses to social-ecological problems. Deep Ecology distinguishes a moral relation to the natural world from an instrumental one, which deals with superficial symptoms of the deeper crisis, thus emphasising the interdependent value of human and more-than-human-life as well as the importance of the ecosystem and natural processes (Bragg, 1996). Deep Ecology proposes a way in which to trouble our notions of self and our personal ontologies. Naess (1986) proposed that we ask 'deeper questions', attending to the 'why and how' of the way we live, and seeing whether this aligns with our proposed beliefs, needs and values. Interrogating ourselves with questions like, "How can I live in a way that is good for me, other people and our planet?" may lead us to make meaningful ethical changes in our lives. Deep Ecology thus challenges doxic assumptions about how we perceive and position ourselves, towards seeing ourselves as part of the Earth and not simply as bounded individuals exploiting natural resources. Troubling our ontological

assumptions in this way could enhance our sense of belonging in life and our tendency to act for life (Besthorn, 2002).

Naess (1986) proposed eight core principles of Deep Ecology. Principle 1 maintains that the flourishing and wellbeing of human and more-than-human life have intrinsic value in themselves. Principle 2 maintains that the diversity of life contributes to the realisation of these values and that they are simultaneously values in themselves. Here 'primitive' plant/animal species contribute to the diversity of life through their inherent value, rather than being 'smaller steps 'towards 'greater' cognisant life-forms (Naess, 1986).

Principle 3 maintains that humans have no right to reduce this diversity except to satisfy vital needs. Here, 'vital need' is purposely left open to interpretation. Differences in climate-related factors, together with societal, structural inequalities, need to be fore-grounded (Naess, 1986). This is particularly relevant today as we continue to face complex, contextually varying, wicked problems concerning multiple layers of climate change intertwined with social inequality, political instability and mass consumerism. Principle 4 maintains that the flourishing of all life forms necessitates a substantial human-population decrease over time, which means reducing human interference with, and exploitation of, nature. This reduction necessitates a radical conscientisation to wicked problems.

Principle 5 asserts that current human interference with nature is superfluous and rapidly worsening, resulting in irreparable ecosystem changes. Here, Naess (1986) advocates the protection of wilderness areas. Principle 6 concerns policy change and action that will affect basic economic, technological, and ideological structures. Current capitalist agendas are incompatible with a flourishing future and environmental policies need to translate into ethical, sustainable practice through global environmental consciousness and local action (DEAT, 2012; Naess, 1986). Principle 7 advocates an ideological shift away from increasingly higher living standards. Principle 8 maintains that those who subscribe to the aforementioned principles are obligated to take action towards sustainable and ethical change.

These principles may seem broad and prescriptive but the overarching ethics, to which Naess (1986) is guiding us, is simple and important for this study. He urges humankind towards a relational ontology, through critical self-reflection beyond the bounds of evolutionary hierarchy. This means being reflexive about our perceptions of self and nature as human beings.

Deep Ecology's spiritual, philosophical and experiential re-conceptualisation of self ventures beyond the modern Western way of bounded self-identification (Besthorn, 2002). Rather, the concept of self is broadened to encompass a deep interconnectedness and interdependency between all life processes and forms. In essence, Deep Ecology supports a shift in psycho-ecological collective consciousness towards the expansion of the Ecological Self, an important concept for the study, which will be discussed below in section 2.4.1.1.

The roots of modern nature-disconnection problems can be found in the historic and conceptual split between the 'in-here' and the 'out-there' (Roszak et al., 1995). This Western,⁸ anthropocentric, self-centred bias legitimises the negation of any inherent connection between the human self and 'nature,' and in doing so, nature has been removed from our understanding of ourselves and our collective relationships with others. In this way, we have become emotionally, spiritually and politically *denatured* (Besthorn, 2002). This is not to negate other forms of self-perception or identification not covered here, but rather to highlight global structural mechanisms of consumerism, which bolster radical individualism and in turn perpetuate human-nature binary thinking (Adams, 2006; Anderson, 2010; Frantz et al., 2005; Kortenkamp & Moore, 2001)⁹. Towards addressing the roles of human perceptions of self and nature in our current socio-ecological crisis, Deep Ecology and Ecopsychology have begun to flesh out a conception of an Ecological Self (Adams, 2006).

2.4.1.1. The Ecological Self

Forging an Ecological Self concerns reweaving humanity's inherent inter-connectedness with Earth as a whole, through a revitalisation of each person's direct, lived, and sensual experience with the complex whole of nature, where the socially constructed boundaries between oneself and the 'natural world' may become deconstructed (Besthorn, 2002). The Ecological Self (in theory) experiences a fluidity of boundaries, an empathy and identity with all that is, which ideally translates into a radical awareness of the interdependence of everything through a recognition that to tread heavily on the Earth is to tread heavily on oneself (Naess, 1986;

⁸Categorisations based on notions of what is 'Western' and what is not can be misleading and contested. Here, I use the term to refer loosely to people who are living within the hegemonic sway of capitalism and consumerism, started in the 'West' (North America, the United Kingdom and Central Europe) and now spreading in the so-called 'global south'.

⁹Let it also be said here that the categories 'human' and 'nature' are not in themselves problematic, but rather, the loaded, reified and dichotomous terms are problematic in perpetuating our wicked problems. Categories should be used in ways that lead to empowerment, protection and care, rather than oppression (Price, 2015).

Sewall, 1995). Here, the term ‘empathy’ concerns feelings of compassion, identification, to care from a distance; such feelings are usually aroused through concern for another’s welfare (Walker & Chapman, 2003). Research shows that when people extend their self-definitions to include the natural world, they are more likely to act in an environmentally friendly manner (Frantz et al., 2005; Nisbet, Zelenski & Murphy, 2008). On a more critical note and one that sheds light on the social and political nature of human identity, Mcphie and Clarke (2015) argue that the very idea of static, unchangeable and independent identities, which stems from binary modes of thinking, could have racist, sexist and specieist implications. This is an important point as it unveils how doxic perceptions of self, which are often glorified in their uniqueness and independence, play a part in perpetuating detrimental human-nature binaries as well as cultural, social and political forms of othering.

Deep ecologists have suggested a variety of practical techniques for enhancing the Ecological Self and shifting nature-perceptions. These range from the practise of spiritual and philosophical disciplines (e.g. Zen Buddhism, Taoism) as well as the integration of the modern cosmology of science (through science and natural history) (Bragg, 1996). Naess (1986) called for community therapies that heal human relations with themselves and the more-than-human world. Macy (1995) contributed through experiential workshops, ‘The Council of All Beings’, including role-plays and ‘despair and empowerment’ processes intended to expand self-perceptions. Ecopsychologists further suggest one-on-one psychotherapy such as shamanic counselling (Sewall, 1995), Gestalt therapy of the client–Earth relationship (Cahalan, 1995), and the connection of personal struggles to problems in the larger world (Conn, 1995). More recent developments include horticultural therapy (embodied contact with the Earth through gardening) as well as animal-assisted therapy (where healing is fostered through closer relations with more-than-human species) through which a deeper sense of connection and respect may be fostered (Buzzell & Chalquist, 2010). As per the focus of this study, and other suggestions (Akhurst, 2010; Amato & Krasny, 2011; Besthorn, 2002; Bragg, 1996; Muir, 2002), embodied, nature-based experiences appear to have the potential to mediate shifts in nature- and self-perceptions and Connectedness-With-Nature.

2.4.1.2. Connectedness-With-Nature

Related to the Ecological-Self is the concept of Connectedness-With-Nature on physical, emotional and psychological levels. This concept derives from Ecopsychologists’ contention

that a personal and emotional reconnection with nature is an important predictor of ecological behaviour and subjective wellness (Mayer & Frantz, 2004; Nisbet et al., 2008). This is not to say that all human beings are literally, physically disconnected from nature but rather that there is an emotional and psychological disconnect. Miller (2005) describes this as the ‘death of experience’ with nature, which mediates a physical and experiential disconnect. Mcphie and Clarke (2015, p. 234) criticise the ‘nature-human disconnect’ argument in that humans “...cannot be separate from nature because we are *of* the world rather than in or on it”; we are composed of the materials and energies of the Earth, and thus cannot be separate. In this light then, “...if we are of the world, as opposed to in or on it, then we may place both mind and material in the same arena...” thereby deconstructing the reified mind-body binary (p. 234). Also interesting here is the etymology of the word ‘human,’ stemming from the Latin *humamus-hominis*, related to humus, the organic component of soil. Thus to be ‘human’ means to be *of* the Earth (McGarry, 2013). Nevertheless, in the modern world, humans tend to *perceive* themselves as separate from nature.

Many nature-reconnection concepts have been developed in response to human-nature disconnection, some of which include ‘Nature-Relatedness’ (Nisbet et al., 2009), ‘Connectivity with Nature’ and ‘Connectedness-To-Nature’ (Mayer & Frantz, 2004). However, some of the most recent work on nature reconnection concerns Connectedness-With-Nature, a central concept to the study as it denotes a sense of reciprocity and mutualism with nature and that humans are an intimate part *of* nature (Zylstra et al., 2014). Connectedness-With-Nature can be defined as a steady state of consciousness comprising symbiotic, cognitive, affective, and experiential traits that reflect, through consistent attitudes and behaviours, a sustained awareness of the interrelatedness and connectedness between one’s humanness and the more-than-human world (Zylstra et al., 2014). Connectedness-With-Nature (Figure 2.1 below) appears to sit on a continuum between *information about* nature (shared cognitive facts about nature), *affective experience in* nature (structured or unstructured activities or nature-based experiences where nature has a personal, emotional meaning), a mind-body-spirit sense of Connectedness-With-Nature (which could arise through affective experience following nature-immersion, enlivening one’s spirit), and a *culturally-embedded* sense of Connectedness-With-Nature over time (sustained embodiment of this tripartite). Together these all combine towards engendering a deeper, more committed Connectedness-With-Nature. This highlights how Connectedness-With-Nature requires fluid equilibrium between, “faculties of mind, body, and spirit (i.e. one’s source(s) of inspiration) to generate willpower aimed at actualizing ‘self’ and

being of service to others” (Zylstra et al, 2014, p.125). “CWN therefore appears as a complex and veritable mix of synergistic information about feelings toward and experiences in or with nature”, with embodied nature-based experiences being the most important factor towards dissolving perceived ‘self-other-nature’ boundaries and sustaining a sense of connectedness over time (Zylstra et al., 2014, p.125).

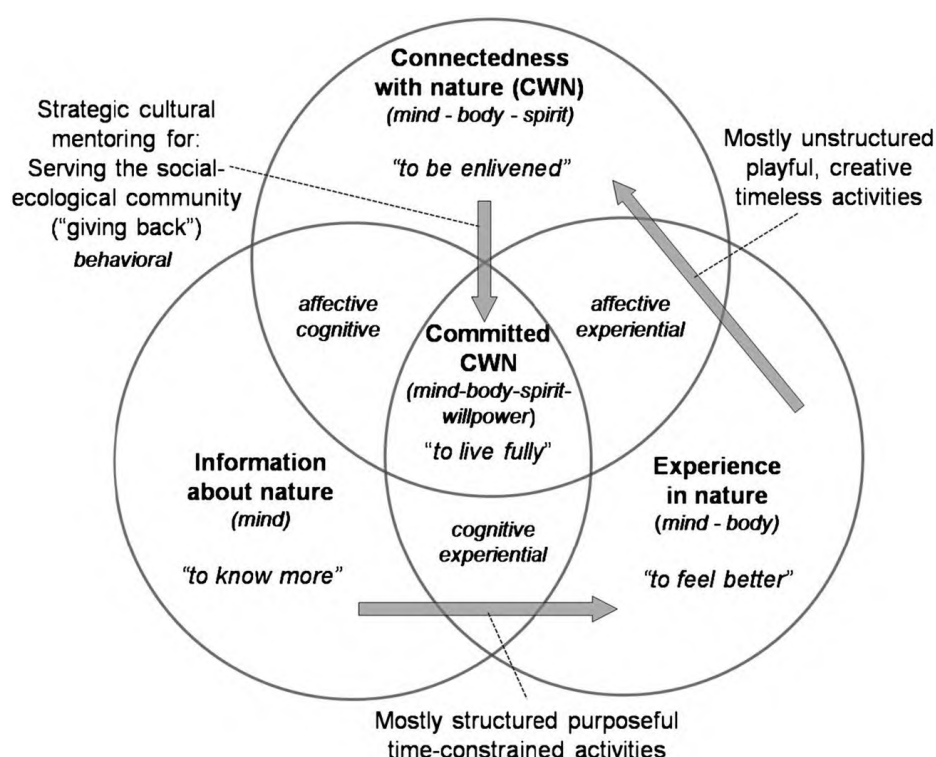


Figure 2.1: Connectedness-With-Nature conceptual framework (Zylstra et al., 2014).

The ‘Connectedness to Nature Scale’ was developed in order to measure Connectedness-With-Nature (see other scales in Zylstra et al., 2014). This scale was qualitatively adapted as a data-generation tool for this study (section 3.3.1). This scale is a 14-statement single-factor instrument that seeks to ‘measure’ one’s conscious level of affective Connectedness-With-Nature (Mayer & Frantz, 2004). The scale operationalises Leopold’s ‘land ethic’: a perceived and affective feeling of belonging with nature and a sense of nature within the self and *vice versa*. Scores are rated on 5-point Likert scales. Although this scale has been criticised for its inability to fully measure affective dimensions of Connectedness-With-Nature, it has been shown to be a reliable predictor for environmentally-responsible behaviour and subjective wellbeing (Zylstra et al., 2014).

Overall, Connectedness-With-Nature is an enduring empathic appreciation and mindfulness of a shared essence of all life and transcends hedonism, speciesism and functional utilitarianism (at least in theory). Zylstra et al., (2014) further note that Connectedness-With-Nature becomes apparent through action-oriented advocacy, an embodied resolution to respect and actively care for nature's wellbeing. However, it is emphasised that, if a committed sense of Connectedness-With-Nature is to develop; it must be developed through a culturally-embedded, community-based process (Zylstra et al., 2014). This is important for this study in that socio-cultural-historical factors mediate how nature and the self are perceived in relation to Connectedness-With-Nature.

It has also been noted that, for an environmental ethic to succeed, nature needs to be *emotionally* meaningful, in relation to people's SCHVP, beyond its human utility (Macy, 1995). Jickling et al. (2006) call for an emotive, personally-oriented ethics and note that, as people are stripped of more traditional social bonds, intimacy on various levels becomes reduced, i.e. we become disconnected from personal relations with others, ourselves and with nature. Thus, eco-ethical action-taking becomes more difficult as issues in society become further removed from our direct lived, emotional environments. Kaplan (2000) maintains that tapping into the human desire to learn through experience, connection and personal values is more effective in fostering environmental concern, as opposed to negating socio-cultural elements in the learning process. This could shed light on why people may be more compelled to act when their own personal relationship with nature is concerned (as opposed to top-down initiatives). This highlights the importance of a personal, emotive and place-based connection with nature, which may inspire more genuine environmental advocacy and care.

2.4.1.3. Ubuntu and ecological empathy in relation to Deep Ecology

This critical inquiry into emotional and physical relationality with nature further resonates with the African ethic of *Ubuntu*. *Ubuntu* can be broadly defined as an 'African worldview', emphasising communal interests and where an individual's humanity is relationally bound up within the humanity of others (Battle, 2000; Le Grange, 2012a). Le Grange (2015) maintains that *Ubuntu* is an ecosophy which is conceptually aligned with the principles of Deep Ecology. The ethic is particularly relevant in a post-apartheid South African context where *Ubuntu* rhetoric has become commonplace in academia, civil society, anti-violence campaigns and social-justice oriented NGOs and NPOs (McDonald, 2010; Ngcoya, 2015). However the

concept has also become contested for its economically and politically persuasive appropriation in government, to promote neo-liberal policies and consumerist ideologies (*'Ubuntu capitalism'*) (McDonald, 2010; Ngcoya, 2015).

There is also concern around the ethic of *Ubuntu* within the current consumerist context, from an ontological perspective. Cilliers (2008) highlights the apparent shift from the ethic of *Ubuntu* (relating) to the ethic of *Into* (things), where materialism and consumerism within the neo-liberal ideological context have become increasingly prioritised despite rampant poverty. In this way, humans have begun to conceptualise each other as well as the more-than-human-world as '*things*' rather than interrelated and interdependent *beings*. *Into*-ethics highlights the current socio-economic/cultural dynamic that guides environmentally ethical and unethical action through divergent shifts in ontology. Herein lies a tension between the potential for a revived ecocentric, relational *Ubuntu* ethic (steeped in African values) and global-local trends of consumerism and materialism. Despite the above criticisms, the concept of *Ubuntu* carries valuable cultural-historical, moral weight and meaning for many South Africans and through this meaning, it may hold the potential for an ecological extension for environmental ethics through its inherently relational ontology (Le Grange, 2012a).

In its traditional definition, *Ubuntu* emphasises communal *human* interests over individual ones. Interpreted only in this way, it has been argued that *Ubuntu* is anthropocentric and speciesist (Le Grange, 2012a, 2015). However, Le Grange (2012, 2015) argues that through the broader Shona concept *ukama*, denoting relatedness between humans, and the relatedness of the entire cosmos, *Ubuntu* could be conceptually bolstered to include an ecological extension of environmental ethics. In other words, *Ubuntu* (humanness) is the concrete form of *ukama* (relatedness) in the sense that the "human interrelationship within society is a microcosm of the relationality within the universe" (Murove, 2009, p. 316). Moreover, the meaning of *ukama* extends to ties with all people, including past and future generations. The ethic carries potential for reflexivity through looking back on oneself in relation to past and future generations. Thus, if such an ethic is extended ecologically, then to become more fully human means caring for oneself, others and the entire biophysical world (Le Grange, 2015). In this way, *Ubuntu* has the potential to deconstruct anthropocentric and ecocentric binaries.

2.4.1.4. Conceptual concerns of Deep Ecology

The above-mentioned tension between *Ubuntu*'s potential for transformative practice of ethics and the reality of the growing consumerist and materialistic context echoes the common tension between theoretical *ideals* and *practice*. In this light, two relevant critiques of Deep Ecology emerge. Firstly, Mcphie and Clarke (2015) maintain that on the part of deep ecologists, the belief that we could be, or are, disconnected from nature still inadvertently perpetuates Cartesian dualistic thinking, encouraging the belief that humans can literally be separate from nature. In light of the psychological approach taken to the 'human-nature disconnect' in this study, it follows that the emphasis is not on the literal disconnection, but rather on the psycho-historical and socio-cultural disconnection embedded within the human psyche and perpetuated through modern market values, religious hermeneutics, and anthropocentrism, thus perpetuating material and psychological disconnection-perceptions. It should be noted that through the semantic positioning of the phrase 'human-nature disconnect,' there is the potential for the perpetuation of binary thinking. However, it is important to first understand the human-psyche disconnect dialectically (section 2.4.2.2) in order to trouble and dismantle binary thinking from within.

The second point of criticism concerns the theory's real-world social, cultural, political and material applicability concerning the Ecological Self and Connectedness-With-Nature. Deep Ecology has been criticised for evading social phenomena entirely (Gonzalez-Gaudiano & Buenfil-Burgos, 2009). Moreover, there is the potential for the rationale of Deep Ecology and the aforementioned concepts to appear prescriptive as well as a-contextual. Culturally-embedded beliefs and values about the relationship between humans and nature need to be foregrounded in any approach that attempts to foster deeper human-nature connections. This is particularly relevant within South African with its history of oppression and mistrust, its diversity of peoples, cultures and perceptions about the 'human-nature' relationship. Although principle 3 of Deep Ecology emphasises social, structural and other forms of inequalities in relation to environmental injustice, sociomaterial, economic, race, culture and gender relations are not made explicit enough when applying Deep Ecology theory to lived reality. Herein lies the moral conundrum of the social-ecological crisis and the study at hand: there is the overarching call for nature-reconnection and yet this call often fails to recognise that we live in a complex, social, political, economic, unequally gendered and cultured world where there are conflicting ideas of what it means to be human and how to be human within the broader

scheme of life. This highlights the importance of bolstering the importance of Deep Ecology and approaching enquiry into the human-nature disconnect, nature-perceptions and Connectedness-With-Nature, through a more nuanced, intersectional socio-cultural-historical lens. A theoretical framework to guide such work will now be explored in the following section on CHAT.

2.4.2. Cultural-Historical Activity Theory

Second generation CHAT served as a complementary, substantive theoretical framework for this study. While Deep Ecology is steeped in ecocentric philosophical values, a more nuanced and explicit focus on the lived socio-cultural-historical materiality of people's ethics in practice is pertinent and necessary. CHAT is valuable in its ability to help shed light on how ethical consciousness, thinking and action is emergent from and mediated within socio-cultural-historical contexts (Olvitt, 2010). This is particularly relevant for South Africa, a country facing numerous, complex social-ecological problems and yet home to a diverse range of potentially transformative natural spaces.

CHAT is an interdisciplinary approach for gaining insight into human learning and development and is associated first with Soviet Russian psychologists, Vygotsky, Luria, Leontiev and subsequently, Engeström (Cole, 2010). CHAT rejects the premise that learning consists of internal, intrapsychic activity through which individuals gather knowledge and skills, assumed to be contextually generalisable (Niewolny & Wilson, 2009; Roth, Lee, & Hsu, 2009). CHAT asserts that all human activities happen in fluid socio-cultural and historical contexts where people negotiate tensions in relation to their own practices, knowledge, skills, values, beliefs and personal histories (Engeström, 2000). This is particularly relevant for understanding the learning processes that seek to heal the human-nature disconnect, in that our relationships with nature are mediated through culture and the materiality of everyday existence. CHAT centralises the relational nature of systems of activity in human life and is primarily concerned with understanding and transforming practice (Roth et al., 2009). 'Human Activity' is understood as an evolving, complex structure of mediated and collective human agency (Roth & Lee, 2007).

Vygotsky's early model of cultural mediation of actions is commonly illustrated through the subject, object and mediating artefact triangle (Figure 2.2 below) (Engeström, 2000).

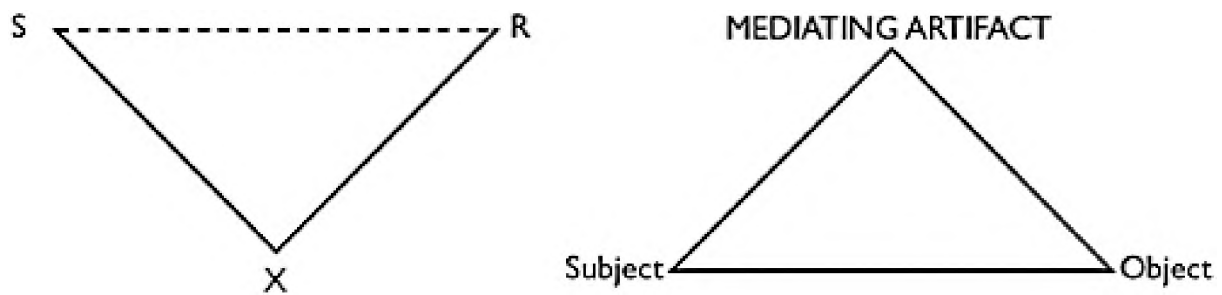


Figure 2.2: Vygotsky's original Activity Theory triangle (Engestrom, 2014).

‘Mediating artefacts’ include tools, signs and all types of material, semiotic and conceptual artefacts. The subject refers to a person engaged in an activity; an object (in the sense of motive towards a future-oriented objective) is held by the subject and motivates the activity. The mediatory tools are utilised by the subject to effect a change in the object of the activity; they can expand, but may also restrict the subject’s capability in changing the object, often leading to improvements of existing tools (Verenikina & Gould, 1998). Tools also exert reciprocal influence on the minds and actions of the subjects involved with them. The power of conceptualising consciousness in this way is core to CHAT because human activity is not only a tool-mediated transformation of material things, but also the transformation of the subject themselves (Akhurst & Evans, 2007). This emphasis on mediating artefacts and tools was ground-breaking in that individuals became more holistically understood through their cultural means (Daniels, 2008). In this original triangle, the unit of analysis remained individually-oriented.

Following Vygotsky’s initial work on mediation, Leont’ev (1978) advanced the model to include how individual action is culturally mediated and embedded within an historical context (Virkkunen & Kuutti, 2000). This model became known as ‘second generation activity theory’, and shows how individual meaning-making and action can only truly be understood in relation to socio-cultural and historical context, and how society is in turn acted upon and changed by individual agency (Engeström, Miettinen & Punamäki, 1999). Agentic individuals act upon the material world and societal life, just as these settings and systems also transform individuals and the nature of their interactions with each other (Roth & Lee, 2007). In this way, CHAT’s holistic view of learning disrupts the ‘individual-society’ dichotomy through its proposition that “mind is revealed in action on the world” (Edwards, 2005, p. 53).

2.4.2.1. Second generation CHAT

The unit of analysis in second generation CHAT is the activity system itself. This expanded activity system (Figure 2.3 below) is made up of the subject, tools, object of activity, rules and procedures, the community relevant to the activity and the division of labour entailed in carrying out the activity (Igira & Gregory, 2009). The object is transformed through activity into outcomes and the object appears twice, first as a material entity and secondly as an objective in terms of its present state and how people envision it for the future. Popova and Daniels (2004) highlight the importance of the object in that it unites all the activity system elements under consideration. Further, the subject and the object are interconnected in that the fulfilment of the object depends on the subject's motivation (Popova & Daniels, 2004). Tools concern culturally-produced means for changing the environment and achieving goals. The division of labour concerns both the horizontal interactions among the group members and the vertical division of power, resources and status (Igira & Gregory, 2009). The community refers to participants who share the common object that shapes individual actions and shared activity. Furthermore, between any people engaged in collective activity, there are formal and informal rules, norms and relational values, both enabling and constraining the internal dynamics and outcomes of an activity system. The value of CHAT lies in how relations between the subject and the object are mediated by the other culturally-mediated components.

By conceptualising the Hobbiton camp as an activity system itself, CHAT allowed for deeper insights into mediatory contextual factors in relation to the object of Connectedness-With-Nature (although Hobbiton also address areas such as social development and child-welfare). For the study at hand, the general activity system components included: the children (subjects); the embodied, sociomaterial nature-based activities and the children's implicit SCHVP (mediating artefacts); Connectedness-With-Nature (objectives); respect and sanctity of life (rules and norms); inter-subjective relations between all members underpinned by personal histories of children and religious/cultural ethos of Hobbiton (community/norms); and finally, all those who partake in Hobbiton function in particular hierarchical roles (division of labour) (see figure 5.1, Chapter 5).

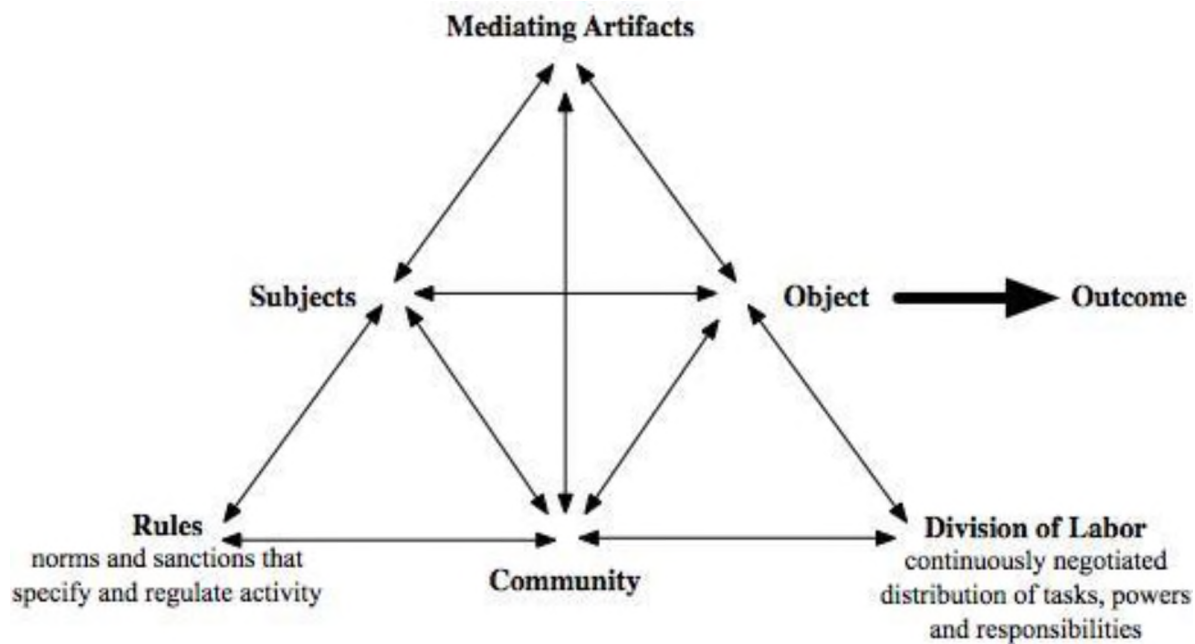


Figure 2.3: Second generation CHAT triangle (Engeström, 2014).

2.4.2.2. *Dialectics and relationality*

‘Dialectics’ refers to a mode of argument that involves contradictory processes between non-identical sides (Langemeyer & Roth, 2006). CHAT’s roots in Hegelian dialectics are important to understand when developing a more nuanced understanding of the potential for ontological and epistemological holism in social constructivist research processes. Hegel rejected the philosophical distinction between the ‘object’ and ‘subject’ and held, rather, that both, in the realm of consciousness, mutually constitute one another and form a unit that transcends their seeming opposition (articulated as *activity*), resulting in an implicit contradiction (Langemeyer & Roth, 2006). “This activity stands for the idea that subject and object are mutually presupposing and constitutive opposites that cannot be thought [of] independently and therefore are complementary but irreducible expressions of the same unit” (Langemeyer & Roth, 2006, p. 22). Dialectical thinking thus forces us to perceive the interrelations, histories, changes in context, and inherent contradictions between the subject and object unit, which is essential to CHAT work (Langemeyer & Roth, 2006).

Roth and Lee (2007, p. 195) maintain that “...the least understood and most violated tenet in Western interpretations of CHAT... is the dialectical nature of consciousness, which includes cognition, memory, and personality, among others”. A fundamental problem of dialectical

thinking is inherent in every attempt to understand the nature of dialectics: “It appears almost impossible to speak about dialectics without speaking *un-dialectically*” (Langemeyer & Roth, 2006, p. 21). However, theorising activities through more deeply understood dialectical approaches can present innovative opportunities for units of analysis that are analysed in terms of mutually exclusive category pairs: individual-collective, body-mind, subject-object, agency-structure, and material-ideal. On the face of it, such pairings may appear statically binary in nature, but the logic of dialectics lies within the inner embodied contradictions between ‘polars’, which themselves represent holism and not merely the polar opposites illustrated at a surface level. Roth and Lee (2007, p. 196) further maintain:

Saying that a relation is dialectical is equivalent to saying that any part that one might heuristically isolate within a unit presupposes all other parts; a unit can be analysed in terms of component parts, but none of these parts can be understood or theorized apart from the others that contribute to defining it.

This speaks to the holistic, dialectic, epistemological underpinnings of CHAT, foundational to socio-cultural-historical mediated learning. In this way, CHAT aligns with the move in Deep Ecology and the inherent relationality of *Ubuntu* towards troubling constructed Cartesian binary thinking because it necessitates, “a great deal of stretching, of our concepts, and our comfort zones” (Price, 2015, p. 35). This is particularly important for understanding the ‘human-nature’ disconnect from an Ecopsychology perspective, in terms of moving towards more fluid understandings of relationships within and between Earth’s diverse ecosystems.

2.4.2.3. Mediation

The value of CHAT lies in the concept of *mediation* of experience through artefacts, which are both symbolic and material mediators (Cole, 2010). From a socio-cultural perspective, Doelher (2002, p.23) maintains that, “higher forms of human mental activity are mediated by tools (objects and symbolic means, such as language) collaboratively constructed by members of culture, and the development of these forms is rooted in socio-interactional practices within that culture”. Wertsch (2007) expanded the concept of mediation through differentiating between explicit (visible) and implicit (invisible) mediation. Mediation can be explicit when a tool or way of learning is deliberately introduced into an activity towards resolving a problem (Wertsch, 2007) (in the case of this study, the nature-based activities would be considered

explicit mediators). Implicit mediation is more difficult to identify as it exists through the discourses and practices ingrained within the activity system and everyday life (Wertsch, 2007). In this way, signs such as language can inadvertently mediate objectives because they pre-exist in natural communication and thought, making them less visible in the mediation process, despite their ubiquity (in this study's case, the children's value positionings and the unveiled sociomateriality¹⁰ of the nature-based activities are considered as implicit mediators). It can be difficult to tell what is actually being or has been mediated, and thus, outcomes can be intentionally and unintentionally mediated by implicit factors such as particular modes of epistemologically or ontologically-loaded forms of communication within the activity system (Rivers, 2015). It is also important to note that although implicit mediation factors can seem peripherally obvious, they are not often integrated or acknowledged with the pedagogical-design process.

2.4.2.4. Contradictions and disturbances

The dynamic nature of all the elements of, and processes within, an activity system and their continuous interactions with each other are vitally important in understanding experienced tensions and overall outcomes (Igira & Gregory, 2009). Each element of an activity system relates to other elements, often resulting in tensions and contradictions between elements. Unveiling contradictions and tensions within the activity system is integral to CHAT. Further, as per Experiential Learning theory (section 2.3.3.1) and Olvitt's (2012) work, unveiling important synergies within the activity system is also essential for understanding learning processes.

Contradictions can serve as motive forces for transformative change within the activity system (Cole & Engeström, 1993). Disturbances are usually the visible manifestations of systemic contradictions and often provide vital opportunities for learning. Wals (2007) notes that there is no learning without dissonance, and there is no learning with too much dissonance. Contradictions can occur within or between components of an activity system, between activity systems, or as historical disturbances (Engeström, 2014). In this light, unveiling and discussing

¹⁰In light of the study's focus on socio-cultural-historical and *embodied* mediation of nature-based experiences, the concept of sociomateriality (section 2.3.3.1) was also used to help make the embodied and material dimensions of mediation in connectedness-with-nature clearer. Essentially, sociomateriality was used to make sense of experienced contradictions, disturbances and synergies (see section 2.4.2.4) within the activity system in more nuanced ways.

unspoken of or undiscussable experiences of disturbances is important for achieving prospective objectives, understanding the mediatory role of the artefact and designing more effective interventionist models (Engeström, 2014).

2.4.2.5. Conceptual concerns of CHAT

The above discussion has highlighted the value of understanding contradictions within the mediation process as well as demystifying the socio-cultural-historical nature of learning. One criticism within CHAT concerns the emphasis on contradictions, tensions and dissonances between various components of the activity system as primary drivers of learning. Olvitt (2012, p. 397) maintains that, “analytically, this creates a risk that ‘differences’ and ‘tensions’ may be given more primacy than resonances and synergies”. Synergies or resonances between individuals and the socio-cultural contexts in which they find themselves have also been found to act as driving forces of learning (Kolb & Kolb, 2005; Olvitt, 2012). In this light, Olvitt (2012, p. 397) suggests “a less difference-oriented approach... considering the *interplay of continuities and discontinuities* as revealed in and through the dialectical processes employed in CHAT”.

Another criticism concerns CHAT’s lack of attention to the roles of motivation, affect, identity (Roth, 2007) and subject-agency (Popova & Daniels, 2004) in the analysis of the activity. Vygotsky (1986, p. 10 as cited in Roth, 2007) emphasised that separating the intellect from affect is a major weakness in psychology, since “...it makes the thought process appear as an autonomous flow of ‘thoughts thinking themselves,’ separated from the individual needs, interests and motivations of the subject”. Roth (2007) emphasises the need to consider the interrelated roles of emotion, motivation, and identity, the former mediating the latter two, which are integral aspects of an activity system; however, emotion is centrally involved in how the object is shaped. Further, Popova and Daniels (2004) maintain that an important methodological issue when focusing on the object is understanding the *positionings* of the subjects. In this light, understanding the subjects’ personal qualities and motivations towards the object can provide key insights into how the object is mediated and transformed (Popova & Daniels, 2004).

Richardson (2011) brings to light a third epistemological criticism of the theory in that ‘other’ forms of knowing might inadvertently become othered, negated or eclipsed when taking a CHAT stance. Thus, the challenge with using a modified Vygotskian framework is “its

interpretation of thinking as object-practical activity...” (Richardson, 2011, p. 333). Moreover, the very concepts that epistemologically bolster CHAT - activity, learning, consciousness and thinking - are conceptually loaded in ways that may inadvertently perpetuate Westernised ideas. Richardson (2011) argues that these key terms need to be addressed through culturally and contextually relevant lenses. In order to avoid an etic projection of epistemology, the emic, socio-cultural materiality of ethics and values, which inform being, knowing and doing, is pertinent to foreground in any research process.

Despite the above criticisms, the value of CHAT is in acknowledging tool-mediated human activity as the core unit of analysis, potentially opening up diverse forms of knowing and doing in socio-cultural and historical settings. Further, its inherently dialectical unit of analysis allows for an understanding of the mind, as embodied, where the mind itself is an aspect of the material world, extending across social and material environments (Roth & Lee, 2007). In terms of this study’s focus on troubling constructed ‘human-nature’ binaries towards objectives of Connectedness-With-Nature, CHAT’s emphasis on troubling the divides through dialectics is particularly useful.

2.5. CONCLUSION

This chapter has highlighted the perceived nature-human disconnection as a doxic wicked problem of our time. It discussed the importance of reconnecting with nature in more emic ways that build on people’s SCHVP *in relation* to the embodiedness and the sociomateriality of nature-based experiences. The chapter also unveiled the history of wilderness and nature-based learning from global and local perspectives. In particular, it highlighted the potential of ethics-oriented, embodied, and decolonised nature-based experiences for children, towards fostering emic shifts in nature-perceptions, Connectedness-With-Nature and environmental learning in general. From a theoretical stance, the chapter outlined the study’s philosophical underlabourer, Deep Ecology, as well as its substantive theoretical and analytical framework, CHAT. Together, these theories provided a platform from which to address the moral, socio-cultural-historical and sociomaterial dimensions of reconnecting with nature.

3. METHODOLOGY

Methodology can, "...be best understood as the overall strategy for resolving the complete set of choices or options available to the inquirer (...) Methodology involves the researcher utterly – from unconscious worldview to enactment of that worldview via the inquiry process" (Guba & Lincoln, 1989, p.183). This chapter's outline of the study's research methodology thus includes an overview of the interpretive case study approach, selection of the case, research aims, participant profiles, data-collection methods and tools, data management and the data analysis process. Further, this chapter addresses concerns of research reflexivity, trustworthiness and ethics.

3.1. AN INTERPRETIVE CASE STUDY OF HOBBITON

3.1.1. The interpretive case study

The value of qualitative, interpretive research lies in its ability to shed light on the nuances of social relations, due to "the pluralisation of life worlds" (Flick, 2009, p. 12). The main tenets of interpretive research include recognising that: there are multiple perspectives on single situations; that reality is multifaceted and complex; that thick descriptions representing the complexity of situations are essential; situations need to be examined from the perspective of the participants rather than the researcher. Essentially, interpretive research allows for the adoption of an emic stance to study particular settings and centralises social context towards understanding new perspectives and the nuances of heterogeneous, human experiences and realities (Cohen, Manion & Morrison, 2007; Flick, 2009). Interpretive research thus centralises the *process* rather than the outcome of research in order to foreground the importance of context in mediating events, situations and behaviours (Thujo, 2013).

Cohen et al. (2007) highlight resonances between interpretive research and a case study approach. The case study method is the study of a specific instance of a bounded system, which provides a unique example of, "real people in real situations", grounding ideas in real practice (Cohen et al., 2007, p. 253). Case studies highlight the quintessential significance of context and are thus apt for investigating, "complex, dynamic and unfolding interactions of events, human relationships and other factors in a unique instance" (p. 253). The method thus allows the researcher (an inherent part of the process) to observe effects in real contexts through

acknowledging that context mediates causes and effects (Cohen et al., 2007). Case studies provide a rich description of events relevant to the case, in a chronological narrative. They strive to reveal participants' lived experiences in context through using a variety of open-ended methods including; participant observation, focus groups and semi-structured interviews. Case-studies thus have a particular, narrow focus, but are detailed, descriptive and involve combining subjective and objective data (Cohen et al., 2007; Ponelis, 2015). They focus on analytic rather than statistical generalisation in that they can shed theoretical light on other similar cases, phenomena or situations (Cohen et al., 2007). In summary, case studies offer an holistic account and analysis of a single-bounded unit within a particular context towards providing insight for similar contexts (Ponelis, 2015).

The interpretive case study approach however, has been criticised from several angles. Bernstein (1974, as cited in Cohen et al., 2007) suggests that subjective reports may simply be unfinished, ambiguous and erroneous representations of participants' experiences/research events. In this light, the method has been critiqued from a 'double hermeneutic' stance (interpreting again that which has already been interpreted by participants), where participant's own expressions and interpretations are reinterpreted (perhaps falsely) by the researcher (Giddens, 1979 as cited in Cohen et al., 2007). The approach has also been criticised for its narrow micro-sociological perspective in that interpretive processes tend to be 'technicist', seeking to understand an existing situation in every detailed aspect, rather than to transform or question it through broader understandings of larger structural mediators of behaviour (Cohen et al., 2007). In the method's defence however, theories that are used to bolster research (such as CHAT for example, which explicitly centralises socio-cultural historicity and structural context) can greatly add to deeper contextual understandings of how structural forces mediate situations, events and behaviours. Cohen et al. (2007) further maintain that the approach's particular measure of validity (*interpretive validity*) is precisely about being able to accurately capture the meaning, interpretations, terms, intentions, in detail, that situations and events (i.e. data), have for the participants themselves, in *their* terms.

Guided by the layered theoretical framework of Deep Ecology and CHAT, the study focused on both the internal elements of the activity system of Hobbiton, particularly the sociomaterial mediating artefacts (nature-based activities) (which are seen as explicit mediating factors) as well as how the broader value positionings of participants brought into the activity system (implicit mediating factors) mediated the object (shifts in perceptions of, and connectedness

with, nature). The study thus focused on implicit and explicit mediation processes in the form of cultural-historical, contextual meaning-making, synergistic and dissonant interactions and inter-subjectivity within the activity system. Towards exploring these interactive processes, the interpretive case study method was particularly useful for generating deeper contextual insights into the Hobbiton activity system over the course of the two camps. Further, such rich immersion in a single context allowed me to familiarise myself with various aspects of the activity system, its implicit and explicit mediation processes, interactions between the activity components and participants, as well as my own participation in the activity system. The aim was to assemble a deep, contextually-rich understanding of how Hobbiton's nature-based activities mediated perceptions of, and sense of connectedness with, nature for children from different socio-cultural and socio-economic backgrounds (thus taking larger structural forces into consideration). This contextually-deep understanding was essential for critically exploring possibilities for more effective, ethics-oriented, context-emergent programme designs for Hobbiton (section 7.3), thus moving beyond traditional 'technicist' goals, which tend not to seek critical transformation within the research context.

3.1.2. The case of Hobbiton

3.1.2.1. Overview of Hobbiton

As previously discussed, South Africa is the only African country to make provision for the protected area category, "Wilderness Area" in its legislation (Muir, 1999, 2002). However, far more international tourists have had access to these wilderness areas than have local Black South Africans. This study recognises the need for local, socio-economically disadvantaged people to have access to natural spaces for recreational, restorative, cultural and environmental-learning purposes; while simultaneously having access to basic human rights such as food, shelter, care and love.

Hobbiton, the case study of this research, attempts to address these issues. Hobbiton's main objective is to provide opportunities for socioeconomically disadvantaged children from the Eastern-Cape area to explore themselves and learn about the natural environment through nature immersion. Hobbiton offers a host of adventure and nature-based experiential activities, almost all of which take place within a natural setting. This study focused particularly on the nature-based activities: day and night hikes, tree-planting, ring-barking as well as the middle-

ropes course (section 4.1.2). Hobbiton was seen as an activity-system, with a particular focus on these nature-based activities (as mediating tools), and how these, in conjunction with participants' SCHVP, mediated shifts in their perceptions of, and connectedness with, nature. The main foci of this study: Connectedness-With-Nature, nature-perceptions and environmental experiential learning, aligned with Hobbiton's broader objectives of environmental awareness through experiential, environmental education.

Data was generated over the course of two Hobbiton camps, the first, a school-camp and the second, a camp for socio-economically disadvantaged children. Both of these four/five-day camps took place in mid-winter, between 24 June and 1 July, 2016 (see sections 3.2.2 and 3.2.3 for camp profiles).

3.1.2.2. Selection of the case study and negotiating access

Hobbiton was selected as the case study because there were various key aspects that corresponded well with the research aims and interests as well as with the possible time frames for data generation. The activities at Hobbiton were mostly all nature-based and their objectives linked well with the study's general interest in experiential, nature-based learning and Connectedness-With-Nature in particular. Further, there was a diverse range of children (socio-culturally and socio-economically) who attended the camps, which aligned well with the research's specific interest in these differences in relation to their sense of Connectedness-With-Nature. Additionally, the camps that were selected for data generation took place within the same month in the year (June, 2016), which was convenient considering that I did not reside in Hogsback. Finally, the fact that the Hobbiton Coordinator (i.e. Manager 1), was willing to allow me to do the research, made the selection of this case study, a promising choice for me. Together, all these factors mediated my decision to select Hobbiton as the case study.

Before actually commencing the field work, ethical clearance from the Rhodes University Higher Degrees Committee was obtained (06/05/2016). Hereafter I had an introductory meeting with Manager 1 (after several email communications prior to this meeting), to discuss the research aims, interests and time parameters. It was agreed that I could participate in two camps in June, in order to build a contextual profile and to generate data (See Appendix 8 for consent form).

3.1.2.3. Sampling

Participants across both camps included children, volunteers, instructors and managers. 39 children, seven volunteers, three instructors and two managers were interviewed in total. There were approximately 60 children per camp. Child participants were sampled slightly differently for each camp due to contextual barriers, thus convenience sampling was used. Convenience sampling involves, “opportunistic sampling, selecting from whoever happens to be available” (Cohen et al., 2007, p.176). This type of sampling is advantageous in that it can save time and money and it spares the researcher from having to filter through less amenable participants, whilst still allowing the researcher to select participants from a larger sample (Cohen et al., 2007).

For camp 1, the children were informed about the reasons for my participation during the camp (i.e. that I was doing research for my Master’s degree) and that they could choose to engage with me or not. I approached various children on the first day, during their free time, and asked if I could ask them a few questions about their feelings/thoughts about, and experiences of, nature. I interviewed 14 children who were willing to talk to me on day one of this camp. Some participants were interviewed individually whilst others preferred to be interviewed in groups (see section 3.3 below for data generation discussion). At the end of these pre-camp interviews and focus groups, I asked the children if they would like to participate in a post-camp interview as well, to which they all eagerly agreed. The post-camp sessions were focus group interviews, with 7 children each in focus groups 1 and 2.

For camp 2, the sampling process was more challenging due to language and participation barriers. Initially, it was decided by staff members that it would be best to integrate the pre-camp interview sessions into the activity schedule on day one. This meant that all in all, I facilitated 6 focus group sessions (with around 8 children per session) with approximately 48 children in total. However, not all of the children actually participated, and thus, only 13 were actually sampled in the end. Based on these initial pre-camp focus group sessions, I selected the (13) children who were most willing to participate and who could speak basic English (i.e. both from pre and post focus group sessions). On the last day of the camp, I facilitated one post-camp focus group session with five participants out of the selected sample of 13 children. The questions for the pre and post-camp focus group sessions were mostly translated into isiXhosa by a volunteer.

Convenience sampling was also used for the Hobbiton staff and volunteers, based on who was on-site at the time of the fieldwork: I simply asked all of the main volunteers, instructors and managers if they would like to participate in the research process, and they all agreed. Thus all available staff members were sampled (12 in total).

3.1.3. Research aims

The overarching aim of this research was to explore the interplay between participants' SCHVP and the sociomateriality of the nature-based activities, towards mediating participants' perceptions of, and sense of connectedness with, nature. This involved understanding how social-cultural-historical factors shaped participants' previous perceptions of, and 'levels' of connectedness with, nature (this applies to research sub-questions a and b, as introduced in section 1.2.1). Further it involved exploring how these previous positionings *in relation* the sociomaterial and embodied elements of the nature-based activities (sub-question c), functioned to mediate the process of learning to connect with nature during the camps. In essence, this study explored how embodied, nature-based experiences can be effective mediators towards assisting youth to connect with nature, fully considering their SCHVP within and throughout the pedagogical process. To this end, the study also aimed to contribute theoretically and contextually-informed insights into such nature-based experiences, to inform future ethics-oriented, decolonised and context-emergent design processes of Hobbiton's nature-based activities.

3.2. PARTICIPANT PROFILES

3.2.1. Managers, instructors, volunteers

The adult participants¹¹ included all the on-site Hobbiton staff and volunteers, i.e.: two Hobbiton managers, three instructors and seven volunteers. Managers 1 (male) and 2 (female) organised and managed the camps. Both managers were White, South-African citizens. The instructors were long-term employees who ran the camps and facilitated the activities. Two of

¹¹ Note that staff/volunteers were participants in the research (they shared valuable insights into the *children's* Connectedness-With-Nature) but they were not seen as 'subjects' (as in the activity system). Child participants were the *subjects* within the activity system as it was for them that the Connectedness-With-Nature objective intended.

the instructors were Black, South-African males and the third instructor was a mixed-race Zimbabwean female. The volunteers were a mixture of local and foreign youths (aged 18-25). Three of the local volunteers were Black South-Africans (two female, and one male) and one was a White male.¹² The other three volunteers were White and of Eastern European descent (one female, and two males). All foreign volunteers had chosen Hobbiton as a placement because they had had transformative nature-experiences during childhood or/and they were passionate about working with children outdoors.

3.2.2. Camp 1: The Mountain Movers¹³

This camp took place in mid-winter, from 20th-24th June 2016. It included 60 children from a well-respected, fee-paying school in a small town in the Eastern Cape. The children were accompanied by two of their teachers for this camp. During this camp, the weather was experienced as being very cold although it was clear, with an average day-temperature of 15 degrees Celsius, and an average night-temperature of 2 degrees Celsius. There was also snow forecast for this week, although it did not fall. As mentioned, 14 children were sampled in total from this camp. These children ranged from 12-14 years of age. Three participants were Coloured (one male, two female), four participants were Black (two female, two male) and seven participants were White (four female, and three male). All 14 participants were proficient English-language speakers. Although these children were heterogeneous in terms of ethnicity and gender, the majority of these children were from middle-class backgrounds.

3.2.3. Camp 2: The Star Gazers¹⁴

This camp took place in mid-winter from 27th June-1st August, 2016. This camp was one of Hobbiton's two, 'underprivileged camps,' or 'UPCs' as they are known by Hobbiton. As a researcher I found this labelling to be problematic as it implies that these children are 'deficit' or 'lacking' in some way, thus negating their potential assets and alternative ways of knowing,

¹²Some of the local volunteers were Hobbiton alumni and had returned as volunteers because of the positive, transformative experiences they had had.

¹³ I have named Camp 1 the 'Mountain Movers' because of their positions of privilege which afford them a certain degree of agency and capability in the modern world. They are advantageously positioned in comparison with children who are less socio-economically privileged.

¹⁴ I have named Camp 2 the 'Star gazers' in relation to their systemic positionings of socio-economic disadvantage, which do not necessarily bolster them with the capabilities needed to thrive in the modern world. However, this is not to say that they do not have their own assets and unique ways of knowing, doing and being, but only that, in our consumeristic world, they are disadvantageously positioned.

being and doing in their everyday lives. Alternatively, I refer to this group of children as the Star Gazers. The weather was slightly colder than the previous camp and rainier with only one clear, sunny day. This group ranged from 10-14 years of age, were mostly Black isiXhosa-speaking children, and had a very basic understanding of English. All of these children were either from child-welfare homes, or from socio-economically disadvantaged backgrounds in peri-urban or rural settings in the Eastern Cape. Many children appeared to have low levels of self-esteem as well as low levels of environmental knowledge (despite attending public schools). Most of these children had little access to, or experience in, natural spaces, and for many, Hobbiton was their first holiday and/or first experience in a natural setting.

Having observed and interviewed both the Mountain Movers and the Star Gazers, it became apparent that the latter group occupied much more disadvantaged socio-cultural-historical positionings in terms of finances, culture as well as basic child rights such as love, care, support and education. The Star Gazers were more inhibited, serious, much less willing to talk and they did not appear to behave like carefree children.¹⁵ This is in stark contrast to the Mountain Movers who appeared to be more engaged, curious, and willing to converse. Moreover, the Mountain Movers had the support of two of their school teachers with them on the camp.

3.3. DATA GENERATION METHODS

Collecting data entailed actively participating in and observing, the nature-based activities as well as all other camp activities, over the course of the two camps. Pre- and post-camp semi-structured interviews and focus groups were also facilitated with participants from both camps in order to understand how the nature-based activities (in relation to their SCHVP) mediated their perceptions of, and connectedness with, nature. Further, throughout the research process, I kept a reflexive research journal. In terms of researcher-immersion in context, the first camp afforded me the opportunity to build an emergent contextual profile, which allowed me to understand how the nature-based activities (and Hobbiton in general) worked in terms of their approach, procedures and conceptual focus. Further, I used particular documents, such as the

¹⁵I am aware that this description of the Star Gazers can also be seen as a 'deficit' description; however, these factors are noteworthy concerning their lived realities of disadvantage in relation to their Connectedness-With-Nature and nature-perceptions. This is not to say that, the Star Gazers do not have some alternative ways of being, doing and knowing in relation to nature, but that from my observations, and interpretations, these children did not appear to be as carefree as the Mountain Movers appear to have been.

Hobbiton pamphlet and the Hobbiton-on-Hogsback history-guide, as supplements for the contextual profile for the thesis¹⁶.

3.3.1. Semi-structured interviews and focus groups

Semi-structured interviews are valuable, flexible data-generation tools as they are open-ended, inter-subjective and allow for spontaneity, thus complimenting the interpretive case study approach (Cohen et al., 2007). Kvale (2006, p. 14) maintains that *interviews* are essentially an exchange of perspectives between participants and the researcher, thus this method, “sees the centrality of human interaction for knowledge production, and emphasises the social situatedness of research data”. Essentially, interviews are valuable in their capacity to access, “what is inside a person’s head”, “to measure what a person knows (knowledge or information)...what a person likes or dislikes (values and preferences)” and “what a person thinks (attitudes and beliefs)” (Tuckman, 1972 as cited in Cohen et al., 2007, p. 351).

On the other hand, the focus group interview method relies on interactions between participants discussing a particular given topic (as opposed to a one-on-one participant-researcher interview). This method can be particularly useful when participants are more at ease talking in group settings, where participants interact with each other, such that participants’ perspectives can emerge (Cohen et al., 2007). Focus groups thus foreground participant interactions in the data-generation process (Kitzinger & Barbour, 1999). One major advantage of the method is that participants usually share a common characteristic without overarching hierarchical tensions between members, which can contribute to more genuine and open modes of sharing.

3.3.1.1. Children’s interviews

Both of these above-discussed methods were used to gather data throughout the research process, but mainly at the beginning and at the end of the camps, for the children in particular (that is, there were “pre” and “post-camp”¹⁷ interview and focus group sessions). Before

¹⁶ However, no specific analyses were done concerning these documents.

¹⁷ These “pre” and “post-camp” interviews and focus group labels are merely used to convey that interviews and focus groups were conducted at the *beginnings* and at the *ends* of the camps. Thus they do not mean to convey that any type of positivist pre and post-test methods were used to measure cause and effect.

commencing these pre-camp interviews and focus groups, participants were informed about the research topic, interview procedures and participation consent (see section 3.8 below). Refer to Appendix 2 for pre-camp interview schedule.

The pre-camp interviews and focus groups centred on the children's personal socio-cultural-historical backgrounds and were tailored according to the conceptual framework of the study in terms of unpacking their educational backgrounds, everyday practices, perceptions and sense of connectedness with, nature, nature-experiences as well as general environmental values and beliefs (i.e. their socio-cultural and historical contexts as guided by CHAT). The Mountain Movers appeared to enjoy the pre- and post-camp interview processes, sharing and participating freely. While the Star Gazers participation appeared to be much more strained in terms of language, however they did appear to be more willing to participate in, and were at ease within, the focus group setting.

In terms of understanding the children's nature-perceptions and sense of Connectedness-With-Nature, Mayer and Frantz's (2004) Connectedness-to-Nature Scale (a concept which strongly aligns with Connectedness-With-Nature, refer to section 2.4.1.2) was qualitatively and contextually adapted for the pre-camp interviews in order to make the content of the questions more accessible for the children. That is, the original scale was adapted to be a qualitative, semi-structured set of simple interview questions. Questions were simplified so that the children could better understand the meanings of the questions and concepts. For example, instead of the children being asked to convey (on a scale of 1-5) the extent to which their actions affect the natural environment, they were asked if (and how) they thought their everyday activities (such as driving, walking, sleeping, eating etc) affected the natural environment. This qualitative adaptation was particularly useful in that it allowed the questions to be answered in much more open-ended ways, which were more conceptually accessible for the children. Mayer and Frantz (2004) reported a coefficient of 0.84 and evidence of scale validity, e.g. positive associations with environmental concern for their original scale (see Appendix 3 for original scale).

On the last day of each of the camps, I facilitated 40 minute, post-camp focus group interviews with the children to gauge their experiences and lessons learned in relation to the nature-based activities. These post-focus group interviews were particularly valuable for fostering individual and collective critical reflection around participants' experiences (Cohen et al., 2007). For

Camp 1, I split the 14 children into two focus groups. For Camp 2, due to the language constraint, I selected five children who were most willing to speak and who could converse in basic English. Here, some of the questions that were not understood were translated into isiXhosa by a volunteer, to help the children understand the questions a bit better. These interviews were guided by a semi-structured interview schedule tailored in accordance with the study's conceptual framework, but focused closely on children's reflections, experiences and lessons learned from the nature-based activities (See Appendix 4 for post-camp interview schedule).

3.3.1.2. Staff interviews

Semi-structured interviews and focus group sessions were also facilitated with the staff and volunteers (seven volunteers, three instructors and two managers), over the course of the fieldwork period. All the volunteers and managers were interviewed individually, while the three instructors were interviewed in a focus group. All semi-structured interviews and focus group sessions took place either during or after the camps. All staff members were informed about the general research topic, their right to informed participation and the audio-recording procedure. The data from these interviews served two purposes: the first being to inform the contextual profile of Hobbiton in terms of procedures, activities, ethics, and practices; and the second being to enrich the profiling of the study's child participants. That is, all the staff had valuable insights to contribute in terms of the children's backgrounds and their Experiential Learning processes in relation to Connectedness-With-Nature. Further, many staff also shared their own personal, transformative experiences in nature, either during their formative years or while living in Hogsback, and reflected on how these experiences had mediated their own perceptions of, and senses of connectedness with, nature. See Appendix 5 for detailed staff interview schedule.

3.3.2. Participant observation

Participant observation has been a key feature of anthropological studies and more recently, sociological and educational studies (Kawulich, 2005). Participant observation entails the active and non-judgemental engagement of the researcher in the activities that they set out to observe in order to gain a deeper understanding of the interplay between participants and their activities (Cohen et al., 2007). The method goes beyond 'observation' and also entails natural

conversations, various types of interviews, schedules and questionnaires and photographic documentation (if permission is granted). In this way, internal credibility, through triangulation of data, can be strengthened (Bernard, 1994). To be a participant-observer, the researcher must blend into the community in order to foster natural behaviour of participants and thereafter remove themselves from the research context to immerse themselves in the data (Kawulich, 2005). Participant observation entails systematic recording and organised description of activities, participants, actions and artefacts in the chosen study-setting in order to assemble a “written photograph” of the observations (Kawulich, 2005). An important limitation of the method concerns the observer’s presence and its effect on the participants’ natural behaviour (reactivity), which may impact ecological validity (the extent to which a study’s findings can be generalised to other settings) (Cohen et al., 2007). I addressed the above limitation through blending into the camp atmosphere over the field-work period and interacted with the children and staff in a relaxed manner so as to foster natural behaviour and trust during the activities.

Early observations guided my development of the post-camp interview schedules, and all subsequent camp observations offered valuable insights into the staff’s approaches to children and their environmental learning processes. I was also able to understand the children’s experiences in relation to their perceptions of, and connectedness with, nature by observing their actions and expressions before, during and after the nature-based activities.

Detailed written recordings of all of the observations and interactions were captured, which later lent itself to thick description and deeper contextual detail for generating insights into the research findings. Shenton (2004) maintains that thick description can be an important provision for promoting research credibility as it helps to convey the actual situations that have been investigated and the surrounding contexts. During the activities and with participants’ permission, some interactions were audio-recorded with a discreet hand-held recorder. For a more detailed example of activity observations, refer to Appendix 6.

3.3.3. Reflexive journaling

In addition to participant observation, I used the method of reflexive journaling throughout the research process. Reflexive journaling is seen to be a valuable research method from constructivist, feminist, interpretivist, and poststructuralist perspectives. Journaling involves the researcher writing freely to examine their personal presumptions, biases, goals,

subjectivities and desires in relation to the research (Ortlipp, 2008). This method provides the researcher with a means to examine and make explicit their own belief systems, values, experiences and positionings (Ortlipp, 2008). Journaling can thus facilitate deeper reflexivity about the research process and the role of the researcher in shaping the research-design and outcomes. Essentially, reflexive journaling can help the researcher to better understand the constructed nature of their research outcomes. Ortlipp (2008, p. 704) maintains: “[Journaling] can make the messiness of the research process visible to the researcher who can then make it visible for those who read the research and thus avoid producing, reproducing, and circulating the discourse of research as a neat and linear process”. Journaling also conveniently provides the reader with a narrative trail of the research process, thereby strengthening research-design and researcher transparency (Ortlipp, 2008).

I used this journaling method throughout the research process. My journal had three important functions: firstly, it acted as a stimulus for reflecting on the research process of the first camp, which allowed for a deeper understanding of the second camp, its procedures and approaches. Secondly, at later stages in the writing-up process, it allowed me to reflect on my own approaches to the study and my own assumptions about the data. Thirdly, it allowed for a richer reflective understanding of the subsequent research findings as well as context-emergent recommendations for future design of Hobbiton’s nature-based activities. Ortlipp (2008) maintains that retrospection can help generate new insights about one’s positionality and what is being studied (see Appendix 11 for journaling excerpt).

3.4. DATA MANAGEMENT

Dropbox was used to manage, organise and store data safely. Dropbox is a personal cloud-based storage service, which ensures safe storage of data online. Any files within your desktop Dropbox folder automatically sync online and to any other computer or devices to which the account is linked (Drago et al., 2012). In this way, the data is stored safely, can be accessed from anywhere (only by the researcher) and cannot be stolen. The raw data was also indexed so as to store and organise it in a manageable and systematic way. See index tables below:

Table 3.1: Data indexing for Camp 1: 20-24 June 2016

Participant type	Method	Data label used
Manager 1	Semi-structured interview	JII
Manager 2	Semi-structured interview	TI1
Volunteer 1	Semi-structured interview	V1
Volunteer 2	Semi-structured interview	V2
Volunteer 3	Semi-structured interview	V3
Participant 1 (children)	Pre-camp semi-structured interview	PAP1
Participant 2, 3, 4	Pre-camp focus group	PAP234
Participant 5	Pre-camp semi-structured interview	PAP5
Participant 6, 7, 8	Pre-camp focus group	PAP678
Participant 9, 10	Pre-camp focus group	PAP910
Participant 11, 12	Pre-camp focus group	PAP1112
Participants 4, 7, 8, 9, 10, 11, 12	Post-camp focus group	PAPI1
Participants 1, 2, 3, 5, 6, 13,	Post-camp focus group	PAPI2
Arrival Observations	Typed data	AO
Mountain Mover Observations	Typed data	MMO
Snippets on the swings, participant 14	Observation recording	SS

Table 3.2: Data indexing for Camp 2: 27 June-1 August 2016

Participant type	Method	Data label used
Instructors (3)	Focus group	ISI456
Volunteer 4	Semi-structured interview	V4
Volunteer 5	Semi-structured interview	V5
Volunteer 6	Semi-structured interview	V6
Volunteer 7	Semi-structured interview	V7
Participants (x8)	Pre-camp focus group	UPCFG1
Participants (x6)	Pre-camp focus group	UPCFG2
Participants (x5)	Pre-camp focus group	UPCFG3
Participants (x4)	Pre-camp focus group	UPCFG4
Participants (x5)	Pre-camp focus group	UPCFG5
Participants, 1, 2, 3, 4, 5	Post-camp focus group	UPCPFG
Star Gazer Observations	Typed data	SGO

3.5. DATA ANALYSIS

3.5.1. Theoretical sensitisation and key concepts

The data analysis process was simultaneously inductive and abductive. Cohen et al. (2007) maintain that because research is always shaped by the theoretical sensitisation, selectivity, perception and background of the researcher, analysis can never strictly be ‘inductive’ or ‘deductive’. This research process was theoretically guided by the main components of CHAT to attend to participant’s socio-cultural-historical backgrounds in relation to their senses of Connectedness-With-Nature, to unveil the cultural ethos of Hobbiton in terms of its rules,

norms, values, sense of community and mediating artefacts (nature-based activities), as well as to seek out contradictions and synergies between activity system elements. The analytic process was guided by various other key concepts that guided the initial data-coding process such as: ethics-oriented learning, *Ubuntu* ethics, sociomateriality, Experiential Learning and the Ecological Self, all of which shine through in the data presentation chapters (4 and 5). However, I also worked flexibly with outlying categories that were not covered in my conceptual framework, but which allowed unanticipated themes to surface from the data.

3.5.2. Thematic analysis

Cohen et al. (2007, p. 461) maintain that “...qualitative data analysis involves organizing, accounting for and explaining the data (...) making sense of data in terms of the participants’ definitions of the situation, noting patterns, themes, categories and regularities”. To facilitate this, I used Braun and Clarke's (2008) six-phase Thematic Analysis towards ensuring more rigorous analysis in terms of drawing out relevant codes and themes. These six phases included a) familiarisation with the data through transcription and active reading; b) generating initial codes; c) searching for themes, collating codes into themes; d) reviewing and refining themes; e) defining and naming themes and; f) producing the report. This is a coherent and rigorous step-by-step method, allowing for in-depth analysis grounded in the data (Braun & Clarke, 2008). Moreover, it is useful to highlight important differences and similarities within a data set (Joffe & Yardley, 2004). In this case study, the unit of analysis was the Hobbiton activity-system itself, with a particular emphasis on the relationship between the children’s implicit SCHVP, the embodied, sociomaterial elements of the nature-based activities (the mediating artefacts), the environmental ethics that guide Hobbiton’s practices (community, rules, norms) as well as the objectives of Connectedness-With-Nature, nature immersion and environmental learning (objectives). This approach also allowed me to surface particular tensions, contradictions and synergies at the interface of these activity-system elements, which deepened my understanding of the Connectedness-With-Nature mediation processes.

3.5.3. Details of the analytic process

Guided by Braun and Clarke's (2008) detailed phases, the analysis was conducted over two stages in response to the research questions. Stage 1 entailed coding for specific data that surfaced participants’ prior positionings, that is, their educational backgrounds, every-day life-

styles and previous perceptions of, experiences in, and sense of connectedness with, nature (overall, their historical backgrounds, as per CHAT). This stage also entailed coding for data that surfaced the ethics-oriented, sociomaterial, and experiential nature of the nature-based activities. That is, factors such as the environmentally-informative and experiential nature of the nature-based activities, the physicality and perceived strenuousness of the hikes, the weather as a constraining factor as well as staff members' environmental passion and the children's willingness to learn. Stage two entailed a deeper layer of analysis towards understanding how the *interplay* between participants' prior positionings and the embodied, sociomaterial elements of the nature-based activities, mediated participants' perceptions of, and connectedness with, nature. Here, contradictory and synergistic learning processes came to light as well as evidence for the nature-based activities as stimuli for engendering environmental empathy and identification, shifts in nature-perceptions and ultimately fostering more pro-environmental intentions. See Appendix 13 for sample analytic memorandum. Table 3.3 below summarises the two-phase analytic process.

Table 3.3: Analytic process showing analytical themes and articulation with research questions

	Analytic phase 1: Socio-cultural and historical positionings (see Chapter 4)	Analytic phase 1: Mediating factors of Hobbiton (see Chapter 4)	Analytic phase 2: Interaction between SCHVP and mediating factors of Hobbiton (Chapter 5)
Research question/sub-questions addressed	Sub-question a and b: - What are the children's perceptions and senses of connectedness with nature? - What are the children's socio-cultural-historical value positionings and how do they mediate the children's perceptions and connectedness with, nature?	Sub-question c: What are the embodied and sociomaterial elements of the camps' nature-based activities, and how do they mediate the children's perceptions of and connectedness with, nature?	Main research question: How do children's socio-cultural-historical value positionings interact with the embodied and sociomaterial elements of the nature-based activities to mediate their perceptions of, and connectedness with, nature?
Themes	SCHVP of children	Mediating factors of Hobbiton	Interactions between children's SCHVP and mediating factors of Hobbiton
Sub-themes	- Prior environmental education (environmental knowledge) - Everyday lifestyles, Modern life and nature experiences - Prior nature-perceptions - Previous transformative nature-experiences	- Experiential and environmental learning - Sociomateriality and embodiedness of nature-based activities. - Staff environmental passion + children's enthusiasm to learn	Subtheme 1: - synergistic/conflicting value positionings 'Loathe-Love' learning - Synergies between Experiential Learning and environmental knowledge Subtheme 2: - Environmental empathy, identification and relationality - Environmental awareness, nature-perceptions shifts and pro-environmental intentions
Purpose	Unveils participants socio-cultural-historical backgrounds, shedding light on prior 'levels' of Connectedness-With-Nature and previous nature-perceptions	Sheds light on how on-site nature-based factors mediate perceptions of, and connectedness with, nature	Together these sub-themes show how participants own backgrounds interacted with the onsite, experiential and sociomaterial factors of Hobbiton in mediating

			perceptions of, and connectedness with, nature.
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3.6. REFLEXIVITY

Reflexivity necessitates the explicit historical, cultural and personal positioning of the researcher, by the researcher, within their own research (Thujo, 2013). Making one's positioning explicit is vital towards avoiding unexamined personal biases and assumptions becoming drivers of the research, which could undermine the study's trustworthiness. Essentially, reflexivity recognises that researchers are inescapably, "in the world and of the world", and a fundamental part of the context that they are researching (Cohen et al., 2007, p. 171). Researcher-subjectivity is thus central to explaining, understanding and justifying the truth of the research. In essence reflexivity throughout the research process contributes to this process being ethics-oriented in nature.

Researcher reflexivity was thus key considering the personal and interpretive nature of this study, and my own positioning as a complex, social human being. I strove to continually and critically reflect on my own SCHVP in relation to how it affected the research process. However, because we can never see ourselves in our entirety, there will always be blind spots in researcher reflexivity (Cohen et al., 2007; Flick, von Kardoff & Steinke, 2004). I acknowledge my position as a young, white, middle-class, female researcher and the power dynamics, which may have influenced the research process and the activity system itself. I recognise that my own interests in and experiences of, nature-based initiatives, have strongly contributed to my personal growth and search for holistic ways to address social-ecological dilemmas. Such experiences have led me to see the potential for healing and ecological-citizenry potential for individuals. I was also aware that there were many socio-cultural differences between participants and between participants and me and that these differences have influenced the research. For example, the Star Gazers struggled to express their opinions to me for various intersecting reasons such as: my whiteness and inability to speak isiXhosa as well various socio-cultural-historical value-differences. Further, I was well aware that all participants, including myself, experienced the nature-based activities in heterogeneous and subjective ways. Finally, I was aware of the potential pitfall of researcher-bias in terms of this thesis contributing towards Hobbiton's future funding opportunities. I made it explicit (to the manager and instructors prior to the interviews) that this thesis could be used to bolster future

funding proposals, but the fact that that was a future possibility would in no way alter the research findings or recommendations.

I addressed the areas of reflexivity concern in several ways during the research process. Concerning the power and language dynamics: the interview questions were translated for the children. Regarding the heterogeneity of the nature-based experiences, I continued to remind myself that my experiences were mine and not necessarily others', and that others' experiences were not necessarily mine. Through this acknowledgement and consistent with an interpretive case study approach, I strove to really understand other participant's experiences from their subjective points of view, in their own terms.

3.7. TRUSTWORTHINESS IN QUALITATIVE RESEARCH

'Trustworthiness' in qualitative research is addressed in this section. Ontologically, qualitative research strives for trustworthiness rather than 'generalisability' (as seen in quantitative research) in that it acknowledges the multiplicities and nuances of human experience and interpretation. 'Trustworthiness' entails four key criteria: *credibility* (truth value), *transferability* (applicability), *dependability* (consistency) and *confirmability* (neutrality) each of which will be discussed below (Guba, 1981). Put into practice together, these criteria can ensure internal and external rigour, a sense of thoroughness and accuracy throughout the qualitative research process.

Credibility in qualitative research concerns the 'truth' value of the findings and involves various checks (Guba, 1981). In this case, ensuring honesty was key through building rapport with participants during the camps. The interactive, nature-based opportunities over the four-day camps fostered more relaxed interactions between me and participants, in turn bolstering the study's internal validity. To further ensure the credibility of the interview data, iterative and follow-up questioning processes were important, particularly with the Star Gazers who were not first-language English speakers. The help of the translators also helped to ensure credibility of the data. Additionally, I ensured that the pre-and post-camp interviews aligned with the study's conceptual and theoretical framework. That is, I drew on the study's key concepts (such as Connectedness-With-Nature, *Ubuntu* and the Ecological Self) and its layered theoretical framework (Deep Ecology and CHAT), as outlined in Chapter 2, to bolster the study's credibility.

Ensuring credibility can also involve member-checks, which requires research participants to check that the interviews have been correctly transcribed (Cohen et al., 2007; Shenton, 2004). This was one limitation of this study due to the short lengths of the camps and the fact that participants were from various places in the Eastern Cape. According to Shenton (2004) other ways of ensuring the credibility of a study include: researcher reflexivity (section 3.6), examining previous research findings in relation to the current study (as evidenced in chapter 2) and working under the guidance of research advisors. I received guidance from two experienced advisors at Rhodes University, one at the Environmental Learning Research Centre, and the other from the Psychology Department. Both advisors contributed valuable insights to this interdisciplinary study.

Another validity concern pertained to sensitisation effects, where the pre-interview process may have mediated a social desirability response set, which is where participants (through pre-sensitisation), may feel inclined to respond or react in ways that are most socially acceptable (Cozby & Bates, 2015). In essence, the children may have wanted to *appear* as if they were more connected with nature because that is what they think I would like to have heard. However, the different methods of questioning and data collection used in the research process (section 3.3) mitigated such validity concerns as varied, valid data was gathered concerning participants' senses of Connectedness-With-Nature.

Transferability concerns providing sufficient detail of the case study context for a reader to be able to discern whether the research context is similar to another context and whether the findings can justifiably be applied to other settings (Cohen et al., 2007). Transferability can be addressed through thick-description, presentation of rich observational and interview data, and a detailed contextual profile. Further, transferability requires a rigorous, transparent account of the research methodology in terms of the contextual details, any restrictions regarding sampling, the number of participants, the data collection methods, the number and length of the data collection sessions and the time period of the research (Shenton, 2004). This thesis provides thick-description through detailed observation and interview data (Chapters 4 and 5, Appendix 6) and a rich contextual profile (section 1.2.3), as well as a detailed methodological account of the research process and its boundaries as evidenced in this chapter.

Dependability refers to the study's reliability and consistency. Dependability is best guaranteed through ensuring credibility, which concerns the quality of the data collection and analysis

(Guba, 1981; Ponelis, 2015). Dependability can be addressed through triangulation, which can involve using multiple data-generation methods, various participant types, and multiple theoretical sources (Flick, von Kardoff, & Steinke, 2004; Shenton, 2004). In this study, various methods were used to triangulate the data (participant observation, focus groups, individual interviews and reflexive journaling) as well as interdisciplinary theoretical frameworks and concepts (Deep Ecology, CHAT, Connectedness-With-Nature, the Ecological Self, *Ubuntu*, ethics-oriented learning). Shenton (2004) maintains that the use of different methods, data sources and theories together compensates for their individual limitations while maximising their respective benefits.

Concerning the accuracy of the interview transcriptions, Inqscribe (transcription software) was used to transcribe the data (see Appendix 12 for sample transcript). Inqscribe allows for more accurate transcription due to its shortcut functions; skip-backs, rewind, time-code inserts, playback speed adjustments and snippet shortcuts (Garde, 2012). This results in a more accurate transcription process, ensuring rigour and precision in textual representation. Further, in order to ensure the transcription accuracy, I read through each transcript alongside the audio clip and corrected where necessary. This process allowed me to further familiarise myself with the data, ensuring more thorough analysis.

Finally, *confirmability* concerns the researcher's active role in the research and the fallacy of 'objectivity' due to cultural, political and social biases (Guba, 1981). For the research at hand, the value of a reflexive research journal (section 3.3.3 and Appendix 11) was key towards ensuring critical reflection on my own personal biases, my SCHVP, and my assumptions and choices concerning the research process, content and desired objectives. 'Checking oneself' in this way leads to more coherent and trustworthy research (Thuo, 2013).

3.8. RESEARCH ETHICS

In social research, ethics refers to the researcher's moral deliberation, choice and accountability *throughout* the research process (Edwards & Mauthner, 2002). In order to ensure that this study was ethical, the ethical tenets of *autonomy, beneficence and justice* (Orb, Eisenhauer, & Wynaden, 2000) were adhered to in alignment with the Research Ethics Guidelines for the faculty of Education at Rhodes University. I consider these ethics to be the most important

foundational tenets of social science research, particularly when interacting with socially vulnerable minors, as this case study has done.

Autonomy concerns participants' right to respect, freedom and self-determination (Cohen et al., 2007). This includes the right to be informed about the study and how the data will be used, the right to freely choose to participate, the right to permit the recording of the interview, and the right to withdraw at any time (Cohen et al., 2007; Orb et al., 2000). All participants were informed about the purpose of the study, the audio-recording process, the content of the interview questions, their right to withdraw at any time, as well as my role as participant-observer. Participants were informed about their right to anonymity, although both managers requested that their identities be revealed. Consent for the Mountain Movers was obtained through their parents, while consent for the Star Gazers was obtained through their legal guardian (Appendix 1). Consent for the staff was obtained through the staff themselves and through Hobbiton Manager 1, Mr Paton (Appendix 8).

Beneficence concerns doing good for others and preventing harm (Orb et al., 2000). Further, it involves considering the likely social benefits of the research against the personal costs to participants (Cohen et al., 2007). No harm came to any of the participants in any way through the research process; the interviews were relaxed, and my participation in the activities was unobtrusive and friendly. The research-findings are beneficent and cannot be traced back to the viewpoints and experiences of participants.¹⁸ Moreover, through this research, theoretically and practically-informed insights into Connectedness-With-Nature, in relation to nature-based experiences at Hobbiton, contribute to calls for a decolonised, embodied nature-based pedagogy, which is in alignment with broader, current calls for decolonised education processes (section 2.3.4). Further, Hobbiton will have full access to this research report for future use towards securing funding for their 'UPCs' as well as for re-designing (if they see fit) their approaches to their nature-based activities in light of the study's findings. In this way, the research will contribute to the organisation's reflexivity and potential marketability.

The principle of *justice* refers to equal share and fairness (Orb et al., 2000). A crucial aspect of justice in research concerns avoiding exploitation and abuse of participants through active

¹⁸ In photo b, Appendix 12, one of the volunteer's faces can be identified, however, this is not problematic as the staff did not mind if their faces were shown in these photographs.

recognition of their potential vulnerability through their involvement in the study. I was well aware of the potential vulnerability of some participants and approached them with care; my previous volunteer experiences in diverse socio-cultural settings strengthened this empathetic approach. To the best of my knowledge and intentions, participants were not exploited in any way whatsoever. The dignity, privacy and interests of all participants was respected and protected throughout the research process. Justice in research also concerns giving due credit to all academic references used to bolster the research (Orb et al., 2000). I have been conscientious in giving academic credit to all authors and theorists drawn on in this research, and have referenced them within the conventions of the American Psychological Association's referencing style.

3.9. CONCLUSION

This chapter discussed the interpretive case study approach, presented Hobbiton as the study's case study, outlined participants' profiles, presented the data-generation methods, outlined the data management process and discussed the multi-layered process of data analysis. Further, it addressed issues of researcher reflexivity, research trustworthiness and research ethics in qualitative research. In Chapter 7 I discuss the study's shortcomings and possible ways to address them in future research. The following chapter showcases the first phase of the data presentation.

4. PHASE 1 DATA PRESENTATION

This chapter concerns phase 1 of the data presentation (table 3.3) and includes two main sections. Section 4.1 begins with a recap of the case study context: Hobbiton's main objectives, values and nature-based activities. Section 4.2 begins by mapping out the main foci of this first phase in relation to phase two, to be presented in Chapter 5. The section then delves directly into: "Participants' Socio-Cultural and Historical Value Positionings" and the "Socio-material Mediating Factors of Hobbiton". These two components respond directly to research sub-questions a-c, in short: how nature was perceived, what background positionings emerged and what embodied and sociomaterial elements were apparent during the nature-based activities (section 1.2.1). In essence these sections unveil participants' background positionings and perceptions of, and connections with, nature (i.e. what they bring *into* the activity system) as well as the embodied and sociomaterial elements of the nature-based activities (mediators *within* the activity system). Phase 2 of the data presentation, which focuses on the *interplay* between participants' SCHVP and the sociomateriality of the nature-based activities, is presented in Chapter 5.

4.1. HOBBITON: OBJECTIVES, VALUES, ACTIVITIES

This section outlines and discusses Hobbiton's main objectives, values and activities, in an effort to provide a brief, clear picture of what Hobbiton does, and what ethics underpin what they do. This is done in order to help shed light on how these activities and approaches mediate the children's perceptions of, and sense of connectedness with, nature at Hobbiton (i.e. the data in sections 4.2 and 4.3).

4.1.1. Hobbiton's objectives and values

"Hobbiton aims to promote environmental and social awareness, cross cultural appreciation, and the development of life skills through its facilities and the natural setting of its centres in order to assist disadvantaged children" (Webster, 2015, p.13). As previously discussed (section 1.2.3), Hobbiton provides a safe, natural space for children from all socio-economic backgrounds to learn about themselves and nature. Hobbiton's main objectives for the children include: agentic and social development; experiential, environmental learning and opportunities for nature-connection; and providing a safe and fun space away from everyday

life (although the objectives differ slightly for school groups versus Star Gazer camps, see below) (Webster, 2015). To recap, Hobbiton's core values include 'sanctity of life', which concerns not harming any human or more-than-human creatures/entities etc; 'respect' for the environment, for people, for oneself, and these values are underpinned by a loosely-based Christian ethic that centralises respect and protection for all living and non-living things/creatures (JI1; TI1; ISI456).

As a primary focus, the Star Gazer camps specifically (Camp 2, section 3.2.3) aim to provide a safe and supportive space for socio-economically disadvantaged children. As a secondary focus, these camps provide opportunities for nature-connection through experiential, environmental learning. These camps are also structured towards developing agency through 'Self-Initiated-Action-Plans' (SIAPs). During these SIAPs, the children are divided into groups and they plan what activities to do and when to do them. Thus the activities become a self-driven competition where the idea is to activate agency and to develop time management skills (JI1).

4.1.2. Nature-based activities

Hobbiton's approach to learning involves adventure and nature-based experiential learning through a wide variety of activities, most of which take place on the edge of/ in, indigenous forests and exotic plantations. The activities of concern are described below. See Appendix 7 for a template of the Hobbiton camp schedule and Appendix 6 for a more detailed example of activity observations.

4.1.2.1. Madonna and Child hike

This was the first hike that all the children participated in upon arrival at Hobbiton. It took about 75 minutes in total, with a break half-way at Madonna and Child Waterfall (Appendix 10: Figure B, I and J). Initially this hike was not too strenuous; however, the second half was entirely uphill. During the first half, a volunteer gathered everyone around a Cape Parrot (*Poicephalus robustus*) nesting box to share some local environmental knowledge about Cape Parrots. Knowledge about the differences between indigenous and alien trees was also shared at a later point on the trail (see Appendix 9 for detailed account of shared environmental knowledge).

4.1.2.2. Kettle Spout Hike

This hike was approximately two hours long, with a break half-way, at Kettle Spout Waterfall. The first half was entirely uphill. On the way up, the volunteers/instructors stopped to share some local environmental facts about indigenous forests/exotic plantations and more specifically about different types of moss and fungi in the indigenous forest (explaining that if one was lost one could look for concentrations of fungi on trees to ascertain a southern direction). At the top of the hill the children were encouraged to taste the fresh water and the watercress (Appendix 10, Figures C and D). Hereafter we continued down the mountain towards the Pine plantations, where the differences between indigenous and exotic forests (in terms of origin, use and temperature) were explained to the children.

4.1.2.3. Night hike

This hour walk-about took place at around eight in the evening (mid-winter), through the indigenous forest and the exotic plantation. The children were allowed to have torches with them, although for about 20 minutes they were asked to switch them off and walk in silence in order to observe the night sounds, smells and sights. In the Pine plantation, the children were asked to form a ‘trust-circle’ where they were engaged in brief reflection/contributory exercises, before returning to camp.

4.1.2.4. Middle ropes course

This activity took place against the backdrop of the indigenous forest at Hobbiton. Each child is part of a larger group and must be helped by others to complete a physical task, such as walking over a wobbly plank, jumping from beacon to beacon, walking across a high rope or across single planks hung from the trees above (see Appendix 10, Figure H). Without one’s team, the tasks are impossible and all team members must physically and verbally support each person attempting the task. The children are encouraged to think about how their actions and words can influence the other children’s ability to complete the task. The key learning objectives of this activity included: interdependence, self-efficacy, teamwork, trust and communication.

4.1.2.5. Ring-barking/tree planting with the Cape Parrot Project (CPP)

This activity was part of the “Bright-Lights Project”, aimed at developing the Star Gazers’¹⁹ life-skills and increasing their experiential, environmental knowledge through various experiential activities, the ring-barking/tree-planting activity of which was just one. The purpose of this particular activity was to develop environmental agency through experiential learning. This activity took place on the edge of the indigenous forest at Hobbiton, where areas of alien vegetation had been cordoned off. The first part of the activity was fact-based, where the CPP facilitators shared knowledge about alien vegetation in isiXhosa. They explained how alien vegetation, such as Black Wattle (*Acacia mearnsii*), Black Wood (*Acacia melanoxylon*) and Bugweed (*Solanum mauritianum*), drain the soil of water and over-populate the area. Consequently, local fauna, such as the Cape Parrot, are deprived of their natural food sources (fruit of the Yellowwood tree, *Podocarpus latifolius*). The facilitators explained that humans can and must help reduce alien vegetation by planting more indigenous vegetation like Yellowwoods, Red Currents (*Ribes rubrum*) and Stinkwoods (*Celtis Africana*). In doing so, indigenous flora and fauna stand a better chance of repopulating the area. Particular attention was also given to the importance of Cape Parrots in Yellowwood seed redistribution.

During the second part of the exercise, the children were carefully shown how to ring-bark the alien trees. The CPP facilitators removed the bark and told the children why it was important to ring-bark them (as it allows the trees to die more slowly because the tree’s water supply is decreased, providing shade for indigenous seedlings over time). With this new environmental knowledge, each child was encouraged to ring-bark an alien tree. Hereafter, the children were each given an indigenous-tree seedling to plant in the shade of the newly ring-barked alien tree. In this way, the children contributed to indigenous reforestation.

4.1.3. Conclusion

This section outlined Hobbiton’s objectives, values and nature-based activities in order to shed light on how these activities and approaches mediated the children’s perceptions of, and sense of connectedness with, nature at Hobbiton. The following section delves into the children’s apparent SCHVP prior to participating in the nature-based activities.

¹⁹The Bright Lights Project is not part of the paying-school camps.

4.2. PHASE 1 DATA PRESENTATION

Phase one of the data presentation does the ‘background’ work for Phase two of the data presentation in Chapter 5. Phase one focuses on two particular aspects of the Hobbiton activity system, I) the children’s implicit background positionings (SCHVP) and ii) specific embodied and sociomaterial elements of the nature-based activities (mediating factors of Hobbiton). See figure 4.1 below. At this phase, the mediation of *interactions* between (I), and (ii), is not analyzed, this is done in Phase two of the analysis (Chapter 5).

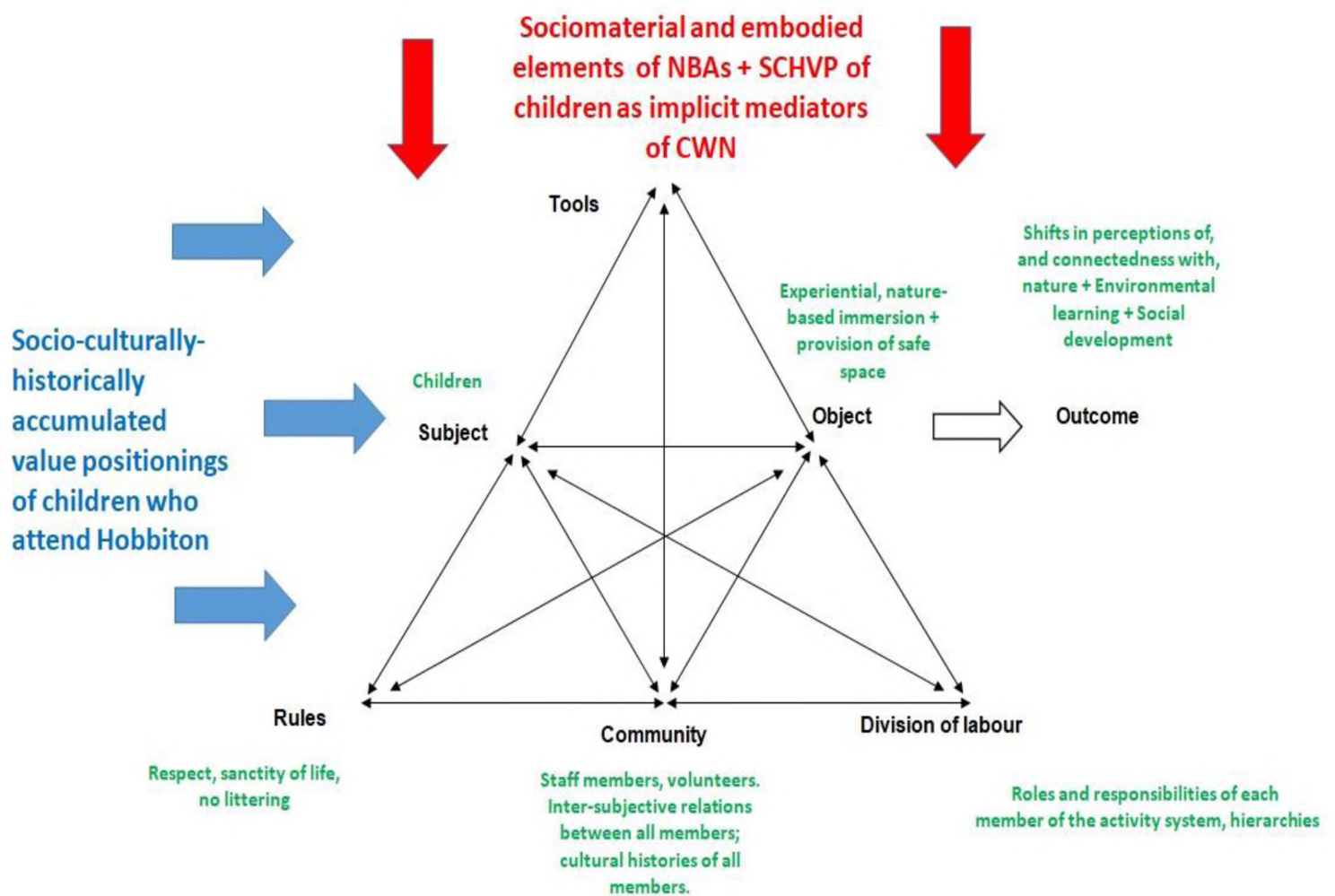


Figure 4.1: Phase one data presentation, activity triangle mapping (adapted from Engeström, 2014).

4.2.1. PARTICIPANTS' SOCIO-CULTURAL-HISTORICAL VALUE POSITIONINGS

This section addresses both sub-questions: a) What are the children's perceptions and senses of connectedness with nature?, and b) What are the children's socio-cultural-historical value positionings and how do they mediate the children's perceptions of, and connectedness with, nature? Using CHAT's emphasis on the importance of socio-cultural historicity in the processes of learning, this data surfaces the children's socio-cultural-historical backgrounds in relation to how they perceived and connected with nature (prior to attending Hobbiton). These SCHVP are inherently brought *into* the activity system, thus affecting how the objective of learning to connect with nature is mediated within the activity system. The children's SCHVP are seen to be *implicit* mediation factors in that they are not purposefully considered within, or integrated into, the design of the nature-based programme towards fulfilling objectives of Connectedness-With-Nature (section 2.4.2.3).

There are 4 sub-themes relating to the children's SCHVP: 1) Prior environmental education 2) Everyday activities, modern life, experiences of nature 3) Previous nature-perceptions and 4) Transformative encounters in nature. These positionings shed light on participants' previous nature-perceptions and 'levels' of Connectedness-With-Nature, prior to coming to Hobbiton.

4.2.2. Prior environmental knowledge

This sub-theme concerns the environmental knowledge that participants had gained as a result of being immersed within their school activity systems. It illustrates the contrasts between the two groups of children who attended very different types of schools. The Mountain Movers were from more privileged backgrounds and many of the children demonstrated previously-learned environmental knowledge. The Star Gazers were considerably more disadvantaged in terms of basic rights (such as access to food, love and care) and formal environmental education and appeared to have less formal environmental knowledge.

The Mountain Movers showed varying levels of environmental knowledge as a result of their education. During a hike, Volunteer 1 asked the children if they knew the differences between the exotic and indigenous forests. Participant 5 responded: "Well one [reason] was, they [exotic trees] were planted on purpose, whereas as they [the indigenous trees] naturally occur. And the

indigenous forest is thicker in ground vegetation than the other one... [and]...darker at ground level...” (PAH1, [00:00:36.11]).

Several Mountain Movers illustrated how they had learned about environmental issues through school. Participant 9 demonstrated knowledge of an environmental problem and her means of sensitisation to it: “...The sewage is... destroying the animal life... [I know about it through] mostly...the teachers, Mr. K talks about it a lot” (PAP910, [00:08:06.15]). Participant 9 also shared a prior nature-experience afforded by her attendance at a creditable public school: “...Mr. K decided that we were going on a beach walk and we walked from the beach... to a farm on the other side of the beach... we just saw shells and water and rocks and all of that” (PAH1, [00:06:54.06]).

Many Mountain Movers also demonstrated an awareness of environmental problems in their everyday lives particularly in relation to pollution and its effects on nature. Mountain Mover 4 commented: “People will drive past and just throw out whatever they want...used alcohol bottles... papers in the street” (Participant 4, PAP234, [00:21:02.07]). Participant 2 further noted: “Well... even like oil in the ocean and sewage and that... they leak into the ocean and littering in the ocean especially because the fish get tangled up and they die” [PAP678, [00:19:53.21]]. Several participants also commented on the lack of responsibility on the part of the municipality regarding litter, for instance: “...I think they [municipality] are aware of the situation, but are not aware of how bad it is so they don’t really try to change things” (PAP910, [00:14:22.03]). Some Mountain Movers also shed light on their own everyday environmentally-friendly practices and activities. Mountain Mover 6 relayed energy efficiency and pollution-mitigation practices: “We turn off the geyser; we only use it for hot water. [Also]...one team and the municipality went to the beach to pick up rubbish” (PAP678, [00:05:49.10]). Mountain Mover 12 highlighted recycling: “Pic n’ Pay has a couple of garden bin recycles... Otherwise there are some shops that you can take...empty glass bottles, and then you get money... then they recycle that...” (PAP1112, [00:10:39.14]).

Concerning the Star Gazers, Manager 1 shared his perception of their ‘reality’ of formal education:

[The Star Gazers’] environmental knowledge is pretty much non-existent unless they have been to Hobbiton before.... Furthermore... if your school is a...township school,

you can't expect the teachers to be a position to educate these children about environmental issues because they themselves haven't had much of an opportunity for learning anything else. And equally by the time that filters down to the children...there is no way that that is going to... [have an] impact on them (J11, [00:17:53.10]).

When asked what environmental problems participants knew about in their area, several of the Star Gazers in UPCFG2 relayed more social problems, such as, "There are many strangers" (Participant 5, [00:14:30.22]). Participant 2 relayed drug-related problems: "Many children in my areas are smoking drugs and that's a problem" ([00:13:10.08]). Hereafter, when asked specifically about problems relating to nature, few conveyed knowledge of environmental issues aside from: "Poaching, uh I think it's poaching..." (Participant 1, [00:09:38.21]).

A few participants in the focus group discussion demonstrated some awareness of environmental problems. Participant 3 commented: "[There is] air pollution and dirty water sometimes..." (UPCFG3, [00:09:44.18]). Some participants connected these environmental issues to the wellbeing of people and animals, Participants 2 and 3 remarked: "When there is water pollution, you get sick; the others can die from water pollution..." ([00:14:55.28]) and, "Dogs can die from eating dirty stuff...and drinking dirty water." [00:16:49.15]). When asked if anything was being done to alleviate these problems, Participant 2 was one of the few to respond: "Yes they [municipality] have made big rubbish bins and they put all the dirty stuff there... they hire people...to pick up litter [...] They put a big sign...'No Not Dump...'" (UPCFG4, [00:10:58.09]). When asked to think about their everyday activities, such as eating and travelling, and whether they affect the environment in any way, only one participant responded: "No those things don't affect the environment..." (Participant 1, UPCFG3, [00:13:32.15]).

It became apparent that several volunteers' levels of environmental awareness had been influenced by their childhood home and school activity systems. UK volunteer 2 commented that respecting nature was a core value for his family: "I think...in my family, there is just the general idea that you should respect the environment [...] I try to avoid driving...using less electricity...like recycling..." (V2, [00:20:19.17]). Similarly, a South African volunteer noted that she had been sensitised to environmentally friendly ethics through Hobbiton as a child: "In Hogsback, nature is important to everyone, so since I was little, people were telling me that nature is part of us....I have protected nature since I was a child..." (V7, [00:23:51.12]). One of

the younger South African volunteers also described how his schooling afforded him opportunities for nature excursions: “We went to Oudtshoorn...we just went on a hike on the mountains and then we went to Tsitsikamma... with a lot of trees...We have also been to Assegaai Trails...So ja we have been on nice camps...” (V4, [00:09:36.22]). These comments shed light on how participants with different SCHVP tend to have differing nature-perceptions, access to natural spaces and different levels of environmental knowledge.

4.2.3. ‘Everyday activities,’ ‘Modern life’ and ‘Experiences of nature’

This section concerns how participants’ ‘Everyday activities’ involved or did not involve nature. ‘Modern life’ concerns how technology and consumer-driven values mediated participants’ nature perceptions/connectedness. “Experiences in nature” concerns participants’ actual experiences of nature in their everyday lives. Together these interlinked elements illustrate how participants were perceiving nature prior to experiencing Hobbiton’s nature-based activities.

4.2.3.1. Everyday activities

When asked to describe their typical everyday activities, the majority of the Mountain Movers relayed activities un-related to the outdoors. For example: “I do homework and then exercise...” (Participant 10, PAP910, [00:06:43.28]). Participant 12 remarked: “...On weekends, you might sleep over at a friend’s house or go out with your girlfriend” (PAP1112, [00:03:40.04]). A few participants spoke of more nature-inclusive activities such as: “Sometimes we walk along the beach, picking up litter...riding my bike sometimes [...] I would really like to [do more nature-based activities]... [like] nature trails and stuff.” (Participant 5, PAP5, [00:04:02.05]). Only two Mountain Movers described a more nature-based life-style, for example:

Well I was born on a farm... I still live on the farm and we have quite a few animals, we have got Zebra and Impala, Nyala... [Also] we have got hunting at our farm, people come and they hunt animals...And we live near a river, with swings and canoes... And we have a pool on the cliff, which is quite cool and um there is quite a lot of nature in my life. (Participant 3, PAP234, [00:09:01.04]).

The Star Gazers found it difficult to articulate descriptions of their ‘everyday activities’ primarily due to the language constraint, thus their contribution to this sub-theme is not included.

4.2.3.2. Modern life

Various aspects of modern life, such as cell phone technology, social media and television, appeared to be strong mediators of prior perceptions of, and connectedness with, nature. Manager 2 relayed how life was much more physically connected to nature for previous generations: “...We were definitely more involved in outdoors...rolling in the grass, watching the clouds go by...I don’t think there is that now... there is even more disassociation now with nature (T11, [00:08:22.08]). In contrast, many of the Mountain Movers described how their everyday lives revolved around modern technology. For example: “In a normal day, I sit at home and don’t do anything, I watch TV [...]” (Participant 6 PAP678, [00:09:47.28]). Participant 8 further noted the addictiveness of cell phones:

...When you have got your phone, you will be like: "I will be there in a minute..." And then you'll be like "Okay never mind I am busy." But you won't [*really*] be busy, you'll just be sitting there in front of your phone...staring at it, it is like a potion... It has to be right next to you (PAP678, [00:08:15.26]).

Children from both camps appeared to be quite attached to various forms of technology, which mediated how they connected (or did not connect) with nature and other people. When asked how they were enjoying Hobbiton, several participants mentioned missing technology in some way. Star Gazer 2 exclaimed: “I miss my TV, I miss electricity... my phone, technology... we can’t have our phones here!” (UPCFG3, [00:27:03.19]). Mountain Mover 2 expressed an internal conflict between missing technology and also appreciating its absence: “I don’t like the fact that there is no TV... I am missing out. But it is nice not to have TV because you can *talk*” (PAP678, [00:09:03.01]). While Mountain Mover 1 demanded, “Hai...no I want my phone back!” (UPCFG3, [00:27:31.12]). Only two Mountain Movers remarked on the perceived value of not having their cell phones: “It is awesome without my phone...Because we have more time to communicate” (Participant 7, PAP678, [00:08:13.01]).

However, modern technology also appeared to mediate the children's environmental knowledge, particularly with regard to nature-based television programmes. Mountain Mover 13 noted the tension between knowing *about* nature in theory and actually physically *experiencing* nature in practice: "My grandpa likes animals and these animal [TV] channels... Sometimes, it's just the snakes and stuff that bothers me. It is safer to watch on your TV....but I am excited to see the waterfall, I have only seen it in movies!" (PAH1, [00:05:39.01]). Some Mountain Movers also communicated a tension between modern-consumer life and the desire to 'get back to nature:' "...Kids today, it is all about cell phones [...] [being] involved in technology...there is more to life...[Nature] is not like a cell phone, where the battery dies...Nature is ongoing and exciting" (Participant 9, PAP910, [00:10:05.21]).

Several volunteers remarked on how cell phones can mediate a physical disconnection from nature, by drawing children away from natural environments. Volunteer 4 noted how the children initially react to Hobbiton's prohibition of technology-use: "Their first day here, they are like "Ahh it's very boring... There's no TV!"(V4). Volunteer 1 further said: "When you look at the new generation... with... all the technology. The groups from the private schools, all of them are having smart phones...and you can see at the beginning that they are missing their smart phones, they are saying that, 'Ah this is shit'" (V1, [00:04:25.17]).

4.2.3.3. Experiences of nature

This section concerns how factors such as privilege, crime and natural-resources mediated participant's everyday experiences of nature. For both groups of children, the potential danger of natural spaces in relation to lethal crimes became apparent, deterring some children from exploring natural spaces. Mountain Mover 6 said: "I like to walk in the forests...but I don't do that much...Something could happen to me when I walk" (PAP678, [00:01:49.10]). Mountain Mover 13 further shared a personal encounter: "...The children [who are crime victims], they are in bushes or trees. Alone, I think it is very unsafe because children might get kidnapped or killed. Like one of my cousins... they murdered him [...] He was playing...in the bushes..." (PAH1, [00:00:01.24]). When asked if fear of such crimes would deter the children from exploring natural spaces, many responded that it would: "I was thinking that if you did the night-walk in [my home town] you would get stolen..." (Participant 12, PAP1112, [00:05:07.13]). Participant 9 further exclaimed: "...I don't want to be taken! [...] You will get raped if you have to walk on the beach late; that stuff happens a lot" (PAP910m, [00:06:06.26]).

Some participants also described how financial factors inhibit opportunities for nature-connection: "...I am like, not connected [to nature]...It is beautiful here [at Hobbiton], but I am like not as connected because...my mom [gets a] teacher salary...we can't always afford to go camping..." (Participant 4, PAP234, [00:36:04.06]). Instructor 6 further noted how issues of race and privilege mediate nature-access in South Africa: "...Growing up in the location [informal settlement]...you don't grow up with the 'outside stuff,'...it was "*white people's stuff*"...going out camping...learning about animals, going to the waterfalls..." (ISI456, [00:34:45.24]).

Participants were also asked to share if/how nature was important for them in their everyday lives. For the Mountain Movers, nature was seen primarily as a material resource. For example, Participant 3 described a more privileged use of nature in terms of wealth:

Well I was born on a [hunting] farm... and we have quite a few animals...zebra and impala...We used to have giraffe until they...died and then we got the skins and stuff. And we had cows but we sold our cows...we don't really need them anymore. We used to...sell the milk and stuff. And we've got hunting at our farm, people come and they hunt animals... (PAP234, [00:09:01.04]).

Others connected nature to their everyday wellbeing in a more general way: "My mom grows a garden and then when we have a headache [or] if we cut ourselves then we have these special plants..." (Participant 3, PAP234, [00:18:00.28]). Similarly, Participant 2 said, "My family, they are very very close to nature because they use nature... My dad...will go to the beach and...collect things...like mussels...So nature is very important to us" (PAP234, [00:15:37.21]).

Due to the language barrier, very few of the Star Gazers were able to communicate their opinions on how they felt in natural spaces in terms of safety. Participant 5 said: "There are many strangers [in natural spaces]... [It would make me scared to walk in the forest] because they kill children... abuse the children..." (UPCFG1, [00:15:51.13]). The Star Gazers were then asked to consider how/if nature was of importance for them in their everyday lives. A few children commented on the importance of having dogs for protection: "The dog...it keeps us safe...It's protecting us from criminals" (Participant 5, UPCFG1, [00:05:49.19]). Several other children commented on the importance of nature for resources: "Water also helps us to wash our clothes and bodies, for hygiene [...] People cut down trees for wood and paper..."

(Participant 1, UPCFG3, [00:07:51.02]). Most of the other Star Gazers connected nature to their sources of food: “We are eating chickens, and they make us happy” (Participant 5, UPCFG1, [00:06:45.08]).

4.2.4. Previous nature-perceptions

Directly linked to the adapted Connectedness-to-Nature scale presented in section 3.3.1, this theme concerns what the word ‘*nature*’ meant for the children prior to coming to Hobbiton and what this meaning was connected to. These perceptions also concerned how children empathised or identified with nature prior to coming to Hobbiton. For many of the Mountain Movers, the word ‘nature’ had somewhat of a rudimentary meaning. Some participants spoke about nature in terms of trees and animals, “I think nature is like um lots of trees, the green places...things that are made of wood...planks from the trees...” (Participant 6, PAP678, [00:00:59.16]). Participant 1 related ‘nature’ to spaces unaffected by people: “Well I would picture something like this [Hogsback], well-kept and not interfered by man [sic]” (PAP1, [00:03:14.29]). Participant 5 went a little further: “For me it means all the wildlife, plants and animals in an area... [but for most humans nature is used]... as a trash can” (PAP5, [00:04:28.19]).

Other Mountain Movers communicated more holistic understandings of nature. Participant 9 commented: “[Nature] means all living things...You can’t get something similar to it; you can’t replicate it...It is quite beautiful and spiritual. Very original...” (PAP910, [00:08:50.10]). Participant 7 related nature to learning: “Nature is where you see new things, new animals, things you haven’t seen before and then you learn more about them” (PAP678, [00:01:50.18]). Participant 4 related the word ‘nature’ to her own body, locating herself in nature: “Eish... ‘*nature*’, I think of that monthly cycle. Whenever I think of myself in nature, I am just saying... ‘Why can’t Mother Nature just have the message, ‘you ain’t pregnant..!’ [...]” (PAP234, [00:12:44.16]).

Participants were further asked to share their understandings and opinions of the connections between humans and the more-than-human world (as per the adapted Connectedness-With-Nature scale, section 3.3.1). For the Mountain Movers, a few of the Black participants commented on their understandings of the connections between nature and culture in terms of

traditional knowledge and practices: “Sangomas²⁰ use nature, use plants, indigenous plants to make medicines... even medication comes from nature” (Participant 8, PAP678, [00:07:53.12]). Similarly Participant 7 said: “[Nature is important] for the Sangomas, in terms of water and... for boys [going into the bush]... They have specific [rules], like you are not allowed to go into some [natural] places because of spirits...” (PAP678, [00:02:38.05]). Some of the participants conveyed a sense of apprehension about particular natural spaces: “It is scary stuff, ancestors and nature *together*, oh no! That just creeps me out! [...] Like some of these places that you go to...you just swim there... and then witchcraft begins!” (Participant 8, PAP678, [00:03:21.06]).

The Mountain Movers further shared their opinions concerning the idea of a ‘common energy’ among all entities of Earth. Most participants differentiated between humans and animals, but tended to agree that all Earthly creatures share a common energy. Participant 1 exclaimed: “Well, we all share the same energy, that can’t be denied! [...] We were originally born with nature and without it, there is no ‘us’” (PAP1, [00:12:22.06]). Participant 9 further noted: “[All things share] a common energy... similar to the sun... it gives us energy and makes us jump around... (PAP910, [00:19:37.17]).

Participant 6 shared more nuanced answers to the question of nature-connectedness: “Most [people] are connected [to nature] [...] Some people are connected and some are not. Some people just don’t care about other people” (PAP678, [00:00:31.19]). When asked why they thought this was so, participants relayed answers that surfaced the nature of individualist societies: “Some people...don’t think for other people. Like when they litter, [they don’t think:] ‘What if everyone litters...what will happen?’ [...] Some people just think of themselves... [They don’t think,] ‘what if that happens when I do this?’ They don’t have second thoughts...” (Participant 6, PAP678, [00:00:31.19]).

The Mountain Movers were also asked if they thought that humans were ‘smarter’ than more-than-human creatures. Participant 9 believed that humans were smarter because: “...humans create more things, technology...” (PAP678, [00:15:56.17]). Others maintained that animals were smarter, “...in some ways, but not like completely intelligent, in some ways they are, some

²⁰ In South Africa, Sangomas or ‘traditional healers’ are highly respected and revered healers who act as mediators between the spirit and the human realms.

ways they are not” (Participant 6 PAP678, [00:16:18.07]). Participant 5 alluded to the morality of humans: “I could say [humans are] smarter but it would also be dumber in a way ‘cause creatures don’t do ‘good’ and they don’t do ‘bad’ things while people do good things but more people do bad things” (PAP5, [00:11:38.23]). Some participants noted similarities in terms of ‘smartness’: “...Humans can defend themselves, animals can [also] defend themselves... There are a lot of things that both species can do. So you can’t say humans are smarter just because of technology” (Participant 8, PAP678, [00:16:03.25]).

Participants were also asked to share their opinions on who/what the Earth belongs to. Some believed that the Earth belongs to no one: “Nobody owns the Earth but they can own land but they can’t own the Earth” (Participant 12, PAP112, [00:16:51.20]). While Participant 2 relayed: “...It does belong to everyone, but only if you can...respect it. Say you respect it, it will respect you back with other things...people are not respecting nature” (PAP234, [00:26:03.06]). Other participants commented on the responsibility of humans to take care of Earth:

We have not been around nearly as long as the Earth has...I wouldn’t say that it ‘belongs’ to us...but it is our responsibility to look after it.. Because we have this...‘superiority’ and since we have supposedly ‘conquered the Earth’...it should be our responsibility to preserve it... (Participant 1, PAP1, [00:13:34.19]).

On the contrary, others maintained: “The world belongs to the animals and the plants... we need to remember who got here first!” (Participant 3, PAP234, [00:25:59.13]). A few participants also seemed to be genuinely concerned about preserving nature: “It [nature] needs be protected, all the wild things [...] [Nature] is going to be used and overrun and it will...lead to our demise...” (PAP5, [00:11:00.01]). Participant 4 took a more critical stance: “We are meant to be taking care of our animals but it doesn’t seem like we are doing that... if you are going to litter and have plastic as your ‘national flower,’ then it is not going to work!” (PAP234, [00:27:24.29]).

The Star Gazers found it difficult to express their understandings of the word ‘nature’. Only a few of the children conveyed some understanding of the word, relaying responses such as: “[Nature means] Animals... dogs...” (Participant 4, UPCFG1, [00:04:32.23]) and “[Nature means] trees...grass, water” (Participant 2, UPCFG3, [00:03:03.24]). Other participants appeared to have less of a clear understanding of ‘nature’ and responded with answers that

concerned man-made things such as, “[Nature means]...Cars” (Participant 5, UPCFG3, [00:02:49.24]) and “[Nature means]...Houses” (Participant 4, UPCFG3, [00:02:59.12]). While some children appeared to have a more integrated understanding of ‘nature’: “Trees is nature, animals, people, water, air...” (Participant 2, UPCFG3, [00:02:31.10]).

The Star Gazers were then asked to share their opinions about the connection between humans and the more-than-human world. Some participants answered from a biological perspective, “Yes [there is a connection between humans and nature,] if there were no trees, we couldn’t get oxygen, we wouldn’t be able to breathe fresh air...” (Participant 3 UPCFG4, [00:11:49.15]). Other participants acknowledged a rather negative connection between humans and nature: “[Humans have] mostly bad [relationships with nature]... because sometimes people poach animals and cut off trees” (Participant 1, UPCFG2, [00:09:14.25]). Some participants also related nature to culture: “...Nature is related to culture because we can use some trees as traditional medicine, and then animals we slaughter them so we can have meat, maybe for big occasions...” (Participant 1 UPCFG2, [00:13:54.13]).

When asked if the Star Gazers thought that humans were ‘smarter’ than other more-than-human creatures, answers were varied. Some were simply not sure, “No... I don’t think that...I’m not sure...” (Participant 1, UPCFG2, [00:15:41.13]). While others maintained that humans were ‘smarter:’ “I think it’s us, we are smarter as we have only created microwaves, phones, washing machines, laptops and TVs...” (Participant 3, UPCFG3, [00:18:12.14]). Other participants shared opinions about the alternative intelligences of animals: “Animals are smarter...I am thinking about witchcraft, like dogs can see when there is a ghost... but as a person, you can’t see it!” (Participant 3, UPCFG5, [00:18:49.23]). Some participants also alluded to the morality of human action: “I think that animals are smarter than humans, because people can think of doing something wrong to other people but dogs don’t think like that...” (Participant 1, UPCFG4, [00:13:41.08]).

The Star Gazers were also asked to share their views on who the Earth belonged to. Some maintained that the Earth is owner-less: “No one owns it” (Participant 3, UPCFG3, [00:18:35.02]). While, Participant 1 stated: “I think that Earth belongs to people and also to the animals” (UPCFG4, [00:14:38.25]). Only one participant believed that Earth belonged to humans: “I think that the Earth belongs to humans” (Participant 2, UPCFG5, [00:21:54.18]).

4.2.4.1. Religious ontology

Children from both camps responded to some of the questions around nature from a religious point of view, highlighting how the religious aspects of their home/school activity systems were influencing their nature perceptions. A few participants communicated a religious ontological outlook in relation to who/what the Earth belongs to: “[The Earth belongs to] God... Spiritually it belongs to Him [sic], but not to a person... I am only in this world, it is everyone's world” (Participant 9, PAP910, [00:21:07.06]). One Star Gazer relayed: “... Well maybe it belongs to God only” (Participants 1, UPCFG2, [00:16:11.22]). Participant 4 further expressed God’s call for the care for the Earth: “God, Adam and Eve said that we have to take care of the Earth... but it doesn’t seem like [that’s what] we are doing (PAP234, [00:26:45.28]). In another vein, Star Gazer 1 appeared to have personally resonated with Hobbiton’s grace, which is said before meals: “... I really like the grace because it tells [you] everything that happens around Hobbiton, so sometimes when I want to pray at home I just say "oh God who made the place in shade..." [the same Hobbiton prayer] (Participant 1, UPCFG3, [00:07:06.21]) (Appendix 10, Figure K).

Several of the staff members also responded from a religious point of view when asked about the future of the Earth and the role of humans. Manager 2 responded from a religious perspective with regard to our role as carers of the Earth: “We should be looking after it, we should be custodians.... having been brought up as a Christian, it's... like: ‘you are custodians of the Earth and... everything within it’ so you should be looking after it, more than you should be a detriment to it” (TI1, [00:09:55.17]). Volunteer 7 further relayed how her religious values mediate her ethics around harming animals: “... I am a Christian, a Christian is not allowed to kill or destroy anything so like, ja to 'take care' of plants and stuff... that's our tradition or religion...” (V7, [00:25:58.00]). On a slightly different note, Volunteer 4 remarked how religious values had mediated his outlook on his childhood past-time of shooting birds: “... When I grew up a little bit... at school [they told us,] “no killing”, because it's *God's* creation... I got it in mind that it’s bad now, so I stopped it (Volunteer 4, V4, [00:07:52.29]). In essence, all these responses highlight how religious beliefs can mediate perceptions of, and connectedness with, nature.

4.2.4.2. *Environmental empathy and identification*

To gauge the children's levels of environmental empathy, they were asked to think of how they might feel if they saw an animal die or how they felt if they had actually seen an animal die in the past. Most of the Mountain Movers expressed feelings of sadness to some degree in relation to the death of an animal in their lives: "...[It was] very, very heart-breaking, I have had a dog, he meant the world to me, he died when I was ten, I was very upset and sad" (Participant 1, PAP1, [00:11:15.08]). Participant 12 shared his feelings concerning his hunting experiences: "I only shoot the most common animals...And I prefer not to go for a gut shot because then it runs away in with that pain in it... it just doesn't make me feel nice inside" (PAP1112, [00:06:33.20]). Some participants reflected on actually having seen a dead animal during a previous Hobbiton camp: "It made me feel very weird... you just stare at the animal and you think 'ah it was once living but now it is dead...' It teaches you to look at things when they are dead" (Participant 2, PAP234, [00:04:44.13]). Participant 8 further relayed: "It is just sad...because an animal has got the same emotions and stuff, as a human...and then it disappears..." (PAP678, [00:13:35.19]). A few participants relayed more general feelings of despair at the thought of nature being overtaken by the humans: "[It] makes me...feel kind of like disgraced or disappointed...because this is what we have created. It's...our own fault that this [the destruction of nature] is happening" (Participant 2, PAP234, [00:23:39.28]).

In relation to *imagining* the death of an animal, most Star Gazers relayed feelings of sympathy. Star Gazer 1 expressed: "...I feel sad, I would feel bad" (UPCFG, [00:16:16.02]). Similarly, Participant 3 commented: "I would feel sad, for my nature..." (UPCFG3, [00:15:18.12]). Some participants also communicated that they would feel sad to see a pet die, "[I would feel] sad, especially when a dog is a dog that you like" (Participant 1, UPCFG2, [00:15:16.06]). In a more human-centred vein, Participant 3 communicated: "We get scared [to see a dog die]... We think that...people will die that way [too]... [because of how] the animals get treated in the environment, eating dirty stuff. They also breathe the same air so we can also die the same way" (UPCFG4, [00:12:20.27]). Star Gazer 3 communicated a different perspective, highlighting his everyday needs: "I would feel happy [to see a dead animal]...because I would want to eat it" (Participant 2, UPCFG3, [00:14:58.09]).

From a staff perspective, Manager 1 described his many experiences of catching children trying to harm animals at Hobbiton, and his interpretation of the absence of empathy therein:

Something like [killing] a bug across the path, there is no need for them to kill it... that's happened hundreds of times...And I always ask the question: "Why do you feel it's necessary to kill it?" It's always, 'I don't know'. Um the fact that it's ["*just*"] a bug is usually enough of an answer for them...It's a very patriarchal view of the environment [...] (J11, [00:48:24.29]).

4.2.5. Transformative nature-experiences

Staff members' described meaningful nature-based experiences that mediated their own Connectedness-With-Nature. A local volunteer described the link between early encounters and appreciation of nature:

...Kids don't really bond with nature as well if they haven't grown up appreciating it, if they haven't...been by themselves with nature... They will...say, 'Ahh nice tree there', but they wouldn't *know* anything about it ...it's just a 'tree'... [But] then some of the...local kids here, who have been growing up in these woods...they think, "This is a tree I could climb!" This is a *tree* [that I have known and experienced]... Their minds [are] more open to possibility (V13, [00:16:05.28]).

Concerning access to nature, several foreign volunteers shed light on how their own SCHVP of privilege had shaped their ethics around, access to, and experiences of, nature. Volunteer 2 commented: "I have spent quite a lot of time in...mountainous environments during holidays...in the UK and various countries abroad...So I think I have always sort of had a sort of respect for these environments. And also we learnt a lot about them at school" (V2, [00:19:09.22]). Volunteer 6 further noted:

Well I am from Switzerland... close to Lake of Constance... I used to be a scout... immersed quite a lot in the nature...So I engaged a lot with the nature...My parents tried to get us as much into the nature as possible. And even in kindergarten...at least once a week for a day the teacher took us to the forest to...get to know the forest even more... (V6, [00:22:37.09]).

Many of the staff spoke of meaningful experiences in nature, both from positive and negative perspectives. Manager 2 highlighted the value of an embodied, solo experience in nature as a

child, at Hobbiton: “There I was, all by my lonesome...And it was really really cool because you were ‘*on nature*,’... It actually got you, physically, feeling, and touching...involved in nature...And your idea of damaging nature changes...” (T11, [00:00:22.01]).

Some staff members described how tense and contradictory experiences in nature, specifically around hunting animals, had also mediated their own environmental ethics. Volunteer 5 described a once-off experience of hunting and how this embodied activity mediated her environmental values: “I went to...the bush and caught animals...It’s a family thing, they...walk around in the bush... at night and then they just kill the animals there...to be in nature, especially at night to hear the night sounds...I loved it [at first]..” She then continued, “There wasn’t really a reason [for the killings], it’s just for fun...I just caught one, and then I was screaming... and then we broke its neck” (V5, [00:06:10.12]). She also mentioned that prior to this experience, she was scared of animals, but that after participating in this activity she, “...wasn’t scared for animals anymore...because I caught one and I was holding one in my arm...I saw how they break the neck and all that.” I then asked how she had felt about animals and nature in general before this experience: “I was not interested in nature at *all*...and animals... But now I have [had] a different experience...I didn’t like...how they killed the animals...I heard it crying...I was sad. I would never hurt an animal anymore” (V5, [00:08:05.24]).

Instructor 4 also shared her experience of killing her first animal as a professional hunter and empathising with the animal’s pain, and how this mediated her decision to end that career path:

...I really enjoyed it [the job] until I had to do my first kill, and that was the turning point...When I did my first shot, I probably missed on purpose because I couldn’t...[kill]... And then I learnt how to skin and I think that was the point where I couldn’t do this anymore... (ISI456, [00:16:58.23]).

When asked for specifics about why the hunting experience made her change her career path, she reflected:

It’s the killing... seeing something that is moving, and then seeing something that is not going to move anymore...And then the second thing was when I went up to the animals and...[another hunter] took the second shot and he had to bleed [the animal] and said, “Okay now you are going to learn how to cut...” and as I started cutting, you could still

feel...I don't know if you guys know when you are fishing and you take the worm and you put the worm [through the hook].. and the whole worm like squirms, it's the same thing with the [dying] animal... all the muscles [contract]...and you could feel all their...pain you know...At that point I was like 'I can't do this anymore'...then I went straight into Environmental Education...(ISI456, [00:20:43.13]).

4.3. MEDIATING FACTORS OF HOBBITON

Having delved into what participants bring *into* the activity system (i.e. their SCHVP) and how these positionings mediated their prior perceptions of, and connectedness with, nature, the following section concerns the various *on-site*, embodied and sociomaterial elements of the nature-based activities (i.e. the mediating artefacts), and how these elements mediated participants' perceptions of, and connectedness with, nature. This section addresses sub-question c of the research: What are the embodied and sociomaterial elements of the camps' nature-based activities, and how do they mediate the children's perceptions of, and connectedness with, nature? This section speaks to the sociomaterial 'goings-on' *within* the activity system itself. Sub-themes include i) Experiential and environmental learning integration, ii) The sociomateriality and embodiedness of the nature-based activities and iii) Staff environmental passion and learner enthusiasm. Together these factors functioned as on-site implicit and explicit mediators of participants' perceptions of, and connectedness with, nature.

4.3.1. Experiential learning and environmental knowledge integration

This section concerns the value of Experiential Learning in mediating Connectedness-With-Nature during the two camps. Experiential Learning concerns the embodied nature of environmental learning processes such as: hiking, tree-planting and ring-barking. Environmental knowledge concerns theoretical information about nature shared by staff through the embodied nature-based activities. These experiential learning processes are seen as *explicit* mediation factors (section 2.4.2.3) of Connectedness-With-Nature within the activity system, in that they are purposefully integrated into the design of Hobbiton's nature-based programme.

Several staff described the efficacy of learning through practice: "... [You are] learning so much more when [you are] *doing* something..." (V1, [00:26:02.29]). Many staff also highlighted

how coming to Hobbiton can be a transformative nature-encounter: "...We want to help them develop by doing activities that they wouldn't normally have the opportunity to do...Being in a [natural] environment is new...it's just a different way of learning" (V2, [00:03:59.12]). Manager 2 also illustrated the value of experiential animal encounters: "...It was...the most blessed hike...we saw Knysna Louries...baboons...Samango monkeys. And [the children] could actually *see* these things...where they naturally occur...that people go to zoos [for]... We should be *seeing* them...and conserving that as much as we can" (T11, [00:27:28.23]). Further, Manager 2 illustrated the value of environmental reflection: "I think it is life changing for any kid to get out *into* nature and go, 'Okay we do need to look after this,'... [But] you need to *interact* with nature; you need to learn about fresh water, the invertebrates..." (T11, [00:52:49.10]). Manager 1 sums up the value of experiential environmental education:

[Environmental awareness] is something that they can only learn practically and physically...You can talk about it until you are blue in the face, but they are not going to...[learn]...They do have to do it physically and practically before it will sink in...You cannot duplicate these things in the classroom...[Furthermore]...it's all very well us *telling* them about um alien vegetation being damaging to the environment, and trying to explain why we need to get rid of that, but...it's just one more academic thing [being] *told*, which has no impact on their lives. But when they actually go out...and ring-bark... physically do something, they are going to learn it... [having] a far greater impact on their lives. Equally with regards to learning about waterfalls, wildlife and so on, you can learn about it in a classroom, but here...at Hobbiton...they see waterfalls...wild monkeys... So then when we talk about the importance of preserving the indigenous forests, and the trees and the animals, it has a greater impact on them [...] (J11, [00:37:39.02]).

Several staff members further highlighted the importance of sharing environmental knowledge *through* the experiential nature-based activities. Manager 1 noted that many of the Star Gazers will not have had access to, experience with, or knowledge about alien vegetation, thus drawing attention to the unique opportunity for learning through the amalgamation of practice and theory: "... The teachers haven't been taught...about what *actually is* an alien plant. They might have learnt it academically but they haven't had hands-on [experience]...pulled up a Wattle...If nothing else, we are providing...that opportunity..." (J11, [00:15:33.20])

Manager 2 further described how Experiential Learning and environmental knowledge are combined, creating effective learning platforms:

We try and do a night hike in the indigenous forest and then a night hike in the exotic forest and then we get the kids to reflect on which was warmer and why...decomposing biomass causes thermal energy which we don't have in the exotic forests... Then [we talk about] which [forests] have more animal sounds... your indigenous...Even when we walk through an area that's exotic, we...look at the ferns...and the foundation species, none of them are on the ground because nothing can survive in their kind of acidic...soil...(T11, [00:38:18.01]).

Volunteer 2 noted how sharing environmental knowledge might encourage shifts in environmental action:

When they leave...they have a much better understanding of...the specifics about the species of the trees...rather than thinking that that's just 'a forest.' *Knowing* what's in the forest...they certainly...respect the environment more and that might lead them to act differently... Learning...in the forest is much better (V2, [00:11:10.12]).

Finally, Manager 1 highlighted how for many children: "...being at Hobbiton...is a 'wilderness experience.'... They have a feeling that they are in nature when we do any activity that involves taking them out into the veld" (J11, [00:29:35.27]). Furthermore, he explained how environmental knowledge is integrated into every aspect of Hobbiton through nature-based immersion (J11, [00:29:35.27], [00:06:16.20]):

[...] Environmental education touches on everything...that we are doing [...] So when we are taking them on hikes, we will...give the children a chance to pick up some litter...We will point out alien vegetation and encourage them to pull out some Wattles...We talk about sanctity of life...they may not kill anything...When we are walking we will talk about it, so it's not...a separate, stand-alone lesson.

[...] We talk about environmental issues...whatever else might be appropriate to that area, the parrots, the dangers of poaching...the need to protect plants. Then even if it's

an activity based around Hobbiton, the whole thing of not littering, sanctity of life...not damaging anything around there, it's all very important... (JI1).

Essentially this theme highlights the efficacy of Hobbiton's nature-based activities as opportunities to convey environmental knowledge whilst being immersed within the natural setting.

4.3.2. The embodied and sociomaterial elements of the nature-based activities

'Sociomaterial' here concerns the seemingly obvious social (human) and material (physical and embodied) factors that are inextricably interlinked and which underpinned the nature-based activities (see section 2.3.3.1). The sociomaterial factors discussed here are seen to be *implicit* mediation factors in that they are not purposefully acknowledged or even wholly understood within the design of the nature-based programme, towards objectives of Connectedness-With-Nature. Key sociomaterial factors included: the weather; nature immersion at Hobbiton; and the embodied physicality of the nature-based activities. Together these factors mediated how the nature-based activities were experienced, which in turn affected how participants were connecting with nature at Hobbiton.

4.3.2.1. Weather

The weather played a significant role in how the children experienced the nature-based activities. In relation to a previous Hobbiton camp, Mountain Mover 4 exclaimed: "It would have been...more fun if my toes weren't...about to break off...It was like raining... huge drops that just hurt [...] YOH! That wind cut into your skin" (PAP234, [00:00:28.20]). A few participants noted how the cold weather had constrained the nature-based activities: "It was mainly raining the whole time so we didn't get to do as much stuff as we were supposed to..." (Participant 5, PAP5, [00:00:16.29]). Participant 3 further noted that the camp would, "...have been even better, if the sun was shining" (PAP234, [00:07:05.02]).

Participants complained about the weather in a variety of ways. Mountain Movers' 7 and 4 respectively said: "[I wanted] a heater, it was cold (Participant 7, PAP678, [00:13:07.03]) and "[I wanted] a fire!" (Participant 4, PAP234 [00:13:11.01]). Participant 2 later reflected: "I...appreciate the warmth...how much I need it" (PAP234, [00:10:47.06]). Participants also

reflected on the effect of the cold weather on the nature-based activities. Star Gazer 4 maintained, “It would have been better if it didn’t rain [when we hiked]” (UPCPI1, [00:34:04.27]). Further: “[The second hike] was better since it wasn’t raining the whole time” (Participant 5, PAP5, [00:00:55.02]). Several children noted that they would only return to Hobbiton if it was warmer: “Yes in summer, not in winter!” (UPCPI1, [00:34:20.12]). However, some of the participants wished that it had snowed despite their complaints about the freezing weather, “I wanted to see snow but at the same time I didn’t want to get frost bite!” (Participant 1, PAPI2, [00:21:35.17]).

Several volunteers shed light on how the weather can impact children’s experiences: “...Hogsback weather: it does play quite a role because sometimes we have sunny days and children are able to do all the activities...[but] like [for] this camp the children, weren’t allowed to do some of the activities, because of the weather” (V7, [00:20:09.22]). Volunteer 10 further described how the children complain about the weather: “[If it is rainy], they will not be happy because it will be cold...complaining that, ‘We mustn’t go [on the hikes]...because it’s cold!’” (V10, [00:20:53.14]). In essence, the weather was a major sociomaterial factor that mediated participants’ experiences and perceptions of the nature-based activities.

4.3.2.2. Physicality of the hikes

For both groups of children, the hikes provoked numerous complaints, most of which concerned the physicality and strenuousness of the uphill and downhill components. For example, Star Gazer 4 exclaimed: “The road is way too long for me and there are big hills” (UPCFG3, [00:20:17.17]). Star Gazer 2 further commented: “It was...too much distance...too far!” (UPCFG5, [00:05:12.13]). Some of the Mountain Movers highlighted the potential dangers of the hikes: “...I learnt that you have to pace yourself going downhill...My heart almost stopped...You could have done quite a bit of damage to yourself if you fell...it was wet and slippery so you really had to learn how to get your footing right” (Participant 4, PAP234, [00:02:46.21]). Upon later reflection some Mountain Movers appeared to have felt a sense of accomplishment: “...I nearly fell down...twice. It was like, ‘Sjoe we made it, I am still alive!’” (Participant 12, PAP1112, [00:18:47.07]).

Other Mountain Movers noted the differences between the various hikes and their levels of strenuousness:

[Kettle Spout hike] was tiring, it has got steep hills! If you went ‘around’ the curve, you went AROUND...and then it goes up and then it gets flat and then it goes up even more!! That hike Madonna and Child hike was easy, just went like left and right (Participant 8, PAP678, [00:03:59.13]).

While many participants clearly disliked the demanding physicality of the hikes, some appeared to have really enjoyed seeing a waterfall for the first time. Mountain Mover 4 exclaimed, “It’s a beautiful sight...I have now seen a waterfall, it’s breathtaking actually... It’s just...wow” (PAH1, [00:00:13.10]). Others appreciated the fresh spring water: “...I was quite surprised at how fresh the water was at the top... It was nice and cold!” (Participant 7, PAP678, [00:06:09.27]). One Mountain Mover further connected the experience of the hike to a positive memory: “[The hike] was so nice, it...reminded me of my great granny and great grandpa because we would...have a picnic by the forest...The wind...blows through the trees and the owls that makes sounds and it sounds just so awesome” (Participant 14, SS, [00:01:25.29]).

4.3.2.3. Night hikes

There appeared to be mixed feelings about the night hike, with the majority of participants relaying experiences of a fear of the darkness. Only one of the Star Gazers appeared to enjoy the experience, “It was awesome... even though it was cold... We were quiet, and we heard the sounds of the forest...the owl was out” (Participant 3, UPCPI1, [00:05:37.00]). Other Star Gazers and Mountain Movers were far less enthusiastic, particularly in relation to the time, the temperature, the darkness and the threat of snakes. Star Gazer 1 commented shortly before the hike, “I am going to say that I am sick... [so I don't have to go]. It’s not nice going there [up the mountain] at eight pm, then being back at twelve. Hai no I want to sleep!” (UPCFG3, [00:26:17.19]). Star Gazer 5 expressed her fear of stepping on a snake: “Yoh I was scared, when I saw a root, I thought it was a snake, I closed my eyes! What if a snake bites me?!” (UPCPI1, [00:06:58.16]). Mountain Mover 4 described the eeriness of the dark forest:

... [In] the exotic forest, the trees are skinny and tall and you look up and it's just darkness... You see like a bit of the moon-light and then like a squeal, I could see the trees move... could hear the creatures. So it was a bit like a horror movie... It was creepy (PAPI2, [00:03:28.11]).

Some participants also shared their fears for their physical safety: “...I was scared...I didn’t have a torch, and then everyone switched off their torches and I couldn’t see... I kept on tripping and...falling...it was slippery...” (Participant 6, PAPI2, [00:06:16.02]). The physicality of the darkness also seemed to affect participants’ experiences: “I liked the night hike because we were able to improve our senses... [My] hearing...sight and touch [improved the most]” (Participant 5, PAPI2, [00:03:01.13]. Mountain Mover 13 further said: “I liked when we had to put off our torches and it made...our night vision...more stronger...” (PAPI2, [00:04:10.10]). A few participants also commented on how they felt after they had adjusted to the darkness, Mountain Mover 9 relayed that she felt “a little bit safer” once her eyes had adjusted (PAPI1, [00:01:48.13]). Some participants described the different sensations of temperature in the forests: “I actually felt the difference between the indigenous forest and the exotic. Cos in the indigenous...it is actually quite warm...But [in the Pine forest]...it was actually quite chilly...but I liked the moonlight and the stars and it was quite pretty...” (Participant 4, PAP234, [00:01:47.22]).

Manager 1 further described how the night hikes can demystify stereotypes of forests as dark, scary and unsafe spaces:

...We want them to feel safe...At night time, because it’s dark, the kids actually start focusing on their safety...They may have a far greater sense of wellbeing, when they focus on their sense of safety *and overcome it*...They actually calm down and just keep quiet for a moment and then realise that the forest isn’t a threatening place...it’s a beautiful place (JI1, [00:33:18.14]).

4.3.2.4. Nature-based immersion and benefits

The whole Hobbiton experience concerns “...connecting with nature...The Hobbiton experience wouldn’t be as successful if we were doing this in town... We consider even staying here...to be an encounter with nature...” (JI1, [00:42:20.24]). The children were asked to compare their experiences of being immersed in a natural setting to their everyday lives. Mountain Mover 12 said: “...You can feel the difference... like you can feel that you are outdoors, it just feels better...” (PAP1112, [00:17:39.17]). Many participants also remarked how Hobbiton was free from everyday pollutants and human tensions: “There is fresh air! In the city, you just smell the fumes and ugly smelling things. You feel more comfortable

here...you can actually find yourself and be calm” (Participant 2, PAP234, [00:29:16.05]). Participant 4 further noted: “In a city, there is a lot of traffic...‘BWAM BWAM’... a lot of angry people... people talking...fights which break out... someone is drunk...So you are actually just going to get stressed. But here...there is serenity, it is relaxing” (PAP234, [00:27:55.04]).

In relation to the above sociomaterial elements of the nature-based activities, many of the Mountain Movers noted psychological benefits of nature immersion. Some children felt a sense of relief at not having to deal with people and the modern life-style in general, “You can just take a deep breath and relax... No honking, and angry people, swearing and shouting!” (Participant 4, PAP234, [00:28:50.20]). Participant 2 further responded: “People shout and swear...but if you look at an animal, they don’t do anything...they don’t talk back...” (Participant 2, PAP234, [00:30:07.10]). Participant 2 noted: “I feel more connected [to nature] here ... I feel more open...you can actually breathe here, you can smell the air, the water is fresh and beautiful... when I come here I feel...happier [...]You can actually find yourself and be calm” (PAP234, [00:36:43.23]).

Others noted the benefits to their emotions: “...[Nature] affects your moods...If I am in the forest I am going to feel like so happy [...] When you come outside, you feel calm...the nature is somebody that just loves you and...calms you down” (Participant 9, PAP910, [00:23:04.22]). Participant 4 further valued nature in its ability to foster positivity in everyday life:

[If] you have...a vase of flowers in the middle of your living room, it's just going to brighten up your day. But...if you're going to have a [computer] tablet...it's not going to brighten up your day...SARS raiding you for money... you're just going to get depressed... (PAP234, [00:32:58.08]).

Only Mountain Mover 1 expressed a more eco-centric benefit of nature, “Well, I do get great happiness when I see the forest that is very well preserved, that there are still places that we haven’t destroyed...” (PAP1, [00:15:01.00]).

Staff members also shared potential benefits of nature-immersion: “It is such a relaxing place, away from all the noise and stuff... You probably get to know yourself a little bit better...” (Instructor 5, ISI456, [00:09:06.17]). Volunteer 3 attributed his excellence in problem-solving

Math to having enjoyed free play at Hobbiton as a child: "...I used to run around these courses here and that basically brought out a whole lot of creativity in my mind...I think in Math it has helped me... in terms of problem solving... running around and having a free childhood..." (V3, [00:02:16.23]).

4.3.3. Staff passion and learner enthusiasm

This theme concerns how staff members' environmental passion and the children's willingness-to-learn mediated Connectedness-With-Nature and nature-perceptions. Overall, it also became clear that the Hobbiton atmosphere provided a safe space for the disadvantaged children in terms of love, safety and food, without which, environmental learning cannot take place. These factors are seen to be implicit mediation factors in that they are not purposefully or consciously acknowledged in the pedagogical-design process towards objectives of Connectedness-With-Nature.

Most of the Mountain Movers appeared to get along well with the volunteers and instructors, for example: "We did [get along with the volunteers]... [They] like made us feel comfortable, let us talk and asked us questions and stuff..." (Participant 12, PAP1112 [00:01:19.16]). And only one Mountain Mover relayed a more negative experience: "There was [someone I didn't get along with], I didn't think she was cool but then it turned out that she was... It seemed like she was grumpy....but then at the end, she started laughing and talking to us" (Participant 8, PAP678, [00:14:55.13]).

The Star Gazers appeared to describe much deeper connections with some of the volunteers. Some of these relations enabled participants to feel loved, encouraged and safe at Hobbiton:

My relationship with another volunteer has helped me a lot. Before...I was drinking...smoking, but he said...I am so little... And he said to me that I must leave drinking and smoking. I said to him that I will do that... [Before] I was not respectful, I was naughty...He said to me..."You must be respectful..." I said, "That's fine, I will do as you say." Ahh he [also] said to me... "I will miss you when you are not here" and me I also said, "Me too, I will miss you." (Participant 1, UPCPI1, [00:24:22.27]).

Furthermore, Star Gazer 5, a young girl with a severe physical disability, shared a positive relationship with volunteer 1 and how it helped her to participate in the nature-based activities:

I had a good relationship with one of the volunteers...When I...was sitting alone [in my room, because I was sad], she asked me some things... The first time...she came in and asked me why I was there because she wanted me to play with her outside. I told her that I can't play outside [because of my leg] I did not believe in myself...I wanted to stay alone and not talk to others... And then when I heard what she did to be happy, I did it too, and then I was happy too and I went outside to play with others (UPCPI, [00:21:35.05]).

Above and beyond these positive relations with the staff, it became clear that staff member's passion for sharing environmental knowledge was an important factor influencing the development of Connectedness-With-Nature. Further, several instructors discussed important contextual factors that shape how volunteers specifically work at Hobbiton, which in turn affects how environmental knowledge is shared with the children:

[...] The volunteers...are coming from...different [countries]... most of them have just finished school...coming into a new culture...Most of them can't speak English that well, so there is a lot of confidence-building...and morals that need to take place [...] The tensions start coming in when we have long hours of work and...their bodies are not adjusted to our temperatures [...] There comes a point where it's like "Okay guys...we need to graft...Are you here to grow yourself? ...You need to put in the effort...the time..." (Instructor 4, ISI456, [01:29:09.29]).

Further, Manager 2 described how finding a suitable level of environmental knowledge for each group that comes to Hobbiton can be practically challenging and that, in order to foster environmental learning, volunteers and instructors need to embody the environmental message: "I have left it in the instructors' hands, it's very difficult on where to pitch it... and they have to be passionate about it! So I can give them the information but it's actually up to them..." [TI1, [00:17:14.12]). Manager 1 noted that volunteers and instructors should be integrating various environmental-learning components into nature-based activities: "...ideally the instructors would explain about things that they are looking at... [They] should never pass up an opportunity to talk about whatever it is that they are seeing..." (JI1, [00:28:29.12]). I noticed

during the various repeated hikes over the two camps, that what and how much environmental knowledge was shared, was dependent on the instructors' and volunteers' knowledge and their desire to share it. For example, some foreign volunteers did not go into as much detail about the differences between indigenous and exotic flora, as had the local instructors.

Many of the instructors highlighted Manager 1's environmental passion and how this passion infuses the organisation: "[He] has got so much knowledge...he has got a passion...that passion overflows to us...because even though the hours might be long...there is still that...drive because we believe in what we do, and I think that comes from him" (Instructor 4, ISI456, [01:19:40.09]).

The volunteers further highlighted how the effectiveness of the nature-based activities depends on how enthusiastic the children are to learn and participate: "It's really dependent on how the kids act and behave....So groups that have actually listened to what you are saying and take an interest in the things that you are trying to tell them, seem to be the ones that want to learn something..." (Volunteer 2, V2, [00:01:54.08]). Further, Volunteer 2 shared: "...There [are] some groups...who you suspect don't really want to be there...[They]...are reluctant to do anything...late for activities...spending a lot of time indoors...[Whereas] the nicer groups, they are always waiting...for the next activity, asking what it's about and what they might learn" (V2, [00:03:07.16]).

4.3.3.1. Hobbiton as safe haven

Aside from the passion of staff members and the children's willingness to learn, there was another important explicit mediating factor in the Star Gazers' experiences at Hobbiton. It became clear that Hobbiton provided a safe haven from their lived experiences of abuse, sub-standard education and poverty. Aside from observing the general demeanours of these children (section 3.2.3), some of their responses to the interview questions illustrated where their primary focuses were. For example, when asked what their favourite part of the *entire* camp was, many noted the quality food at Hobbiton: "Hot chocolate [...] But ...also meat" (participant 1, UPCFG2, [00:06:41.09]) or as Participant 2 exclaimed, "[The] hot dogs!" (UPCFG2, [00:06:47.19]). Manager 1 remarked that, without access to these basic rights (i.e. food, shelter,) prospects such as 'environmental-learning' or 'nature-connection' become mere ideals:

If you are doing these things just for survival [using nature as a resource]... ‘care for the environment’ is of secondary importance, which is also why... we make sure that there is always enough food. They mustn’t feel that they are under any threat; they mustn’t feel like there is a shortage of anything. I want them to feel... that they can eat and no one is going to take anything from you... it’s a safe haven. [...] So if we can remove their sense of desperation about the next meal and the food [or] that their drunken father is going to stumble in and start beating them... if they can feel safer, then they are more likely to start learning (JI1, [00:24:45.17]).

4.4. CONCLUSION

This chapter outlined the objectives, values and activities at Hobbiton. Further, it highlighted how participants’ heterogeneous SCHVP implicitly shaped their prior perceptions of, and connectedness with, nature. These positionings included: prior education, everyday activities/modern life, previous nature-perceptions and previous nature-experiences. This chapter further highlighted various on-site mediating factors that influenced participants’ experiences of the nature-based activities, whilst at Hobbiton. Key implicit and explicit sociomaterial mediators included: Experiential Learning and environmental knowledge integration, the weather, the physicality of the hikes as well as the environmental passion of staff and the children’s willingness to learn. This chapter has highlighted i) what the children brought *into* the activity system (their implicit SCHVP), and ii) the embodied and sociomaterial elements of the nature-based activities and general atmosphere *within* the activity system. Chapter 5 will now build on this data to illustrate the *interplays* and *interactions* between participants’ SCHVP and the sociomateriality of the nature-based activities, towards mediating shifts in participants’ perceptions of, and connectedness with, nature.

5. PHASE 2 DATA PRESENTATION

This chapter builds on phase1 of the data presentation (which addressed sub-questions a-c), and also draws on other data to explore the *interplays* and *interactions* between participants' SCHVP (i.e. their environmental knowledge, everyday activities, modern life, nature perceptions and nature experiences) and the mediating factors of Hobbiton (i.e. integrated experiential learning, the weather, the sociomateriality of the nature-based activities, staff passion and learner enthusiasm). This is done towards understanding how the children's perceptions of, and connectedness with, nature were mediated within the Hobbiton activity system. This chapter provides a deeper layer of analysis in its exploration of these complex contradictory and synergistic learning *interactions* within the activity system and responds to the main research question: How do children's socio-cultural-historical value positioning *interact* with the sociomaterial elements of the nature-based activities to mediate their perceptions of, and connectedness with, nature? These interactions are presented in the form of two major themes, I) Contradictory and Synergistic Learning Processes and ii) The Children's Learning Outcomes. These themes emerged as a result of a rigorous, two phase, inductive and abductive analytical process guided by CHAT and the various other key concepts of the study (as outlined in section 3.5).

Below, I revisit the Hobbiton activity system diagram in order to better conceptualise and visualise this interplay between participants' SCHVP and the sociomaterial experiences of the nature-based activities towards mediating shifts in perceptions of, and connectedness with, nature. The key components of this activity system included: the children (subjects); sociomateriality of the nature-based activities and the children's SCHVP (mediating artefacts); Connectedness-With-Nature, child-welfare, experiential environmental education, social development (objectives); respect and sanctity of life (rules and norms); Hobbiton staff and volunteers, inter-subjective relations between all members underpinned by personal histories, i.e. religious/cultural ethos of Hobbiton (community/norms,); and finally all those who participate in Hobbiton function in particular roles (division of labour) (Review Figure 4.1, and see Figure 5.1 below).

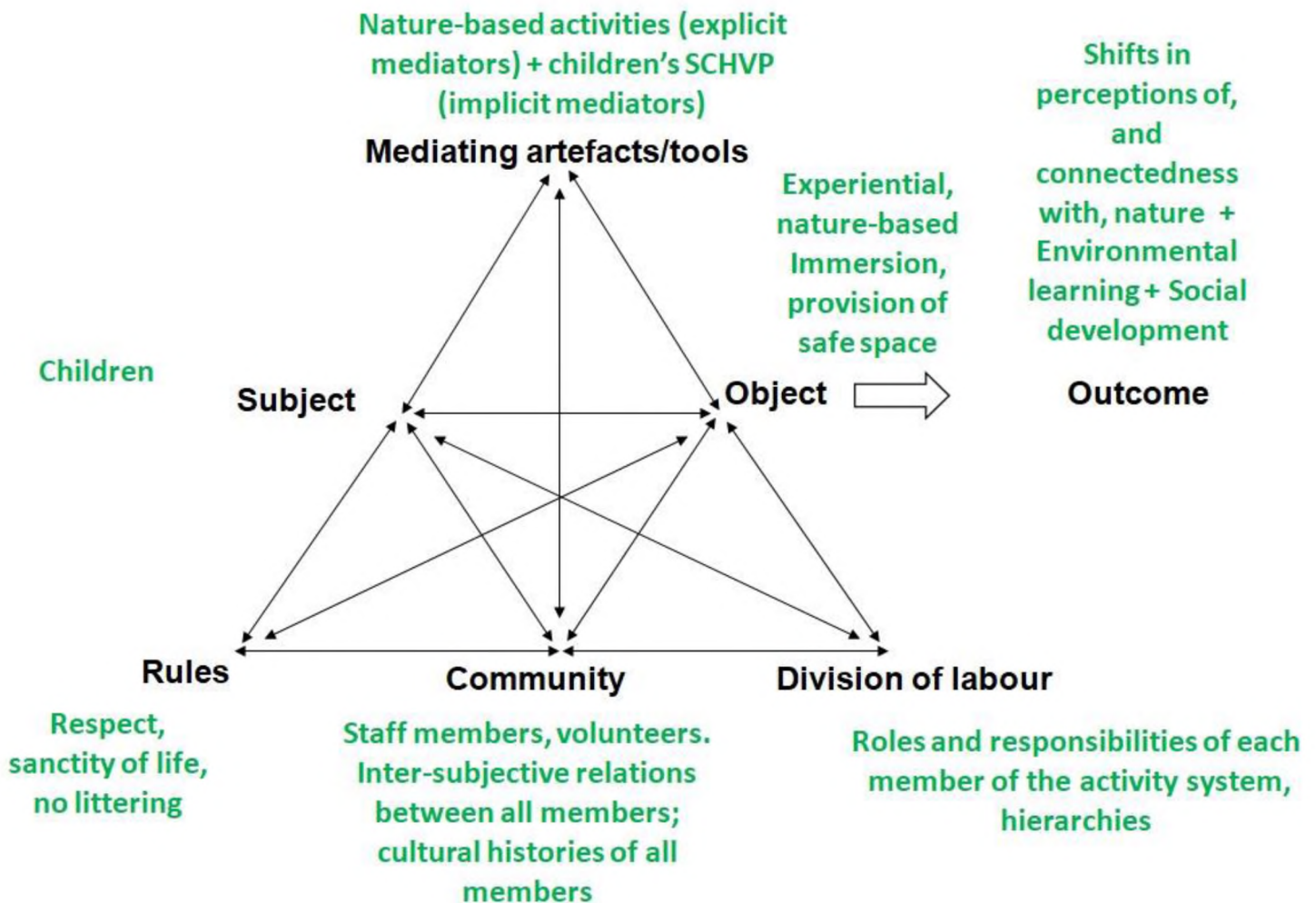


Figure 5.1: Phase two data analysis: *interactional* activity triangle mapping

5.1. CONTRADICTORY AND SYNERGISTIC LEARNING PROCESSES

This theme concerns some of the *learning processes*, which occurred through the nature-based activities during the camps. This section surfaces the contradictions and synergies within these learning processes, which mediated the children's perceptions of, and connectedness with, nature. This focus on contradictions and synergies between activity elements is integral to a CHAT analysis (section 2.4.2.4).

5.1.1. Divergent and convergent value positionings

The data reflects many value-tensions between the convenience of modern life (for the children) and the need to move towards more environmentally-friendly practices (Hobbiton

objective). Further, it reflects value-tensions between participants' cultural beliefs about certain animals and Hobbiton's core value of sanctity of life. On the other hand, the data also reflects synergistic value positionings concerning participants' religious beliefs and Hobbiton's undergirding Christian ethos.

5.1.1.1. Divergent value positionings

The modern, technological lifestyle of some participants mediated their perceptions of, and connectedness with, nature (section 4.2.3.2). Several volunteers and instructors described tensions between the convenience of this modern lifestyle and environmentally-sustainable values:

[The tension between values] is even more on the privileged side... [For example] 'Cos this is damn inconvenient for me...' "Why do I *not* want to have my cell phone on me?" You know... "If I actually have to live off the grid... have to pump water for *five minutes* a day (!) Electricity doesn't do it *for* me, why would I even think about that?"... "The *environment* and my sense of *luxury* ... *don't* correlate at all, and therefore, I don't like it..." (Manager 2, TI1, [00:48:06.23]).

Several volunteers also highlighted the contradiction between children's prior environmental ethics and Hobbiton's no-littering policy. Some volunteers highlighted the scarcity of environmentally-conscious role models, particularly for disadvantaged children: "There are rules that people mustn't litter... mustn't break trees [at Hobbiton,] but some kids do ... because back at home they have no leaders... no one to tell them what's right and what's wrong. So here they are struggling to follow those rules" (V7, [00:16:10.29]). Similarly, Manager 1 illustrated how structural factors mediate children's environmental values:

...Something like *not* littering is absolutely new... because there [are] very limited refuse removal services where they are. So, there's not much point in putting things in the rubbish bins... when nobody is going to empty the rubbish bins!... You... can't blame the kids, they... don't have any exposure... Equally, the schools aren't teaching them... (JI1, [00:15:33.20])

Some staff also shared conflicting opinions about the extent to which Hobbiton can shift environmental values. Instructor 4 maintained that Hobbiton can shift littering practices: “Where they come from, maybe there’s a lot of litter, and then you ask them: ‘Do you appreciate all that litter? When you look at Hobbiton [where] everything has been cleaned up, how does it make you feel?’ I don’t think...it’s much of a conflict” (ISI456, [00:22:32.02]). On the contrary, Volunteer 4, a young man who shared a similar upbringing to the Star Gazers, maintained: “...I have been there and done that and I am not sure that it’s possible for them [to change their practices just because of Hobbiton]...they will carry on throwing litter...” (V4, [00:05:18.26]).

Many of staff members also shared more minor accounts of environmental violence during the camps. Manager 1 divulged that many children are simply unaware of the life-value of plants: “[During] a hike... [they are] beating the plants as they go along...It will happen if we don’t step in...[Not harming plants] is at odds with what they do if left to their own devices...” (JI1, [00:20:08.14]). Volunteer7 further commented: “[...] Sometimes they break trees, because...they don’t have enough knowledge about the environment, because back home, they break trees to make fire and stuff, but here they don’t know the difference between which tree must they break...” (V7, [00:03:30.05]).

Several staff members also described tensions between participants’ cultural practices and beliefs about animals and Hobbiton’s values of sanctity of life. Manager 1 highlighted how killing specific animals, like snakes and owls, is often related to cultural beliefs that are at odds with the values Hobbiton promotes:

Something like snakes, we would obviously never allow them to kill a snake...We would catch it, take it far away and release it. [Also] things like the owls ...the Xhosa...there are all sorts of stigmas around owls and snakes, even...tortoises...The fact that we say ‘no, tortoises must be protected’. This does come as something...new to them... (JI1, [00:20:08.14]).

Manager 1 believed that the children’s socio-cultural backgrounds mediated their behaviour towards the animal/plant life: “At home...they are encouraged to do it [kill a snake]...Killing something like a locust or...a frog... is *irrelevant* but killing something like a snake...an owl...you are encouraged to do it. [Also]...damaging the plants and the wildlife as you go

along...” (JI1, [00:23:00.19]). Further, some of the instructors, from a rural Xhosa background, were able to shed light on the tensions that the Star Gazers might experience at Hobbiton: “Like for snakes...like where you grow up [in the location], the first thing you do is, you kill it...Because you don’t know...what it is going to do to you!” (Instructor 6, ISI456, [00:10:35.08]). Further, he described an encounter with a snake while living at Hobbiton and how juggling his both roles was difficult, as an instructor and as a Xhosa man (accustomed to killing snakes):

[At] Hobbiton... there was a snake, and I was like okay I had never thought how to catch a snake [because, for] the people that grew up in the location, if you see a snake, you have to kill a snake... it’s a dangerous animal. So, I was like...okay now I am wearing another hat [my instructor hat], which means I mustn’t kill a snake because a snake can help you with keeping away rats and mice...it’s some of the stuff that I have learnt at Hobbiton...Most of the guys who are growing up in the location, they don’t *have* that much information [...] Especially with us...Black people, [seeing a snake] it means something else...like an omen.. [Those are] some of the stories, so that we can be aware that those animals, they are dangerous but we didn’t have *information* of how to deal with those animals (ISI456, [00:10:35.08]).

These examples highlight the value-tensions between participant’s cultural beliefs about animals and Hobbiton’s pro-environmental rule of sanctity of life.

5.1.1.2. Convergent value positionings

This section concerns the religious-value synergies between Hobbiton’s underpinning Christian values and the religious positionings of several participants. For example, Volunteer 7 relayed a synergy between her own Christian values and the Hobbiton ethics of sanctity of life: “Since I am a Christian, a Christian is not allowed to kill or destroy anything so like, ja to ‘take care’ of plants and stuff yes, so that’s our religion” (V7, [00:25:58.00]). Several of the children communicated a Christian-based ontology about who the Earth ‘belongs’ to (section 4.2.4.1.), illustrating a synergy between their own religious positionings and Hobbiton’s eco-religious ethics. One of the Star Gazers resonated with Hobbiton’s grace (See Appendix 10, Figure K). Instructor 6 also noted:

It's a nice prayer... it accommodates everyone. Most of the words...are touching on nature... that's what Hobbiton is about, like the outdoors...If you take all those words and align them with everything that you are going through here...that prayer, it tell you what is going to happen ...Also most of us, we are religious people... (ISI456, [01:23:12.13]).

This shows how this prayer metaphorically interlinks nature and the activities of Hobbiton for some children, thus creating a faith-synergy in relation to nature. However, it is important to note that other children may not have resonated with Hobbiton's religious ethos (i.e., not believed in a Christian God or God at all) and thus may have connected or not connected with nature in quite different ways.

5.1.2. 'Loathe-Love' Learning

This section focuses on the tensions experienced between loathing and loving various aspects of the nature-based activities (section 4.3.2.2) and how, through these contradictory feelings, participants' perceptions of, and connections with, nature were mediated. Both groups of children experienced tensions between disliking and enjoying the night hikes in particular. Interacting mediating factors included the *embodied* experience of the hikes as well as preconceived ideas *about* the hikes. For example the night hike was: "...Scary and fun at the same time...because it was *dark*...We couldn't *see* where we were going!..." (PAPI1, [00:01:17.17]).

Mountain Mover 14 further said that despite enjoying the hike, she felt concerned for her safety: "...I was kinda scared that I might fall and hurt myself so I just held tight onto my partner...just trying to calm down" (SS, [00:00:01.04]). Several participants further described the tension between simultaneously disliking the day hikes and enjoying the sights of the waterfalls and feeling accomplished after the hikes. Mountain Mover 12 communicated that at the outset of the Madonna and Child hike, he was initially very grumpy "...because we were striving to get there [to the waterfall] and then we *finally* got there, and [only] then we were glad to be there" (PAP1112, [00:19:07.16]). Mountain Mover further 11 explained, "But *after* you did it...you were like, "Yoh I did it! Yoh that was impressive!" [...] and when we were there the water fall was just amazing" (PAP1112, [00:20:13.19]). Mountain Mover 8 further exclaimed in relation to a day hike: "I was excited and at the same time tired. Because...you just go straight up, and

then...I was like: ‘Yay it is flat!’ ...Next thing it goes *up* again, yoh! [...] Never again, I tried going fast but no never again!” (PAP678, [00:09:14.17]).

Several volunteers attributed some of the children’s negativity around hiking to their expectations and motivation levels, which affects opportunities for Connectedness-With-Nature: “...It’s a *mental* thing; they have never tried to push...So a lot of the kids here...they do get quite tired on the hike and that affects the whole hike and the whole learning around the forest” (Volunteer 3, V3, [00:23:42.27]).

In another vein, many of the volunteers highlighted the tension between simultaneously hating the hikes and having an opportunity to see a waterfall for the first time (which is seen as a historically-absent factor in the children’s’ lives). Volunteer 7 commented: “... [They]...have never *seen* a waterfall and it’s so cool when they are there for the first time... All of them are like, ‘Oh my word it looks so beautiful!’ ... They are complaining so much but they are always proud *after*...” (V1, [00:20:03.11]). She further noted how sociomaterial factors (an uphill, the rain, hiking perceptions) (section 4.3.2) mediated hiking experiences:

...We went to Kettle Spout and it was raining...we went uphill, the children were complaining: “Ah I am never going to do this again” but...at the top...the view was so beautiful, so the kids were amazed that they were up there...Even though they didn’t *want* to go at first but at the *end*, they enjoyed the hike...they forgot about: “Ah I don’t want to do it...” When they *do* it, its fine...then they would like to do it again (V7, [00:19:07.24]).

Instructor 4 further noted: “So *during* a big hike...the appreciation of doing it is not so much there, it’s when you are coming *back*...then you can appreciate it...But when you’re *in* it, [They say:] “It’s hard, I don’t want to go..!” (ISI456, [01:08:55.19]). This shed light on why the children might loathe the physicality of an activity, but after some reflection, they might affirm the learning experience.

5.1.3. Synergies between Experiential Learning and environmental knowledge

This sub-theme relates directly to section 4.3.1., (also see Appendix 9) where Experiential Learning and environmental knowledge were seen as explicit, on-site mediating factors of

Connectedness-With-Nature. The data in the previous chapter was presented from the perspective of Hobbiton staff members. Here, I present the children's perspectives on integrated Experiential Learning in relation to Connectedness-With-Nature.

Most children described how they gained environmental knowledge about animals and plants through the nature-based activities. Mountain Mover 7 exclaimed, "We learned about...parrots mam, I never knew those parrots! (PAPI1, [00:03:33.05]). In relation to knowledge around different types of vegetation Mountain Mover 8 commented:

..I didn't know these kinds of trees, or...mosses... [before]. Trees just confused me because they just all looked the same... I didn't know you could find your way home when there was no sun, I mean that green mossy things, moss grows on the south side of a tree...Now I know, [if] I get lost somewhere, I can just look for a tree and find my way home (PAP678, [00:08:34.01]).

Several Star Gazers also described their learning about animals and vegetation in general. Star Gazer 1 shed light on how she was able to learn new things through observing animals: "[The] Swallow Tail hike...was fun... We went there, drank water and saw animals that we didn't even know, so it was good and we were taught things that we didn't really even know...the trees that I didn't know...the animals that lives there.." (UPCFG2, [00:05:08.21]). Participant 4 further shared:

[During the] hike, the instructors were telling us about fruit that grows into the Yellowwood trees [and] that other birds eat the fruit from the Yellowwood trees and they live from that fruit.. So when you cut down that tree you must know that you are taking food from those birds...I think the Cape Parrots were going to be extinct, I think there were six [hundred and] fifty...but I think there are more now because... they are making an awareness campaign to protect those birds.. (UPCFG4, [00:15:58.16])

The Star Gazers also shared more specific learned understandings of the differences between indigenous and exotic vegetation: "...In the exotic forest, the trees, in between them there is a space... and in an indigenous forest...they don't have a space, [so] it's warm...you don't get cold. [...] I got to learn and think about the types of trees..." (Participant 2, UPCPI1, [00:07:42.02]). As previously discussed, the ring-barking activity was also an important

opportunity for the integration of Experiential Learning and environmental knowledge, particularly because it was the only activity translated into isiXhosa. The majority of the Star Gazers remembered almost everything that the CPP facilitators had shared (section 4.1.2.5). It became clear that prior to coming to Hobbiton, many of the children were cutting down various types of trees in their everyday lives. For example, Star Gazer 1 commented, "...[Before when,] we went to the forest, we usually cut down trees but, here at Hobbiton, we learnt more about trees...not to cut down trees, the indigenous trees, and the exotic trees..." [UPCPI1, 00:04:56.15]. To this Participant 5 responded, "Except if they are exotic trees, we must cut only exotic trees" (UPCPI1, [00:04:27.09]). Star Gazer 5 further shared her learned knowledge about the negative impacts of exotic vegetation: "They take a lot of water, and our trees only get a little bit of water... so they don't survive..." (UPCPI1, [00:04:48.02]). Star Gazer 3 further responded: "...And the animals die if the exotic plants are there...also the other plants die because they don't have space in the forest" (UPCPI1, [00:04:54.03]).

The Star Gazers were also asked to share what they had learned in relation to the ring-barking and seedling-planting elements of this activity. Participants shared their understandings of the purpose of ring-barking: "[We ring-bark] so that the water cannot go to the leaves. And then they [would] die" (Participant 3, PAPI1, 00:09:04.21). Participant 5 further commented, "[So that] they won't die just *now*...maybe after many years. But they will not grow" (PAPI1, [00:08:58.17]). Participants also shared their new knowledge about the reciprocal relationships between indigenous trees and fauna:

If a bird [Cape Parrot] eat that plant...then it will kaka in other places, and the fruit, the tree, will grow again there in that place...And they (the Cape Parrots) will do that all the time...and then grow again.... it's like a food chain [...] like the circle of life (Participant 1, UPCPI1, [00:09:42.21]).

Many participants further reflected on how their previous environmental knowledge around alien/indigenous vegetation had been inaccurate: "...I thought that all the trees that grows here are for South Africa only so now I know something different, others are from Australia. They do not belong in South Africa" (Participant 3, UPCPI1, [00:10:22.14]).

Some Mountain Movers and Star Gazers also illustrated a deeper sense of experiential learning:

... He taught us that you have to respect nature, it is critical for life and you can't live without nature [...] If we treat nature with respect, then we will be happy [...] [I learnt] to respect nature... I'm not saying we didn't *care* before we went to Hobbiton but... we didn't really have much *knowledge* around nature but when we went there he explained everything... (Mountain Mover 9, PAP910, [00:03:51.27]).

Star Gazer 2 reflected more deeply on what he had learned and what this meant for them beyond the camp: "I learnt about the trees, that we need to take care of the trees...in order for us to survive" (UPCPI1, [00:04:15.13]). Further, Star Gazer 3 reflected, "In East London, I used to litter on the street...but here...I have been taught how to live in a clean environment..." (UPCPI1, [00:25:46.05]). Other participants expressed specific concern for animals: "If you are in a forest, you must keep quiet so that you do not disturb the animals and when you see a paper lying down you must pick it and throw it in a rubbish bin" (Participant 4, UPCPI1, [00:16:28.09]). From an alternative perspective, Star Gazer 3 expressed an understanding of the similarity of needs between animals and humans: "I learnt that... the animals...need the things that we need, we need food, they need food, we need fresh air, and they need clean air too... We must take care of the forest as we want to be taken care of" (UPCPI1, [00:17:13.24]).

5.2. THE CHILDREN'S LEARNING OUTCOMES

The previous section presented various contradictory and synergistic learning processes, which occurred during the camps as a result of the interactions between participants' SCHVP and the onsite, sociomaterial mediating factors of the nature-based activities. These learning processes included: divergent value positionings (e.g. around sanctity of life rule) and convergent value positionings (e.g. religious value synergies); 'loathe-love' learning experiences in relation to the sociomateriality of the nature-based activities and; synergies between Experiential Learning and environmental knowledge. Following on from these learning processes are 'The Children's Learning Outcomes'. These outcomes are presented in two clusters: 1) Environmental empathy, ecological identification and relationality and 2) Environmental awareness and pro-environmental intentions.

5.2.1. Environmental empathy, identification and relationality

For camp participants in this study, gauging their senses of environmental empathy with the more-than-human world was more realistic than trying to gauge if they had developed a sense of the Ecological Self (section 2.4.1.1.).

Many of the Mountain Movers spoke in a variety of ways about empathising or identifying with nature through the nature-based activities. Some children divulged more general feelings about the state of the Earth: “[I]...feel kind of like disgraced or disappointed... because this is what we have created. It's...our own fault that this is happening [the destruction of the Earth]” (Participant 2, PAP234, [00:23:39.28]). Others spoke more positively after the nature-based activities: “I think that we should take better care of...our surroundings and nature, no littering...so we can preserve it [...] I learnt that I loved nature, I love nature” (Participant 4, PAPI2, [00:08:16.10]). Star Gazer 1 further reflected: “Nature is very important; we must care for it and for the animals that live there” (UPCFG5, [00:18:47.21]).

Some Mountain Movers also spoke specifically about empathy for animals in relation to their own wellbeing. Mountain Mover 4 expressed empathy during the night hike for a disturbed herd of goats: “...I felt sorry for the goats...like a whole lot of kids just shining their torches [on them]! Imagine someone comes into *your* house, opens all *your* doors and... just comes and watches *you*...it wouldn't be nice!” (PAPI2, [00:20:47.19]). Mountain Mover 9 expressed feelings about the death of an animal during a previous Hobbiton camp:

[I felt] really upset... It makes you wonder what happened. It makes you think of how painful the death was, who or what could have done it? [...] It made me feel sad...just imagine it was you? How would *you* feel, to put your feelings *into* them [the animal]... [...] It also made me...think about my own death...How would you handle the pain and stuff? [...] It was also something that [Hobbiton] taught us...you can't hurt animals, you have to put yourself in *its* perspective” (PAP910, [00:04:54.13]).

Some of the Star Gazers reflected more critically on their *previous* nature-perceptions in relation to what they had learned at Hobbiton: “...I didn't really care about nature [before]...I would just throw papers and I was littering, just doing anything that harms the nature” (Participant 3, UPCPI1, [00:27:07.19]). Star Gazer 1 noted:

At first I didn't care about the nature that much. When I saw a tree, I would break [it], when I saw a bird, I would like beat them or kill them and when I saw people, I would beat them too... So before, I didn't really care about nature [...] I learnt that you must not litter... I must take care for the nature and... I must pick up when I saw a paper lying down... (UPCPI1, [00:27:28.01]).

Similarly, Star Gazer 3 reflected on how she used to treat nature and how through her experiences at Hobbiton, she came to see nature a little differently:

At... my uncles farm, every day we went to the forest to take the wood... My uncle likes to buy us sweets. When we went to the forest, and my uncle is cutting down some trees, I [would] just eat the sweets and litter at the forest... and... not care. But when my uncle said that I must pick up the paper, I will say 'okay' and when he is going to the car; I will not pick up the paper... So I did not care about the nature [...] [Hobbiton] has changed the way that I think of nature because... now I know to keep quiet when I am in the forest, because... I might be disturbing animals... and also not to break some branches there because they are roads to some animals (UPCPI, [00:29:39.06]).

Several staff members shared valuable insights about the children's empathetic learning processes within the activity system. Manager 1 explained how environmental empathy is actively encouraged by motivating the children to reflect on their actions at Hobbiton:

[...] We try and get the children to *realise* that that animal doesn't have to die... to be interfered with, just because you *can*. So... we are not going to kill owls... we are not going to kill snakes and we teach them *why* they mustn't do it. But even something like, a bug across the path, there is no need for them to kill it. And I always ask the question: [...] "Why did you need to kill that thing?" [So the] children, are stopping for the *first time* to actually *think*, "*Why* did I squash that bug?" (JI1, [00:48:24.29]).

So a particular example of a system of empathy... with nature [is] children getting upset seeing animals suffering... And the children often feel quite emotional about it... I am delighted when they feel upset, it shows that we have actually got through to them... or just [that] the circumstances of them *being there* have got through to them (JI1, [00:51:07.01]).

These quotes highlight the experiential value of relating with nature in ways that build on empathy and a sense of shared connection.

From more personal perspectives, some staff divulged how being immersed in a natural setting like Hobbiton over time mediated a certain level of environmental empathy and identification:

“Living in a place like this... it sort of... becomes a part of what you are... because here I lived next to the forest [...] Going from... a city to here... it doesn't feel like the forest is a *scary* place... having learnt about it [the forest] during our training... you feel much more confident... you *understand* all the different trees... animals” (V2, [00:24:09.18]).

Several volunteers also expressed feelings of loss after seeing a large section of forest being cut down:

...Nature is a part of how I see myself because I was also shocked... now it's like a field,... it's kind of disturbing... It's no longer a forest where you can teach children about trees... I felt bad the first time I saw it [...] for me and the people who are interested in seeing the trees... So like now it's like they have taken [away] a part of ourselves, from us (V7, [00:13:24.18]; [00:14:49.25]).

Manager 2 also reflected on the importance of her experience at Hobbiton as a teenager: “Hobbiton is so crucial because we have to actually realise that we are not *above* nature, we are in the circle, we are only a *component of*. And we can make a choice that can detriment nature or improve nature...” (T11, [00:08:22.08]). Instructor 6 relayed how his attitudes and actions towards snakes shifted as a result of his environmental learning at Hobbiton:

[...] There was a snake, and... I had never thought how to *catch* a snake and [for] the people that grew up in the location, if you see a snake, you have to kill a snake. So I was like, ‘okay now, I am wearing another ‘hat’ [my instructor hat], which means I *mustn't kill* a snake’ [...] It's some of the stuff that I have learnt at Hobbiton, you see. I went into the forest and threw it in there... that's how dealt with the snake (IS456, [00:13:59.12]).

Volunteer 7 shared how her early environmental learning at Hobbiton mediated her nature-perceptions:

When I was a kid I used to come here... I wasn't interested in the nature... But the time went by... I got used to... how to protect the nature, I fell in love with that. So, it has changed me a lot because [of] the things that they taught me here at Hobbiton... Now I *know* the trees that belong here... you mustn't litter... you mustn't disturb animals... And I am passing my knowledge to other children here [...] (V7, [00:05:52.22]).

5.2.1.1. Relationality

'Relationality' is strongly connected to ecological empathy (section 2.4.1.3). In this study, the middle ropes course was analysed in order to gauge its effects on the children's understandings of socio-ecological interdependence between humans and more-than-human beings. Thus, this activity is included precisely because it promotes, embraces and functions through embodiments of team work, mutual trust and interdependence (see section 4.1.1). Instructor 4 elaborated: "[The middle-ropes course] breaks boundaries between genders... age's groups... colours [etc.]... At the end... you can see that... the whole group will change and the whole attitude about being outside and being at Hobbiton... will change" (ISI456, [00:50:45.28]). Volunteer 1 further highlighted its relational value: "Most of the time they come to [goals] on their own but, [for this activity] they have to do it as a team... [The purpose is to show them]... that *everyone* has a team... they are not alone... And we have to listen to each other..." (V1, [00:09:56.12]).

Children from both groups described their understandings of these objectives of collaboration, respect and constructive support. Star Gazer 5 described the activity as being about "...trusting...and helping people...and we talked to each other" ([00:18:29.16]). Moreover, participants appeared to enjoy its collaborative nature: "I liked the team work, that is my favourite, and helping each other and stuff" (Participant 2, PAPI2, [00:00:45.01]). Star Gazer 1 expressed: "It's nice... because we are working as a team, laughing and doing things together" ([00:04:43.13]). More generally, Mountain Mover 1 reflected, "We [the human race] rely on ourselves too much, thinking we can do it. We don't work together as one" (PAPI2, [00:07:16.05]).

Many of the participants were also initially afraid of attempting this activity, however upon reflection, the majority of participants found it to be their most fulfilling adventure-based activity:

I have learnt that we must actually all work together and not think only of yourself but think of the next person. And I have learnt that we must look at what we...are blessed with and not just think of that phone screen at home...or the TV screen...we must actually look at what God has given us here (Participant 2, PANH, [00:00:46.15]).

Many participants further described their enjoyment of the activity's supportive atmosphere: "I enjoyed it because we all worked together and we did not laugh at each other or argue, we just worked together and when someone fell, we just said, 'you can try again...you did your best'" (Participant 13, [00:08:47.05], PAPI2). Other participants reflected on learning to respect other people: "Well, there are just certain things that you *can't* do on your own, you have to do with others [...] We experienced things that we hadn't experienced before...we learnt to work with people that we usually couldn't stand..." (Mountain Mover 1, PAPI2, [00:12:20.03]; PAPI1, [00:01:09.29]). Further, Star Gazer 1 noted: "It's great to trust and work together as a team and to help each other... and communicate and trust each other...and also to support each other" ([00:21:31.17]).

Several Star Gazers further connected the middle-ropes lessons to their previous relations with other people: "[I have learned] to trust another person...A very important thing that I have learnt from Hobbiton is not to beat others, not to bully others... swear at others" (Participant 3, UPCPI1, [00:28:13.12]). Star Gazer 2 further disclosed: "[I used to believe that] I can't respect a person, I can! I learnt that I could help my friends...I learnt...most of [these] things in Hobbiton and I will do them when I go back at home..." (UPCPI1, [00:18:21.13]).

5.2.2. Environmental awareness, nature-perception shifts and pro-environmental intentions

These outcomes surfaced as a result of the interplay between participants' SCHVP, the sociomateriality of the nature-based activities and general value-ethos of Hobbiton. The majority of the children reflected on how their experiences at Hobbiton had mediated shifts towards more informed and critical perceptions of nature. Mountain Mover 13 shared: "It

helped me see that nature wasn't just about trees and plants, it was about *everything* basically, mountains and the beautiful waterfalls that I have never seen before" (PAPI2, [00:11:05.23]). Mountain Mover 6 also reflected: "I feel more connected to nature because we see different things...different kind of trees...the exotic and the indigenous forests, so I do feel a little connected to nature" (PAP678, [00:07:55.01]). Mountain Mover 1 further noted:

I rather enjoyed the hikes, they helped me to see nature in a whole different way and I didn't really appreciate it too much before I came here. But now I see that it is not all about being in our comfort zones and getting whatever we want, we just need to face where we come from, *nature* (PAPI2, [00:02:35.02]).

Many of the Star Gazers spoke about personal changes in *themselves* rather than in their nature-perceptions. Star Gazer 1 relayed: "I learnt that you must not do bad or wrong things in our lives, because life is short for people and we must focus on our dreams..." (UPCPI1, [00:11:13.13]). Star Gazer 3 divulged more personal reflections about hygiene and self-respect: "Back at home, I used to wake up and leave the bed and go out...without eating...without washing [...] But now I have learnt...you have to make up your bed, you have to wash your like dishes... clean up after yourself" (UPCPI1, [00:30:28.15]).

Some Star Gazers also reflected on the importance of their ring-barking experiences. Star Gazer 3 described how this activity contributed to increased environmental knowledge, which may mediate her future behaviour: "The man...told us about nature... that we must not cut trees and we must not litter in the forest. So when I go home I will do so..." (UPCPI1, [00:30:28.15]). Similarly, Star Gazer 4 described how he would share his new environmental knowledge with friends at home: "...I will pass the knowledge that I have learnt here to my friends, so that they don't cut down trees...and also, not to make noise when they are in the forest..." (UPCPI1, [00:20:45.09]). In general the analysis indicated that the Mountain Movers reflected on more nature-based learnings, while the Star Gazers focused both on their own nature-based learnings as well as more personal self-reflections.

Many staff members also shared examples of tangible shifts in the children's nature-perceptions. Manager 2 explained that environmentally-informed, nature-based immersion is essential towards mediating shifts in nature-perceptions:

.. I think just taking kids into a natural environment, talking to them about indigenous forests... [For example:]...exotic forests, if you are ever in an emergency situation, which one should you be staying in for safety reasons...which one is it safer to be in when there's a fire...why do we need to look after it...because it's the way the Earth should be [etc., etc.,] (TI1, [00:09:55.17]).

Volunteer 1 described how the children might use their learned environmental knowledge to mediate environmental behaviour at home: "... [After the camp]...their parents will ask, '...What did you learn?' I think they would remember, that if their parents, for example, would [litter], the kids might say "Mom, pick it up!" [...] (V1, [00:13:35.04]). Similarly, Volunteer 6 related:

If you have...a group [for] five days, you can definitely see a change because in the end, they are just so grateful to be up here, they do not litter any more...Most of the groups are coming...in buses, [they] eat while they are driving up here and the first thing they do...out of the bus [is] throw all the litter around. [But] at the end, you don't really see litter and they start to pick it up by themselves. [Even] during the long hikes... [they] pick it up by themselves... (V6, [00:08:13.00]).

Instructor 6 further shared an account of how the nature-based activities can expose children to new experiences, which can stimulate new perceptions/ interests in nature:

[...] We went to the big tree in Hogsback...one girl said that she could hear something... then she jumped...because there was a snake...They asked me if I could catch it... even though they were scared...because some of them they have never seen a snake before. [Then] after we left... some of the guys called: "There is another snake, come and see, this one is different!" So they enjoyed seeing some new stuff... snakes is not one of the animals that they might usually see [...] So...[when] you tell them about the nature, you can just see from someone's face that the stories are [interesting]...[Sometimes]...They are also like "If...I want to plant a Yellowwood tree...how long will it take to grow?" You see, some of them want...to play a role...So...Hobbiton does play a big role... (ISI456: [00:59:22.01]).

Some staff members also described how experiences in nature are often perceived as encounters reserved for white, privileged people (section 4.2.3.3). Instructor 6 highlighted how the nature-based activities can deconstruct this perception:

[...] In the location...you grow up [thinking] the ‘outside stuff,’ ...it’s ‘*white people’s stuff*...’ going out camping...learning about animals, going to the waterfalls [etc.]...I think *after* Hobbiton, that’s when other people start to make decisions, like... ‘I can go and bungee jump,’ they start putting plans for *their* future. Also... some of the kids from the UPC camp, they want to...volunteer, because they see that, ‘This is how I grew up but the whole support that I have from the UPC camps, I wish I can come back to become an instructor because I never thought I will enjoy the ‘*outside stuff*’ like this’ (ISI456, [00:34:45.24]).

In essence, Manager 1 summed up how he hoped Hobbiton had had an effect on shifting nature-perceptions through knowledge-based, experiential connections with nature, particularly for the disadvantaged children:

...We wouldn’t be doing this if I didn’t think that we made a difference... [I know that they sometimes think] ‘What has Hobbiton taught us? What would we do [at Hobbiton]?’... What I will say is that we won’t be a counter influence, and the only other exposure that they get *is* counter...If you are growing up in... [a] township, you are not going to have a lot of environmental education, or positive influences around you. So even if it’s a small drop in the ocean, it is better than what they would otherwise be getting... (JI1, [00:11:24.03]).

5.3. CHAPTER CONCLUSION

Chapter 5 addressed the *interplays* and *interactions* between participant’s SCHVP and the onsite, sociomaterial mediating factors of the nature-based activities, towards understanding how the children’s perceptions of, and connectedness with, nature were mediated within the activity system. The interactions outlined in this chapter were analysed and presented in terms of the children’s learning processes and outcomes. Key learning processes included: ‘Convergent/divergent value positionings’, ‘loathe-Love learning’ and the ‘integration of Experiential Learning and environmental knowledge.’ Key learning outcomes included:

‘Environmental empathy, ecological identification and relationality’ and ‘Environmental awareness, pro-environmental intentions and nature-perception shifts.’ Drawing on the study’s key concepts (such as Connectedness-With-Nature, Ubuntu, and ethics-oriented learning), its layered theoretical framework (Deep Ecology and CHAT), as well as new theoretical insights, Chapter 6 discusses the major findings of the study.

6. DISCUSSION

Informed by the themes presented in chapter 4 (participants' SCHVP and the sociomaterial mediating factors of Hobbiton) and chapter 5 (contradictory and synergistic learning processes and the children's learning outcomes), chapter 6 now discusses the key research findings through five analytic statements. Analytic statements were used to condense the data, foster critical discussion and bolster the study's trustworthiness (Bassey, 2001). These statements respond to the main research question: How do children's socio-cultural-historical value positionings interact with the embodied and sociomaterial elements of the nature-based activities to mediate their perceptions of, and sense of connectedness with, nature? This chapter forms the heart of the research in terms of understanding the explicit and implicit mediation processes of the children's Connectedness-With-Nature within the activity system (Figure 5.1). The study's layered theoretical framework, key concepts (as discussed in Chapter 2) as well as new theoretical insights and literature are used to validate and discuss the findings²¹. The five analytical statements are outlined below:

1. The children's SCHVP acted as strong implicit mediators of their developing perceptions of, and connectedness with, nature.
2. The knowledge-based and sociomaterial nature of the nature-based activities mediated participants' perceptions of, and connectedness with, nature.
3. Contradictory 'loathe-love' experiences during the nature-based activities mediated shifts in participants' self- and nature-perceptions as well as their Connectedness-With-Nature.
4. Particular value-divergences and value-convergences mediated shifts in participants' perceptions of, and connectedness with, nature.
5. The nature-based activities were the primary mediators that shifted children's environmental empathy and identification, nature-perceptions and ultimately fostered pro-environmental intentions.

²¹ New literature in addition to previously discussed literature (Chapter 2) is used to broaden insights into the findings, as per APA guidelines, although it is debated within the Education department as to whether new literature should be added to the discussion chapter or not. I feel that the new insights bolster the study significantly.

6.1. ANALYTIC STATEMENT 1

❖ **Children's SCHVP acted as strong implicit mediators of their developing perceptions of, and connectedness with, nature.**

People's modes of being, doing, knowing, relating and valuing are strongly shaped by the various intersecting social, economic, cultural, historical and religious positionings that they occupy in our everyday realities (Crenshaw, 1991; Edwards-Groves et al., 2010; Engeström et al., 1999). Moreover, how and what people learn has been and will continue to be shaped by the complex wicked problems (Rittel & Webber, 1984) that they face as these form part of the broader socio-cultural setting (McGarry, 2013). Bearing the above in mind, this first statement addresses four major aspects of the children's SCHVP that, together, strongly mediated their perceptions of, and connectedness with, nature. These aspects include their prior environmental knowledge, everyday lifestyles, prior nature-perceptions and nature-experiences. These SCHVP are seen as implicit mediation factors as the case study data indicates that they are not actively taken into consideration in the design of nature-based activities, and yet they appear to strongly mediate how the children perceive and connect with nature.

6.1.1. Prior environmental knowledge

The majority of the Mountain Movers had access to both formal environmental knowledge through their schooling, and more physical and financial access to natural spaces as a result (however this does not necessarily mean that they were more connected with nature) (section 4.2.2). The Star Gazers had far less formal environmental knowledge, more constrained access to natural spaces and also conveyed more knowledge about more socially-based problems (i.e. drug abuse and crime) that affected their everyday lives. In light of these knowledge and education-access differences, each groups' grasp of environmental issues, their perceptions of, and sense of connectedness with, nature were accordingly quite different.²²

²² I am aware that the Star Gazers' ability to speak isiXhosa better than English for the interviews would have influenced my interpretation of their environmental knowledge, however, the translation process allowed better understanding between me and the Star Gazers. Further, this statement does not intend to homogenise the groups, but rather sought to unveil dominant patterns across the groups.

In essence, three things became apparent from the children's SCHVP in relation to their perceptions of, and connectedness with, nature. The first concerns how people's SCHVP can shape their *access* to nature-based learning spaces and how they perceive nature (Muir, 2002). The legacy of Apartheid still mediates disadvantaged people's rightful access to equal education opportunities and protected natural spaces, whether for recreational, spiritual, or learning purposes (Muir, 2002). West, Igoe and Brockington (2006) note that dislocation from protected natural spaces, rooted in socio-cultural systems of segregation, is one of the most controversial features of protected areas. This denial and displacement not only constrains embodied contact with pristine nature but may further exacerbate socio-cultural historical and racial divides (Muir, 1999; West et al., 2006). Concerning Hobbiton, it is clear from the data that the nature-based activities provide a unique experiential opportunity for immersion in protected natural spaces for children from diverse socio-economic backgrounds, which bolsters their opportunities for connecting with nature.

A second related point concerns how people's capabilities to learn and participate can be constrained or enabled by socio-cultural and historical structures (Engeström et al., 1999; Saito, 2003). 'Capability' concerns "freedom—the range of options a person has in deciding what kind of life to lead" (Dreze & Sen, 1999, p.10). Sen's capability approach is useful for making sense of how learning takes place and suggests that in order to create real opportunities for social freedom, individuals' capacities to carry out their valued modes of being and doing in the world need to be encouraged (Saito, 2003). The Star Gazers' socio-economic disadvantage can be seen as a constraining factor of their learning capabilities. Considering the consumeristic nature of modern society, poverty can be understood as a capability-deprivation²³ (Biggeri, Ballet, & Comim, 2012; Saito, 2003)²⁴.

The third related point concerns how the Star Gazers are perceived by Hobbiton. The data reflects that many Hobbiton staff believed that the Star Gazers' environmental knowledge would be, "pretty much non-existent unless they have been to Hobbiton before" (J11, [00:17:53.10]). As per well-intentioned strategies that reach out to disadvantaged children so that their minds can be "instilled with knowledge" about how to live harmoniously and

²³ Focusing on 'deprivation' in relation to capabilities does not equate to a 'deficit' (as seen in the next paragraph) but rather highlights how our structures have the power to enable or constrain people's learning.

²⁴ This being said, it is important to consider the role of agency concerning one's capability towards achieving goals of personal value. This highlights the dialectical relation between social structure and individual agency in mediating learning capabilities (Archer, 2000).

sustainably with nature, such perspectives often reflect a deficit view of a perceived ignorant ‘Other’ (section 2.3.4). Thus, Hobbiton’s outlook may signify a deficit-based approach to the Star Gazers’ positionings. Although Hobbiton does provide environmental education for the Star Gazers, a deficit-based approach pigeon-holes the children’s potential learning outcomes by reducing them to what they ‘lack’ (Devlin, 2011). Few nature-based pedagogies work *emically*, from the ground up, towards *understanding* how children’s own lived socio-cultural-historical, economic and social-ecological contexts mediate their Connectedness-With-Nature in ways that may be far more powerful than disembedded, sometimes even alienating, outdoor learning programmes (Masuku van Damme & Neluvhalani, 2004). Lotz-Sisitka (2009) also highlights the need not to confuse people’s historical contexts with their power and inherent capabilities for learning, resilience, adaptation and change.

Hobbiton’s *approach* can be seen as an implicit process of mediation within the activity system in that it is an invisible approach/attitude that indirectly directs the children’s learning (section 2.4.2.3). A deficit approach to talking and thinking about certain groups of children pre-exists in communication at Hobbiton (evidenced, for instance, in their naming of the “underprivileged camps”), and has not been explicitly introduced into the design of the nature-based activities, thus making this type of mediation less visible (Wertsch, 2007). Such an approach pre-judges the children’s own historical values, cultures, experiences, knowledge, assets and matters of environmental concern and thus may limit opportunities for more bottom-up environmental learning. The deficit approach has been strongly challenged by Community Psychology (Gutierrez & Rogoff, 2003; Prilleltensky, 2001) in favour of more assets-based, collaborative, cultural-historical approaches (Devlin, 2011; Gutierrez & Rogoff, 2003). In this light, focusing on the children’s unique positionings and bio-cultural identifications with nature (section 1.2.3.1) may provide more fertile ground for *emically* connecting with nature.

On the other hand, Hobbiton does appear to take into consideration the Star Gazer’s everyday lived realities, specifically in terms of their lack of food and money, in that the centre provides the children with a safe and nurturing *space* (food, love, shelter) to learn about nature. In this way, Hobbiton addresses the children’s immediate matters-of-concern towards creating more realistic opportunities for connecting with nature. This is in contrast to approaches that tend to negate marginalised people’s everyday lived realities in relation to the social structures, which may enable or constrain them (poverty, politics, capitalism) when trying to encourage value-imbued ‘environmentally-conscious living’ (Bodzin, Klein, & Weaver, 2010; Korteweg &

Russell, 2012; Woodhouse & Knapp, 2000). This draws attention to the larger issue of whether socio-economically marginalised people can realistically be expected to ‘connect with nature’ or ‘fight climate change’ when their basic human rights are not being met (Anderson, 2010; UNESCO, 2016)²⁵.

The fact that the Star Gazers described a wide range of social issues (drugs, crime and lack of services) (section 4.2.1) highlights a common tension in the nature-connection conundrum, that is, the tension where socio-economically and socio-culturally disadvantaged people are expected to care for, protect and value nature (these expectations usually come from people who occupy more privileged positionings) when their basic rights to food, money, safety, wellbeing and environmental stability are not being met (section 2.1). In this light, the Star Gazers’ disadvantaged backgrounds (lack of food, money and security) mediated their perceptions of, and sense of connectedness with, nature, to the extent that connecting with nature may not have been a primary matter-of-concern. Fisman (2005) maintains that people’s everyday struggles of disadvantage can dominate or taint the “image” of their immediate natural environments. This tension, which is intertwined within many webs of today’s wicked problems, necessitates more considerate, context-emergent, and ethics-oriented approaches to promote pro-environmental advocacy and values that acknowledge participants’ contextual matters-of-concern within the learning environment (Latour, 2004; Palmer, Smith, Willetts & Mitchell, 2007).

What becomes clear through this section is that the children’s learning, and capabilities to learn, and in this case, learning to connect with nature, were shaped by their socio-cultural, economic and historical home and school activity systems. Well-resourced education (afforded by privileged SCHVP) brings opportunities not only for environmental learning, but also for educative encounters in natural spaces, which might otherwise not be available (aside from organisations like Hobbiton). Thus the *approach* taken by environmental educators, to learning to connect with nature, is vital to reassess and change, towards fostering more ethics-oriented, decolonised opportunities for connecting with nature, particularly for children from diverse socio-cultural and socio-political backgrounds (section 2.3.4).

²⁵ Highlighting these constraining structural mechanisms does not negate people’s own agency towards change, but rather points to the dialectic between structure and agency in shaping outcomes (Archer, 2000; McLaughlin & Dietz, 2008)

6.1.2. Everyday lifestyles

Socio-cultural theories emphasise the impact of context, everyday activities and practices as central in shaping how we learn and what we learn (Engeström et al., 1999). In light of the Mountain Movers' ranges of everyday activities (seeing friends, being in nature, watching TV, section 4.2.3), it is clear that such everyday doings mediated their prior Connectedness-With-Nature. People's understandings of the environment come from their continuous participation in their everyday life-worlds, which is connected to their everyday sense of place, which can have an effect on environmental empathy (Bonnett, 2004, 2007; Gill, 2011; Vorkinn & Riese, 2001). Further, the more people's attention is oriented towards nature (e.g. learning about a *local* endangered species), the more likely they are to develop an emplaced environmental empathy and ethics (Fisman, 2005). Teaching children about the positive aspects of their local environment can build their sense of caring and connection to the place where they live (Fisman, 2005). Woodhouse and Knapp (2000) advocate for place-based environmental education towards achieving local ecological and cultural sustainability. Thus, how people value and what people value is strongly shaped by their everyday activities, practices, sense(s) of place and environmental spaces in general (Kudryavtsev, Stedman & Krasny, 2012; Walker & Chapman, 2003). Acknowledging and building on the children's everyday activities within and throughout the process of learning to connect with nature at Hobbiton could thus contribute to more effective modes of connection.

6.1.2.1. Modern life

Cellphone and television use appeared to be strong mediators of participants' prior nature-perceptions and Connectedness-With-Nature (section 4.2.3.2). While some children had strong attachments to their cellphones and fictional television shows, others described how nature-based television programmes had helped them to gain environmental knowledge. The use of technology in these differing ways illustrates how technology can constrain embodied connection as well as enable disembodied environmental knowledge acquisition, depending on the context.

Using cellphones and watching fictional television shows acted as a barrier to environmental knowledge acquisition (to some degree at least) at Hobbiton in that some children would have preferred to have been watching television than learning about nature. Cellphones and

television have been found to be addictive for children, which may constrain opportunities for embodied nature connection (Carbonell, Oberst & Beranuy, 2013; Louv, 2009). Here, it is important to make clear that technology was not seen as something in binary opposition to ‘nature’²⁶, but rather the children’s apparent addiction to their technology-based practices may have acted as a barrier to potential nature-connecting opportunities during the nature-based activities.

However, some participants did relay ways in which technology enabled disembodied environmental learning. That is, although many participants did not have embodied access to nature, they had access to knowledge *about* nature through television, highlighting the disjuncture between experiential environmental learning and abstract environmental theory (Akhurst, 2010; Kolb & Kolb, 2005; Woodhouse & Knapp, 2000). Here, cell phones and television programmes can be seen as historical-mediating tools of Connectedness-With-Nature within the children’s home and school activity systems. Cell phones and fictional television programmes appear to have constrained access to nature, while nature-based television programmes appear to have enabled disembodied, nature-knowledge acquisition. It thus makes sense that if technological tools are to contribute to environmental learning and Connectedness-With-Nature, they should be combined with embodied experiences of local nature (Kudryavtsev et al., 2012; Uzunboylyu, Cavus & Ercag, 2009; Vorkinn & Riese, 2001; Woodhouse & Knapp, 2000).

6.1.2.2. Experiences of nature

The potential social danger associated with natural spaces mediated participants’ willingness to explore natural spaces in their everyday lives. These fears are strongly warranted in the crime-ridden times in which we live (Lemanski, 2004). Such fears, as well as parents’ warnings against such activities (Malone, 2007), may further compound the ‘human-nature’ disconnection. Participants also acknowledged how socio-economic circumstances, underpinned by racial divides, constrained access to natural spaces (section 4.2.3.3). Some participants highlighted how nature-access necessitates financial privilege. This data highlights the privileged and sometimes idealistic notion of people ‘getting back to nature’ (Mcphie &

²⁶ Indeed everything derives from a natural source at some level, even if it is far removed by its end-production point (Bonnet, 2004).

Clarke, 2015), when hegemonic social structures, historical contexts and the increasingly modern, consumerist lifestyle constrain access to nature.

6.1.3. Previous nature-perceptions

As shown in section 4.2.4, participants' various nature-perceptions were directly linked to the adapted Connectedness-to-Nature scale (section 3.3.1). There were multiple layers of data concerning this theme, all of which are seen as *part* of the children's accumulated SCHVP, which strongly mediated their perceptions of, and connectedness with, nature.

6.1.3.1. The word 'nature'

The two groups of children had quite different, overarching understandings of the word 'nature.' These viewpoints are understood from a dialectical perspective (2.4.2.2) in that understandings of 'nature' are not seen to be static or binary, but rather, they are understood in *relation* to one another in light of participants' nuanced SCHVP.

For both groups of children, nature was seen as something external to human beings, consisting of 'outside things' like trees and animals, of instrumental use to humans (section 4.2.4). In this light, many have argued for adaptations of an anthropocentric self towards an Ecological Self (section 2.4.1.1). However, nurturing this Ecological Self is a challenging endeavour considering consumerism hegemony and ingrained modes of binary thinking. For the study at hand, the children perceived nature to be of everyday, instrumental value (i.e. for food, wealth and health, section 4.2.3), which can generally be understood in a human-centred manner²⁷ (Kronlid & Öhman, 2016). Such positionings are often accompanied by the notion of the individualistic self, which has been linked to the perpetuation of the human-nature binary, and thus the perceived human-nature disconnection (Adams, 2006; Besthorn, 2002; Frantz et al., 2005; Naess, 1986). These positionings are a strong part of the children's accumulated SCHVP, inevitably mediating the children's perceptions of, and connectedness with, nature in their everyday lives.

²⁷ Labelling positionings as 'anthropocentric' or 'eco-centric' here or anywhere else in this discussion is not meant to be a value-judgement; rather these terms are used to better make sense of the children's understandings of nature. Further, these positionings are much more nuanced than merely being 'anthropocentric' or 'ecocentric' (Kronlid & Öhman, 2012) but the scope of this study limits discussion of these basic differentiations.

6.1.3.2. *Opinions on the human-nature connection*

Some Mountain Movers expressed understandings of a strong link between culture and nature in terms of the ancestral spirits, and Sangomas' traditional use of plants, a connection which stirred apprehensive feelings towards natural spaces (section 4.2.4). This data highlights a practical, material, dialectical connection between people and nature on spiritual and cultural levels and speaks to more ecocentric value positionings (in contrast to more anthropocentric positionings, section 6.1.3.1). Further, it highlights how the occupation and perception of natural spaces was negotiated in relation to the ancestors. It thus becomes clear that nature is not only a subjective phenomenon but that perceptions of, and connections with, nature are socially, culturally and historically mediated and negotiated (Cocks et al., 2012).

Participants' answers also shed light on the various ways in which they perceived their Connectedness-With-Nature prior to Hobbiton in terms of a shared common energy between humans and nature, human versus animal 'smartness', as well as the morality of human conduct (section 4.2.4). Perceptions of a shared energy among all living things suggest that participants perceived the similarities between humans and nature in a basic, needs-based manner. These responses can also be seen from a dialectical perspective in that, while humans and nature were seen to be rather different at surface level (section 4.2.4), they were perceived in a more nuanced way in terms of a *shared* energy. The perception of humankind's dominance due to technological advancement, at a glance, illustrates an anthropocentric outlook, while perceiving animals as having alternative intelligences conveys a more ecocentric outlook (Kronlid & Öhman, 2012; Lövbrand et al., 2015). However, it must be acknowledged that these are children with *developing* senses of the world, mediated by their home and school discourses and practices. The responses about the morality of human conduct illustrate more critical engagement about the beings and doings of humans and how they affect other people and non-humans. This resonates with the ecological extension of Ubuntu (section 2.4.1.3) in that some children were critically thinking beyond their own lives about how non-reflexive environmental behaviour negatively affects other humans and more-than-humans.

Participants also shared their opinions about who the Earth 'belongs' to. Most participants believed either that the Earth belongs to animals or that Earth's care is in human hands. On the face of it, the first cluster of beliefs illustrates a more ecocentric outlook, which recognises that

humans do not dominate the Earth and that non-human animals have more claim to the Earth because they inhabited it before humans did (Naess, 1986). The latter view illustrates a more human-centred perspective, which implies that humans have the solutions to solve Earth's problems (Palmer et al., 2007)²⁸. This illustrates the importance of the way that perceptions of humans, non-human animals, and the Earth itself are mediated by perceptions of self, self in the world, 'other', and 'other' in the world. From a psychological perspective on social learning, Bandura (1971, p. 3) maintains that, "In the social learning system...patterns of behaviour [and belief] can be acquired through direct experience or by observing the behaviours of others". Moreover, these perceptions themselves are mediated by the socio-cultural influences in everyday life (e.g. role-models, school curricula and cultural knowledge), bound up within a complex reverberating social-ecological system enveloped by iterative structural mechanisms (Archer, 2000). The children's responses illustrate how nature-perceptions are shaped by dominant, circulating nature-perceptions within their home activity/school systems in ways that may seem to be binary, but which are probably far more dialectical within deeper layers of knowing, which will continue to evolve over time.

As shown in section 4.2.4.1., some participants' (as well as many staff members') environmental values were also mediated by their eco-religious value positionings, illustrating how environmental value positionings can be shaped by cultural-religious positionings and thus how these positionings may mediate environmentally-ethical behaviour (Biel & Nilsson, 2005; Olvitt, 2012)²⁹. There are various contradictory claims about the pros and cons of Christian environmental ethics, which can be attributed to different parts of the Bible being emphasised. Here, causal links between religious values and environmental concern and behaviour are often entrenched (Biel & Nilsson, 2005) (sections 2.3.2 and 4.2.4.1). Some have argued that the Judeo-Christian tradition is a main contributor towards Western environmental problems as it emphasises a dualism between humans and nature, thereby legitimising nature's exploitation (Biel & Nilsson, 2005). Others have argued that the Judeo-Christian tradition is a main contributor towards believers' pro-environmental behaviour as it promotes stewardship of the Earth (e.g. Naess, 1989). Overall, it is clear that these children's eco-religious value

²⁸ Of course, these are the responses of young children who cannot be realistically expected to have full knowledge about solving wicked problems! Thus many points of discussion here and in other sections in this chapter are not meant to be value-judgements, but are meant to shed light on the children's socio-cultural positionings and how these mediate their perceptions of, and connectedness with, nature.

²⁹ Although, participants' actual environmental behaviour in everyday life could not be measured by me, which limits the extension I have made above. See section 7.1 on the study's shortcomings.

positionings shaped their perceptions of nature and self in relation to nature, illustrating the strong socio-cultural influence that faith systems can have on Connectedness-With-Nature (Biel & Nilsson, 2005; Olvitt, 2012).

6.1.3.3. Prior environmental empathy

For those Mountain Movers who had actually witnessed the death of an animal prior to Hobbiton, their feelings of empathy concerned the animal's pain and emotions upon death (in the minority of cases) and further to a degree of affection for the animal (in the majority of cases regarding a pet) (section 4.2.4.2). The minority cases illustrate a degree of identification with the pain of a dying animal, highlighting a more ecocentric similarity between human and non-human animal pain (Kronlid & Öhman, 2016). The latter case illustrates the importance of personal, embodied, and emotional connections with nature in mediating environmental empathy and nature connection (Jickling, 2009; McGarry, 2013). Further, this supports the claim that people will strive to protect that which they are emotionally and physically connected to, which relates to the power of having a sense of place (Kudryavtsev et al., 2012; Mannion, Fenwick & Lynch, 2013; Woodhouse & Knapp, 2000). Ultimately, this means acknowledging children's SCHVP as strong mediators of their perceptions of, and connectedness with, nature in the pedagogical process of learning to connect with nature.

The Mountain Movers' expressions of sadness about the imagined death of an animal illustrate the ability to "put oneself in the 'shoes' of another", which requires the ability to reflect critically (even if unconsciously) on one's sense of self. Critical reflection is a core foundation for transformative learning (Archer, 2000; Mezirow, 1987). Further, these cases show that participants believed that humans and non-human animals both feel pain or emotions to some extent, illustrating some sense of species equality (Kortenkamp & Moore, 2001). The Star Gazers took a more anthropocentric stance in that they feared a similar death for themselves because they inhabit the same polluted spaces as animals that die (in this case, dogs). The minority case of the one Star Gazer who expressed feelings of happiness at the thought of a protein-rich meal illustrates how this child's socio-economic positioning mediated his feelings around this question (i.e. the dead animal would have made him happy because it would have served his basic needs for survival). Vulnerable children are more likely to have to survive from wild-food sources due to their disadvantaged socio-economic positionings (McGarry, 2008). This illustrates the need to focus on the socio-economic concerns of people towards

addressing environmental issues in a more holistic manner (UNESCO, 2016). Considering the two group's quite different responses and different ranges of empathy, it becomes clear that these responses were shaped by their socio-cultural and socio-economic contexts and matters-of-concern, and that these concerns may impact their wellbeing and the extent to which they connect with nature.

6.1.4. Previous experiences in nature

Several staff members and volunteers divulged how early, embodied, transformative nature-based experiences (for example, nature-based solo experiences and nature-based learning at school) mediated their own environmental ethics and sense of Connectedness-With-Nature (section 4.2.5). This illustrates how access to nature and, in turn, one's environmental ethics are mediated by one's SCHVP (Muir, 2002; West et al., 2006). Some local instructors also described how dissonant, embodied nature-based experiences (i.e. hunting animals) had mediated their Connectedness-With-Nature. These examples illustrate how dissonant experiences can serve as motive forces for transformative learning (section 2.4.2.3) (Cole & Engeström, 1993), and further, that such embodied and sociomaterial experiences can play an important implicit role in mediating Connectedness-With-Nature.

6.1.5. Conclusion

It is clear that the various aspects of the children's SCHVP (prior environmental knowledge, everyday lifestyles, previous nature-perceptions and nature-experiences), emergent from their home and school activity systems, played an implicit mediatory role in their developing perceptions of, and connectedness with, nature prior to Hobbiton. These SCHVP can be seen as implicit mediators of Connectedness-With-Nature (section 2.4.2.3) in that they are factors that are not, "intentionally introduced into human activity in order to mediate it", rather they are veiled and unscrutinised factors that play an important role in the mediation process (Rivers, 2015, p. 403). The children's SCHVP were not explicitly or collaboratively considered in Hobbiton's pedagogical-design process. The children's positionings were assumed (from a deficit stance) within the activity system, but not unveiled in the mediation process in accommodating, constructive ways, which might better foster Connectedness-With-Nature.

6.2. ANALYTIC STATEMENT 2

❖ **The knowledge-based and sociomaterial nature of the nature-based activities mediated participants' perceptions of, and connectedness with, nature.**

This statement includes three major components: experiential learning, sociomaterial mediators of Connectedness-With-Nature, and staff passion and participant enthusiasm. *Together*, these components are seen as major onsite mediators of the children's perceptions of, and connected with, nature at Hobbiton.

6.2.1. Experiential and environmentally-informed activities in nature

The concept of Connectedness-With-Nature appears to sit on a continuum between *information about* nature and affective *experience in* nature, a mind-body-spirit sense of Connectedness-With-Nature and a culturally embedded sense of Connectedness-With-Nature over time (Zylstra et al., 2014) (section 2.4.1.2). As shown in section 4.3.2.4, Hobbiton provided an important primary Experiential Learning encounter in a natural space for many of the children. Further, the nature-based activities provided various integrated, synergistic Experiential Learning opportunities (sections 4.3.1. and 5.1.3), which appeared to positively mediate shifts in the children's perceptions of, and sense of connectedness with, nature.

There is ample evidence to suggest that early, constructive nature-encounters can help to foster pro-environmental values and behaviours later in life, feelings of nature-connectedness, and a stronger sense of place (Gill, 2011; Kudryavtsev et al., 2012). As shown in section 2.3.3.1, Experiential Learning is essential in environmental learning, and in particular Connectedness-With-Nature learning processes (Akhurst, 2010), and emotional openness within these processes is also seen to be quintessential to expanded learning concerning Connectedness-With-Nature (Jickling, 2009). Fittingly, Leopold (1970, p. 251) held that "We can be ethical only in relation to something we can see, feel, understand, love, or otherwise have faith in." Sandell and Öhman (2010) further highlight the value of an experiential and embodied understanding of nature in outdoor education pedagogies, which can mediate a sense of personal value and meaning attached to nature in the everyday.

Connected to the efficacy of integrated Experiential Learning and environmental knowledge are the related notions of local-learning and sense-of-place (Walker & Chapman, 2003). Staff members emphasised the importance of actually being able to see, experience and learn about wildlife that is relevant to the children's everyday lives, thus centralising matters of local concern for the children (as opposed to introducing imposed matters-of-concern). Take, for example, the ring-barking activity, which emphasised learning about the local Cape Parrot in relation to the indigenous Yellowwood tree and alien-invasive vegetation. Another way in which the children's interest was sparked was during the hikes, when the instructors highlighted how the positioning of moss on the indigenous trees could aid in ascertaining a southerly direction if one was lost (Appendix 6, ring-barking activity). This knowledge contributed towards Connectedness-With-Nature through teaching the children *about* moss and tree species in an experiential way that connects to *their own* wellbeing in the forest. This kind of experiential learning has been known to foster place-based environmental reflections, ethics and empathy where the children actually have the chance to learn about animals and plants that have meaning in their everyday lives (Kudryavtsev et al., 2012; Mannion et al., 2013; Walker & Chapman, 2003; Woodhouse & Knapp, 2000). Further, learning environmental facts through such activities can facilitate deeper cognitive understanding of information learned and may also increase environmental agency and self-efficacy around environmental concerns, and in turn, long-term environmental advocacy (Gill, 2011; Walker & Chapman, 2003; Zylstra et al., 2014).

Gooley (2014, p. 84) further highlights the importance of sparking nature-interests through linking aspects of nature to one's personal life through embodied experience:

Nature is often like a painting that seems dull until you start to learn about it. Van Gogh added yet more piquancy to the vibrancy of his art by cutting off part of his ear... [Thus] his paintings change in our minds, without changing physically, when we learn more about the *story* that surrounds them.

Essentially this discussion points to the value of acquiring environmental knowledge *whilst* being immersed within the natural setting that one is learning about, thus highlighting how synergies within the learning context can drive the process of learning to connect with nature. Further, this section foregrounds the value of inspiring the interest and care of the learner through personal meaning-making within the learning context. The key insight here is that the

integration of, and synergy between, environmental knowledge and Experiential Learning (section 5.1.3) acted as a strong explicit mediating factor towards broadening nature-perceptions and deepening Connectedness-With-Nature. Zylstra et al. (2014) note that experience, in relation to knowledge, may be the most insightful element of Connectedness-With-Nature, since it can involve the disbanding of human-nature binaries, whilst engendering more nuanced cognitive and emotional understandings of a shared essence between nature, others, and the self.

6.2.2. Sociomaterial mediating factors

The weather was a major determining factor of the children's expectations of, experiences of and reflections on the nature-based activities (section 4.3.2.1). It is thus important to foreground the weather's material embeddedness in nature-based activities, and how its material unpredictability can mediate people's experiences and practices in nature (Rantala, Valtonen & Markuksela, 2011). The weather can be seen as an implicit mediating factor due to its invisible role in mediating Connectedness-With-Nature (section 2.4.2.3). Rantala et al. (2011) make sense of how weather affects nature-based practices in terms of anticipating the weather, coping with the weather, as well as discursive practices (narratives and emotions the weather evokes) related to weather. The weather maintains a particular type of material agency, which can "manipulate human practices by narrowing down or extending opportunities for outdoor activities" (Rantala et al., 2011, p. 285). However, human agency can play an equally strong part in determining nature-based practices. Further, as per the minority of this study's participants, some forms of weather (such as snow) appeared to excite desires for outdoor experiences because snow was perceived as a rare, material novelty. In this light, Connectedness-With-Nature can be strengthened through sparking and extending children's already-established interests in nature, to foster weather-related, environmental learning (Rantala et al., 2011). Essentially, it is important to consider the psychological and practical ways in which the weather can implicitly constrain or enable interesting environmental learning and how people interact with and perceive nature (Rantala et al., 2011).

6.2.2.1. The sociomateriality of the hikes

The perceived and experienced physical strenuousness of the day hikes was a factor that negatively influenced participants' experiences of hiking (section 4.3.2.2). However, these

negative experiences also appeared to be positively mediated by the perceived beauty of some of the goal-points of the hikes (i.e. waterfalls or views). Upon reflecting on these day hikes, the majority of participants felt a strong sense of on-site physical accomplishment. Only one participant described her enjoyment of the day hikes in relation to a positive historical connection. In terms of the night hikes, the darkness (in relation to fear of animal attacks and fear of injury) was a key sociomaterial factor that strongly mediated participants' perceptions and experiences of the activity (section 4.3.2.3.). However, upon reflection, some children appeared to have enjoyed the night hike as it helped them improve and experience their senses after overcoming their initial fears.

Initial hiking perceptions and expectations can shape hiking experiences, depending on the nature of the expectations (Dorwart, Moore & Leung, 2009). This illustrates how prejudices about the strenuousness of these nature-based activities can affect opportunities for connecting with nature. However, the experienced beauty of goal-points (waterfalls and views during the day hikes) and the positive experiences of heightening different senses (night hikes) appeared to counter-mediate initial negative perceptions, illustrating how nature-perceptions can be mediated by sociomaterial nature encounters (Dorwart et al., 2009). Johnson (2002) maintains that experiencing a sense of 'beauty' (often after overcoming challenges during the experience) may help to engender a sense of peace, humility and comfort in natural spaces, in turn contributing to a felt sense of Connectedness-With-Nature. Gooley (2014) writes that our senses can fuel a growing space-time awareness of our surroundings, and that attending to sights and sounds in particular can help us to build more detailed and exciting understandings of the world, contributing to an enhanced sense of connection.

Participants' levels of self-efficacy, agency and capability also appear to have been strengthened through a sense of accomplishment (overcoming the strenuousness of the day hikes, and the fear of the darkness during the night hikes) (Johnson, 2002; Saito, 2003) (section 2.3.3.2). This is illustrative of a typical Experiential Learning process (section 2.3.3.1), which involves preconceived perceptions, experience/action, reflection, re-conceptualisation/reconstruction and future application³⁰ (Itin, 1999; Kolb & Kolb, 2005). Further, these experienced tensions speak strongly to the theory on dissonance and contradiction (section 2.4.2.4), which can serve as driving forces of learning (i.e. overcoming a fear/difficulty) and

³⁰ Future application could not be gauged through this research. See section 7.1.1.

shifting perceptions of nature (i.e. embracing going hiking despite strenuousness or darkness). Further, it is possible that these shifted perceptions may open up future potentialities for nature-connection through hiking.

In another vein, the case of the Mountain Mover who enjoyed the hikes in relation to a positive historical memory illustrates how learning can be shaped by historical mechanisms (Engeström, 2000), and in this case, an historical *resonance*. Dorwart et al. (2009) note that nostalgic memories of trips can be evoked through experiences in nature, which emphasises the importance of emotional resonance in the process of learning to connect with nature (Jickling, 2009).

Essentially, this section has highlighted how nature-based experiences can be strongly mediated by onsite sociomaterial factors (the weather, hike strenuousness, darkness), as well as previous historical encounters and perceptions (Dorwart et al., 2009; Louv, 2009). These sociomaterial elements function to ground the children in the sensual embodiedness of the nature-based activities, and thus serve to physically connect them with nature in ways that are theoretically under-researched (Fenwick, 2007). The sociomaterial factors (but not the nature-based activities themselves, as these are intentionally introduced) discussed above can also be seen as implicit mediation factors, in that they do not appear to have consciously been taken into account in the pedagogical-design process towards the actualising Connectedness-With-Nature.

6.2.2.2. Nature-based immersion and perceived nature-benefits

Children from both groups perceived the natural setting at Hobbiton to be very different to their home environments, which contributed to perceptions of ‘nature-benefits’ at Hobbiton that ranged from stress relief, safety, and mood enhancement (section 4.3.2.4). Only one Mountain Mover alluded to a benefit of nature *for* nature (rather than himself). The former nature-benefits stemmed from anthropocentric vantage points where nature had instrumental value for the majority of the children, and in the later minority case, a more ecocentric benefit was alluded to. In Psychology, there is wealth of literature that supports the value of wilderness experiences for human wellbeing (section 2.3.3.2). However, these standpoints have been critiqued from an Ecopsychology perspective for their anthropocentric stance on the ‘human-nature’ relationship, which fails to consider the rights, needs and value of nature itself, and how human-

centred benefits can jeopardise these rights (Frantz et al., 2005; Roszak et al., 1995). What is important for this study, however, is that these perceived nature-benefits mediated participants' *appreciation* of the natural setting, which appeared to contribute to their Connectedness-With-Nature from an experiential perspective (Mayer, Frantz, Bruehlman-Senecal, & Dolliver, 2009; Zylstra et al., 2014). Mayer et al. (2009) maintain that people's experiential sense of Connectedness-With-Nature can act as a mediating mechanism towards greater wellbeing, positive mood and the ability to self-reflect. Self-reflection is understood to be a pivotal starting point for questioning our relationship with nature (Adams, 2006; Mezirow, 1987; Zylstra et al., 2014). In essence, these perceived benefits strongly mediated the children's perceptions of, and sense of connectedness with, nature during their stay at Hobbiton.

6.2.3. Staff environmental passion and participant enthusiasm

The majority of the children described positive encounters with Hobbiton instructors and volunteers (section 4.3.3). For the Star Gazers particularly, meaningful relations with the volunteers appeared to have had a valuable impact on their experiences in terms of mediating increased NBA participation and positive attitude shifts. For example, without Volunteer 1 repeatedly encouraging Start Gazer 5 (a girl with a severe physical disability) to fully participate, she would have missed out on the onsite opportunity to connect with nature. Section 4.3.3 speaks to the fundamental role of 'community' (volunteers and instructors) as well as the subject's motivations within the activity system in helping to actualise the desired objective of Connectedness-With-Nature and other objectives within and beyond the activity system (Roth, 2007).

The environmental passion of the staff members (which is conceptualised as an essential underlying component of the activity system's tool, i.e. nature-based activities)³¹ was also a factor that implicitly mediated the efficacy of the nature-based activities, and thus, the children's environmental learning and Connectedness-With-Nature. This passion is mediated by the staff members' SCHVP and the environmental values they promote, as well as the environmental values that Hobbiton itself promotes (sections 1.2.3 and 4.3.3), illustrating how environmental values (and, by implication, the efficacy of the nature-based activities) are

³¹ Further, the efficacy of the activity system's tool (Nature-based activities) is mediated by the Hobbiton staff (community) and their environmental passion and how they share environmental knowledge with the children.

implicitly mediated by external socio-cultural-historical positionings and motives as well as by the culture and value-ethos of the activity system itself (Engeström, 2001).

Another way in which the environmental passion of the staff was mediated was through the division of labour between staff within the activity system. For example, the environmental passion of Manager 1 in particular was highlighted as a key mediating factor that influenced how the instructors themselves shared environmental knowledge and enthusiasm with the children. This shows how division of labour can play an important role in how the activity system functions to actualise its objectives (Engeström et al., 1999). This is evident in the different hierarchical roles that volunteers³² and instructors played in mediating environmental knowledge.

The children's motivation to learn and willingness to participate during the nature-based activities was also an important mediator of Connectedness-With-Nature within the activity system (section 4.3.3). Roth (2007) highlights the roles of subjects' motivation, affect and identity (which are inevitably intertwined within participants' SCHVP) in their capacity to actualise or derail the activity objectives (section 2.4.2.4). "Motivation and identity are not independent constructs but are derivative, an integral aspect of an activity system in general, and emotion - which is centrally involved in the shape of practical actions and practical reasons - in particular" (Roth, 2007, p.54). Thus, the object of an activity system can be influenced by the subjects' motivation levels and their fluid identities in relation to their emotional states within the activity setting (Popova & Daniels, 2004). Therefore, it is vital to acknowledge and integrate participants' positionings into the pedagogical design process towards actualising Connectedness-With-Nature objectives.

6.2.3.1. Hobbiton as safe haven

The camps also provided a safehaven for many of the Star Gazers (section 4.3.3.1), and it became clear that having a safe, fun space in which to learn was pivotal towards creating *opportunities* for connecting with nature. More detailed aspects of this safe haven included the abundance of food, the personal approach and availability of the staff for the children, as well

³² Volunteers will usually have less formal environmental knowledge and they are generally at Hobbiton for different reasons (gap year, etc.) in comparison to permanent local staff who appeared to have a more vocational interest in children and environmental learning.

as the actual provided space of Hobbiton itself (section 1.2.3). In this way, Hobbiton addressed (for the time that the children were there) the children's basic rights to food, shelter, protection, respect, wellbeing and love (Abrahams & Matthews, 2011), without which the prospect of environmental learning and future advocacy become less possible. This is in alignment with the Sustainable Development Goals in terms of protecting the rights of *people* and the rights of the *planet* and the prosperity of *both* (UNESCO, 2016). This provision of a safe space attests to the mediatory role of the actual sociomaterial space of the activity system itself towards opening up potential atmospheres for perceiving and connecting with nature, in ways that may not have been possible before.

6.2.4. Conclusion

This statement discussed key onsite experiential and sociomaterial mediating elements of the children's developing Connectedness-With-Nature. These elements included integrated, Experiential Learning, specific sociomaterial factors (weather, hike strenuousness, nature benefits), and staff environmental passion and learner enthusiasm. In addition to the children's SCHVP (section 6.1), these onsite elements strongly mediated the children's perceptions of, and sense of connectedness with, nature during their stay at Hobbiton. These mediating factors are seen to be both explicit and implicit in nature (section 2.4.2.3). Implicit mediation factors thus far have included the sociomateriality of the nature-based activities themselves, the staff members/children's environmental passion and enthusiasm, underpinning environmental ethics that Hobbiton promotes, and the children's SCHVP, in that these elements appear not to have been consciously acknowledged or integrated into the pedagogical-design process towards actualising objectives of Connectedness-With-Nature. Explicit mediation processes thus far have included the purposefully introduced nature-based activities themselves (mediating tools), and the environmental knowledge that is openly shared with the children towards actualising the Connectedness-With-Nature objectives (figure 5.1). These implicit and explicit means of mediation function together to mediate the children's perceptions of, and sense of connectedness with, nature within the activity system.

6.3. ANALYTIC STATEMENT 3

❖ **Contradictory ‘loathe-love’ experiences during the nature-based activities mediated shifts in participants’ self and nature-perceptions as well as their Connectedness-With-Nature.**

This statement draws on the previous analytic statement (specifically section 6.2.2.1), in that it considers the *effects* of contradictions and resonances within the learning process. It focuses specifically on what I have called the ‘loathe-love’ dialectic, and how such experiences mediated shifts in the children’s perceptions of, and sense of connectedness with, nature.

There were various sociomaterial factors (such as the weather, the strenuousness of the hikes, and the goal-points of the nature-based activities) that mediated varying degrees of this ‘loathe-love’ learning dialectic (sections 4.3.2 and 5.1.2). Essentially, this learning dialectic is preceded by a perceived dislike of the NBA (e.g. hike strenuousness) *during* the activity, but which is followed by an unexpected resonance with the activity-outcome (e.g. seeing a waterfall) after it has been completed. What is key here is that this learning process is mediated by a sociomaterial contradiction *during* the activity, which then becomes a positive driving force for learning to connect with nature. Take, for example, how the sociomaterial strenuousness of the day hikes (6.2.2.1) mediated the majority of the children’s *on-site* experiences of the NBA (and in turn perceptions of hikes in general) in a negative manner. However, *after* the completion of the hike and some reflection on the achieved goals of the hikes (i.e. reaching a beautiful, gushing waterfall), their previous negative hiking-perceptions shifted towards positive positionings, which in turn positively mediated their hiking-perceptions in particular, and nature-perceptions in general. This example can further be extended to the night hike activity where an initial, preconceived fear or specific sociomaterial elements (e.g. darkness) negatively mediated participants’ immediate experiences of the activity. However, after experiencing and reflecting on the entire activity, participants’ perceptions of and attitudes towards the activity itself and nature in general shifted positively. These ‘loathe-love’ contradictions are sociomaterial in nature (they are not inter-human value or cultural clashes), and oscillate between participants’ activity prejudices (formed through their SCHVP), the sociomateriality of the mediating tools (nature-based activities), and the desired objectives of the entire activity system (Connectedness-With-Nature, nature immersion).

This learning dialectic highlights the oft-overlooked importance of the more nuanced sociomaterial elements of the mediating tools within the activity system and how they physically and psychologically mediate learning. Further, this highlights the importance of post-activity reflection (a vital part of Experiential Learning, section 2.3.3.1) on these experienced tensions for the children³³. Unveiling and analysing unspoken experiences of disturbances (in this case, sociomaterial contradictions) is vital towards fostering meaningful learning and the achievement of the prospective activity-system objectives (Engeström et al., 1999). Further, Gooley (2014, p. 90) notes: “We may find conflict unattractive as a concept, repellent even, but as a mechanism for helping us to connect with nature it is so powerful that it holds a beauty”. In essence, this learning dialectic speaks to the oscillating relationship between feelings of dissonance and feelings of resonance in facilitating an affirming learning journey towards connecting with nature.

6.3.1. Conclusion

This statement discussed the importance of unveiling how sociomaterial elements of the nature-based activities were experienced by the children in their journeys to connect with nature. These contradictory tensions positively mediated the children’s perceptions of, and sense of connectedness with, nature after experiencing Hobbiton’s nature-based activities.

³³Note: this reflection process was prompted by the post-interview process and not by the Hobbiton programme itself. See section 7.2. for recommendations.

6.4. ANALYTIC STATEMENT 4

❖ **Particular value-divergences and value-convergences mediated shifts in participants' perceptions of, and connectedness with, nature after the camp.**

This statement speaks to particular examples of value-contradictions and value-synergies within the activity system, which mediated the children's learning with regards to perceiving and connecting with nature at Hobbiton.

6.4.1. Environmental value-contradictions

There were many tensions between the children's environmental values (prior to coming to Hobbiton) and the environmental values that Hobbiton promotes (within the activity system) (section 5.1.1.1). Many of the children's environmental values and practices were at odds with the rules of Hobbiton. Olvitt (2012) notes that interactions within the activity system can be enabled or constrained by rules that include explicit and implicit regulations, norms and conventions. Hobbiton's rules (undergirded by implicit pro-environmental conservation values) mediated the children's interactions with nature at Hobbiton, and thus disturbances and tensions emerged. Concerning littering, it became clear that prior socio-cultural, historical factors (i.e. lack of removal services, absence of environmental role models) were influencing the children's everyday environmental practices. This highlights how the children's SCHVP and the embedded practices that accompany these positionings (in this case, littering) were underpinned by much larger structural mechanisms (historical poverty, absence of quality education), which inevitably shape life-practices (Archer, 2000), and in this case, how the children interacted with the natural environment at Hobbiton.

There were also evident cultural-value clashes with the sanctity-of-life rule (i.e. harming animals), which highlights the importance of cultural beliefs and myths in mediating environmental practices and value positionings in everyday life (Biel & Nilsson, 2005; Hussain, 2002). Further, these tensions attest to the importance of acknowledging such beliefs before attempting to teach new or project culturally-distant environmental values onto children; these values which are themselves value-laden (usually) from a Eurocentric conservation stance (Bonnett, 2004). Such approaches may only serve to delegitimise participants' values, everyday practices, and cultural beliefs.

6.4.2. Religious value-synergies

There were also evident eco-religious value synergies within the activity system (section 5.1.1.2)³⁴. These synergies between the eco-religious environmental ethics of Hobbiton and the religious value positionings of some participants highlighted the importance of learning, not only through contradiction, but also through perceived value-resonances (Olvitt, 2012). Resonances between individuals and the socio-cultural contexts in which they find themselves have also been found to act as driving forces of learning (section 2.4.2.4). Biel and Nilsson (2005) maintain that situational cues (for example, the prayer recited before meals at Hobbiton, Appendix 10, Figure K) partly determine which values embodied in religion will influence environmental attitudes. Religious-value resonances may bolster future prospects for more effective environmental learning based on better understandings of the children's religious-value positionings *in relation* to Hobbiton's eco-religious values. Focusing on such resonances highlights the potential of a less *difference-oriented* and more collaborative approach for learning to connect with nature.

6.4.3. Conclusion

This statement illustrated how both value-contradictions (in terms of littering and harming animals) as well as value-synergies (in terms of eco-religious convergences) mediated how the children perceived and connected with nature at Hobbiton. This attests to the importance of unveiling and analysing both contradictions *and* resonances between activity system elements, towards actualising activity objectives from more collaborative starting points. If these contradictions and synergies were to be constructively unpacked and integrated into the pedagogical-design process, perhaps more effective pathways for connecting with nature could become possible.

³⁴However, Hobbiton's doxic Christian ethos may not have resonated with other children, which begs the question: how might Hobbiton deal with children who do not believe in Christianity or resonate with the Christ-centric portrayals of nature (for example, the "Madonna and Child" hike)? The fact that the nature-based activities are so religiously laden would likely affect (whether they are aware of it or not) how the children perceive and connect with nature and how they perceive Hobbiton.

6.5. ANALYTIC STATEMENT 5

- ❖ **The nature-based activities were the primary mediators that shifted children's environmental empathy and identification, nature-perceptions and ultimately fostered pro-environmental intentions.**

6.5.1. Environmental empathy and identification

As has been noted, empathy is a major component of learning to connect with nature (sections 2.4.1.2 and 2.4.1.3). Many of the children expressed various forms of shifted environmental empathy and identification as a result of being immersed at Hobbiton (section 5.2.1). Several staff also shared feelings of environmental empathy as a result of long-term immersion at Hobbiton. Further, many children communicated learned understandings of interdependence through the middle-ropes course (section 5.2.1.1). These responses point to the value of experiential, nature-based immersion over time and how this immersion may mediate a sense of environmental empathy.

From a psychological perspective, loss of respect, humility, and empathy with nature are seen as major historical drivers of the human-nature disconnection in their valorisation of human individuality (Metzner, 1995; Zylstra et al., 2014). Thus, arousing empathy with nature through embodied experience is a fundamental step towards bridging the perceived human-nature disconnect (Zylstra et al., 2014). Gooley (2014) emphasises that the sight of death (as many children experienced through or prior to Hobbiton) usually arouses empathetic feelings that can grow into a connection, which can further stimulate a strong concern for the wellbeing of certain plants or animals. Further, local learning and proximity of care in the learning process can influence which conflicts trigger our emotions (Gooley, 2014). The children's responses are also illustrative of how empathy can be aroused through modes of perspective-taking and reflection, which were mediated by embodied nature-based activities as well as post-activity reflection encouraged by staff members, respectively. Walker and Chapman (2003) maintain that in relation to one's sense of place, one's environmental empathy will be affected by 'perspective-taking', which concerns imagining how another (in this case, a dead animal) is affected by the immediate situation.

The children also reflected on how their emotive, embodied experiences at Hobbiton had led them to believe that they would behave differently towards nature in their home environments (section 5.2.2). Walker and Chapman (2003) highlight the importance of arousing pro-environmental empathy towards actualising pro-environmental intentions. The children's communicated pro-environmental intentions³⁵ speak to their embodied experiences as an important primary mediating stimulus in arousing a sense of environmental empathy. Hobbiton acted as a 'primary mediating stimulus' in that most children had not previously had formative, embodied, educative experiences in nature, thus stimulating a sense of empathetic connection with nature.

Several staff members also highlighted how prolonged immersion at Hobbiton had resulted in more empathetic identification with, and attachment to, nature (section 5.2.1). This speaks to the importance of everyday experiences in natural spaces and how such experiences can mediate a sense of place attachment, empathy (Walker & Chapman, 2003), and, in some cases, a sense of the Ecological Self. In this light, Johnson (2002) discusses 'self-forgetting' as the ability to identify with the enduring elements of nature through abandoning traditional identification with our individual egos, which necessitates the arousal of empathy.

From a slightly different angle, expressions of empathy on a more inter-*human* level were evident (sections 5.2.1.1). This links to an ecological extension of the 'Ubuntu' ethic, which concerns experiencing a sense of empathy and identity with all that is, which ideally translates into an awareness of the interdependence of everything through a realisation that to tread heavily on the Earth or other humans is to tread heavily on oneself (section 2.4.1.3) (Naess, 1986; Sewall, 1995). Through participants' experiences of teamwork, interdependence, and respect during the middle-ropes course, it is clear that this activity was an important part of the children's relational and social learning. Relational knowledge and interconnectedness can be fostered through embodied group activities, which can increase group bonds and communication (Parnell & Procter, 2011). Through bonding in this embodied way, relational knowledge is fostered through shared experience. Zhang, Piff, Iyer, Koleva and Keltner (2014) further note how being immersed in perceived beautiful natural settings through such activities can contribute to a process of 'un-selfing' where the 'bounded self' becomes deconstructed and

³⁵ Although these intentions could not be followed up, it suffices to say that the detailed discussion of a shift in environmental empathy and intentions at Hobbiton (after only four days) is noteworthy here.

a sense of pro-sociality and togetherness arises. This sense of inter-human relationality is an important stepping-stone towards fostering a deeper sense of interconnection with and interdependence of all forms of human and more-than-human life³⁶ (Le Grange, 2012a, 2012b). Carlin (2017, p.2) notes that, “felt experiences of relationality are important...because effective motivation and commitment to address [the] socio-ecological crisis comes from affective attachment much more so than from cognitive awareness or ‘negative’ emotions like fear and shame that so often dominate environmental politics”.

6.5.2. Shifts in nature-perceptions and pro-environmental intentions

Through the children’s reflections on their Hobbiton experiences, it also became clear that the nature-based activities mediated shifts in their nature-perceptions and ultimately fostered more pro-environmental intentions (section 5.2.2). The Mountain Movers reflected predominantly on how their embodied experiences at Hobbiton mediated shifts towards more informed perceptions of the ‘human-nature’ relationship. The Star Gazer’s nature-perception shifts were mediated by shifts in how they were seeing themselves (in relation to human morality and self-respect) in conjunction with shifts in how they were perceiving nature. The Star Gazers also tended to express more explicit future pro-environmental intentions.

Both group’s original nature-perceptions speak to the strong mediatory role of their differing SCHVP in shaping these perceptions (section 6.1.3). However, participants’ post-camp nature- and self-perceptions appeared to be more strongly mediated by their sociomaterial experiences at Hobbiton in ways that eclipsed original nature-perceptions (at least on the face of it, and at least in the short term). This highlights how learning is embedded in and emergent from sociomaterial context (Fenwick, 2007) through implicit and explicit mediatory processes within each context (their home context *and* the Hobbiton context) (Rivers, 2015). To recap, implicit mediatory factors of the children’s perceptions of, and connectedness with, nature included the children’s accumulated SCHVP (which they brought into the activity system, section 4.2), Hobbiton’s inherent environmental ethics and religious-value positionings (sections 6.4 and 1.2.3), their approach to the Star Gazers and pedagogical approach thereto (section 6.1.1), as well as the sociomaterial elements of the nature-based activities (section

³⁶ Although this ecological extension is not an explicit part of the objectives of the middle-ropes course, it is clear that without this primary sense of the interconnection, a sense of holistic interdependence (humans and more-than-humans) would be far harder to achieve.

6.2.2). Explicit mediatory factors included the ‘tool’, i.e. the experiential nature-based activities themselves, and the environmental-knowledge purposefully shared by staff (sections 6.2.1).

Within and through these implicit and explicit mediatory learning processes, and between the various elements of the activity system, contradictions and synergies emerged (sections 6.2.1 and 6.4), emphasising how learning can be mediated through convergent and divergent mechanisms (Cole & Engeström, 1993; Olvitt, 2012). The nature-based activities (specifically the hikes, tree-planting and ring-barking) thus appeared to act as a primary mediatory stimulus for shifting participants’ nature-perceptions and fostering more pro-environmental intentions (such as not littering or harming nature in future). Ferreira (1998) notes that hiking can provide an experiential opportunity for environmental education through exposing people to cases of environmental deterioration and preservation, which may foster more environmental awareness and feelings of concern that lead to environmental action and advocacy. Further, the findings concerning the ring-barking/tree-planting activity attest to the strength of learning through synergy (i.e. a combined knowledge and experience approach) within the learning context. That is, through this embodied synergy, the children began to perceive nature differently to how they had before coming to Hobbiton (section 5.2.2).

Analytically, the relationship between the subject and object of the activity system was directly transformed by the mediated act, that is, the experiential nature-based activities, which resulted in shifted nature-perceptions. Thus, learning in this case included an explicit mediatory stimulus (nature-based activities) consisting of more implicit sociomaterial driving forces (i.e. contradictions, disturbances and in some cases resonances), towards fostering these shifted nature-perceptions and pro-environmental intentions. Through this newly-acquired embodied environmental knowledge and experience, the children communicated not only their own future pro-environmental intentions, but also how they plan to share this environmental knowledge with others (at home) (section 5.2.2), illustrating that the children were perceiving and connecting with nature in new ways, which may have positive knock-on effects in the home environment. Connecting with nature in this experiential way is thought to play a key role in fostering a sense of environmental agency and advocacy (Zylstra et al., 2014).

Staff members also highlighted how, through the nature-based activities, perceptions of natural spaces as ‘white spaces’ can be deconstructed, particularly for those children who come from disadvantaged backgrounds (sections 4.2.2, 5.2.2 and 6.1.2.2). In this way, Hobbiton provides

an *experiential* platform from which to decolonise natural spaces both practically and psychologically, which opens up such spaces for environmental learning for all children. This has been highlighted as an important factor towards decolonising natural spaces and environmental issues globally and locally (section 2.3.4) (Korteweg & Russell, 2012; Muir, 1999, 2002). It has been argued that connecting with nature has more to do with ontology than to do with issues of class, precisely because “It takes *less* rather than more: less stuff, less power, less oil, less infrastructure, less relentless self-insulation” (Weston, 2012, p. 87). However, the issue here is that ‘less’ is still *less* (materially speaking) for people who want and need more socio-economic and political stability in an increasingly unequal, capitalist world. In this light, it is important to foreground how socio-economic positionings mediated perceptions of, and access to, nature, beyond the experiences that Hobbiton was able to provide to disadvantaged children (section 2.3.4). The overarching point here, however, is that the nature-based activities did appear to mediate shifts in the children’s nature-perceptions in relation to deconstructing nature-based experiences as ‘white’ experiences (Ashwell, 2010). However, these experiences cannot yet be labelled as ‘decolonised’ nature-based learning processes because they do not seek to validate the children’s particular histories/life stories in relation to deconstructing oppression and cultural power (Asher, 2005; Williams & Tanaka, 2007).

6.5.3. Conclusion

This statement illustrated how the nature-based activities mediated shifts in participants’ environmental empathy and identification, sense of relationality and their nature-perceptions, which all ultimately fostered more pro-environmental intentions. These shifted perspectives are all vital aspects of learning to connect with nature, and illustrate, at least at a surface level, that the children were perceiving and connecting with nature and relating with other humans in ways that were seemingly more empathetic and pro-environmental than how they had done prior to coming to Hobbiton.

6.6. CHAPTER CONCLUSION

This chapter discussed how implicit and explicit mediation processes within the activity system mediated the children's perceptions of, and sense of connectedness with, nature. The findings point both to the importance of participants' implicit SCHVP (prior education, everyday lifestyles, nature perceptions, cultural values and beliefs) as well as the embodied, sociomaterial nature-based activities (the weather, physicality of the hikes, and more social influences) in mediating their perceptions of, and sense of connectedness with, nature. These findings indicate that Hobbiton may act as a primary experiential 'seed-planter' for broadening nature-perceptions and engendering greater feelings of Connectedness-With-Nature. However, in light of the implicit mediatory role of the children's SCHVP, as well as the potential for more decolonised, ethics-oriented and sociomaterial approaches to nature-based learning (sections 2.1.1, 2.3.3.1 and 2.3.4), this 'seed' *could* carry more transformative-learning potential. In chapter 7, I summarise and reflect on the findings discussed in this chapter and make recommendations for further developing the potential of this 'seed'.

7. CONCLUSION

Chapter 7 starts by providing an overarching research summary before highlighting some aspects of the study that could be strengthened for future research in the area. Further, drawing on Chapter 6, recommendations are put forward for future design of Hobbiton's nature-based programmes that seek to enhance Connectedness-With-Nature. Lastly, this chapter considers possible future research pathways.

7.1. OVERARCHING SUMMARY

Using Deep Ecology and CHAT, this study explored the nexus between children's SCHVP and Hobbiton's embodied sociomaterial nature-based activities, in mediating their perceptions of, and sense of connectedness with, nature. Exploring the potential of embodied, ethics-oriented and decolonised nature-based pedagogy in relation to Connectedness-With-Nature was important in a time of global-local social-ecological crises, rooted in psycho-material nature-disconnection. The study's findings shed light on the complex socio-cultural-historical and sociomaterial reality of (a) mending the perceived disconnection.

In short, this study found that the children's SCHVP (their prior environmental knowledge, everyday lifestyles and previous nature-perceptions and nature-experiences) played an integral role in mediating their perceptions of, and sense of connectedness with, nature. Participants' background positionings may appear to be an obvious Connectedness-With-Nature mediating factor, however, the approaches that many environmental programmes often tend to take towards nature-connection is one that negates the importance of participants' everyday lives, capabilities and values in mediating Connectedness-With-Nature usually in favour of more Eurocentric environmental values and practices (Cocks et al., 2012; Muir, 2002). However, the sociomateriality³⁷ (the weather, the physicality of the nature-based activities, and staff passion and learner enthusiasm) together with the more explicit, experiential aspects (integrated Experiential Learning) of the nature-based activities (section 6.2) also strongly mediated participants' perceptions and sense of Connectedness-With-Nature, which was evident through shifts in their environmental empathy and identification, nature-perceptions and environmental

³⁷The sociomateriality of nature-based experiences is not a well-researched area and thus may hold valuable potential for understanding the mediation of Connectedness-With-Nature (Fenwick, 2015; Rantala et al., 2011).

intentions immediately after the camps (section 6.5). Here, the integration of environmental knowledge and Experiential Learning was particularly effective in fostering more holistic nature-perceptions and a greater sense of Connectedness-With-Nature (Zylstra et al., 2014) (section 6.2.1).

Moreover, the ‘loathe-love’ dialectic highlighted how learning processes are nuanced and involve a constantly oscillating dialogue within the learning context, and through this complex dialectic, a particular type of sociomaterial learning occurred that led to greater feelings of accomplishment and connectedness (section 6.3). Additionally, both value-contradictions and value-resonances acted as driving forces for learning to connect with nature (section 6.4). This emphasises the importance of unpacking such divergences and convergences within the learning context, particularly in relation to participant’s values, which are so often assumed or negated (Muir, 2002; Olvitt, 2012). In essence, it became clear that even in the light of participants’ nuanced backgrounds, the nature-based activities acted as a primary mediating stimulus towards fostering increased feelings of environmental empathy and identification, shifted nature-perceptions and more pro-environmental intentions, all of which contributed towards a greater sense of immediate Connectedness-With-Nature (section 6.5).

Zylstra et al. (2014) maintain that a heightened sense of Connectedness-With-Nature can be recognised in persons displaying attributes of personal growth, health and well-being (e.g. happiness, heightened attention and awareness, love, physical and mental resilience, empathy and feelings of relatedness). Although aspects of these attributes (such as heightened awareness, happiness, empathy and feelings of relatedness) were experienced by the children, it is important to make clear that this study does not assert that they were experiencing a fully committed sense of Connectedness-With-Nature or the Ecological Self, but rather that through their embodied experiences at Hobbiton, their nature-perceptions had changed and their sense of experiential Connectedness-With-Nature was evidently greater than it had been prior to coming to Hobbiton. As previously mentioned, Hobbiton appears to act as a primary experiential ‘seed-planter’ for broadening nature-perceptions and engendering greater feelings of Connectedness-With-Nature. However, due to the strong implicit mediatory role of the children’s SCHVP in mediating Connectedness-With-Nature³⁸, as well as the potential for

³⁸ That is, we do not know how sustainable these shifts in environmental empathy, nature-perceptions and pro-environmental intentions will be when the children return home and their Connectedness-With-Nature continues to be shaped by their familiar life-positionings.

more decolonised, ethics-oriented and sociomaterial approaches to nature-based learning (sections 2.1.1, 2.3.3.1 and 2.3.4), this ‘seed’ *could* carry more transformative-learning potential. Before discussing my recommendations to enhance this transformative-learning potential (section 7.3), I now highlight key aspects of the study that could be strengthened for future research in the area.

7.2. SHORTCOMINGS AND FUTURE RESEARCH

Although this was a robust, theoretically-informed and contextually-sensitive study, there were some shortcomings. This section reflects on some aspects of the study that could be strengthened were I to conduct similar research in future.

7.2.1. Short-term engagement

One methodological shortcoming concerns how a *committed* sense of Connectedness-With-Nature (that is, long term, after the camp) could not be ascertained through this research. Further, it was not possible to tell whether, or to what extent, the positive effects of the camps actually lasted for the children. Thus a longitudinal study on sustained and committed Connectedness-With-Nature over time, after the camps, would have provided richer insight into the camps’ long-term efficacy (Cohen et al., 2007; Cozby & Bates, 2015). It would also have been valuable to spend more time with many more of the children (i.e. drawing from a larger sample size) over the camps and to have follow-up sessions later in their teenage years to gauge the long-term effects of the camp on their Connectedness-With-Nature.

7.2.2. Language and cultural barriers

The language constraint (section 3.3.1) was a barrier to understanding the Star Gazers’ responses despite the presence of a Xhosa translator. The translators were also not experienced in research-related translation, thus compounding this limitation. My perception of the Star Gazers’ apprehension (due to class, racial, and cultural barriers) further compounded the language barrier in terms of gathering richer interview content (Cohen et al., 2007). However, the fact that these barriers *were* evidently affecting the interview process supplied interesting contextual ‘data’ in itself in that it provided insights into participants’ SCHVP and how these positionings affected their learning capabilities. If I were to conduct similar research in future,

I would spend more time with the Star Gazers prior to the camp in order to gain their trust. Being able to actually speak fluent isiXhosa would also have been an invaluable skill. Further, I would utilise fewer language-based data generation tools, and focus on more creative means (such as drawing or painting tools) for data generation. I would pay more attention to the implicit role of language in mediating Connectedness-With-Nature.

7.2.3. The role of the research process

This shortcoming concerns the effect of the research process on the research findings, in a case where the research methodology was not explicitly interventionist in nature. The post-interview process may have acted as a stimulus for the children's NBA reflections, which is a vital component of transformative and Experiential Learning processes (Kolb & Kolb, 2005; Lotz-Sisitka et al., 2015). Thus, the children's levels of reflection on their Hobbiton experiences may have been influenced (and perhaps enhanced) by the role of the post-interview process. This illustrates how research processes are an implicit component within the activity system, mediating the research findings as well as the object (and objectives) of the activity system. I see this as a benefit for these particular children, who reflected on their experiences a little more than others may have on another camp, thus perhaps contributing to enhanced feelings of Connectedness-With-Nature. If I were to conduct similar future research, I would design it to be an explicitly Transgressive-Transformative interventionist process, centralising an ethics-oriented, context-emergent and collaborative approach (Lotz-Sisitka et al., 2015).

7.2.4. Theoretical considerations

A final shortcoming concerns the role of theory in guiding the research process and further, in potentially limiting or opening up research findings in restrictive or expansive ways. This is because data are not theory-neutral but theory-saturated (Cohen et al., 2007). Thus, theories may be useful for providing categorisations without necessarily providing explanatory potential (Cohen et al., 2007). In this light, I found Deep Ecology (including the Ecological Self) to be too prescriptive in its philosophical principles and values in the light of this study's focus on the importance of people's own value positionings, principles and socio-cultural-historical contexts. Although Deep Ecology (Naess, 1986) provides broad, useful ways in which to conceive of human-nature relationships (such as oneness, interdependence and respect for nature), I found that it was not contextually and socially critical enough in relation to the

lived social, economic, cultural, political, religious realities of participants' lives. I found it more useful to discuss contextually-relevant and contextually-shaped systems of environmental empathy and identification within the research context (section 6.5.1). For future research, a grounded-theory approach might be more suitable, where I would first immerse myself in the research context and then draw on contextually-appropriate theory and concepts for the analysis.

Regarding CHAT, the theory of mediation in relation to dialectics was particularly useful to describe the interrelations between various implicit and explicit processes and elements within the activity system. However, I found that, despite the obvious visual, analytical utility of the CHAT heuristic, it was also somewhat restrictive and did not enable adequate clarification of the roles of identity, affect and motivation of the subjects (Popova & Daniels, 2004; Roth, 2007). Further, the heuristic did not provide a visual way to address participants' SCHVP as implicit mediators of Connectedness-With-Nature. However, a third generation CHAT analysis would be useful to address interactions between various activity systems, past, present and future.

7.3. RECOMMENDATIONS

Despite the above shortcomings, the study's findings revealed several important issues regarding the process of learning to connect with nature, and the ways in which Hobbiton approaches this endeavour, historically, ethically, socially, contextually and pedagogically. In this section I make three important recommendations for Hobbiton, which are: 1) to strengthen a decolonised, collaborative, ethics-oriented and equality-minded approach to nature-based learning, 2) to strengthen the focus on the sociomateriality of the nature-based activities, and 3) to strengthen the focus on embodied reflection within the learning context.

7.3.1. Strengthen a decolonised, collaborative, ethics-oriented and equality-minded approach to nature-based learning

Hobbiton's historical approach to learning is evidently experiential in nature. This approach is one that clearly yields positive learning outcomes for the children (section 6.5). However, Hobbiton's approach is not contextually enriched or emergent in terms of the children's lives themselves (beyond sensitivity to the impoverished circumstances of the Star Gazers' lives,

which often manifested in a deficit view of the children; section 6.1). There appears to be a general awareness of how the children's SCHVP might affect their learning while at Hobbiton (from a deficit stance). Hobbiton does not purposefully integrate and use this socio-cultural and historical information in the pedagogical-design process towards engendering culturally-emergent and culturally-relevant nature-based learning.

I recommend that Hobbiton takes a more explicitly context-emergent, ethics-oriented and collaborative approach in their endeavour to connect children with nature. Both in terms of making explicit their own value positionings (for example, that they promote Christian eco-religious values) as well as acknowledging and considering the socio-cultural-historical and environmental value positionings of the children. This might enhance Hobbiton's prospects for enabling decolonised nature-based learning processes from a more holistic, socio-cultural and historical perspective. Such an approach would challenge hegemonic environmental norms and values by acknowledging that there are multiple matters of environmental concern, and multiple ways of knowing in the world in relation to perceiving and connecting with nature. By foregrounding and integrating multiple ways of valuing, knowing, doing and being in this way, the object of Hobbiton's activity system could be collaboratively designed from a more contextually-relevant starting point. One possible way to start could be to co-define what nature, nature-connection and learning itself mean for the participating children. Further, different meanings around particular animals (such as snakes, for example) could be discussed and negotiated in open and non-judgemental ways towards finding common spaces of environmental concern, awareness and connection. This would be vital towards creating 'hybrid spaces' of inbetween-ness where children and educators could "validate their particular histories/life stories and at the same time...rethink relations of oppression" (Asher, 2005, p.1103), and where unequal cultural power could shift and become fluid (Williams & Tanaka, 2007).

In this way, it is important that Hobbiton foregrounds dialogue and reflection on not legitimising and perpetuating particular knowledges that exclude others and perhaps unintentionally privilege a Western viewpoint of connecting with nature. Here, the children's beliefs, practices and values would need to be explicitly acknowledged *in relation* to the environmental practices and values that Hobbiton promotes. Through a more collaborative approach, value tensions and resonances (section 6.4) could be more constructively negotiated towards fostering a more holistic understanding of Connectedness-With-Nature and

environmental issues. A focus on African wilderness values has been emphasised by Muir (2002) towards fostering more context-emergent and ethics-oriented Connectedness-With-Nature. This approach aligns strongly with Community-Psychology and Transformative-Transgressive learning approaches, which emphasise the importance of context, collaboration, value-based praxis, social justice and decolonisation (Lotz-Sisitka et al., 2015; Prilleltensky, 2001).

It is thus also vital that Hobbiton reflects and deconstructs their implicit, deficit-based assumptions about children from disadvantaged backgrounds. This approach limits the potential for understanding how the children's own knowledges, assets and capabilities could potentially inform more effective modes of connecting with nature³⁹. It would therefore be constructive to focus on more assets and capabilities-based approaches to the children's learning, which would acknowledge alternative ways of being, doing, knowing and valuing that work for the children. In this light, there could be more emphasis on the children's actual capacities and their valued beings and doings in their contexts, which could be used in constructive ways to build on the necessary capabilities towards fostering greater Connectedness-With-Nature. Learning capacities can be improved if learners' spaces of capabilities are extended and enriched (Kronlid, 2009). Collaboratively acknowledging and building on such capabilities and assets, using a bottom-up approach might provide a more equal platform for building the children's capacities and motivations towards connecting with nature. Thus, starting out from a perspective of equality is important towards avoiding reproducing historical socio-economic and racial inequalities and hierarchies (Lotz-Sisitka et al., 2015).

7.3.2. Strengthen the focus on the sociomateriality of the nature-based activities

As pertinent as it is to start out from more collaborative and equality-minded perspectives and to integrate the children's SCHVP into Hobbiton's nature-based pedagogical design process, a more nuanced understanding is called for of how the sociomateriality of the nature-based activities mediates the children's experiences of connecting with nature. As seen in section

³⁹ Although this approach is deficit-based in nature, my comments above do not negate the reality that Hobbiton provides a safe space for these disadvantaged children in terms of food, love, care and shelter for the time that they are there, which aligns with Sustainable Development Goals in terms of protecting the rights of people and the rights of the planet and the prosperity of both (UNESCO, 2016)

6.2.2, there were various embodied, sociomaterial factors (i.e. the weather, the physicality of the hikes, and environmental passion of the staff and the children's enthusiasm) that implicitly mediated how the children were perceiving and connecting with nature beyond their designed experiential learning journeys (section 6.2.1). I thus suggest that Hobbiton uses the study's findings on sociomateriality to further investigate how such sociomaterial factors (and perhaps others) influence children's nature-perceptions and experiences of connecting with nature. Understanding these factors in more nuanced and explicit ways may provide fertile ground for the children to connect with nature in more affirming ways. For example, one could make use of the fact that many children were excited about the snow, and this knowledge could be used to start a dialogue with the children about how snow changes landscapes and hiking experiences. The children's sociomaterial resonance with snow could thus be used in an affirming, exciting way to spark their interest in nature-based experiences and phenomena (Gooley, 2014).

7.3.3. Strengthen the focus on embodied reflection

A final formative suggestion concerns the importance of reflection in transformative, experiential learning processes, particularly for children (sections 2.3.3.1, 6.5 and 7.3.3). Hobbiton utilises Experiential Learning theory towards fostering Connectedness-With-Nature, which necessitates integrated *reflection* processes towards actualising learning outcomes (Kolb & Kolb, 2005), particularly in relation to environmental action and advocacy. As a participant observer, I did not observe many instances of integrated, embodied reflection processes after the nature-based activities. Rather, I found that the post-interview process itself stimulated reflection on the nature-based activities. Considering that Hobbiton's approach is experiential in nature, and that critical reflection is a major part of transformative learning and the emergence of agency (Archer, 2000, 2007; Mezirow, 1987), I suggest that a stronger component of embodied (i.e. within the natural setting), collective post-NBA reflection be integrated into the programme, with an emphasis not only on the activities, but also on the children's senses of, and reflections on, themselves within the natural context. These collective, embodied reflection sessions would ideally be adapted to the children's ages and cultures, and approached from an interactive, experiential and fun perspective (see Costa & Kallick, 2008, chapter 12). This is something vital for Hobbiton to reconsider towards actualising objectives of Connectedness-With-Nature and environmental learning. Such reflection processes would potentially add a meaningful element to how the children think and feel about their experiences

in nature, how they interact with nature, the needs of nature and themselves, and how they integrate nature into their lives, in future. Highlighting the importance of reflexivity in learning, Wals (2007, p.38) maintains that a "...learning system must be reflexive in order to be willing and able to question (and break away from) existing routines, norms, values and interests. A reflexive society requires reflexive citizens to be able to participate in and contribute to processes of change".

7.4. CHAPTER CONCLUSION

The study found that participants' SCHVP, as well as the sociomateriality of the nature-based activities, mediated their perceptions of, and sense of connectedness with, nature in implicit and explicit ways. Overall, the nature-based activities appeared to plant experiential 'seeds' for the children's developing sense of nature-connection. However, as shown in the previous section, their learning potential could be enhanced if the following key aspects were recentralised in the pedagogical-design and execution process: (i) the children's SCHVP, (ii) an equality-minded stance, (iii) the sociomateriality of the nature-based activities, and (iv) embodied reflection sessions.

The study's findings contribute usefully to broadening the scope for alternative environmental-learning pedagogy and research. That is, while there is a mainstream focus on classroom-based environmental learning, learning to connect with and care for nature through embodied nature-based experiences appears to be effective in shifting children's nature-perceptions and sense of immediate Connectedness-With-Nature (at least in this case). It may thus prove useful to continue nuanced research into the role of participants' SCHVP (in relation to their assets, capabilities and reflexive processes), as well as the sociomateriality of nature-based experiences, in mediating their Connectedness-With-Nature and environmental learning in general. Here, a core focus on value-contradictions and value-synergies between participants and the learning environment would be useful to research further in activity systems of cultural and socio-economic diversity. This would necessitate much more sociomaterially nuanced understandings of interacting activity system elements, and the unveiling of implicit and explicit mediation processes within the activity system, for example, the role of language, cultural-values, emotion, identity and motivation in mediating Connectedness-With-Nature (Roth, 2007).

In essence, incorporating children's positionings into the designs of Hobbiton's programmes through emic processes, as well as attending to the ways in which learning is sociomaterially mediated, could foster more context-emergent, collaborative, ethics-oriented, decolonised and embodied nature-based, pedagogy-design processes. As Bonnett (2007) acknowledges, our understandings of the world emerge from our own involvements in our own life-worlds, and thus to project hegemonic environmental values and practices onto less-privileged cultures will likely fail. In essence, attending to the perceived human-nature disconnect through embodied, nature-based pedagogy requires eyes and ears that are reflexively attuned to implicit modes of valuing, emotionality, sociomateriality, cultural multiplicity and equality.

8. REFERENCES

- Abrahams, K., & Matthews, T. (2011). *Promoting Children's Rights in South Africa: A Handbook for Members of Parliament*. (J. Watson, Ed.), Cape Town: Parliament of the Republic of South Africa Design.
- Adams, W. W. (2006). The Ivory-Billed Woodpecker, Ecopsychology, and the Crisis of Extinction: On Annihilating and Nurturing Other Beings, Relationships, and Ourselves. *The Humanistic Psychologist*, 34(2), 111–133. https://doi.org/10.1207/s15473333thp3402_2
- Akhurst, J. (2010). Exploring the Nexus between Wilderness and Therapeutic Experiences. *Implicit Religion*, 13(3), 295–305. <https://doi.org/10.1558/imre.v13i3.295>
- Akhurst, J., & Evans, D. (2007). The utility of a model from Activity Theory for analysing processes in the Nkosingathi Community Project, 19(1), 83–95.
- Anderson. (2010). 09_climate_education.pdf. Retrieved April 22, 2016, from http://www.brookings.edu/~media/research/files/papers/2010/9/climate-education-anderson/09_climate_education.pdf
- Anderson, A. (2010). *Combating Climate Change through Quality Education*. Brookings Global Economy and Development.
- Anderson, R. (2014). Intuition : The Wild Within of the Natural World. In *Intuition: The Wild Within of the Natural World*. (pp. 2001–2003).
- Archer, M. S. (2000). Being Human: the Problem of Agency. *Cambridge Universe Press*, 17–50. <https://doi.org/10.2307/3089723>
- Archer, M. S. (2007). *Making our way through the world: Human reflexivity and social mobility*. Cambridge University Press.
- Australian Public Service. (2007). *Tackling Wicked Problems*. *Www.Apsc.Gov.Au*. <https://doi.org/10.4324/9781849776530>
- Babugura. (2010). Babugura. Retrieved April 25, 2016, from http://www.boell.de/sites/default/files/assets/boell.de/images/download_de/ecology/south_africa.pdf
- Bandura, A. (1971). Social learning theory. *General Learning Press*. United States of America. <https://doi.org/10.1111/j.1460-2466.1978.tb01621.x>
- Bassey, M. (2001). A solution to the problem of generalisation in educational research: fuzzy prediction. *Oxford Review of Education*, 27(1), 5–22. <https://doi.org/10.1080/3054980020030574>

- Battle, M. (2000). The theology of community: The Ubuntu theology of Desmond Tutu. *Interpretation*. Retrieved from <http://0-search.proquest.com.wam.seals.ac.za/openview/612720734014ff37567505b25490aa51/1?pq-origsite=gscholar>
- Bauman, Z. (1993). Postmodern ethics. *Ethics*. Retrieved from <http://orca.cf.ac.uk/3584/>
- Bernard, H. R. (1994). *Research Methods in Anthropology*.
- Besthorn, F. H. (2002). Radical Environmentalism and the Ecological Self: Rethinking the Concept of Self-Identity for Social Work Practice. *Journal of Progressive Human Services*, 13(1), 53–72. https://doi.org/10.1300/J059v13n01_04
- Biel, A., & Nilsson, A. (2005). Religious Attitudes and Environmental Concern: Harmony and Detachment. *Social Science Quarterly*, 86(1), 178–191.
- Biggeri, M., Ballet, J., & Comim, F. (2012). Children and the Capability Approach. *Journal of Human Development and Capabilities*, 13(2), 317–319. <https://doi.org/10.1080/19452829.2012.670436>
- Bodzin, A., Klein, B., & Weaver, S. (2010). *The Inclusion of Environmental Education in Science Teacher Education*.
- Bonnett, M. (2004). *Retrieving nature: Education for a post-humanist age*. Blackwel.
- Bonnett, M. (2007). Environmental education and the issue of nature. *Journal of Curriculum Studies*, 39(6), 707–721. <https://doi.org/10.1080/00220270701447149>
- Bragg, E. A. (1996). Towards Ecological Self: Deep Ecology Meets Constructionist Self-Theory. *Journal of Environmental Psychology*, 16(2), 93–108. <https://doi.org/10.1006/jevp.1996.0008>
- Braun, V., & Clarke, V. (2008). Using thematic analysis in psychology Using thematic analysis in psychology, (February 2015), 37–41. <https://doi.org/10.1191/1478088706qp063oa>
- Burdette, H. L., & Whitaker, R. C. (2005). Resurrecting free play in young children: looking beyond fitness and fatness to attention, affiliation, and affect. *Archives of Pediatrics & Adolescent Medicine*, 159(1), 46–50.
- Buzzell, L., & Chalquist, C. (2010). *Ecotherapy: Healing with nature in mind*. Retrieved from <https://books.google.co.za/books?hl=en&lr=&id=UNDpBAAQBAJ&oi=fnd&pg=PA7&dq=Linda+Buzzel,+earth+climate+and+dreams+&ots=IeUgcO9z3L&sig=Uz5ZQ3R5ChRpL6bHJ6IjMIIdCA4>
- Cahalan, W. (1995). Ecological groundedness in gestalt therapy. In T. Roszak, M. E. Gomes, & A. D. Kanner (Eds.), *Ecopsychology. Restoring the Earth healing the Mind*. Sierra Club Books.

- Carbonell, X., Oberst, U., & Beranuy, M. (2013). The Cell Phone in the Twenty-First Century: A Risk for Addiction or a Necessary Tool? *Principles of Addiction*, 1, 901–909. <https://doi.org/10.1016/B978-0-12-398336-7.00091-7>
- Carlin, C. R. (2017). Playing coyote: a ceremony of relationship, distance, and subjectivity. *Cultural Geographies*, 147447401668891. <https://doi.org/10.1177/1474474016688910>
- Carver, R. (1996). Rebecca Carver, 19, 8–13.
- Charter, T. E. (2002). The Earth Charter. *The Earth Charter, Costa Rica, The Earth Council*.
- Cilliers, J. (2008). In search of meaning between Ubuntu and Into: Perspectives on preaching in post-apartheid South Africa. In *Eighth International Conference of Societas Homiletica, Copenhagen, Denmark* (pp. 1–20). Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.487.9558&rep=rep1&type=pdf>
- Cocks, M. L., Dold, T., & Vetter, S. (2012). “God is my forest” - Xhosa cultural values provide untapped opportunities for conservation. *South African Journal of Science*, 108(5–6), 1–8. <https://doi.org/10.4102/sajs.v108i5/6.880>
- Cohen, L., Manion, L., & Morrison, K. (2007). The ethics of educational and social research. In *Research Methods in Education* (pp. 51–77).
- Cole, M. (2010). Cultural Historical Activity Theory, 360–366.
- Cole, M., & Engeström, Y. (1993). A cultural-historical approach to distributed cognition. In *Distributed cognitions: Psychological and educational considerations* (pp. 1–46).
- Concept, C. B., Author, W. R., Source, M. D., Philosophy, C., Horse, W., & Stable, P. (2016). Environmental Values, 14(3), 317–337.
- Conn, S. (1995). When the earth hurts, who responds. In *Ecopsychology: Restoring the earth, healing the mind* (pp. 156–171).
- Costa, A., & Kallick, B. (2008). *Learning and leading with habits of mind: 16 essential characteristics for success*. ASCD. Retrieved from https://books.google.co.za/books?hl=en&lr=&id=9lps41vfVOsC&oi=fnd&pg=PR11&dq=learning+and+leading+with+habbits+of+mind+costa+and+kallick&ots=PE0M0Z6L4n&sig=_M-FoEBRqIoundUhTZTu14wzcE4
- Cozby, P. C., & Bates, S. (2015). *Methods in behavioral research*. McGraw-Hill.
- Crenshaw, K. (1991). Mapping the Margins: Intersectionality, Identity Politics, and Violence Against Women of Color. *Stanford Law Review*, 43(6), 1241–1299. <https://doi.org/10.2307/1229039>
- Cronon, W. (1995). The Trouble with Wilderness : Or , Getting Back to the Wrong Nature.

Environmental History, 1(1), 7–28.

- D'Amato, L. G., & Krasny, M. E. (2011). Outdoor Adventure Education: Applying Transformative Learning Theory to Understanding Instrumental Learning and Personal Growth in Environmental Education. *The Journal of Environmental Education*, 42(4), 237–254. <https://doi.org/10.1080/00958964.2011.581313>
- Daniels, H. (2008). *Vygotsky and research*. New York: Routledge.
- Davies, G. (1983). The Wilderness Itineraries and the Composition of the Pentateuch Author (s): G. I. Davies Published by: Brill Stable URL: <http://www.jstor.org/stable/1517990>
- REFERENCES Linked references are available on JSTOR for this article: You may need to log, 33(May), 1–13.
- DEAT. (2012). State of the Environment South Africa. Retrieved from http://soer.deat.gov.za/State_of_the_Environment.html
- Devlin, M. (2011). Bridging socio-cultural incongruity: conceptualising the success of students from low socio-economic status backgrounds in Australian higher education. *Studies in Higher Education*, 38(November), 1–11. <https://doi.org/10.1080/03075079.2011.613991>
- Dewey, J. (2013). *Experience and Education*. *Journal of Chemical Information and Modeling* (Vol. 53). <https://doi.org/10.1017/CBO9781107415324.004>
- Dickinson, E. (2013). The Misdiagnosis: Rethinking “Nature-deficit Disorder.” *Environmental Communication*, 7(3), 315–335.
- Dickinson, E. (2014). Ecocultural Schizophrenia: Dialectical Environmental Discourses and Practices. *Communication, Culture & Critique*, 7(4), 612–631. <https://doi.org/10.1111/cccr.12067>
- Doelher, S. (2002). Keeping Resistance in View in an Activity Theory Analysis. *Mind, Culture, and Activity*, 9(1), 2–21. <https://doi.org/10.1207/S15327884MCA0901>
- Dorwart, C. E., Moore, R. L., & Leung, Y.-F. (2009). Visitors' Perceptions of a Trail Environment and Effects on Experiences: A Model for Nature-Based Recreation Experiences. *Leisure Sciences*, 32(1), 33–54. <https://doi.org/10.1080/01490400903430863>
- Drago, I., Mellia, M., Torino, P., Munafò, M. M., Torino, P., & Sperotto, A. (2012). Inside Dropbox: Understanding Personal Cloud Storage Services. In *Proceedings of the 2012 ACM conference on Internet measurement conference - IMC '12* (pp. 481–494). <https://doi.org/10.1145/2398776.2398827>
- Dreze, J., & Sen, A. (1999). *India: Economic development and social opportunity*. OUP Catalogue.

- Driessnack, M. (2008). Children and Nature-Deficit Disorder. *Industrial Engineer*, 40(7), 55–57. <https://doi.org/10.1111/j.1744-6155.2007.00088.x>
- Edwards-Groves, C., Kemmis, R. B., Hardy, I., & Ponte, P. (2010). Relational architectures: recovering solidarity and agency as living practices in education. *Pedagogy Culture Society*, 18(1), 43–54. <https://doi.org/10.1080/14681360903556814>
- Edwards, A. (2005). Let's get beyond community and practice: the many meanings of learning by participating. *Curriculum Journal*, 16(1), 49–65. <https://doi.org/10.1080/0958517042000336809>
- Engestrom, Y. (2000). Activity theory as a framework for analyzing and redesigning work. *Ergonomics*, 43(7), 960–974. <https://doi.org/10.1080/001401300409143>
- Engeström, Y. (2001). Expansive Learning at Work: Toward an activity theoretical reconceptualization Expansive Learning at Work: toward an activity theoretical reconceptualization. *Journal of Education and Work*, 14(January), 133–156. <https://doi.org/10.1080/13639080020028747>
- Engeström, Y. (2014). *Learning by expanding*. Cambridge University Press.
- Engeström, Y. (2015). *Learning by Expanding. An Activity-Theoretical Approach to Developmental Research*. Cambridge University Press.
- Engeström, Y., Miettinen, R., & Punamäki, R. (1999). *Perspectives on activity theory*. Retrieved from <https://books.google.co.za/books?hl=en&lr=&id=GCVVCZy2xHD4C&oi=fnd&pg=PR10&ots=lZ5HNHFcjU&sig=gZcizBTZMJlghrprQC-HEpqLLBE>
- Fenwick, T. (2007). Experiential Learning. In J. Kincheloe & R. Horn (Ed.), *The Praeger Handbook of Education and Psychology* (pp. 530–539).
- Fenwick, T. (2015). Sociomateriality and Learning: a critical approach. *The Sage Handbook of Learning*, 83–93.
- Ferreira, G. (1998). Environmental Education through Hiking: a qualitative investigation. *Environmental Education Research*, 4(2), 177–185. <https://doi.org/10.1080/1350462980040205>
- Fisher, A. (2013). Ecopsychology at the crossroads: Contesting the nature of a field. *Ecopsychology*, 5(3), 167–176. <https://doi.org/10.1089/eco.2013.0031>
- Fisman, L. (2005). on Environmental Awareness in Children : An Empirical Investigation. *The Journal of Environmental Education*, 36(3), 39–51.
- Flick, U., von Kardoff, E., & Steinke, I. (Ed.). (2004). *A Companion to qualitative research: Triangulation in qualitative research*. Sage.

- Flick, U. (2009). An introduction to qualitative research. *Sage*, 4th, 1–529. Retrieved from <http://books.google.cz/books?id=sFv1oWX2DoEC>
- Flyvbjerg, B. (2006). Five Misunderstandings About Case-Study Research. *Qualitative Inquiry*, 12(2), 219–245. <https://doi.org/10.1177/1077800405284363>
- Frantz, C., Mayer, F. S., Norton, C., & Rock, M. (2005). There is no “I” in nature: The influence of self-awareness on connectedness to nature. *Journal of Environmental Psychology*, 25(4), 427–436. <https://doi.org/10.1016/j.jenvp.2005.10.002>
- Garde, M. (2012). Review of InqScribe. *Language Documentation and Conservation*, 12(6), 175–180.
- Gifford. (2011). Gifford. Retrieved April 25, 2016, from <http://0-web.b.ebscohost.com.wam.seals.ac.za/ehost/pdfviewer/pdfviewer?sid=b65bda47-521c-42b2-87bf-c60ab37c311f%40sessionmgr198&vid=0&hid=116>
- Gill, T. (2011). Children and Nature: A quasi-systematic review of the empirical evidence. *Children*, (September). <https://doi.org/10.1093/oxfordhb/9780199733026.013.0007>
- Gonzalez-Gaudiano, E., & Buenfil-Burgos, R. (2009). The impossible identity of environmental education. In *Fields of green. Restoring culture, environment, and education* (pp. 97–108).
- Gooley, T. (2014). *How to Connect with Nature*. London: Macmillan.
- Grieves, V. (2008). Aboriginal Spirituality: a Baseline for Indigenous Knowledges Development in Australia. *The Canadian Journal of Native Studies*, 28(2), 363–. Retrieved from <http://proquest.umi.com/pqdweb?did=1872186481&Fmt=7&clientId=6993∓RQT=309&VName=PQD>
- Guba, E. (1981). ERIC / ECTJ Annual Review Paper Criteria for Assessing the Trustworthiness of Naturalistic Inquiries. *ECTJ*, 29(2), 75–91. <https://doi.org/10.1126/science.146.3642.347>
- Guba, E. G., & Lincoln, Y. S. (1989). *Fourth generation evaluation*. SAGE Publications.
- Gutierrez, K. D., & Rogoff, B. (2003). Cultural Ways of Learning: Individual Traits or Repertoires of Practice. *Educational Researcher*, 32(5), 19–25. <https://doi.org/10.3102/0013189X032005019>
- Hargreaves, T. (2011). Practice-ing behaviour change: Applying social practice theory to pro-environmental behaviour change. *Journal of Consumer Culture*, 11(1), 79–99. <https://doi.org/10.1177/1469540510390500>
- Herdering, K., & Kearins, K. (2014). Flourishing: A Frank Conversation about Sustainability.

- Social and Environmental Accountability Journal*, 34(1), 62–65.
<https://doi.org/10.1080/0969160X.2014.885644>
- Howell, A. J., Dopko, R. L., Passmore, H. A., & Buro, K. (2011). Nature connectedness: Associations with well-being and mindfulness. *Personality and Individual Differences*, 51(2), 166–171. <https://doi.org/10.1016/j.paid.2011.03.037>
- Hussain, S. (2002). Nature and human nature: conservation, values and snow leopard. In *SNOW LEOPARD SURVIVAL STRATEGY WORKSHOP*, 1–8. Retrieved from http://www.snowleopardnetwork.org/bibliography/Hussain_2002.pdf%5Cnpapers3://publication/uuid/56F2CF14-7EE0-490A-AEAB-F852BA44BD89
- Igira, F. T., & Gregory, J. (2009). Cultural Historical Activity Theory. *Cultural Historical Activity Theory*, 434–454.
- Itin, C. M. (1999). Reasserting the philosophy of experiential education as a vehicle for change in the 21st century. *The Journal of Experiential Education*, 22(2), 91–98. <https://doi.org/10.1177/105382599902200206>
- Ivakhiv, A. (2005). Nature and Ethnicity in East European Paganism: An Environmental Ethic of the Religious Right? *The Pomegranite*, 2(June), 194–225.
- James, D. (2000). After years in the wilderness': The discourse of land claims in the New South Africa. *The Journal of Peasant Studies*, 27(3), 142–161.
- Jickling, B. (2005). Ethics Research in Environmental Education, 22, 20–34.
- Jickling, B. (2009). Sitting on an old grey stone: Meditations on emotional understanding. *Fields of Green. Restorying Culture, Environment and Education*, 163–173. Retrieved from <http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Sitting+on+an+Old+Grey+Stone+Meditations+on+Emotional+Understanding#0>
- Jickling, B. (2014). Self-willed learning: experiments in wild pedagogy. *Cultural Studies of Science Education*, 10(1), 149–161. <https://doi.org/10.1007/s11422-014-9587-y>
- Jickling, B., Lotz-Sisitka, H., O'Donoghue, R., & Ogbuigwe, A. (2006). *Environmental Education, Ethics and Action: A Workbook to Get Started*. Nairobi: UNEP.
- Joffe, H., & Yardley, L. (2004). Content and thematic analysis. In *Research methods for clinical and health psychology* (pp. 56–68). California: Sage.
- Johnson, B. (2002). On the spiritual benefits of wilderness. *International Journal of Wilderness*, 8(3), 28–32.
- Kaplan, R., & Kaplan, S. (1989). *The experience of nature: A psychological perspective*. CUP Archive.

- Kaplan, R., & Kaplan, S. (1989). *The Experience of Nature: A Psychological Perspective*. Cambridge University Press, 6. <https://doi.org/10.1037/030621>
- Kaplan, S. (1995). The restorative benefits of nature: Toward an integrative framework. *Journal of Environmental Psychology*, 15(3), 169–182. [https://doi.org/10.1016/0272-4944\(95\)90001-2](https://doi.org/10.1016/0272-4944(95)90001-2)
- Kaplan, S. (2000). New ways to promote pro-environmental behavior: Human nature and environmentally responsible behavior. *Journal of Social Issues*, 56(3), 491–508.
- Kawulich, B. B. (2005). Participant Observation as a Data Collection Method. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 6(2), 1–19. <https://doi.org/10.1177/14687941030032003>
- Keijsers, S. G. . (2013). Compulsief gebruik van sociale media, 24.
- Kitzinger, J., & Barbour, R. (Eds.). (1999). *Developing Focus Group Research: Politics, Theory and Practice*. Sage.
- Kolb, A. Y., & Kolb, D. a. (2005). Learning Styles and Learning Spaces : Enhancing Experiential Learning in Higher Education. *Academy of Management Learning & Education*, 4(2), 193–212. <https://doi.org/10.5465/AMLE.2005.17268566>
- Kortenkamp, & Moore. (2001). Ecocentrism and Anthropocentrism: Moral Reasoning About Ecological Commons Dilemmas. *Journal of Environmental Psychology*, 21(3), 261–272. <https://doi.org/10.1006/jevp.2001.0205>
- Korteweg, L., & Russell, C. (2012). Decolonizing + indigenizing = moving environmental education towards reconciliation. *Canadian Journal of Environmental Education*, 17, 5–14.
- Krasny, M. E., & Dillon, J. (Eds.). (2013). (2013). *Trading zones in environmental education: Creating transdisciplinary dialogue*. (M. E. Krasny & J. Dillon, Eds.). New York: Peter Lang.
- Kronlid, D. O. (2009). Sigtuna Think Piece 2 Climate Capabilities and Climate Change Education Research. *Southern African Journal of Environmental Education*, 26, 27–37.
- Kronlid, D. O., & Öhman, J. (2012). An environmental ethical conceptual framework for research on sustainability and environmental education. *Environmental Education Research*, 4622(March 2013), 1–24. <https://doi.org/10.1080/13504622.2012.687043>
- Kronlid, D. O., & Öhman, J. (2016). An environmental ethical conceptual framework for research on sustainability and environmental education, 4622(May), 20–44. <https://doi.org/10.1080/13504622.2012.687043>
- Kudryavtsev, A., Stedman, R. C., & Krasny, M. E. (2012). Sense of place in environmental

- education. *Environmental Education Research*, 18(2), 229–250.
<https://doi.org/10.1080/13504622.2011.609615>
- Kudryavtsev, a, Stedman, R. C., & Krasny, M. E. (2012). Sense of place in environmental education. *Environmental Education Research*, 18(2), 229–250.
<https://doi.org/10.1080/13504622.2011.609615>
- Kuo, F. E., & Faber Taylor, A. (2004). A potential natural treatment for attention-deficit/hyperactivity disorder: evidence from a national study. *American Journal of Public Health*, 94(9), 1580–1586.
- Kvale, S. (2006). Dominance Through Interviews and Dialogues. *Qualitative Inquiry*, 12(3), 480–500. <https://doi.org/10.1177/1077800406286235>
- Langemeyer, I., & Roth, W. (2006). Is cultural-historical activity theory threatened to fall short of its own principles and possibilities as a dialectical social science? *Outlines. Critical Practice Studies*, 8(2), 20–42. Retrieved from <http://ojs.statsbiblioteket.dk/index.php/outlines/article/viewArticle/2090>
- Latour, B. (2004). Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern. *Critical Inquiry*, 30(2), 225–248. <https://doi.org/10.1086/421123>
- LeadSouthAfrica. (2016). Hiking with iDaki - Lions Head Cape Town South Africa. Retrieved June 15, 2016, from <https://www.youtube.com/watch?v=-JfcJ-TpEz4>
- Le Grange, L. (2012a). Ubuntu, ukama , environment and moral education. *Journal of Moral Education*, 41(3), 329–340. <https://doi.org/10.1080/03057240.2012.691631>
- Le Grange, L. (2012b). Ubuntu, Ukama and the Healing of Nature, Self and Society. *Educational Philosophy and Theory*, 44(SUPPL.2), 56–67. <https://doi.org/10.1111/j.1469-5812.2011.00795.x>
- Le Grange, L. (2015). Ubuntu / Botho as Ecophilosophy and Ecosophy. *Journal of Humanistic Psychology*, 49(3), 301–308.
- Lemanski, C. (2004). A new apartheid? The spatial implications of fear of crime in Cape Town, South Africa. *Environment and Urbanization*, 16(2), 101–112. <https://doi.org/10.1177/095624780401600201>
- Leont'ev, A. N. (1978). *Activity, consciousness, and personality*.
- Leopold, A. (1949). From A Sand County Almanac (1949). In *A Sand County Almanac* (pp. 1–19).
- Leopold, A. (1970). A Sand County Almanac: With Other Essays on Conservation from Round River. Retrieved from <https://books.google.com/books?id=Gxq72yz1z6EC&pgis=1>
- Lotz-Sisitka, H. (2009). Sigtuna Think Piece 8: Piecing Together Conceptual Framings for

- Climate Change Education Research in Southern African Contexts. *Southern African Journal of Environmental Education*, 26, 81–92.
- Lotz-Sisitka, H. B., Belay, M., & Mukute, M. (2012). "The “social” and “learning” in social learning research: Avoiding ontological collapse with antecedent literatures as starting points for research.
- Lotz-Sisitka, H., Wals, A. E. J., Kronlid, D., & McGarry, D. (2015). Transformative, transgressive social learning: Rethinking higher education pedagogy in times of systemic global dysfunction. *Current Opinion in Environmental Sustainability*, 16, 73–80. <https://doi.org/10.1016/j.cosust.2015.07.018>
- Louv, R. (2010). Do Our Kids Have Nature-Deficit Disorder? *Educational Leadership*, 67(4), 24–30. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=45463464&site=ehost-live>
- Lovbrand, E., Beck, S., Chilvers, J., Forsyth, T., Hedr??n, J., Hulme, M., ... Vasileiadou, E. (2015). Who speaks for the future of Earth? How critical social science can extend the conversation on the Anthropocene. *Global Environmental Change*, 32, 211–218. <https://doi.org/10.1016/j.gloenvcha.2015.03.012>
- Macy. (1995). Working through environmental despair. Retrieved April 26, 2016, from <http://www.rainforestinfo.org.au/deep-eco/macy.pdf>
- Magome, H., & Murombedzi, J. (2003). Sharing South African national parks: Community land and conservation in a democratic South Africa. In W. M. Adams & M. Mulligan (Eds.), *Decolonizing Nature: Strategies for Conservation in a Post-Colonial Era* (pp. 108–134). Earthscan.
- Malone, K. (2007). The bubble- wrap generation: children growing up in walled gardens. *Environmental Education Research*, 13(4), 513–527. <https://doi.org/10.1080/13504620701581612>
- Mannion, G., Fenwick, A., & Lynch, J. (2013). Place-responsive pedagogy: learning from teachers’ experiences of excursions in nature. *Environmental Education Research*, 19(July 2015), 792–809. <https://doi.org/10.1080/13504622.2012.749980>
- Mayer, F. S., & Frantz, C. M. (2004). The connectedness to nature scale: A measure of individuals’ feeling in community with nature. *Journal of Environmental Psychology*, 24(4), 503–515. <https://doi.org/10.1016/j.jenvp.2004.10.001>
- Mayer, F. S., Frantz, C. M., Bruehlman-Senecal, E., & Dolliver, K. (2009). Why Is Nature Beneficial? The role of Connectedness to nature. *Environment and Behavior*, 41(5), 607–

643. <https://doi.org/10.1177/0013916508319745>
- McDonald, D. A. (2010). bashing: the marketisation of “African values” in South Africa. *Review of African Political Economy*, 37(124), 139–152. <https://doi.org/10.1080/03056244.2010.483902>
- McGarry, D. (2013). *Empathy in the Time of Empathy in the Time of Ecological Apartheid Sculpture Practice-Led Inquiry Into Developing Pedag for Ecological Citizenship*.
- McGarry, D. (2008). *The impact of HIV/AIDS on rural children's reliance on natural resources within the Eastern Cape, South Africa*. Rhodes University.
- McLaughlin, P., & Dietz, T. (2008). Structure, agency and environment: Toward an integrated perspective on vulnerability. *Global Environmental Change*, 18(1), 99–111. <https://doi.org/10.1016/j.gloenvcha.2007.05.003>
- Mcphie, J., & Clarke, D. A. G. (2015). A Walk in the Park: Considering Practice for Outdoor Environmental Education Through an Immanent Take on the Material Turn. *The Journal of Environmental Education*, 46(4), 230–250. <https://doi.org/10.1080/00958964.2015.1069250>
- Mellor, M. (2015). Feminism and Environmental Ethics : A Materialist Perspective. *Ethics and the Environment*, 5(1), 107–123.
- Mezirow, J. (1987). Fostering critical reflection in adulthood: a guide to transformative and emancipatory learning. *Interpreting*, 214–216. <https://doi.org/10.1002/ace.7401>
- Miettinen, R. (2000). The concept of experiential learning and John Dewey's theory of reflective thought and action Reijo Miettinen. *International Journal of Lifelong Education*, 19(1), 54–72. <https://doi.org/10.1080/026013700293458>
- Millen, R. (2006). The Hobbesian Notion of Self-Preservation Concerning Human Behavior during an Insurgency. *Parameters*, 36(4), 4. Retrieved from <https://carlisle-www.army.mil/usawc/Parameters/06winter/millen.htm>
- Miller, J. R. (2005). Biodiversity conservation and the extinction of experience. *Trends in Ecology and Evolution*, 20(8), 430–434. <https://doi.org/10.1016/j.tree.2005.05.013>
- Muir, A. (1999). The Wilderness Leadership School of South Africa's Imbewu and Opinion Leader Programmes. *International Journal of Wilderness*, 5(2), 41–43.
- Muir, A. (2002). Strengthening wilderness in South Africa: Strategy and programs of the Wilderness Foundation S.A., 8(2), 4–8.
- Murove, M. (2009). An African environmental ethic based on the concepts of ukama and ubuntu. In M.F. Murove (Ed.), *African Ethics: An Anthology of Comparative and Applied Ethics*. Pietermaritzburg: University of Kwazulu-Natal Press. Retrieved from

<http://philpapers.org/rec/MURAAE>

- Naess, A. (1986). The Deep Ecology Movement: Some Philosophical Aspects. *Philosophical Inquiry*. <https://doi.org/10.5840/phillinquiry198681/22>
- Nash, R. F. (2014). *Wilderness and the American mind*. Yale University Press.
- Nelson, G., & Prilleltensky, I. (Eds.). (2010). *Community psychology: In pursuit of liberation and well-being*. Palgrave Macmillan.
- Ngcoya, M. (2015). *Ubuntu*: Toward an Emancipatory Cosmopolitanism? *International Political Sociology*, 9(3), 248–262. <https://doi.org/10.1111/ips.12095>
- Nietzsche, F. (2010). *On the genealogy of morals and ecce homo*. Vintage.
- Niewolny, K. L., & Wilson, a. L. (2009). What Happened to the Promise?: A Critical (Re)orientation of Two Sociocultural Learning Traditions. *Adult Education Quarterly*, 60(1), 26–45. <https://doi.org/10.1177/0741713609333086>
- Nisbet, E. K., Zelenski, J. M., & Murphy, S. a. (2008). With Nature to Environmental Concern and Behavior. *Environment And Behavior*, 27(1), 1–26. <https://doi.org/10.1177/0013916506295574>
- Olvitt, L. (2010). Ethics-oriented Learning in Environmental Education Workplaces: An activity theory approach, 27.
- Olvitt, L. (2012). *Deciding and Doing What'S Right for People and Planet: an Investigation of the Ethics-Oriented Learning of Novice Environmental Educators*.
- Orb, A., Eisenhauer, L., & Wynaden, D. (2000). Ethics in qualitative research. *Journal of Nursing Scholarship*, 33(1), 93–96. <https://doi.org/10.1111/j.1547-5069.2001.00093.x>
- Ortlipp, M. (2008). Keeping and using reflective journals in the qualitative research process. *The Qualitative Report*, 13(4), 695–705.
- Paden, M. (2005). Applied Environmental Education & Communication The Ahmedabad Declaration. *Applied Environmental Education and Communication*, 4(3), 245–246. <https://doi.org/10.1080/15330150591004698>
- Palmer, J., Smith, T., Willetts, J., & Mitchell, C. (2007). Creativity, ethics, and transformation: key factors in a transdisciplinary application of systems methodology to resolving wicked problems in sustainability.
- Parnell, R., & Procter, L. (2011). Flexibility and placemaking for autonomy in learning. *Educational and Child Psychology*, 28(1), 77–88. <https://doi.org/10.1002/ace>
- Pinar, W. F. (2003). *International Handbook of Curriculum Research*.
- Player, I., & Steele, N. (1997). *Zululand wilderness: Shadow and soul*. David Philip Publishers.
- Ponelis, S. R. (2015). Using Interpretive Qualitative Case Studies for Exploratory Research in

- Doctoral Studies : A Case of Information Systems Research in Small and Medium Enterprises. *International Journal of Doctoral Studies*, 10, 535–550.
- Popova, A., & Daniels, H. (2004). Employing the concept of the object in the discussion of the links between school pedagogies and individual working lives in pre- and post- Soviet Russia. *Educational Review*, 56(2), 193–205. <https://doi.org/10.1080/0031910410001693272>
- Pretty, J., Peacock, J., Hine, R., Sellens, M., South, N., & Griffin, M. (2007). Green exercise in the UK countryside: Effects on health and psychological well-being, and implications for policy and planning. *Journal of Environmental Planning and Management*, 50(2), 211–231. <https://doi.org/10.1080/09640560601156466>
- Price, L. (2015). Key critical realistic concepts for environmental educators.
- Prilleltensky, I. (2001). Value-Based Praxis in Community Psychology : Moving Toward Social Justice and Social Action 1, 29(5).
- Rantala, O., Valtonen, a., & Markuksela, V. (2011). Materializing tourist weather: ethnography on weather-wise wilderness guiding practices. *Journal of Material Culture*, 16(3), 285–300. <https://doi.org/10.1177/1359183511413646>
- Richardson, T. (2011). Navigating the Problem of Inclusion as Enclosure in Native Culture-Based Education: Theorizing Shadow Curriculum. *Curriculum Inquiry*, 41(3), 332–349. <https://doi.org/10.1111/j.1467-873X.2011.00552.x>
- Rittel, H. W. J., & Webber, M. M. (1984). Planning Problems are Wicked Problems. *Developments in Design Methodology*. <https://doi.org/10.1016/j.jacr.2013.08.013>
- Rivers, N. (2015). *The Mediating Processes within Social Learning : Women ' s Food and Water Security Practices in the Rural Eastern Cape Nina Rivers*. Rhodes University.
- Roszak, T. (Ed), Gomes, M. E. (Ed), & Kanner, A. D. (Ed). (1995). *Ecopsychology: Restoring the earth, healing the mind*. Sierra Club Books.
- Roth, W.-M., & Lee, Y.-J. (2007). “Vygotsky’s Neglected Legacy”: Cultural-Historical Activity Theory. *Review of Educational Research*, 77(2), 186–232. <https://doi.org/10.3102/0034654306298273>
- Roth, W. M. (2007). Emotion at Work: A Contribution to Third-Generation Cultural-Historical Activity Theory. *Mind, Culture, and Activity*, 14(1–2), 40–63. <https://doi.org/10.1080/10749030701307705>
- Roth, Lee, Y.-J., & Hsu, P.-L. (2009). A tool for changing the world: possibilities of cultural-historical activity theory to reinvigorate science education. *Studies in Science Education*, 45(2), 131–167. <https://doi.org/10.1080/03057260903142269>

- Saito, M. (2003). Amartya Sen ' s Capability Approach to Education : A Critical Exploration. *Journal of Philosophy of Education*, 37(1), 17–33. <https://doi.org/10.1111/1467-9752.3701002>
- Sandell, K., & Öhman, J. (2010). Educational potentials of encounters with nature: reflections from a Swedish outdoor perspective. *Environmental Education Research*, 16(May), 113–132. <https://doi.org/10.1080/13504620903504065>
- Scott, N. (1974). TOWARD A PSYCHOLOGY OF WILDERNESS EXPERIENCE. *Natural Resources*, 1(231), 231–239. <https://doi.org/10.1525/sp.2007.54.1.23>.
- Sewall, L. (1995). The skill of ecological perception. In T. Roszak, M. E. Gomes, & A. D. Kanner (Eds.), *Ecopsychology: Restoring the earth, healing the mind* (pp. 201–215). Sierra Club Books.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22(2), 63–75.
- Smit, C. (2010). A FORMATIVE EVALUATION OF THE THEORY, PROCESS, AND OUTCOMES OF THE EARTHCHILD PROJECT, 1–119.
- Smith, B. D., & Zeder, M. A. (2013). The onset of the Anthropocene. *Anthropocene*, 4, 8–13. <https://doi.org/10.1016/j.ancene.2013.05.001>
- Smit, B., & Pilifosova, O. (2003). From adaptation to adaptive capacity and vulnerability reduction. In *Climate change, adaptive capacity and development* (pp. 9-28).
- Steffen, W., Persson, Å., Deutsch, L., Zalasiewicz, J., Williams, M., Richardson, K., ... Ramanathan, V. (2016). The Anthropocene: From Global Change to Planetary Stewardship Published by. *Ambio*, 40(May), 739–761.
- Taylor, A. F., Kuo, F. E., Spencer, C., & Blades, M. (2006). Is contact with nature important for healthy child development? State of the evidence. In C. Spencer & M. Blades (Eds.), *Children and their environments: Learning, using and designing spaces* (pp. 124–139). Cambridge University Press.
- Taylor, A. F., Kuo, F. E., & Sullivan, W. C. (2001). Coping with ADD: The surprising connection to green play settings. *Environment and Behavior*, 33(1), 54–77.
- Terry. (2009). Terry. Retrieved April 25, 2016, from http://0-www.jstor.org.wam.seals.ac.za/stable/27809203?seq=1#page_scan_tab_contents
- Thuo, A. D. M. (2013). PLACE OF POSITIONALITY, VALUES, ETHICS AND REFLEXIVITY IN QUALITATIVE URBAN FIELD WORK RESEARCH. *Journal of Human and Social Science Research*, 1(1), 19–29.
- Ulrich, R. S. (1983). Aesthetic and affective response to natural environment. In I. Altman &

- J. F. Wohlwill (Eds.), *Behavior and the natural environment* (pp. 85–125). Plenum Press.
- Umholtz, J. (2013). Re-engaging Youth through Environmental- based Education for Sustainable Development, 5(May 11), 1–15.
- UNEP. (2012a). Environment for the future we want. *Population and Development Review*.
<https://doi.org/10.2307/2807995>
- UNEP. (2012b). Global Environment Outlook 5: Environment. Retrieved April 21, 2016, from
http://www.unep.org/geo/pdfs/geo5/GEO5_FrontMatter.pdf
- UNESCO. (2016). *Education for people and planet : Creating Sustainable Futures for all*.
- Uzunboylu, H., Cavus, N., & Ercag, E. (2009). Computers & Education Using mobile learning to increase environmental awareness. *Computers & Education*, 52(2), 381–389.
<https://doi.org/10.1016/j.compedu.2008.09.008>
- Valentine, G., & Mckendrick, J. (1997). Children's Outdoor Play: Exploring Parental Concerns About Children's Safety and the Changing Nature of Childhood. *Geoforum*, 28(2), 219–235. [https://doi.org/10.1016/S0016-7185\(97\)00010-9](https://doi.org/10.1016/S0016-7185(97)00010-9)
- Vanderheiden, S. (2002). Rousseau, Cronon, and the wilderness idea. *Environmental Ethics*. Retrieved from
http://0-www.pdcnet.org.wam.seals.ac.za/enviroethics/content/enviroethics_2002_0024_0002_0169_0188
- Verenikina, I., & Gould, E. (1998). Cultural-historical psychology and activity theory. *Information Systems and Activity Theory: Tools in Context*, 7–18. Retrieved from
https://0-scholar.google.co.za.wam.seals.ac.za/scholar?q=Verenikina+%26+Gould%2C+1998&btnG=&hl=en&as_sdt=0%2C5#0
- Virkkunen, J., & Kuutti, K. (2000). Understanding organizational learning by focusing on “activity systems.” *Accounting, Management and Information Technologies*, 10(4), 291–319. [https://doi.org/10.1016/S0959-8022\(00\)00005-9](https://doi.org/10.1016/S0959-8022(00)00005-9)
- Vorkinn, M., & Riese, H. (2001). Environmental Concern in a Local Context: The Significance of Place Attachment. *Environment and Behavior*, 33(2), 249–263.
<https://doi.org/10.1177/00139160121972972>
- Walker, G. J., & Chapman, R. (2003). Thinking Like a Park: The Effects of Sense of Place, Perspective-Taking, and Empathy on Pro-Environmental Intentions. *Journal of Park and Recreation Administration*, 21(4), 71–86. <https://doi.org/>Retrieved from Sagamore Publishing
- Wals, A. E. J. (1994). Nobody Planted it , it Just Grew ! Young Adolescents' Perceptions

- and Experiences of Nature in the Context of Urban Environmental Education. *Children's Environments*, 11(3), 177–193.
- Wals, A. E. J. (2007). Learning in a Changing World and Changing in a Learning World: Reflexively fumbling towards sustainability. *Southern African Journal of Environmental Education*, 24, 35–45.
- Warren, K. (2010). Response to my critics. *Journal of Genocide Research*, 12(1–2), 105–112. <https://doi.org/10.1080/14623528.2010.515407>
- Webster, T. (2015). The Story of Hobbiton: The Hobbiton Association Originally Centred at Hogsback. Hobbiton.
- Wells, N. M., & Lekies, K. S. (2006). Nature and the life course: Pathways from childhood nature experiences to adult environmentalism. *Children, Youth and Environments*, 16(1), 1–25. <https://doi.org/Available online: www.colorado.edu/journals/cye>
- Wertsch, J. V. (2007). Mediation. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The Cambridge Companion to Vygotsky* (pp. 178–192). Cambridge University Press.
- West, P., Igoe, J., & Brockington, D. (2006). Parks and Peoples: The Social Impact of Protected Areas. *Annual Review of Anthropology*, 35(1), 251–277. <https://doi.org/10.1146/annurev.anthro.35.081705.123308>
- Weston, A. (2004). What if teaching went wild?
- Weston, A. (2012). *Mobilizing the green imagination: An exuberant manifesto*. New Society Publishers. Retrieved from https://books.google.co.za/books?hl=en&lr=&id=B_6rQ-ZutLkC&oi=fnd&pg=PR1&dq=Mobilising+the+green+imagination+weston+&ots=4Zl6C-gRWg&sig=RAlw6Yhr2v9qfh1t-2MGo1U__NM
- White, D., & Hendee, J. (2000). Primal hypotheses: The relationship between naturalness, solitude, and the wilderness experience benefits of development of self, development of community. *Wilderness Science in a Time of Change Conference*-, 3(15), 223–227. Retrieved from http://www.wilderness.net/library/documents/science1999/Volume3/White_3-30.pdf
- Whitmarsh, L., Lorenzoni, I., & O'Neill, S. (2012). *Engaging the Public with Climate Change: Behaviour Change and Communication*. <https://doi.org/235.c.201.146>
- Wilson, E. (2007). *Biophilia and the conservation ethic. Evolutionary perspectives on environmental* Retrieved from <https://books.google.co.za/books?hl=en&lr=&id=pWpMEzIUl2IC&oi=fnd&pg=PA249&dq=biophilia+hypothesis&ots=u0fQLcs33C&sig=EoofhjQx1x1t99VWSm2rqL6BXb8>
- Woodhouse, J. L., & Knapp, C. E. (2000). Place-Based Curriculum and Instruction : Outdoor

- and Environmental Education Approaches. *ERIC Clearinghouse on Rural Education and Small Schools*, 1–8. <https://doi.org/ERIC Identifier: ED448012>
- Wright, E. O. (2013). Transforming Capitalism through Real Utopias. *American Sociological Association*, 78(1), 1–25. <https://doi.org/10.1177/0003122412468882>
- Zhang, J. W., Piff, P. K., Iyer, R., Koleva, S., & Keltner, D. (2014). An occasion for unselfing: Beautiful nature leads to prosociality. *Journal of Environmental Psychology*, 37, 61–72. <https://doi.org/10.1016/j.jenvp.2013.11.008>
- Zylstra et al. (2014). Connectedness as a Core Conservation Concern: An Interdisciplinary Review of Theory and a Call for Practice. *Springer Science Reviews*, 2(1–2), 119–143. <https://doi.org/10.1007/s40362-014-0021-3>

9. APPENDICES

9.1. Appendix 1: Consent form

RHODES UNIVERSITY DEPARTMENT OF EDUCATION AGREEMENT BETWEEN STUDENT RESEARCHER AND RESEARCH PARTICIPANT
--

I (guardian's name) _____, the guardian/ parent of
(participant's name) _____, hereby give consent for my
child to participate in the research project of Chesney Fenella Ward-Smith.

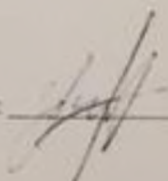
Participation in the study involved conversations about nature between Chesney and the
participant (child) throughout the camp at Hobbiton with some follow up conversations about
what they learnt after the camp.

The research project focuses on how children experience and respond to the nature-based
activities at Hobbiton camp.

I understand that:

1. The researcher is a student conducting the research as part of the requirements for a Masters
degree at Rhodes University. The researcher may be contacted on
chesneywardsmith157@gmail.com. The research project has been approved by the
Research Projects and Ethics Review Committee in the Education department at Rhodes
University and is under the supervision of Dr Olvitt in the Environmental Education
Department at Rhodes University, who may be contacted on L.olvitt@ru.ac.za
2. The researcher is interested in how Hobbiton's nature-based activities and students own
backgrounds shape how they see the natural environment.
3. Your child's participation in the research project involved answering questions about how they
see nature through their experience of the nature-based activities at Hobbiton. The
conversation with the researcher involved answering questions in two short interviews before
and after the camp.
4. Your child was informed that they did not have to answer questions if they did not want to and
that they could choose to stop the interview or their participation in the research project at any
time. However as the nature of these questions was gentle, all consented to participate.
5. I am aware that I can voice any concerns I have about my child's participation in the study
and have these addressed to my satisfaction. If so, please email me at
chesneywardsmith157@gmail.com.
6. The identity of your child will remain confidential.

Signed:  _____

Participant: _____ Researcher:  _____

9.2. Appendix 2: Pre-camp interview schedule

Introductions and general background to the study: interested in how children connect with nature

General questions regarding culture, nature, identity:

- 1) What do you expect Hobbiton to be about? What do you hope to learn from Hobbiton/ have you ever been to Hobbiton before? Please share what you learned/your experiences?
- 2) I would like to understand what your home life is like. Please can you tell me a story of a typical day: morning-night? Share everyday activities.
- 3) What does 'nature' mean for you/to your community?
- 4) Is there/ what is the relationship between people and natural environment? What role does nature play in your community?
- 5) What is important to you in your daily life?
- 6) Is the natural environment important to you in your everyday life?
- 7) In your community, does the natural environment play an important part in people's lives?
- 8) How do people use the natural environment in their everyday lives?
- 9) Are there any ways in which the people around you help/protect/look after the natural environment?

Qualitatively adapted Connectedness-to-Nature scale: (1-2: Ecological systems connection, 3: environmental problem, 4-5: emotional connection, 6: spiritual connection, 7-8: hierarchy, (pre) use-care, 9: personal wellbeing).⁴⁰

- 1) If you think of a tree as being part of a much bigger forest, would you say that people are just one part of something bigger or would you say something different? [Please explain further].
- 2) Do you think that your everyday life activities (walking, driving, eating, sleeping, playing etc) affect the natural environment in any way? How so?
- 3) If you think of where you live, can you think of one problem that is affecting your natural environment? How does this problem make you feel? What is being done about it?
- 4) Do you feel (emotionally) connected to the natural environment in any way? [Please explain] Do you feel strong feeling in your heart about the natural environment?
- 5) Have you ever experienced the death of an animal/ How did it make you feel?
- 6) Do you feel that there is a deeper connection to the natural environment, do you believe that all living and non-living things share a common 'life force,'/energy/spirit? [Please explain with some examples from your context that will help me to understand your answer]

⁴⁰Please note: some items from the original scale were not used (thus there are 9 and not 14 questions) and; the order of the adapted questions seen in this appendix does not match the original scales order in terms of content.

- 7) Do you think that humans are smarter/better than other creatures? Please elaborate.
- 8) Do you think that the Earth belongs to someone, something, no-one, anything? Please elaborate.
- 9) Do you think that your happiness/wellbeing is connected to the happiness of the natural environment, or is your happiness separate from nature? [How so/ how come]

9.3. Appendix 3: Original Connectedness-With-Nature scale

Appendix A

Please answer each of these questions in terms of *the way you generally feel*. There are no right or wrong answers. Using the following scale, in the space provided next to each question simply state as honestly and candidly as you can what you are presently experiencing.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree
___ 1.	I often feel a sense of oneness with the natural world around me.			
___ 2.	I think of the natural world as a community to which I belong.			
___ 3.	I recognize and appreciate the intelligence of other living organisms.			
___ 4.	I often feel disconnected from nature.			
___ 5.	When I think of my life, I imagine myself to be part of a larger cyclical process of living.			
___ 6.	I often feel a kinship with animals and plants.			
___ 7.	I feel as though I belong to the Earth as equally as it belongs to me.			
___ 8.	I have a deep understanding of how my actions affect the natural world.			
___ 9.	I often feel part of the web of life.			
___ 10.	I feel that all inhabitants of Earth, human, and nonhuman, share a common 'life force'.			
___ 11.	Like a tree can be part of a forest, I feel embedded within the broader natural world.			
___ 12.	When I think of my place on Earth, I consider myself to be a top member of a hierarchy that exists in nature.			
___ 13.	I often feel like I am only a small part of the natural world around me, and that I am no more important than the grass on the ground or the birds in the trees.			
___ 14.	My personal welfare is independent of the welfare of the natural world.			

Mayer and Frantz (2004, p. 513)

9.4. Appendix 4: Post-camp interview schedule

- 1) Since our last interview, is there anything you want to talk about, which you thought you might have left out?
- 2) In general, what was the camp like? Was it meaningful for you?
- 3) Has anything changed for you since being on the camp?
- 4) Can you tell me a bit about your favourite part of nature-based activities? [Why was it your favourite? What made it your favourite?]
- 5) Can you tell me a bit about your worst part of the camp? Why was it your worst? What made it the worst part?
- 6) Was there anything really NB that you learnt at the camp? Why was this important for you?
- 7) How were the hikes? Were the hikes/ too hard for you/not hard enough?
- 8) Did any of the nature-based activities conflict with your own cultural beliefs/practices? Please elaborate.
- 9) Did any of the rules of the Hobbiton camp conflict with your cultural beliefs/practices? Please elaborate.
- 10) Was the camp experience different to your everyday home-life? How so?
- 11) Was there anyone on the camp (volunteer, instructor, peer) who you had a really good connection with? Please elaborate?
- 12) Was there anyone on the camp (volunteer, instructor, peer) who you had conflict with? Please elaborate?
- 13) Since the camp, do you think of your everyday life differently at all? How so/not so?
- 14) Since the camp, do you think of yourself differently at all? [How so/not so? Why?]
- 15) Since the camp, have any of your thoughts about nature changed for you at all? How so/not so?
- 16) How, if at all, has your relationship with the natural environment changed?
- 17) What was it about the activities, the people, the camp site that makes you think of the natural environment differently or not?
- 18) Are there any lessons you have learnt about the natural environment that you might tell your family/friends at home about?
- 19) Would you like to come back? [Why/why not?]
- 20) Do you feel less/more/no change in regards to your feeling of connectedness to nature since the camp [tell me some stories from the camp to help me to understand this more?]
- 21) Further probing into pre-interview content areas

9.5. Appendix 5: Staff interview schedule

General introductions and the research interests: my interests in Hobbiton, nature connection, children's backgrounds and personal views of staff

- 1) Can you please give me some background about yourself [where from]
- 2) Why did you decide to join Hobbiton? How long volunteered?
- 3) What have been your most and least memorable parts of volunteering for Hobbiton?
- 4) Please tell me a bit about Hobbiton, its focus, objectives, values etc.?
- 5) What values does Hobbiton promote in your opinion?
- 6) Do you think that it is effective for the children considering its aims and values? How so?
- 7) Are there any rules that have to be followed at Hobbiton for the kids?
- 8) Have there been any tensions for the kids regarding the rules? Why?
- 9) Are there any tensions between you and the other staff members? Please elaborate.
- 10) Considering that the children might have different cultural backgrounds and perspectives to those offered at the camp, do you think the camps are effective in their aims?
- 11) In this light, what tensions, if any, have you noticed?
- 12) What works/doesn't for the camps?
- 13) Can you think of any illustrating examples of the children relating to nature/displaying changes in attitudes/values towards nature?
- 14) Can you think of any illustrating examples of the children experiencing personal transformations through the experience of the camp?
- 15) Can you think of any examples when the camp initiatives have back fired?
- 16) What do you think the children get out of the camp? Can they take this home with them?
- 17) Do you think that the physical experience in/of nature through nature-based activities (hikes etc) contributes to the children's learning? How so?
- 18) *Do you think that your own background (culture, race, gender, religion) has influenced how you see the nature?*
- 19) Do you have any examples of changes in yourself/connection with nature/perceptions of nature that you might like to share?

9.6. Appendix 6: NBA observations

Mountain Mover observations

Hike to Madonna and Child waterfall (75 minutes duration):

This was the first hike we all did, it was not too strenuous initially, but the entire second half was uphill. During the first half, one of the volunteers gathered everyone around a Cape Parrot nesting box to share some local environmental knowledge about Cape Parrots:

We have just six hundred and fifty Cape Parrots left... and a lot of them they are living here in Hogsback...they are eating a special fruit...and this fruit is growing on a special tree [...] the Yellowwood tree...Why we try to save the Cape Parrot is because of this fruit that they are eating from this Yellowwood tree (PAH1, Volunteer 1).

Knowledge around the differences between indigenous and alien trees was also shared at a later point during this hike by volunteer 1, a foreign volunteer:

[...] So what we have here also is the forestry: they are planting trees and that is called the exotic forest what they are planting here, that are trees which are not growing here, that do not belong to South Africa, they are coming from Europe, for example, they are Pine trees (Volunteer 1, PAH1, [00:01:51.05]).

[...] Okay...so we will go into the indigenous forest and you will notice that it is a bit warmer there, like than the pine forest [children were encouraged to notice the difference in temperature in the different forests]...All the trees are planted straight, so the wind can go through them and it is a bit colder. Okay and when we go into the indigenous forest, we will see everything is growing wild, and that keeps it a bit warmer. Okay so we will go into the indigenous forest to the bottom of the waterfall (Volunteer1, PAH1, [00:01:02.10]).

During this hike, the children seemed eager to learn, particularly when they were gathered around the nesting boxes in the hope that they might see the rare Cape Parrot. On the way down to the waterfall itself, the children were very excited. Many tripped and fell but this did not appear to deter them. For others, there was clear apprehension about the steepness of the initial walk down, followed by the realisation that they would have to come back up the same way. One boy remarked: "...I am afraid that if I go down, I won't be able to come back up..." (PAH1). A fair amount of the children were unfit or

had asthma and for these children, the hike was physically challenging. However, once we got to the waterfall, their complaints were commandeered by the physicality of the escalating water above them. Many of these children had never seen a waterfall before. Participant 4 exclaimed upon her first waterfall sighting: “It’s a beautiful sight...I have now seen a waterfall...it’s breathtaking actually... It’s just...wow” (PAH1, [00:00:13.10]). We spent about 40 minutes at the waterfall, where the children frolicked in the water and rock hopped; some drank the water and to their amazement it was clean. Several commented on the taste of the water, participant 8 exclaimed: “It was fresh and it had some sweetness to it!” (PAP678, [00:06:21.00]). Instructor 5 later relayed: “ ...When you go to these waterfalls, they don’t actually know if the water there is good to drink but the first thing they will do is just like say ‘ah it’s not clean’” (ISI456). See figure B.

Towards the end of our time at the waterfall, many of the children began to remark on the ‘impending doom’ of the steep walk back, particularly those who were unfit or who had asthma. Some children even lay on the forest floor to catch their breath. Participant 8 exclaimed: “Hai, never again...for me... never again... I tried going fast but no, never again!” (PAH1, [00:01:32.07]). But when we all got back to the top, and once the huffing and puffing had subsided, the children appeared once again happy, participant 13 exclaimed: “I risked my life for this, and I made it!”

Hike to Kettle Spout Waterfall (duration- 2 hours):

This hike took place early on day 2 after breakfast. This hike was more physically challenging with the first half being entirely uphill. The children complained relentlessly through huffed breaths how they longed for the downhill on the way back. Participant 6 remarked: “This hike was tiring [Kettle Spout] it has got steep hills and stuff. That hike Madonna and Child was easy, just went like left and right. That hike [Kettle Spout], if you went ‘around’ the curve, you went AROUND like that and then it goes up and then it gets flat and then it goes up even more!!” (PAP678). On the way up, we had 2 breaks where the volunteers/instructors shared some local environmental facts around indigenous/exotic forests, and more specifically different types of moss and fungi in the indigenous forest. Here, the instructor explained how one could look for concentrations of fungi on the trees if one was lost in order to ascertain a southern direction. The children seemed to be interested in this empowering information, which provided them with a way in which to see trees as natural clue-bearers rather than as scary figures in the night (J11).

Once we reached the top, we came to Kettle Spout Waterfall where there was a large pool of fresh watercress. The instructor encouraged the children to taste the water and the watercress. Participant 8 exclaimed that the fresh water, “...was better than water [at home]” (PAP678). The children were sceptical about tasting the wild watercress. At this point, I picked a little watercress for myself and I

tasted a few pieces in front of the children, a few gathered around and began to taste too. Hereafter we continued down the mountain where we entered into the Pine plantations, which were referred to as 'exotic forests.' The differences between indigenous forests and exotic forests were explained to the children in terms of origin, use, temperature etc. I could actually feel the difference in temperature between the pine and indigenous forests. A little later, I also asked some of the children how they felt after seeing a field of freshly cut pines, pile after pile, just as we left the indigenous forest. Some exclaimed their sadness and the negativity of overuse of resources and its impact on us and the environment; while others remarked about how it was good because people need these resources to survive.

Despite the fact that this hike was more physically challenging, most children preferred it, precisely because it was more physically challenging, feeling like they had really accomplished something worthwhile: "... We had more time [on the Kettle Spout hike] than yesterday's one [Madonna and Child], yesterday's one was just like straightforward, this one wasn't, it had bends and stuff!" (Participant 8, PAP678). Many of the children also exclaimed that they were proud of themselves after having done this hike. Some also relayed a particular sense of beauty while overlooking the Hogsback valleys (see figure E). There appeared to be something about the challenge in this learning that made it so rewarding and memorable for the children.

Night hike:

This activity was a highlight for the children despite the morbid fear of the night and the icy cold temperature. The children were covered from head to toe in clothing. The children were terrified at the thought of having to give up their torches, which they had heard rumours about. At one point early on, we all smelled the stench of goat, and heard them rustling in the bushes. All the children began to shine their torches on them and seemed to feel a little more at ease once they knew that they were goats and not some terrifying predator. There were also big roots across the path, which only added to the children fears of snakes. The children were then asked to switch off their torches and walk in single file, holding onto the shoulders of the person in front of them. The children continued to squeal frightfully despite being asked to remain quiet for the sake of the wildlife. As Josh notes "...Obviously younger children have fear initially" (J11).

After about 15mins of moon-lit walking, torches could be switched on and there were many sighs of relief. Hereafter we made our way into the Pine forest where the difference in temperature was noted and felt by a few. Here all were asked to switch off torches and to make a circle in the darkness, lit only by the moon. Instructor 4 began to speak, highlighting the socio-material change of senses:

So you can you can see that your senses begin to be improved... Your hearing starts to pick up... You also noticed the stones and the roots and the trees and the stars and the moon. And you guys noticed that when you started off the night hike the forest was fairly warm, that's because we were in the indigenous forest but now we are in the exotic forest, and it is a lot cooler... You guys can see why we are in the exotic forest cos everything is nice and straight in lines (PANH1, [00:00:46.15]).

The children were then asked to step, one by one into the middle of the circle and relay whatever the word 'fear' meant for them. Participant 1 stepped into the circle first and stated; "Fear is having no hope in your darkest moments" (PAPI2). Many of the other children laughed at this comment. Although potentially a valuable exercise, it did not work. The children were self-conscious and the moon was too bright for it to have been an anonymous exercise. Volunteer 1 later relayed that this exercise usually opens up a safe space for the children to express themselves and become less afraid of the night:

It's like the darkness gives them a bit of safety [so] they can talk in front of other people because they maybe think, 'okay maybe they can't see me that much and I can just say what I want to say.' And normally it would be the other way around where the darkness would be something that is frightening... but...this night hike gives them the opposite thing (VI, [00:23:49.21]).

Middle ropes course:

This activity took place within the natural setting of Hobbiton, surrounded by indigenous and exotic forests. And although this activity is not directly aimed at 'connecting with nature,' it is associated with the children's relational and social development, which is connected to how one perceives oneself, others and by extension, the natural environment. The middle ropes course is an experiential activity where each child is part of a larger group and must be helped by others to complete a physical task. For example: walking over a wobbly plank, jumping from beacon to beacon, walking across a high rope or across single planks hung from the trees above (see figure H). Without one's team, the tasks are impossible and all team members must physically and verbally support each person attempting the task. If children are seen to be discouraging towards their teammates when something goes wrong, someone falls down or 'fails' the task, they are gently asked by the instructors to reflect on whether their comments are constructive for their teammates. The key learning objectives of this activity included: interdependence, self-efficacy, teamwork, trust, communication, care and relationality, all of which are in alignment with reconnecting to nature through the concept of Ubuntu with its emphasis on relationality (see chapter 5). In this light, volunteer 1 described the importance of learning to be interdependent, "I think one of the main objectives is the teamwork...putting trust into everybody at once...or onto one person... and also at the group... so that they feel confident as just one but also all

together” (V1, [00:16:35.11]). This activity appeared to bring the children out of their comfort zones and into a zone of increased self-belief and confidence. Beforehand, some of the children were hesitant to participate because they believed themselves to be incapable. However, once they saw other team members doing the tasks with the help of their teams, they began to believe that they could do the tasks too. Volunteer 1 elaborated on the activity:

..The middle ropes course [is] where we try to tell them that they are special, that everyone should do what they want to do if they have an aim or a goal, that they have to follow it...Most of the time they come to [goals] on their own but [for this activity] they have to do it as a team. And [to show them] that they have a team, that everyone has a team... When they are feeling alone sometimes, they have to think: “Okay who is in my life, with me?”... We try to just make sure that they understand that they are not alone... they have the feeling that we are all together, that no one is alone and we have to listen to each other, so the practice of communication and to give them just the base for the rest of the camp...(V1, [00:09:56.12]).

Star Gazers observations

This camp is run slightly differently to that of the paying school camps. Where, in the majority of cases, the paying school camps have a core focus on experiential, environmental education and adventure-based learning, the Star Gazer camps are first and foremost about providing a safe, supportive and fun space for underprivileged children. The second core focus of these camps is to provide transformative encounters with nature through experiential learning. Hobbiton addresses the primary focus of child welfare while simultaneously providing the children with a safe space to learn about nature through embodied immersion in nature.

These camps are structured towards developing agency while simultaneously having fun and learning through ‘Self-Initiated-Action-Plans’ (SIAPs). During these SIAPs the children are divided into groups and they plan what activities to do/ when to do them. Thus the activities become a self-driven competition where the idea is to activate agency, and to develop time management skills (J11). The aim was for all the groups to gain ‘points’ through performance of ‘competence’ in the various experiential activities. Of course, the activities are not really about ‘competency’ but about developing agency and a sense of achievement. At the end of the camp, points are tallied and every child gets a Hobbiton T-shirt as a prize. Josh maintains that it is key that the children learn to develop this sense of agency through embodied experiences in a safe, fun and natural space (J11).

In terms of all the other activities that took place during the Mountain Mover camp, all the nature-based activities were the same for the Star Gazers: day hikes, night hikes and swimming. However there was an additional initiative known as the ‘bright lights project,’ put together by the volunteers and

instructors. These activities addressed the importance of developing life-skills and self-efficacy through beading, art therapy, psycho-education and baking. Additionally, the project offered a more nature-based activity: ring-barking alien trees in the indigenous forest, led by the Cape Parrot Project. Below are the activities that were individually observed.

Kettle Spout Hike:

Many of the Star Gazers really struggled to maintain the pace and to get up the hill. This hike was led by a Swiss volunteer. This instructor did not engage with the children about the natural environment as much as other volunteers had on the other hikes. Thus the children were not sensitised to an ethic of care for nature. Furthermore when we walked down through the Pine forest, the instructor did not speak at all about alien trees, the effects of plantations on the soil and the air etc., as the previous instructor on camp 1 had done. This walk also seemed more rushed than the previous one and although the children got to experience nature and see the waterfall, there was not enough time given to spark further interest through knowledge sharing. In this way, this hike was not quite aligned with Hobbiton's objective for experiential environmental education.

Night hike:

In relation to the Mountain Movers, the Star Gazers were much more obedient during this hike; they hardly made a sound when asked to be silent for 5 minutes with all torches switched off. They seemed petrified of being punished for any mistakes. If they were scared of being in the dark, there were no evidential comments. This night was extremely dark compared to the other camp where the moon had been full. At a few points it was a little disconcerting to be engulfed in such Blackness. I experienced a subtle feeling of claustrophobia as I could not judge distance. Once I had become comfortable with the discomfort of the darkness, I relaxed and began to let myself sense the forest around me: the night sounds, the warmth of the indigenous forest and the coolth of the pine forests. I wondered if the children were experiencing a similar feeling of Blackness, the night sounds and smells, the stars, or the fast beating of one's heart as one trips over a root only to feel the ground safely beneath one's feet. Volunteer 6 noted: "I think the night hike is quite nice for all the kids, to get closer to nature, especially like when you have to be quiet and you are just walking and you just hear all the noises" (ISI456).

Once we had entered the Pine forest, the children were asked to form a circle in the dark with their torches switched off. Instructor 4 asked the children to visualize Hobbiton and their initial feelings when they found out that they were going. Hereafter, they were asked them to reflect on three things in their lives that they are grateful for. These instructions were translated into isiXhosa for the children too.

This activity lasted around 5 minutes. As with the Mountain Movers, this exercise seemed relatively ineffective; the children were extremely cold due and could hardly concentrate.

As returned back to the comforts of camp, the children expressed sighs of relief. Despite their initial apprehension, many of the children reflected that the night hike was one of their favourite activities: “It was awesome...even though it was cold... it was awesome, we were quiet... and we heard the sound of the forest, how it sounds, the owl was out, and it was awesome... and then we kept quiet for maybe twenty minutes... but it was hard to keep quiet...” (Participant 3, UPCPI, [00:05:37.00]).

Bright Lights project:

As mentioned before, this project was developed and run independently by the volunteers/instructors and is aimed at life-skills development as well as environmental experiential learning. This project involved rotations of various activities geared towards skill and knowledge acquirement. Activities included making bracelets, art therapy, baking and learning about alien vegetation through a ring-barking/tree planting exercise led by the Cape Parrot Project. For the purposes of this study, only on the ring-barking activity is focused on. The purpose of this activity was to develop agency through experiential, environmental knowledge acquisition.

Ring-barking/tree planting with the Cape Parrot Project (CPP):

This activity took place on the edge of the indigenous forest, where areas with alien vegetation had been cordoned off. The first part of the activity was knowledge-based. Knowledge around alien vegetation was shared in isiXhosa; some of the trees discussed included: Wattle, Black Wood and Bugweed. It was then explained how these trees are not healthy for the indigenous trees and animals as they drain the soil of water and over-populate the area because all the animals that would naturally have kept them under control in Australia do not inhabit South Africa. Consequently local fauna, such as the Cape Parrot are deprived of their natural food sources (fruit of the Yellowwood tree) because these exotic flora overpopulate the forest. It was explained that alien vegetation needs to be radically reduced in order to preserve indigenous fauna and flora. And that, if they plant more indigenous Yellowwoods, Red Currents and Stinkwoods in the area, then the birds and the forests will have a better chance of surviving and repopulating the area. It was made clear that humans need to help initiate this process. CPP also explained how Cape Parrots naturally help to do this job when they eat the fruit of the Yellowwood trees and redistribute the seed elsewhere.

During the second part of the exercise, the children were carefully shown how to ring-bark the alien trees and why it was important to ring-bark them, rather than to directly chop them down. That is, ring-

barking allows the trees to die more slowly because the tree's water supply is decreased through removing the bark. In this way, the tree can then provide vital shade for indigenous seedlings over time. With this new environmental knowledge, each child was encouraged to ring-bark an alien tree. This was quite physically challenging for the children but they seemed to be quite pleased with themselves for having done what the grown men could do. Hereafter the children were each given an indigenous tree seedling to plant in the shade of the newly ring-barked alien tree. Through this experiential lesson rooted in environmental knowledge, the children contributed to the reforestation of the Hogsback indigenous forests.

The importance of the role of instructors/volunteers as mediators of environmental-knowledge sharing also became clear, not only in terms of sharing experiential knowledge but also because the language barrier was accommodated for through isiXhosa translation. Through this practical experience, environmental understanding and interest appeared to have been stimulated. Participant 1 later expressed his comprehension of the interdependence of Cape Parrots and Yellowwood trees: "If a bird eats that plant and then it will... they kaka in other places, and the fruit, the tree, will grow again there in that place and other plants...and they (the birds) will do that all the time...and then grow again [the Yellowwood trees].... it's like a food chain.." (UPCPI, [00:09:28.15]).

9.7. Appendix 7: ‘UPC’ activity schedule template

HOBBITON-ON-HOGSBACK **‘UPC’ SCHEDULE TEMPLATE**

Day before Day One

10:00	Instructors arrive and set up
11:00	Introductions and Start-plan
13:00	Lunch. Cold meats, salads and rolls
14:00	Instructor training
17:00	Braai

Day One

07:00	Instructor breakfast cereal DIY
	Clean up Centre
09:00	Participants arrive
	Unpack / Introductions / Rules
10:00	Tea. Juice and biscuits
10:30	Division into teams. Team ice-breakers
	Explanation of S.I.A.Ps
12:00	Free time
13:00	Lunch. Hot dogs and chips; fruit and juice
14:00	Madonna and Child Hike
16:00	Tea. Juice and biscuits
16:30	Free time / Showers
18:00	Supper. Chicken stew and rice. Tinned peaches and custard
19:00	Night Rotation # 1
	Group A - Night Hike
	Group B - Activities in the Hall
21:00	Hot chocolate
21:30	Get ready for bed
22:00	Bed
22:30	Lights out

Day Two

06:30	Wakey~wakey
07:00	Exercises
07:30	Get ready for the day
08:00	Breakfast
09:00	Compulsory daytime rotation # 1
	Group A - Survival Camp
	Group B - Middle Ropes Course
11:00	Tea. Juice and biscuits
11:30	Soft SIAP opportunities;
	Picking up Litter off commonage; pulling wattles and picking up litter around Grey Dam; cutting out lantana on Fairewood; cleaning the spring and surrounds; SPCA; fixing the Mountain Drive pathway from lookout point; cleaning Centre's window; scrapping the rust off the bus.
13:00	Lunch
14:00	Kettle Spout Hike
16:00	Tea. Juice and biscuits
16:30	Life skills:
	Group A - Basic car maintenance
	Group B - Basic meal preparation
17:30	Free time and showers
18:30	Supper. Spaghetti Bolognaise and salad. Tinned peaches and custard

19:30	Night Rotation # 2
	Group A - Activities in the Hall
	Group B - Night Hike
21:00	Hot chocolate
21:30	Get ready for bed
22:00	Bed
22:30	Lights out

Day Three

06:30	Wakey~wakey
07:00	Exercises
07:30	Get ready for the day
08:00	Breakfast
09:00	Compulsory daytime rotation # 3
	Group A - Water based activities
	Group B - High Ropes Course
11:00	Tea. Juice and biscuits
11:30	Soft SIAP opportunities; Picking up Litter off Joza commonage; pulling wattles and picking up litter around Grey Dam; cutting out lantana on Fairewood; cleaning the spring and surrounds; SPCA; fixing the Mountain Drive pathway from lookout point; cleaning Centre's window; scrapping the rust off the bus.
13:00	Lunch
14:00	Compulsory daytime rotation # 4
	Group A - High Ropes Course
	Group B - Water based activities
16:00	Tea. Juice and biscuits
16:30	Life skills:
	Group A - Basic meal preparation
	Group B - Basic car maintenance
17:30	Free time and showers
18:30	Supper. Stew. Tinned peaches and custard
19:30	Owl talk
21:00	Hot chocolate
21:30	Get ready for bed
22:00	Bed
22:30	Lights on

Day Four

06:30	Wakey~wakey
07:00	Exercises
07:30	Get ready for the day
08:00	Breakfast
09:00	Hike to DassieKrantz
	Tea (Energy bar and juice box) and lunch (egg rolls and fruit) <i>en route</i>
14:30	Pick up from waterworks
15:00	Tea. Juice and biscuits
15:30	Life skills:
	Group A - Basic welding
	Group B - Basic wiring
16:30	Group A - Basic wiring
	Group B - Basic welding
17:30	Free time and showers
18:30	Supper. Braai and ice cream
19:30	Video
21:00	Hot chocolate
21:30	Get ready for bed
22:00	Bed
22:30	Lights out

Day Five

07:00	Wakey~wakey
07:30	Get ready for the day
08:00	Breakfast
09:00	Clean the Centre / pack away / pack bags
10:00	Tea. Juice and donuts
10:30	Group Photos
11:00	Load into taxis
	Depart.

9.8. Appendix 8: Hobbiton staff consent

RHODES UNIVERSITY
DEPARTMENT OF EDUCATION
AGREEMENT BETWEEN STUDENT
RESEARCHER AND RESEARCH
PARTICIPANT

I (participants name) Josh Paton, the coordinator of Hobbiton, hereby give consent for Chesney Ward-Smith to participate in the activities of Hobbiton and collect data from the children and the instructors/volunteers of Hobbiton, for her Masters research.

Participation in the study for children involved being observed and interviewed by the researcher. Interviews entailed a pre-camp and a post-camp interviews. Interview content centred around experiences of Hobbiton and personal perceptions of nature.

Participation in the study for instructors/volunteers involved being interviewed once by the researcher around experiences of Hobbiton and their perceptions of nature.

The research project focuses specifically around on how children experience and respond to the nature-based activities at Hobbiton camp.

I understand that:

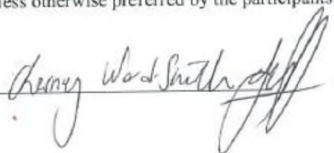
1. The researcher is a student conducting the research as part of the requirements for a Masters degree at Rhodes University. The researcher may be contacted on chesneywardsmith157@gmail.com. The research project has been approved by the Research Projects and Ethics Review Committee in the Education department at Rhodes University and is under the supervision of Dr Olvitt in the Environmental Education Department at Rhodes University, who may be contacted on L.olvitt@ru.ac.za
2. The researcher is interested in how Hobbiton's nature-based activities and children's own backgrounds, shape how they see themselves and the natural environment.
3. Children's and the instructors/volunteers participation in the research project involved answering questions about how they see nature and how they see themselves through their experience of the nature-based activities at Hobbiton/their work experience and history of Hobbiton. For children, the conversation with the researcher involved answering questions in two short interviews before and after the camp. While for instructors/volunteers, participation involved being interviewed once by the researcher around experiences of Hobbiton and their own histories.
4. All participants were informed that they did not have to answer questions if they did not want to and that they could choose to stop the interview or their participation in the research project at any time. However as the nature of these questions was gentle, all consented to participate.
5. If you have any concerns about participation I am free to voice them to the researcher. In this case, please email me at chesneywardsmith157@gmail.com.
6. The identity of all participants will remain confidential, unless otherwise preferred by the participants

Signed:

Participant:


Josh Paton

Researcher:


Chesney Ward-Smith

9.9. Appendix 9: Example of environmental knowledge shared during Madonna and Child hike

Below is an extract of the type of environmental knowledge shared by Volunteer 1 (a foreign volunteer) during this hike:

Volunteer 1 [00:01:51.05]: So maybe when you are hiking, you will see one of the Cape Parrots in Hogsback because they are living here....We have just six hundred and fifty Cape Parrots left... and a lot of them they are living here in Hogsback...they are eating a special fruit and this fruit it growing and this fruit is growing on a special tree. Do you know your national tree? So what we have here a lot is the Yellowwood tree and we have the Cape Parrot that is living here around. Why we try to save the Cape Parrot is because of this fruit that they are eating from this Yellowwood tree...Okay do you know that you are not allowed to chop down the Yellowwood tree for example?

Volunteer 1: So what we have here also, is the forestry, they are planting trees and that is called the exotic forest what they are planting here, that are trees, which are not growing here, that do not belong to South Africa, they are coming from Europe, for example, they are Pine trees.

Volunteer 1: Then you will notice when we are going along the road, that there is an exotic forest, and then there is another forest, called the indigenous forest...the indigenous forest, do you know what it means?

Participant 3 [00:03:28.05]: It means that they are like originally from that place...

Volunteer 1: Yeah and you will notice a difference, before we are going to the waterfall, I will ask you... Which side is the exotic and which is the indigenous forest and what are the differences...What did you see and what did you notice, okay. So when we are talking about the Cape Parrot for example, that is eating the fruits from your national tree, the Yellowwood tree... we try to save the Cape Parrot here...So what we are trying to do here is to build bird houses to save this parrot, so when you are looking around, can you see one of these bird houses?

Volunteer 1: Ah okay and we have another one (nesting box) down here, so what do you think, which of these houses (there is a higher nesting box and lower nesting box, which the children can both see), which does the Cape Parrot prefer to live? Which of the houses?

Participant 3 [00:04:31.15]: In the top one...

Volunteer 1: That's right...and why?

Participant 3 [00:04:45.04]: It is closer to the fruit...

Volunteer 1: Well they can fly so it is easy for them to reach it...

Participant 3 [00:04:51.09]: Maybe it looks more natural than the lower one...

Volunteer 1: Yes that is another fact, that's good... like I said, I mean you can hear the truck [driving along the dirt road] for example, that is coming now...so just come off the road. so like I said, we are at the street here, so maybe that is another reason, for the Cape Parrot not to stay in the house here...(in a lower tree) because it is at the street, it is loud, it is noisy, okay and... [the truck drives past at this point.] So this for example could be a good reason for the Cape Parrots not to live in houses like this, but rather to live in the top houses. So you notice when we are going, along the way to the waterfall, when we go into um, the forest, when we enter the forest, we will see a lot of these bird houses, which is a project here in Hogsback to try and save the Cape Parrot...and if you are lucky, maybe you will see a Cape Parrot also..

Volunteer 1: [Further along the walk] So like we can see here, they already cutted a lot of the trees and logged a lot of the trees and they will still keep going with that. And as you can see here, the indigenous forest is quite different. So um for example, what is growing here is the Yellowwood tree, your national tree. But we also have other trees there, like a Wattle tree and um the Eucalyptus tree that is not originally belonging to South Africa, they are coming from Australia, but they came over to South Africa, but they are also growing in the indigenous tree... it [Wattle] also takes a lot... so it sucks a lot of water out of the ground and that is, growing everywhere, like I said they are now growing in the indigenous forest, they are also growing in the exotic forest... But the most common one, in the exotic forest are the planted trees, so the Pine trees from Europe, that they are logging

Volunteer 1: Okay...so we will go into the indigenous forest and you will notice that it is a bit warmer there, like than the pine forest. Like what you [one of the children] said, in the Pine forest, all the trees are planted straight, so the wind can go through them and it is a bit colder. Okay and when we go into the indigenous forest, we will see everything is growing wild, and that keeps it a bit warmer. Okay so we will go into the indigenous forest to the bottom of the waterfall (PAH1).

9.10. Appendix 10: Photographs



Figure A: The Hogsback pass



Figure B: Madonna and Child waterfall



Figure C: Yellowwood tree where moss/fern/tree symbiosis was explained

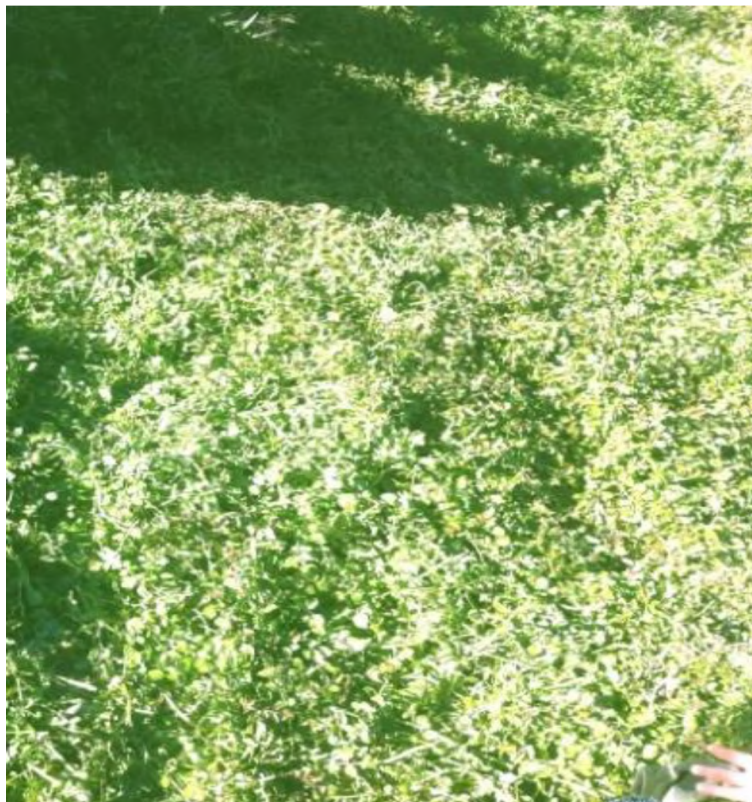


Figure D: Watercress at top of Kettle Spout waterfall



Figure E: Hobbiton grounds on edge of indigenous forest



Figure F: Hobbiton dormitories



Figure G: View from Kettle Spout



Figure H: Middle ropes course on the edge of indigenous forest



Figure I and J: children playing at Madonna and Child Waterfall





Figure K: Hobbiton's Grace

9.11. Appendix 11: Reflexive journaling excerpt

Strange to come to Hogsback for research only. When I drove up the winding road into Hogsback I started to think about the stark contrast between nature's pristine beauty here and the rampant poverty and pollution on the outskirts of Hogsback. People live in shacks, have lack of access to water, no close access to shops, amenities, no personal transport, the roads are shot with potholes at every corner. And yet, as I drove into the heart of Hogsback, the beauty of the natural environment, the mountains, the golden rays of sunlight streaming through the autumn leaves in the late afternoon really struck me: the brilliant oranges, rusts and reds of the forests covering the mountains. I am overcome by the romantic question: how could not anyone living here not see this beauty, not care for it, not see it as part of their humanness, their very life on this earth. And yet, perhaps I am fortunate enough to have grown up with all the necessities and desires in the world: food, water, shelter, love, excursions, friends, nature. While many other people in this world, live in strife and struggle for all these basic human needs. Hereto there are not only radical differences in access to resources from, but also varying differences in cultural perceptions of the natural environment. That is, while nature provides me with food, woods, books, it also nourishes my spiritual needs on a much deeper level. It is for this reason that I live on a farm outside of Grahamstown, surrounded by trees, horses, cows, bush pigs, water and not in a large urban space. The crux of it is, I have the luxury of experiencing nature beyond its personal utilisation for me. Whereas other people may purely use it as a resource because they lack basic needs. Back to the point, other people may value nature differently through different cultural perspectives: that is, for its use, for the herbs it produces, for use in everyday cultural practice etc. Whereas I do not use herbs that I have plucked from nature for cultural purposes (for example), rather I feel connected to nature through an experience of awe, a beauty, a stillness which I can find nowhere else. This awe, beauty and stillness is certainly not meant to be romantic or projecting the sublime on nature, but rather to express how I feel about nature, and it makes me feel in return.

[...] Hobbiton seems a nice and natural enough space for the study, on the edge of the forest and with many cabins and courses set within a natural backdrop etc. The space seems conducive to experiencing something different from everyday life in terms of more immersion in a natural space for disadvantaged children. Moreover the activities, such as the main middle-ropes course and climbing-wall are well within the natural surrounds, practically on the edge of a forest. Manager 2 wanted me to focus quite specifically on the main middle ropes course as a mediating activity towards long-term change for the kids. She wanted me to incorporate some questions around this for future funding purposes as funders always want direct and tangible outcomes from their financial input. Hmm I should negotiate the funding aspect of things carefully...

9.12. Appendix 12: Coded pre-camp interview transcript

Data index: PAP234

Participants' 2, 3 and 4

Key:

Purple: Experiential Learning and environmental knowledge synergies

Orange: sociomateriality

Blue: nature-perceptions, knowledge and benefits

Red: staff passion and learner enthusiasm

Green: relationality/empathy

[00:00:01.17] Researcher: So who has been to Hobbiton before?

[00:00:13.27] Participant 2: Not this one

[00:00:13.27] Participant 3: Ja not this one

[00:00:13.27] Researcher: And you?

[00:00:13.27] Participant 4: No I didn't go.

[00:00:03.11] Researcher: So you haven't been ever before?

[00:00:10.07] Participant 4: No.

[00:00:13.09] Researcher: Okay cool, so maybe if you guys could tell me... what was the other Hobbiton like for you?

[00:00:24.00] Participant 3: Cold, wet and miserable.

[00:00:29.19] Researcher: So did you enjoy it?

[00:00:28.20] Participant 4: Well it was actually quite fun and it would have been a whole lot more fun if my toes weren't white and about to break off.

[00:00:41.05] Researcher: So you were very cold?

[00:00:37.13] Participant 4: My clothes...The wind was cold yoh.

[00:00:37.27] Participant 3: It was raining and it was wet.

[00:00:44.21] Participant 4: It was like raining like a drizzle, it was dropppps. Like huge drops that just hurt.

[00:00:53.11] Participant 3: I was soaking, all my clothes were wet.

[00:00:53.18] Participant 4: Hmm I actually wore the same clothes the next day so I could keep some of my clothes dry.

[00:01:06.00] Researcher: So if you can think of your best activity there, what would it be?

[00:01:05.28] Participant 3: Well mine was, we had to climb over, like a wall... and like help all the players over, it was like team work. I like team work.

[00:01:22.13] Participant 4: I like, um well I liked the games in the hall and there was this game where you had to, you had this pole in the middle of the square thingy majiggy, and it had a little tap in it with a shoe.. So you had to try and get the tub and the shoe out using only a piece of rope, so I like challenges that challenge your mind, so that was fun. And the fact that we managed to complete it, was even better.

[00:02:00.20] Researcher: And did you guys do anything more nature based, like any hikes?

[00:01:57.01] Participant 3: Yes we did... a hike. Well we did them quite a lot, we walked all the way to the top of a mountain and there was like...

[00:02:02.19] Participant 4: Oh we had two hikes

[00:02:09.05] Participant 3: Ja we were meant to have a night hike but it was raining and terrible and stuff. So anyway, we climbed to... we learned about plants and I think, we learnt about a fern...

[00:02:22.26] Participant 4: Port Jackson...

[00:02:20.27] Participant 3: Jackson ja... and we learnt I think. We played games as well and we looked at the view from the top of it.

[00:02:37.02] Researcher: So did you experience any different feelings about nature after you did that camp?

[00:02:45.19] Participant 3: I did, I learned a lot more about plants...

[00:02:46.21] Participant 4: Well I learnt that you have to pace yourself going downhill, otherwise...shhhhh. My heart almost stopped. Well I didn't slip but the people running, like this half cliff, but I mean, you could have done quite a bit of damage to yourself if you fell over. And it was wet and slippery so you really had to learn how to get your footing right and things like that... And we had another hike to this other place; um we found a dead antelope, was it? On the way and it was half decomposed so like the... Luckily the intestines were gone but then the skin was all dry and wrinkled.

[00:03:36.20] Participant 3: And it stunk!

[00:03:35.26] Participant 4: And the ribs were out and showing and there were flies and everything.

[00:03:42.00] Researcher: So how did that make you feel to see a dead animal?

[00:03:41.05] Participant 3: I am normal, I am used to it, I live on a farm...

[00:03:47.28] Participant 4: Well it sort of freaked me out, and I was ewww. But a little kind of sad even though it is part of the cycle...

[00:03:58.22] Researcher: What cycle do you mean?

[00:03:55.10] Participant 4: The cycle, I mean things eat and get eaten and then it dies. And it decomposes and the cows... ja...

[00:03:51.28] Participant 3: And then it does into the ground and then grass comes up and they eat and ja...

[00:04:06.24] Researcher: So the cycle of life...

[00:04:07.03] Participant 4: Yes that is what I meant. We also tried Mopani worms... it tasted like saw dust... I starred at the thing and...

[00:04:05.19] Participant 3: I ate the whole thing, I was okay, let's just do this.

[00:04:18.01] Participant 4: No I half a worm and I looked at it and I looked at it and it was yellow and brown and black. I chewed once and I spat it all out. So ja.

[00:04:36.02] Researcher: And have you ever seen an animal die or anything like that?

[00:04:40.15] Participant 2: Ja I have...

[00:04:40.25] Researcher: How did it make you feel?

[00:04:44.13] Participant 2: It made me feel very weird... you just stare at the animal and you think "ah it was once living but now it is dead" ja so it teaches to look at things when they are dead.

[00:04:57.27] Participant 4: I feel sorry for the animals that I like, and the animals that I don't like, I am like...

[00:05:00.24] Participant 3: You deserve it!

[00:05:00.27] Participant 4: Like ah well, life carries on.

[00:05:06.09] Researcher: Ja the cycle carries I suppose. So if you guys could just think of the rules at the other Hobbiton camp that you had to follow, were there any which were hard to follow or which conflicted with you guys?

[00:05:21.17] Participant 3: Well when we were in the girls' dorm, they tried to go to the boys' side, it was funny.

[00:05:34.03] Researcher: And did you get caught?

[00:05:33.24] Participant 4: It wasn't funny cos we had to stay up all night, they got caught and we were shouted at and there was drama!

[00:05:45.07] Participant 3: And crying, a lot of crying.

[00:05:44.07] Researcher: Was there any conflict between you and the volunteers?

[00:05:51.04] Participant 3: I liked the instructors... they were cool.

[00:05:57.15] Participant 4: Me too, mine was Jess. Jess and Mia...

[00:06:07.21] Participant 3: And she taught us some new words, I learnt. French... she was French.

[00:06:02.15] Participant 4: Oh ja, mine was German.

[00:06:05.06] Researcher: So you got along well with your instructors. There were no catfights or anything like that?

[00:06:13.21] Participant 4: No we actually got along very well; I just didn't like them that much because they actually made us work outside and it was freezing. YO! That wind cut into your skin, the clothes cling to you and then the wind was not helping...

[00:06:34.13] Participant 3: It was actually sore... and then we went on zip lines... Remember?

[00:06:35.04] Participant 4: I didn't go; I was sitting on a log.

[00:06:38.27] Researcher: You went on what?

[00:06:42.17] Participant 3: Zip lines... That was fun; I've got a zip line at my house though. Um it was fun, so everyone would line up and we would get strapped in and stuff and then you would go down and there was a lot of mud and then you would get hit by a bush... and stuff. Anyway, it was nice.

[00:07:01.13] Researcher: Cool so it sounds like you guys had a good time...

[00:07:05.02] Participant 4: Would have been even better, if the sun was shining.

[00:07:06.18] Researcher: So the weather was bad but you guys had good time?

[00:07:03.25] Participant 4: Pretty much.

[00:07:08.22] Researcher: So for you, you've never been to a Hobbiton camp before... So what do you expect this camp to be about?

[00:07:15.07] Participant 2: Well I expected this camp to be fun and just to bring your friends maybe closer to you, or spend more time with them or having fun and learning new things.

[00:07:25.22] Researcher: So learning what kind of things?

[00:07:36.04] Participant 2: Maybe how to be...how to survive in the wild... or learn more techniques to do things, I don't know.

[00:07:46.09] Researcher: Okay thanks, if you guys give me a little bit of background about your home life, where you live, what your life is like, just in a few sentences..

[00:07:54.14] Participant 4: Okay who is starting? Well I have a very loving mother, strong mom, strict but friendly, um if there are any kids in my street who are boys, and I have to go to my dad's home one weekend a month and I only have male cousins, my um , the female cousins have just recently been born, 2 or 3 years old. So I was very boyish growing up, we used to play cricket and soccer but I was still like, had an element of girliness, it was a nice childhood.

[00:08:37.16] Researcher: And have there been any kind of outdoor activities, nature-based things, in your everyday life?

[00:08:46.04] Participant 4: I had to walk from pre-school to home...

[00:08:53.15] Researcher: That counts!

[00:09:01.04] Participant 3: Well I was born on a farm and I was raised there and I still live on the farm and we have quite a few animals, we have got zebra and impala, Nyala and all those things. We used to have giraffe until the fell and died and then we got the skins and stuff. And we had cows but we sold our cows, but we sold our cows, we don't really need them anymore. We used to milk cows a lot and like get the milk and sell the milk and stuff. And we... um what are they called now, those things that run around in circles, anyway um we had some other animals and ja and um, so we have got hunting at

our farm, people come and they hunt animals. It depends on the animals and the prices and stuff and then ja. And we live near a river, with swings and canoes and we have got a guest house, people come and stay at our house and stuff. And we have a pool on the cliff which is quite cool and um there is quite a lot o nature in my life.

[00:10:16.19] Researcher: Okay cool thanks, do you want to have a go?

[00:10:20.21] Participant 2: Well I have always stayed in PA but was born in PE. And well sometimes when I was small, I would go outside and play and stuff. And I think this year I went overseas and it was very fun there and there was lots of nature in the place that we went... We went hiking and walking around the place and admiring the nature and ja... so ja.

[00:10:54.25] Researcher: Cool so you grew up in PA and you have been overseas a bit and experience a bit of nature.

[00:11:03.24] Participant 2: Because my father, he was born overseas.

[00:11:11.26] Participant 3: And I have a horse...!

[00:11:16.07] Researcher: So if think of the word 'nature' or the 'natural environment' what does it mean for you?

[00:11:23.04] Participant 3: I think of the farm straight away actually, and animals and plants and flowers and the woods. [How you see nature is connected to you SCHP]

[00:11:34.17] Participant 4: For some reason, whenever the word nature comes up, I think of the word grass. I actually think of trees. Like green, but then like, I watch TV shows and I see new aspects of nature, like hot deserts and hot deserts. I learned that in SS, and waterfalls and ocean life. It is actually pretty gorgeous. [Disconnected physically from nature, part of the problem]

[00:12:02.03] Researcher: Okay so there is an element of maybe beauty for nature?

[00:12:08.27] Participant 4: Not an element, it IS beautiful.

[00:12:16.24] Participant 2: Well whatever they said as well, the trees, just anything that grows.

[00:12:20.28] Researcher: Hmm anything that grows, that is interesting.

[00:12:24.01] Participant 4: I grow...

[00:12:27.06] Researcher: So if you look at that understanding of nature, anything that grow, do you guys see your selves as being a part of nature?

[00:12:34.16] Participant 3: Not really actually, I do, but I think more of animals and plants and then I think of myself.

[00:12:41.15] Researcher: So it is maybe kind of separate between you and nature?

[00:12:46.21] Participant 3: Ja I don't know why...

[00:12:44.16] Participant 4: Eish ja, I am afraid that... Okay, nature, I think of that monthly cycle. Whenever I think of myself in nature, I am just saying. Ja cos I always ask myself, why can't Mother Nature just have the message, 'you aint pregnant, next month!' Cos I saw that picture (in my head) and then it made me laugh. [00:13:18.27]

[00:13:20.08] Researcher: Okay thanks, that was really interesting. do you have anything to add?

[00:13:10.09] Participant 2: Yes, well we are not really animals, you can't say that, but we are like similar to animals and we have to do the same thing, they have to survive, they have to adapt to the area. We have to have warm clothes and we are like similar almost.

[00:13:45.16] Researcher: And if you think of your own cultural perspectives, the people that you live with, do you think that there is a relationship between people and nature?

[00:13:58.23] Participant 4: Yes a very big one if you ask me. Well in history, we learn about the Koi San and the whatevers and the whatevers, and how they used to be hunter gatherers, and wear leather skins and whatever and ostrich eggs and ja, so I just think of that...

[00:14:21.21] Researcher: And now, is it any different?

[00:14:27.11] Participant 4: Well we have become a lot more technologically advanced, we have brick houses but we don't have to pick up and leave with and we can go to the super market if we want to tomatoes and bread and milk.. You don't have to go and milk it yourself. And we have plastic bottles instead of ostrich eggs and we have taps and tanks instead of having to dig roots and then, like that...

[00:15:04.18] Participant 3: For me, nature is like a big part of my family. Um my dad used to live in Italy and when he came down all of my home was just bush so he loved it like a lot and my mom also made beads, necklaces and she would sell them or something like that. And we would go down to the river and we have lots of pictures and things, so nature is quite big.

[00:15:42.14] Researcher: So nature is quite a big part of your family. And you, do you think that there is a relationship between nature and people?

[00:15:37.21] Participant 2: Um yes, uh because like my family, they are very very close to nature because they like, use nature for like, all the time, all , all the time. Say if they want to, like my dad for example, he will go to the beach and he will collect things and bring it back. So nature is very important to us and it is nice to admire and is just very important.

[00:16:19.23] Researcher: So what kind of things does he collect from beach?

[00:16:10.13] Participant 2: Um he collects like things to eat, like mussels, or oysters.

[00:16:28.28] Researcher: So it is a good resource for humans?

[00:16:31.29] Participant 4: Well I just remembered something, like nowadays, they still use like herbs and little shrubs for medicines and whatever, if they have a ceremony, they will go and cut that sort of thing and spread it all over the goat before slaughtering it. And...

[00:16:54.14] Researcher: So that is kind of going one step further from resources into... so do you think that that connects to a deeper connection to nature, like ritual/culture?

[00:17:10.09] Participant 4: Ja exactly, it is cultural, because if you want someone to be accepted into the family, or they feel like something is not going right, even a wedding or someone's initiation, the boy turns 18, then he will go into the bush for three weeks and you have to survive for that. Sugar, oil, water, they don't have water for the first week...

[00:17:23.25] Researcher: SO they go into the bush?

[00:17:36.03] Participant 4: Ja and they have like 3 or 4 younger boys who bring them food that the mother has cooked.

[00:17:47.27] Researcher: So that is a different kind of way of looking at nature... sorry did you want to add something?

[00:18:00.28] Participant 3: Yes, my mom grows a garden and then when we have a headache or if we have like, if we cut ourselves then we have these special plants, my mom's got like all the herbs, so she knows a lot about that, she studied it. So we don't really use like the other stuff.

[00:18:20.11] Researcher: So no commercial meds. And then for each of you guys, where you live, your cultures, do you get the feeling that it is important for people to work together or do you get the feeling that most people are on their own individual mission for self gain?

[00:18:46.14] Participant 3: Sorry?

[00:18:49.08] Researcher: Okay maybe let us leave that question because we might run out of time. So in terms of your everyday life activities, like eating, sleeping, driving etc, do you think that those things affect the natural environment in any way?

[00:19:16.17] Participant 2: Yes, say the fumes from the cars, it is bad for the air, it is bad for us, you can't like breathe that we well anymore, and for our health and everything that people have like made today is bad for the environment and bad for nature. Like say if you are littering, it is bad for animals and just everything that lives. [Environmental knowledge]

[00:19:50.09] Participant 3: Wow is this a zip line?

[00:19:59.08] Researcher: Yes you will get to go on it!

[00:19:53.21] Participant 2: Um ja well, even like oil in the ocean and sewage and that they leak into the ocean and littering in the ocean especially because the fish get tangled up and they die. And the turtles. And also...

[00:20:14.20] Participant 4: And um like in the villages, cos you don't have proper plumbing systems and stuff, you have just a big hole to use as a toilet that could be like close to a river and that could pollute a person's fresh water resource.

[00:20:36.18] Researcher: Cool so you are kind of touching on how it can affect nature in a negative way, like the rivers, but also people, it is their drinking water..so there is a connection between people and nature there. So if you think of, each of you, where you live, can you think of one specific environmental problem that you could tell me about?

[00:21:02.07] Participant 4: People will drive past and just throw out whatever they want. Beer bottles, in um the township it is even worse, like on the sides of the roads, you will see little green and brown and clear things shining in the sun and those are used alcohol bottles that are passed out. And there are like papers in the street. So a person will eat their chips or whatever they are eating and they will toss it out and your Redbull can and they will just drive and throw it out.

[00:21:43.10] Participant 3: So for me, um I don't really have that many problems, but I live right next to a nature reserve so the problem there is, I don't know if you can really say this, but there is poaching, we have got that, they will poach a lot. And also the river, we live next to a river, and people them, they fish like a lot, like they fish over, they over-fish, they take the wrong thing out of the river, and then they don't have enough. I don't really have a littering problem.

[00:22:20.00] Researcher: Okay thanks, and what about you?

[00:22:20.00] Participant 2: Well in my area, there is still lots of litter and plastic, and the plastic blows it attaches to the bushes or the trees and then it is bad for the animals. And then, as she was saying, say if, a glass is, or like a beer bottle, or something made of glass is just left, it is not like going to go into the ground, or decompose very easily and it can also create fires because of the reflection or what is it now? Just from the sun and it just can make fires.

[00:22:55.14] Participant 4: On a windy day, if you go outside on my street, you will see that bread, little packet that you have your bananas in from Pic n pay, you will see it floating around and there will be that Pic n Pay packet and you will hear the plastic.

[00:23:14.20] Participant 3: Also you see the plastic, it catches on the um telephone lines which is...

[00:23:25.27] Participant 4: And it attaches onto like the animals, and they have paws so they can't really scratch away it, so they suffocate and die...

[00:23:37.29] Researcher: so when you see these things in your environment, how does it make you feel when you see them?

[00:23:39.28] Participant 2: Well to me, they make me and my like everyone I... everyone feel kind of like disgraced or disappointed in yourselves because this is what we have created. It's like our own fault that this is happening.

[00:23:56.05] Participant 3: I think that if we left, like left exactly, like if we didn't do so much, to the world we would still be able to live perfectly fine, without all this litter and stuff. Like we really don't need iPhones, we can have normal phones. I mean like, they just makes more batteries in the factories and they burn more, then all the smoke goes up and breaks the... what is it called now? The ozone layer, then the sun comes in and then we die.

[00:24:25.02] Participant 4: And people um... what was I going to say, people are producing things that some people don't like really need...

[00:24:28.21] Participant 3: Like DSTV...Okay that is...

[00:24:28.28] Participant 4: We need the international channels for the news, certain channels you need.

[00:24:43.04] Researcher: So some things are necessary and some things are just too much,

[00:24:46.27] Participant 3: Someone needs money..

[00:24:39.18] Participant 4: Too much technology, cos a person will have an ipad, and a laptop and a tv and a computer and another..

[00:24:54.18] Participant 2: It's just like overreacting...

[00:25:03.01] Researcher: And over consumption... So two more questions... do you think that humans are smarter or better than any other creatures?

[00:25:01.11] Participant 4: Dolphins are smarter I think though, well they have bigger brains, so?

[00:25:18.23] Participant 3: I think elephants are very smart, they have been around for longer than us,

[00:25:10.28] Participant 4: They just um changed, like mammoths...

[00:25:28.16] Participant 3: Ja they changed...

[00:25:16.19] Researcher: So they can adapt? So do you think that we can adapt?

[00:25:33.23] Participant 3: No I don't think we can change our body stuff, I don't think so...

[00:25:23.08] Participant 4: I mean nowadays, everyone has a hunch like (caveman hunch) that so soon everybody will be walking like a caveman again, and just repeating the cycle. (Like the t-shirt). Instead of a timeline, it is a circle!

[00:25:45.03] Participant 3: Back to the cave man hey!

[00:25:40.23] Researcher: Do you guys think that the earth belongs to anybody or anything?

[00:25:50.02] Participant 4: God.

[00:25:59.13] Participant 3: I personally think that the world belongs to the animals and the plants, not so much the humans because they (humans) seem to be taking control of everything and we need to remember who got here first.

[00:26:12.06] Researcher: Do you want to add anything?

[00:26:03.06] Participant 2: Ja I think that it does belong to everyone, but only if you can be nice to it, respect it, say you respect it, it will respect you back with other things, because people are not respecting nature or anything. Some they just like litter so we don't really don't deserve to be here if we are going to keep destroying things.

[00:26:45.28] Participant 4: Okay I am going to bring a biblical view onto this one. God, UM Adam and Eve said that we have to take care of the earth, and the animals but it doesn't seem like we are doing much to do that. Because as PAP 3 said there is a big problem with poaching, killing these animals, leaving them to die a slow, painful, miserable death, like rhinos and elephants also. Like even other animals, they are not going to use for anything, they are just destroying their home, like baboons.

[00:27:10.11] Participant 3: Like for medicine, but it doesn't even work man..

[00:27:24.29] Participant 4: *So we are meant to be taking care of our [earth] animals but it doesn't seem like we are doing that and we are meant to be taking care of our planet, but if you are going to litter and have plastic as your 'national flower,' then it is not going to work!*

[00:27:43.29] Participant 3: But not all religions say the same thing, that is Christian I suppose.

[00:27:58.05] Researcher: So this is the last kind of closing point, we are all sitting here in this natural space, with this forest around us, there is horse down there somewhere and a cat too. If you think of the feeling of sitting here in this space, is it any different to sitting just on a pavement in a city? How does it make you feel ?

[00:27:55.04] Participant 4: Well in a city, isn't there a like lot of traffic with a lot of angry people that are just angry for nothing, like bwam bwam bwam... you have got the honking and there is that coffee shop down the street, where there are lots of people talking, then there is a fight which breaks out over there and then there's a bar there and someone is drunk and getting mad. So are actually just going to get stressed. But here, there is serenity, it is calm and relaxing, especially the sky.

[00:28:51.03] Participant 3: Ja I think so too, and the trees, they are all different colours..

[00:28:50.20] Participant 4: It's just, you can just take a deep breath and relax.

[00:28:56.15] Participant 3: And there are rocks..and in the city, there aren't really rocks that much and there is grass and there is poo! And we never really find this there (pa).

[00:29:09.27] Researcher: So you feel quite different in this space rather than an urban space?

[00:29:01.04] Participant 3: Yes I feel comfortable, more comfortable..

[00:29:16.05] Participant 2: And there is fresh air! (Breathes in and out) in the city, you just smell the fumes and ugly smelling things. You feel more comfortable here and you can actually find yourself and be calm.

[00:29:33.10] Participant 3: Here you don't have to worry about people.

[00:29:33.29] Participant 4: You feel like are just floating on a cloud, your worries, you are weightless. The weight of the world is not on your shoulders.

[00:29:52.24] Participant 3: And there are birds flying around and there is tweeting...

[00:29:57.18] Participant 4: No honking, and angry people, swearing and shouting.

[00:30:07.10] Participant 2: it's not nice, Cos people shout and swear and do things, but if you look at an animal, they don't do anything, they are just there, they don't talk back.

[00:30:26.03] Participant 4: If you look at an antelope and an antelope, they are never like "yo this is my gangs territory! You gonna get killed." "This is my path!" Okay they are territorial, but they don't shout at each other. But I mean the fighting part of animals is natural, they don't do it for no reason, they like, for territory, for good reasons, that help the earth. But people fight and then they are going to get depressed when they are too young.. Cos you going to get a heart attack, then gonna be in hospital, and prisons are overcrowded, I don't know where that comes in but I have to say it.

[00:31:24.14] Researcher: So you definitely feel different in this space?

[00:31:32.24] Participant 4: Especially, if you are alone, by yourself and you can just admire it... in the city it is just rock and square...literally and figuratively, boring and there is no grass, if there is grass, it is fake grass.

[00:31:49.19] Participant 3: Like, there is a tree that is just in a square, then there is one tree growing up with some grass around it with like one dead flower... and some fake grass and like a stick in the middle of the tree to hold it up! And they tie it round.

[00:32:07.05] Participant 4: and that crushed stuff to protect it. And then in the city it is just blocked and everything but it has got different textures and you can get lost, not literally but figuratively. Cos I mean there are so many things to discover about nature, there's gorgeous things.

[00:32:31.11] Participant 2: And it is good for your health...

[00:32:30.25] Researcher: How is it good for your health?

[00:32:30.11] Participant 2: Well it is good to just get everything off your mind and maybe there is like herbs or something good for you but in the city like in an area, it is not healthy. Not good for your health like inside, you feel not nice, the air isn't good for you.

[00:32:58.11] Researcher: So your environment plays quite a big role in your happiness and how you feel?

[00:32:58.08] Participant 4: Ja like even when you have like a pretty flower, like a vase of flowers in the middle of your living room... Like if you have a vase of beautiful flowers in the middle of your living room, it's just going to brighten up your day. But I mean if you're going to have

[00:33:34.28] Participant 3: The worst is dead Proteas! They Stink. And then the seeds are falling off.

[00:33:49.01] Participant 4: I was just saying like if you have a tablet on your living room table, it's not going to brighten up your day, you're just going to see that someone is calling you for your bills and then you're just going to get depressed. SARS raiding you for money, like 'yeah I want my money', no but seriously, animals they won't say 'ja I want my money, you are two days late on your payment!'

[00:34:13.20] Participant 3: "I want my extra grass!"

[00:34:21.22] Participant 4: "I want the fancy grass, ooo you got a nice grass!"

[00:34:30.21] Researcher: So there is a big difference in what nature can bring you as opposed to technology in terms of happiness.

[00:34:38.09] Participant 2: I also think that we, technology is abusing nature because we make too much of things that we don't really need, people just go crazy about them like for example, money and stuff.

[00:34:50.21] Participant 3: Yoh people go crazy over money!

Participant 2:Ja so it is not very good, people fight over things, and we should just leave it how it is, instead of, the nature instead of abusing how it looks and...stuff.

[00:34:50.24] Participant 4: You won't see a um a zebra going to tear a tree down because it wants money or to build a house there. Or like you won't see a zebra going up to people carrying a gun like pow pow, cut off your head and then hang it! "I shot this woman eh, you see the head, it is very beautiful!" [As in a trophy human prize from hunting].

[00:35:47.23] Researcher: That's a good point.

[00:35:52.00] Participant 4: Ja I am very creative once I get..

[00:36:04.06] Researcher: so do you feel more connected to nature in this kind of space?

[00:36:01.29] Participant 3: Jaaa...

[00:36:04.06] Participant 4: Not me... I am like not connected, don't get me wrong, it is beautiful here, but I am like not as connected because I mean like, my mom is a teacher, like teacher salary, not like I am saying that there is anything wrong with it but we can't always afford to go camping and um she has always got stuff to do. And then my dad had got like two other kids in college so that is even less money for him and he has a car in repairs. Hmm.

[00:36:41.15] Researcher: So maybe there aren't so many opportunities for you to be connected?

[00:36:29.18] Participant 4: Ja

[00:36:43.23] Participant 2: I feel more connected here like, I have been to Hogsback many many times and here I feel more open and everything it's just soothing and it is nice to just sit outside and you can actually breathe here, you can smell the air, the water is fresh and beautiful so when I come here I feel more happier than in like,, you can't stay in the same place the whole time cos then it gets boring, and you see the same things, you want to see different things.

[00:37:20.17] Researcher: Anyone want to say something else before the hike?

[00:37:25.03] Participant 3: I love snow!

[00:37:12.22] Participant 4: I have never seen snow...

[00:37:26.11] Participant 2: Me neither.

[00:37:29.27] Participant 3: Does snow get dirty, can you eat it?

[00:37:30.19] Researcher: You can, but it will be cold.

[00:37:41.19] Participant 2: But it is not nice.

[00:37:47.19] Participant 4: My first time seeing hail...

[00:37:39.27] Participant 2: I also saw the hail here one time, I was in Hogsback and then it started hail and I was like huh? My dad actually took some of the hail and put it in his drink he was drinking...

[00:38:03.28] Participant 4: The first time I saw hail, I was about six and I didn't know what it was and then I saw my next door neighbors....

9.13. Appendix 13: Sample analytic memorandum

Subthemes	Quote	Data source
	Category 2: concerns the mediating factors of Hobbiton and contains 1 major theme with 3 subthemes This theme responds to sub-question c: What are the socio-material and embodied elements of the camps' nature-based activities, and how do they mediate the children's connectedness with, and perceptions of nature? Furthermore, following the initial inductive analysis approach, a few other key mediating factors emerged, which simultaneously functioned to mediate the degree to which participants connected with nature at Hobbiton. The main sub-themes for this category included: Experiential and environmental learning; Sociomateriality and embodiedness of nature-based activities and; Staff environmental passion + children's enthusiasm to learn Together these factors (in conjunction with participants own SCHVP) functioned as on-site mediators of participants' perceptions of nature and Connectedness-With-Nature.	
a) Synergies of experiential learning and environmental knowledge as Connectedness-With-Nature mediator	This subtheme involves 2 interlinked and complementary sub-factors: Experiential Learning [EL] and Environmental Knowledge. EL concerns being physically embodied in the process of environmental learning, through hiking etc. Environmental knowledge concerns theoretical knowledge shared by volunteers/instructors through the embodied Nature-based activities at Hobbiton. The synergies between these two aspects of learning mediated participant's perceptions of nature, experiences in nature and thus Connectedness-With-Nature. <i>Two sections follow below: the first section includes evidence from the volunteers/instructors around EL at Hobbiton. The second section involves comments around or evidence for ENVIRONMENTAL KNOWLEDGE shared by volunteers/instructors on the camp.</i> Experiential Learning: Volunteer 1 sheds light on her own informed opinion of learning through practice in relation to the children who come to Hobbiton and how they can learn more effectively through embodied experience: [v1] [00:26:02.29] P1: I think that is also depending on the person, because I have experienced this for myself like this... and I am doing things and I am practical. I can learn better than them in terms of just theory... so I am learning so much more when I am doing something, like for example, hikes or whatever than just listening to something... so I have to do it again and again and again... and I think, with a lot of the kids, it's the same, especially when they are in the learning process and they are coming out of school.. And with a school group, and they have now have to do it in the school but they have to sit and they have to learn	PAP678 ,PAP11 12, V1, V2, V6, ISI456, JI1, TI1

	through theory and I think um ja... I think it's much better to do it in a practical as they will learn a lot more. [EL] Below Tonya comments on how experiencing nature in a hands-on way might create opportunity for reflection around sustainability: EL: [TI1] [00:52:49.10] P11but I think it is life changing for any kid to get out into nature and go 'wow' because it's the one time where you kinda go, okay we do need to look after this, because I do want my kids to see this, I want my kids to see a rhino [but] you need to interact with nature, you need to learn about fresh water, the invertebrates and that that is what makes water clean you know. And that kind of thing... Tonya further highlights the experience of a head-mistress who came to Hobbiton and experienced a waterfall in the flesh for the first time: [TI1] [00:27:28.23] P11: you know, something small, like irrelevant of how cold it is... standing under Madonna and child, and actually standing under a waterfall, for a lot of kids, they have never done it before and its definitely, there is a connection [to nature] that comes through.. Um I had a head mistress from Mthata who brought here students down here... and I thought well that's a far way to drive to bring your students down here. and you know, she came to me and she said, "I should be focusing on my students, but I really have to share with you, my pivotal moment that I have had while I am in Hogsback.." and I said cool, let's hear about it and she understood that it wasn't about her, and that is was about her kids, but she said "I just need to, I just need to, to tell another adult " and I was like, well what's the coolest thing that you have experienced here at Hobbiton? And I was fully expecting, like the trapeze jump or something... and she turned around and she said..."ah I have never seen, a real, live, waterfall, I have seen them in books, I have seen them on tellie... but I have never ever seen a real live waterfall." and that's a head mistress! And that's pretty scary, that we have got... its shows a lot... so you now, if we can impact people at that level, where they actually walk on the ground and realise that when you walk in the forest, you actually are walking on a softer substance than you walk on anywhere else because you've got leaf matter. You know, just actually walking on it, you know just actually drinking from a stream... Tonya also highlights the importance of experiencing nature and animals in particular, in an embodied manner rather than in a way which is distancing: [TI1] ...and for a lot of kids, well it was amazing, when I was instructing we had one group and like, out of them, probably four percent had actually [see a waterfall before]...and I was privileged enough to take them on a hike...and the guys came back just raving, but I mean not only did we go on a hike, it was like the most blessed hike that I have ever been on, because we saw Knysna Louries, they flew right over the top of us. Going into the forest we saw baboons, and coming out of the forest we had Samango monkeys... so I was just like wow you know and they could actually see these things that people go to zoos and whatever to look at, in nature, and its where we should be seeing them. We shouldn't go and see them in a caged up flipping place. We should be seeing them where they naturally occur. And we should be conserving that as much as we can. Um you know, we should be fighting to keep amazons, and all sorts of protected areas. Complementing the above quote, instructor 6 divulges a hands-on encounter with wildlife at Hobbiton for the children: ISI456: [00:24:29.12] P4: ja we had a baboon, or was it a monkey that went into the dorms, and we just heard squeals coming out and these kids came out with big eyes and said, "there's a baboon, there's a baboon' and all the kids were scattered from corner to corner and this poor monkey couldn't get out cos I think he came through the door and everyone was on the side there.. Further volunteer 6 highlights how the hikes are conducive to formative animal encounters and sparking interest in nature in general for the children:
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	V6: [00:10:59.25] P9: well one thing is, early on the night hike when we are doing the second day, out to the clearing, you might have seen it, when you are coming back, there are some signs of nocturnal animals, which they can actually go and look for it with the torch and we tell them, I think there are eight of them. and then they will start looking for them, if you have another hike the next day, they try to look for those animals even if they are nocturnal and I think most of us haven't seen one of them.. You only see like the foot prints and stuff. But yeah I think the night hike is quite nice for all the kids, to get closer to nature, especially like when you have to be quiet and you are just walking and you just hear all the noises. Several of the volunteers and instructors also highlight how coming to Hobbiton can be a transformative, first experiential encounter in nature for children , particularly for those who have never seen a real waterfall, or the brilliant night sky before: [V2] And I think it's also just to a general idea that we want to help them develop by doing activities that they would t normally have the opportunity to do...especially Lots of them come from either Grahamstown or East London or PE, so being in an environment is new for lots of them, I guess it's just a different way of learning.. V6: [00:07:30.25] P9: yeah, yeah and the night hike, I love it and during certain night or with special groups we are even doing stargazing like at the middle of the clearing, which is so nice and you can just look up at the sky and see different stars and you can see properly up here. Whereas most of the times, you can't really do that down in the cities, with all the lights and the noises. ISI456: [01:04:37.04] P6: yes yes they do get interested [in nature], even when you take them to the waterfall because some of them they have never been around the waterfalls, so we even give them the chance to swim when the weather is fine to see under the waterfall. [V1] [00:20:03.11] P1...and but the most of them especially when we are doing the first hike to the waterfall, a lot of them have never seen a waterfall and it's so cool when they are going there for the first time.. V6: [00:06:35.28] P9: well I think its huge [the impact of the Nature-based activities for children], because most of the activities, firstly are outside, then like the hike are... for most of the kids, well for some of the kids, it's their first time being up in the mountain doing those hikes and I think it's so nice...it doesn't matter which hike you actually do because either you have the great view or you are hiking to special waterfalls which are just so nice and most of the waterfalls when you are right there, you can even drink the water which is such a nice thing. And you can even swim there and a lot of kids love it, to do that... Lastly, Josh and instructor 4 highlight the necessity of learning through practice and experience particularly for young children: ISI456: [01:15:50.24] P4: and I think, in the city, you know, you have to go according to the structure of it and you have to go do all these things, whereas when we are running our programs, you know, we are running it according to the way the kids operate and we know that the kids have concentration spans of fifteen minutes, because I promise you if we had to sit through a class, like the kids do for like two hours or whatever, you know, boredom is there. Whereas in our activities, we can mix it up, we can sing, we can dance, we can mix it up and this keeps the kids engaged all the time. And why is that? It's because we are out there, in that [natural] setting, that doesn't have structure. It's like the indigenous forest, nothing grows straight, and everything grows freely. J11: [00:37:39.02] Josh: yes it is a basic question, um it [environmental learning] is something that they can only learn practically and physically, I mean you can talk about it until you are blue in the face, but they are not going to.. It's like abseiling, or any of these things, until you actually get yourself on the ledge, and decide to go over backwards holding onto the rope, you actually can never really understand what it is like. Um and with all of these things, it's a question of...	
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they do have to do it physically and practically...before it will sink in and this is not a reflection on any education system because I include St Andrews private school all the way through to some rural former DET school, you cannot duplicate these things in the classroom and I get teachers telling me this time and time again, that they will see aspects of the children that they will never encounter or that they didn't even know were there. [furthermore] with regards to the environment, it's all very well us telling them about um alien vegetation being damaging to the environment and trying to explain why, um and trying to explain why we need to get rid of that, but in fact it's just one more academic thing that that are told and which has no impact on their lives, but when they actually go out with machetes and ring bark and pull out and physically do something, they are going to learn it, and it's going to have a far greater impact on their lives. um equally with regards to um learning about waterfalls, wildlife and so on, you can learn about it in a class room, but here, at Fairewood, they actually see a zebra, at Hobbiton, in Hogsback they see waterfalls, they see wild monkeys jumping around in the trees, and so on. So then when we talk about the importance of preserving the indigenous forests, and the trees and the animals, it has a greater impact on them...

Environmental Knowledge:

The following volunteers and instructors illustrate how previously lacking environmental knowledge is shared with the children through the experiential Nature-based activities at Hobbiton:

[00:07:27.27] V3: like obviously [we share environmental knowledge with the children through] different knowledge about different birds... how you look after um... almost [to show the children] how to we are happier around nature and just singing songs and chant ya.

V1: there are more important things than technology. I mean um, in the fact that we say please don't litter and respect our nature and we are showing them some of the trees, we are showing them what is growing and how and um... we are giving them some facts they wouldn't have in the city, like, not really survival but first aid outdoor stuff

[V2] [00:12:11.12] P2: so when we do the hikes, we often talk about the two types of forest, the indigenous and the exotic forests and then we... tell them about the specific trees, that most of them know as the national tree, the yellowwood. We try and give them a few specific facts about the forest around here and all the logging that goes on and the animals

[V2] [00:22:18.14] P2: yeah so there are some things... its more when some of the... like a specific kid asks a specific question like "how do plants grow" or something like that... that I remember... that a kid asked me once and I managed to give a reasonably scientific answer....

V2: [00:11:10.12] P2: [We are sharing environmental knowledge] through all the things we do when they leave, they have, well I hope, they have a much better understanding of even the specifics about the species of the trees, that sort of thing, I think, knowing those details, you know, rather than thinking that that's just a forest.. Knowing what's in the forest, that sort of thing... they certainly, you know, respect the environment more and that might lead them to act differently. And also I think learning in a different environment to a classroom, as well, definitely, just being out in the forest is much better for you.

Another instructor relays the challenge of trying to cover as much as they can in the time they have in terms of sharing environmental knowledge with the children:

ISI456: [01:06:30.21] P5: but I mean you try and cover as much as you can. Like with most people, they don't even know that we do actually have alien trees or something like that. So again like, wow like, the first question you will probably get is like, how did they [the alien trees] even get here? I mean you get like all different kinds of ways of how they came about to this side [South Africa]

	you know [but], we try and cover as much as we can with the indigenous part of our forests and stuff. like Um I mean with the forestry, like for the cape parrot guys, we are trying to keep up with them, so we tell them all the different parts like with the [nesting] boxes, why they actually put boxes up because the Cape Parrots like that. And most people will like, when you go to these waterfalls, they don't actually know if the water there is good to drink but the first thing they will do is just like say "ah it's not clean". But then like we try and cover as much as we can about nature like <i>how</i>, maybe you could actually tell if the water is good. Obviously you try and cover as much as... like the, what you call it?...the fresh water vertebrates and stuff [as indicators of a fresh water source] like that and if there is stuff growing there and stuff like that. But ja we try and cover as much as you can because a lot of people don't even know about those things. Below Tonya relays an example of the process of simultaneously combining EL and environmental knowledge through the Nature-based activities and its subsequent learning effect : [00:38:18.01] P11: ja I know, depending on how long the kids are staying with us for, we try and do a night-hike in the indigenous forest and then a night-hike in the exotic forest and then we get the kids to reflect on which was warmer and why..Um you know, [because] decomposing biomass causes thermal energy... which we don't have in the exotic forests... then [we talk about] which ones [forests] have more animal sounds... your indigenous. Then which one has more...etc... Even when we walk through an area that's got exotic, we have a look at the ferns and the foundations species... pioneers species, none of them are on the ground because nothing can survive in their kind of acidic or whatever it is, soil, that Pine, Bluegum, Wattle. They just can't survive, they are just such water drainers that's they don't support any of that kind of ground stuff. So then we are looking at soil erosion too, because the minute that stuff is taken out, there's not much there that comes through [on the hikes]... Josh further highlights that many of the UPC children will not have had access to either the experience of, or the knowledge around alien vegetation, due their SCHP, and lack of quality education in particular. Thus drawing attention to the unique opportunity for learning through the amalgamation of practice and theory that Hobbiton offers through its Nature-based activities: [00:15:33.20] J11: because the teachers [in underprivileged schools] haven't been taught...about what actually is an alien plant. They might have learnt it academically but they haven't had hands on... gone out there, found Wattle, pulled up a Wattle, ring barked a Port Jackson or whatever it might be. They have had no opportunity to do anything like that, so at least, if nothing else, we are providing them [the children] with that opportunity, but later in life if they ever encounter something like this, they do know a little bit about what we are talking about... J11: I make sure that the kids get a chance to pick and to eat the wild strawberries but equally by pointing out something like <i>Acokanthera Oppositifolia</i> [wild poisonous berries] and saying 'do not touch that, if you eat that berry, in three minutes, you will be dead.'...and we do point out when we are taking them for hikes, as many of the environmental concerns as we can, just while we are doing it [the hike]. Finally Josh relays how environmental knowledge and environmental learning is integrated into every aspect of Hobbiton, whether nature-based or otherwise: J11: [00:29:35.27] Josh: well certainly, like I said, environmental education should be underpinning every activity that we do, just about every activity that we do. So we do see, that the mere fact of being at Hobbiton or at Fairewood is, as far as they are concerned, a wilderness experience. Obviously it's very far from what you or I might understand as a wilderness experiences, but as far as they are	
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	concerned, it is. Um so for a start, they have a feeling that they are in nature, then when we do any activity that involves taking them out into the veld. J11 [00:06:16.20] ...I would like to say environmental education touches on everything that we do... we seldom teach environmental education as a separate component, rather we let it be a part of everything that we are doing.. So when we are taking them on hikes, we will point out the litter and give the children a chance to pick up some litter if they choose. We will point out alien vegetation and encourage them to pull out some wattles. its the kind of thing, we talk about sanctity of life and it is one of our rules that they may not kill anything, but at least then when we are walking we will talk about it, so it's not that we have separate stand alone lesson. Rather that it's an underlying philosophy, it is integrated in. J11: we actually take the time to explain, particularly on hikes to explain what we are doing, even if it's not a hike, any aspect of environmental education that we are focusing on, like the sanctity of life, like not littering, with everything that they do, those rules still apply, there is no exception to those rules. Um ja... so as to how does it impinge on the activities on a hike, we talk about environmental issues, largely alien vegetation, but whatever else might be appropriate to that area, the parrots, the dangers of poaching invites bad etc.. The need to protect um plants, and so on. then um even if it's an activity based around Hobbiton, the whole thing of not littering, sanctity of life, not littering, not damaging anything around there, it's all very important.. J11 [00:42:20.24] Josh: um... like I have indicated, we see the whole Hobbiton experience as connecting with nature, you can't divorce one from the other.. I suppose you could, if you put us in the middle of a town, Hobbiton in the middle of a town, and I know of places where they do adventure based learning, they put up ropes courses and so on... as for the, physical nature, due to the environmental education aspect, no not entirely, it wouldn't be just because of that, clearly it's all sorts of other factors but it wouldn't be as successful if we were doing this in the middle of suburbia or right in the middle of a town. So yes, um being up at Hobbiton, or at Fairewood, like I have always said, we consider even staying here at the centre, to be an encounter with nature. and certainly up in Hogsback	
b) Socio-materiality of environment: the social and material aspects/factors which mediate experiences of Nature-based activities and objective of	Subtheme b concerns the socio-materiality of Nature-based activities at Hobbiton. That is, the seemingly obviously social (human) and material (physical and embodied) factors which are inextricably interlinked and which underpin and mediate the Nature-based activities. Together these factors mediate how the Nature-based activities are experienced and perceived by participants, which in turn mediates how nature is perceived by participants and thereby participant's Connectedness-With-Nature. <i>Below several participants were asked to reflect on a previous Hobbiton camp experience. All participants mentioned first and fore mostly, the weather and how it affected their experience:</i> [00:00:24.00] Participant 3: [The previous camp was] cold, wet and miserable. [00:00:28.20] Participant 4: Well it was actually quite fun and it would have been a whole lot more fun if my toes weren't white and about to break off [due to the cold]. [00:00:37.27] Participant 3: It was raining and it was wet. [00:00:44.21] Participant 4: It was like raining like a drizzle, it was dropppps. Like huge drops that just hurt. [00:00:53.11] Participant 3: I was soaking, all my clothes were wet. [00:00:53.18] Participant 4: Hmm I actually wore the same clothes the next day so I could keep some of my clothes dry.	PAP678 • PAP910 • PAP111 2, PAP5, PAP234 , PAPI1, PAPI2, UPCFG 2, UPCFG 5,[UPC

CONNECTEDNESS-WITH-NATURE.	[00:02:09.05] Participant 3: Ja we were meant to have a night hike but it was raining and terrible and stuff. [00:01:28.17] P10: [I felt] cold but I felt smarter [after the camp]... [00:06:13.21] Participant 4: No we actually got along very well [the children and the Hobbiton volunteers]; I just didn't like them that much because they actually made us work outside and it was freezing. YO! That wind cut into your skin, the clothes cling to you and then the wind was not helping... [00:07:05.02] Participant 4: Would have been even better, if the sun was shining. [00:00:14.03] Participant 5: Cold! Furthermore, two participants noted how the bad weather acted as a constraining mediating factor for some of the planned Nature-based activities. [00:00:16.29] P11: it was mainly raining the whole time so we didn't get to do as much stuff as we were supposed to... [00:00:25.27] P12: Ja many other things we were meant to do got cancelled Current camp weather: several of the PA participant's went on to remark about the effect of the weather on the current camp: [00:14:47.20] P3: if you are cold... it is better to share a bed with someone... even though you have your own blankets... [00:15:05.02] P1: I didn't do that I just slept in my sleeping blanket which it had deteriorating feathers... [00:12:55.12] P4: I wanted more blankets, [00:13:07.03] P7: and [I wanted] a heater, it was cold. [00:13:09.10] P8: Yoh that corner I was sleeping it, it was cold at night. [00:13:11.01] P4: [I wanted] a fire. [00:12:58.04] P10: [I wanted] a bigger bed [00:13:12.03] P4: [I wanted] a bigger fire! [00:13:09.01] P12: [I wanted] no windows, just make it without windows... [00:10:47.06] P2: I actually appreciate the warmth that I actually need... how much I need it... [00:08:17.00] P2: for middle ropes, I was freezing cold it was one of the coldest parts of the whole thing... [00:00:55.02] Participant 5: That was better [the second hike], since it wasn't raining the whole time Finally, when asked if they would come back, most said that they would , but one boy in particular exclaimed that he would come back granted the weather was warmer: [00:09:39.27] P7: I would come back when it was hot mam, when it is summer mam. When asked how this camp was different to the previous one, two participants noted socio-material factors pertaining to the weather and the physicality of the activities: [00:18:31.15] P3: my nose didn't attack me, so usually my nose goes mad with nature... so I didn't have an attack. [00:13:34.25] P9: much more physical... just more physical... and a bit colder... Only one participants remarked that the cold weather had little impact on the Nature-based activities: [00:21:40.26] P12: no I didn't really think about it [the weather], I was laughing too much... [while on the hike] Nature-based immersion: below several participants relay their feelings of being immersed within a nature-based setting rather than in Port Alfred: [00:17:23.25] P11: ja we would feel different [back in the city]... with different scenery and different noises and feels. [00:17:39.17] P12: ja like you can feel the difference between being in this place and Port Alfred. Like there is a big difference, like you can feel that you are outdoors, it just feels better than doing it indoors... [00:06:45.05] P7: [It is better here in Hogsback] because there is no cars. [00:06:49.03] P6: It is nice and chilled.	PI1], TI1, VI, V2, V4, v7, ISI456, JI1, PAH1, PANH1, SS
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	[00:06:46.21] P7: Fresh air mam, [where we live], there is pollution, and cars and the smoke and everything. [00:07:07.00] P6: Yes it is because the pavement is very hard and on the grass you can chill. [00:07:36.09] P7: Ah mam, we are sitting here because we enjoy nature. [00:07:35.06] P8: We can just role down there! (Down the grassy hill). [00:27:55.04] Participant 4: Well in a city, isn't there a like lot of traffic with a lot of angry people that are just angry for nothing, like bwam bwam bwam... you have got the honking and there is that coffee shop down the street, where there are lots of people talking, then there is a fight which breaks out over there and then there's a bar there and someone is drunk and getting mad. So you are actually just going to get stressed. But here, there is serenity, it is calm and relaxing, especially the sky... [00:29:16.05] Participant 2: There is fresh air! (Breathes in and out). In the city, you just smell the fumes and ugly smelling things. You feel more comfortable here and you can actually find yourself and be calm. Two participants further relayed feeling calm in the setting due to not having to worry about people: [00:13:01.08] Participant 5: Yes I feel calmer here, in the city I feel anxious, cos there are usually lots of people watching me, like here there is nobody watching me. Here it is peaceful. . [its] Just the animals [watching]. [00:29:33.10] Participant 3: Here you don't have to worry about people. In order to further gage how material immersion in nature was affecting the children, I asked them to imagine the middle-ropes course being inside a building/in a city rather than on the edge of an indigenous forest, and how this might have affected them. These were some of their feelings: [00:02:49.19] P8: It would have been different in terms of the Hard ground, the ground there [at Hobbiton] has grass and stuff, and buildings are just cement. If you fall down...Yoh. [00:02:53.17] P6: It is better to fall down in a building than there because you are going to get thorns in your body and grass. [00:03:02.03] P7: Yes and windows might break. [00:13:58.11] P3: I think it is scarier [doing the activity on the edge of the forest in Hogsback], because if you fall, you land on grass... and there is no hospital... [00:13:53.17] P1: well you wouldn't want to land on solid concrete now would you? [00:14:00.23] P3: no but in the city, they have mattresses and spongy what what... but now you have just grass... [00:14:00.02] P3: hey man listen to what I am saying... listen to my point....now what was I saying.... oh ja, it is indoors there so I mean like, there are nets and man-made stuff and well here, this stuff is also manmade, but here there is fresh air and blue skies.. Two other participants remarked on how being on the edge of the forest while doing the activity made them feel: [00:20:41.00] P12: better out there [by the forest], a lot better, just because there is fresh air, and like outside you can feel that if you fall you won't fall on hardness you will fall on grass and there is like.. And the surroundings are good. [00:03:10.18] P8: I felt like I was the king of the forest! Like I was king of the forest. Swinging, it is like that jungle book story who has a friend that is a bear, always swinging on the ropes and stuff... That is how I felt. While others remarked on more-weather related factors: [00:03:22.18] P6: It has a nice breeze [on the edge of the forest]. [00:21:27.23] P12: ja it was really cold [on the edge of the forest], but just your hands, but the ropes as well. [00:21:44.11] P11: it was a bit more challenging [being on the edge of the forest], cos your fingers were cold and you couldn't really feel but it was fine. Despite many of the participants clearly complaining about the weather, a few of them were disappointed that it had not snowed:
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	00:10:03.03] P4: the snow, I thought we were going to see snow; we saw frost but not snow... [00:21:29.18] P2: I wanted to see snow because I have never seen snow before [00:10:06.27] P11: we saw frost but no snow. [00:21:35.17] P1: like I wanted to see snow but at the same time I didn't want to get frost bite or anything... SS: [00:02:39.10] P15: I was kinda a little bit happy but sad because we won't be able to have snow ball fights or build a snowman... but at least we won't get very cold.. <i>Socio-materiality of the hikes: below participants relay their feelings around the hiking activities and in particular the physicality and strenuousness of the uphill and downhill components of hikes:</i> [00:02:46.21] Participant 4: Well I learnt that you have to pace yourself going downhill, otherwise... shhhhh. My heart almost stopped. Well I didn't slip but the people running, like this half cliff, but I mean, you could have done quite a bit of damage to yourself if you fell over. And it was wet and slippery so you really had to learn how to get your footing right and things like that... [00:03:59.13] P7: This hike was tiring [Kettle Spout hike] it has got steep hills and stuff. That hike Madonna and Child hike was easy, just went like left and right. That hike [Kettle Spout hike], if you went 'around' the curve, you went <i>AROUND</i> like that and then it goes up and then it gets flat and then it goes up even more!! [00:04:48.10] P6: [I enjoyed the second hike more] because it was nice in the place that we walked. And we didn't have to hurry up... [00:04:33.06] P8: And we had more time than yesterday's one, yesterday's one was just like straightforward, this one wasn't, it had bends and stuff. [00:04:51.08] P6: But the other one, that Madonna and Child, it was easy! But this one was much, much more difficult. [00:05:19.29] P6: It had a nice breeze [Kettle Spout hike]. [after the hike, how felt] [00:04:33.06] P8: [After the hike] I had a lot of things under me [clothes], I got here, I changed, I was sweating, it was hot! When I got there, I saw the gate and I ran! [00:09:14.17] P8: I was excited and at the same time tired. Because that way you just go straight up, and then you get to a flat part, I was like 'yay, it is flat,' and next thing it goes up again, Yoh! [00:09:28.04] P6: It was difficult when we went but when we came back it was easier. [00:09:42.04] R1: So at first the challenge was hard but then it became easier [00:18:33.13] P12: Good it was fun Yoh; it was pretty tiring though until you got to the top... [00:18:46.17] P11: it [going uphill] was worse than going down yoh!!! [00:18:47.07] P12: ja I nearly fell down that edge twice... [00:18:56.20] P12: ja it was like, 'sjoe we made it, I am still alive.' [00:19:16.25] P11: and when we were there the water fall was just amazing... [00:12:43.08] P4: the uphill was very hard... [00:00:45.28] R1: I thought the downhill was easy but now uphill. PAH1: [00:01:32.07] P8: for me... never again... I tried going fast but no never again Two participants also commented on the taste of the water from the waterfall: [00:06:09.27] P7: And I was quite surprised at how fresh the water was at the top... It was nice and cold. [00:06:21.00] P8: It was fresh and it had some sweetness to it. One participant further connected the experience of the hike to a positive historical memory: SS: [00:01:25.29] P14: it was so nice, it just reminded me of my great granny and great grandpa because we would always go and have a picnic by the forest in their villages in Grahamstown and then they... like the wind goes through,
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	blows through the trees and the owls that makes sounds and it sounds just so awesome.. Night hike: here participants divulged their feelings and experiences of the night hike. The below comments shed light on social-material factors, such as lack of light and sight as well as improved senses as mediating factors of Connectedness-With-Nature for this activity: [00:03:01.13] P5: I liked the night hike because we were able to improve our senses...quite a bit... [00:01:43.26] P7: yes mam, we got used to the darkness. [00:01:48.13] P9: [I felt] A little bit safer...[once my eyes had adjusted] [00:03:15.27] P5: [my] hearing and sight [improved the most] because my nose seemed to be blocked... and touch [sense of touch improved]. [00:04:10.10] P13: I liked when we had to put off our torches and it made us, our night vision, more stronger and we had, um and plus when we had to switch on our lights, it wasn't that clear... on the other hand, some participants relayed more negative perspectives of the night hike: [00:03:28.11] P3: well the bird houses [Cape Parrot nesting boxing in the forests]; they were so high up... I heard them, cos like the exotic forest, the trees are skinny and tall and you look up and it's just starkness... you see like a bit of the moon light and then like squeel, like a house in the middle of nowhere, because I could see the trees moves and you could hear the creatures.. So it was a bit like a horror movie or something. It was creepy... [00:04:01.27] P3: no [the night hike] not really [scary], but I just tripped a lot and ruined my favourite shoes. [00:06:16.02] P6: ...I was scared at night hike and I didn't have a torch, and then everyone switched off their torches and I couldn't see the road and I kept on tripping and I kept on falling, and I kept on falling and then it was slippery somewhere and I nearly fell but I didn't. Furthermore, several participants remarked on the creepiness of the night hike as well as more gendered social factors: [00:10:32.01] P12: I heard the trees talk... no they were just making noises on the night... it is like the door... when we were walking in the dark... I didn't know what was happening. [00:10:41.22] P8: that creepy sound like the door getting opened... I hated that sound, I don't like sounds like that... like a door opening. [00:11:37.29] P7: Mam when we went on the night hike, and we had to switch off our torches and I looked up, it was like people were looking at us, yes there, it was like people were looking at us. [00:11:47.28] P8: the trees when you stare at them, it was scary. [00:12:01.01] P8: I wasn't scared... [00:12:07.26] P7: I was scared, there were a lot of roots and the trees, I almost fell cos I kept on tripping and I was just holding and holding... [00:19:29.10] P3: the boys can be really annoying and stupid, no offence, some boys, because in the night hike, the one would always go like, on the grassy part, they would scare the people, they would shine a torch on a mossy branch thingy majiggy, and say it was a snake.. And then just giggle like mad. While other participants relayed more positive overall experiences of the night-hike in relation to the physical exercise, the weather and temperature in the forests, as well as the darkness: SS [00:02:02.16] P15: when we had to go on the night hike, for me that was actually quite exciting... serious but a very exciting adventure... SS: [00:00:34.24] P15: at the night hike it was awesome...but I thought I am going to fall but when we stood in that circle it was the best thing because it was nice and quiet and you can hear the sounds by the trees and the nature and um, I learnt that...friends, you have to be honest, be honest.. And that exercising is really good for your body... especially walking and the hikes...	
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	[00:01:47.22] P3: I liked the night hike, it was easy... I mean I actually felt the difference between the indigenous forest and the exotic. Cos in the indigenous, I was like wow it is actually quite warm in here. But then when we had that trust circle [in the exotic forest]... um it was actually quite chilly, but I mean it was fun. I liked... it was funny, I laughed at myself cos I looked like an idiot, trying to stare down and see everything outside, but I liked the moonlight and the stars and it was quite pretty. It was creepy though [the darkness]. [00:01:17.17] P8: it was scary and fun at the same time....because it was dark and we had to switch our torches off... it was dark we couldn't see where we were going. We had to walk and then grab somebody on the shoulders... and then the guy in front of me kept going ahead and then I couldn't see him and then I couldn't see him. And he was wearing all black! Night-hike trust circle: towards the end of the hike there was a trust circle activity where children could share their fears with the group in the assumed safety of the darkness. However many relayed that this activity was socially uncomfortable which mediated the experience of being out in nature [see observations]: [00:02:07.04] P9: [I felt] embarrassed and shy, really cold... [00:02:01.07] P12: I was feeling a bit sick then, [00:02:17.09] P8: you want me to talk about... anyone who has to put me in front of people, I don't like it... [00:02:22.28] P2: I must admit that the trust circle that the trust circle was a bit dodgy, no one really trusted anyone, everyone was scared to go.. P3: and plus I enjoyed it but it's just the circle that was a bit uncomfortable because some people didn't want to go because some people were too shy... we were also shy. [00:04:35.25] P1: I did [speak], but I didn't feel that my opinion was really valued and I was laughed at... and I was laughed at when I said my point..I said fear is having no hope in your darkest moments. In light of the un-comfortability some participants suggested other ways of doing the trust circle: [00:02:39.05] P8: not in front of a lot of people, maybe just like one person, and then you go one by one,, like more of an individual exercise.. [00:02:41.03] P9: like in small groups, maybe if they had to put us into six groups, with like, small people, maybe four of us in a group, then we would be more comfortable. [00:05:33.19] P2: if there were no teachers... [00:05:41.16] P3: write it down ne, no names, ne, and then you put it in, and then you mix it up and the one person just grabs one and then reads it. Pool: below are participant's comments around their socio-material experience of jumping into the dark-green Hobbiton pool in mid winter. These socio-material reflections mediated participants perceptions of the pool and thereby their Connectedness-With-Nature: [00:17:13.01] P7: Yoh mam, I felt so cold, it was cold, it was cold, and I felt the pain in my environmental knowledge... [00:17:44.20] P7: I jumped in again because after I jumped once mam, I wanted to go again, and again and again. [00:18:33.17] P7: yes mam, [I learnt] how to be afraid of cold water [00:00:37.18] P9: it was very cold, freezing... [00:03:02.02] P9: Yoh the cold of the camp [was the worst part of the camp], and the pool, yoh... [00:18:51.29] P11: I never knew I could swim in such cold water... 1 participant also reflected on his initial perception of the pool as a dark and dirty pool infested with crocodiles: [00:18:49.03] P7: yes mam, I thought there were crocodiles but I went in!	
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	[00:18:53.23] P7: [but after I jumped in, I realised that] ja it was fine, it was just like a normal pool. There were also more explicit social factors which mediated the experience of this activity such as peer pressure and gendered expectations: When participants were asked why they jumped into a pool in the middle of winter, one participants answered: [00:17:58.06] P6: it is cos Mr. K said that if we jumped into the water, then you're gunna be a man. Then some people started to jump. [00:18:23.26] P7: it was very cold mam but I wanted to be a man, mam. <i>Below are the comments from the UPC participants around socio-materiality of the various Nature-based activities which they experienced:</i> Weather: the below comments serve to illustrate the importance of sunny weather for Nature-based activities: when asked if warmer weather would have made a difference to their hiking experience, all participants replied 'yes.' Further comments are relayed below: [00:34:04.27] P4: it would have been better if it didn't rain that day [For the hike]... [00:20:57.12] P1: ja it was nice [the hike] but also it was freezing... and it was also raining, it was drizzling and it was cold... When asked if they would return to Hobbiton, one participant remarked: [00:34:20.12] P2: yes in summer, not in winter! [UPCPI1]. On the other hand, two participants experiences of the Nature-based activities did not appear to have been adversely affected by the cold weather, but rather enhanced by the social elements of the activity: [00:04:43.13] P1: na it's nice [even if the weather is bad] because we are working as a team, laughing and doing things together... [social aspect trumps weather] [00:17:55.21] P1: it was fine [the bad weather] we were laughing...[UPC] Hikes: here several participants remarked on their experiences of the hikes: [00:18:20.08] P1: I like it [the hikes] but I like the night hike, not in the day...[upc] [00:05:09.22] P3: I am [was] scared [during the hikes] [00:19:25.29] P3: it was nice, seeing the waterfall before [on Madonna and Child hike] [00:20:17.17] P4: the road is way too long for me and there are big hills [Madonna and Child hike] [00:20:52.17] P3: it was not really nice... [Madonna and Child hike] [00:03:39.00] P2: hai I don't like the hikes...but there is one hike that I like, Madonna and Child... ah its nice because why... it gives me a lot of things.. Because Madonna... what did the instructor tell me again about it... [00:05:12.13] P2: it was too much, too much distance... too far... Night hikes: below participants remark on their experiences of the night hike in relation to experienced material factors: [00:05:37.00] P3: it was awesome... even though it was cold... it was awesome, we were quiet... and we heard the sound of the forest, how it sounds, the owl was out...and it was awesome.. And then we kept quiet for maybe twenty minutes... but it was hard to keep quiet...[UPCPI1] Other participants were far less enthusiastic about the night hike particularly in relation to convenience of time, the temperature, the darkness and potential threat of snakes on the night hike: [00:26:17.19] P1: hai no, I am going to say that I am sick... [as an excuse not to go on the night hike]
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	[00:26:44.18] P1: it's not nice going there [on the night hike] at eight pm and then being back at twelve. Hai no I want to sleep, I want to sleep... [00:05:23.15] P1: but I was so scared [during the night hike]. [00:06:05.17] P4: and we were scared of falling down and down forwards. [00:06:10.04] P2: Yoh I was scared, when I saw a root, I thought it was a snake, I closed my eyes! [00:06:41.08] P4: on the hike, I was scared; I thought that the tree branches were snakes so u closed my eyes during the hike. So he walked with closed eyes.....[UPCPI1] [00:06:58.16] Pfive: what if I fall and get hurt... what if a snake bites me... all those thoughts.. [00:07:18.25] P1: I was scared that I would fall in water and I would get cold...yoh! While others remarked on the reflection circle during the night hike and how it was too cold to actually concentrate or enjoy the activity: [00:07:31.28] P2: it was so cold; I think it was minus two degrees. ...[UPCPI1] [00:08:06.11] P5: I didn't even close my eyes so I didn't feel anything for that time, I was just like "ahh its so cold..." ...[UPCPI1] [00:08:21.15] P2: I didn't concentrate because I was too cold.....[UPCPI1] Pool: below are participants' comments around their socio-material experience of jumping into the dark-green Hobbiton pool in mid winter. These socio-material reflections mediated participants perceptions of the pool and thereby their Connectedness-With-Nature: [00:11:37.22] P5: it was very cold [the pool] [00:12:04.13] P5: [I felt] like I was in the fridge, [when I was] getting out... [00:18:00.17] P6: well if it is raining, I am not going to swim... [00:04:09.21] P1: it was cold the water was cold, the water was cold, uncle josh said its, but uncle josh said its warm, but it was not at all... so they will say ja ja the water was warm, but no, it was cold... [00:04:15.04] P1: I knew that it was raining, so I thought I will not do it [jump in the pool] [00:04:29.15] P1: we don't really enjoy it [if it's cold]... [00:23:50.07] [00:24:00.14] P4: [I was] so cold... [I jumped in] just once... and I wouldn't do it again tomorrow... [00:24:33.17] P2: it was so cold, the water was freezing and I was also freezing... In another vein, some participants remarked on the more social elements of the activity in mediating their decisions to jump into the pool: [00:32:20.15] P3: a challenge for me was the swimming pool because I was thinking not to go into the swimming pool but at the same time, I was thinking about the team.. To earn points for the team...so it was a challenge not to go into the swimming pool and my team loosing points. [socio] [00:02:58.25] P5: I was scared but I did it for the team because they supported me and they cheered me on... a lot... I caught it...[UPCPI1] Here too, Josh sheds light on the voluntary aspect of jumping into the pool: J11: um equally with the swimming pool, it is voluntary, ja sure the hype around it and all the instructors jump in to encourage you [Passion, lead by example], but they can choose not to, and as you saw, there's no repercussions, other than they might not get some points, there's no belittling or anything like that <i>Below are comments from volunteers/instructors around the socio-material factors of the Nature-based activities which mediated children's perceptions of nature and Connectedness-With-Nature:</i> Weather: as mentioned above, weather was a major socio-material factor which mediated participants experience and perception of the NBA's and thus may implicate opportunities for Connectedness-With-Nature:	
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	V7[00:20:09.22]: ja the weather, the Hogsback weather, it does play quite a role because sometimes we have sunny days and children are able to do all the activities and like this UPC, the children, weren't allowed to do some of the activities, because of the weather, it affects the activities a lot.. [00:20:53.14] P10: ja not good at all [if the weather is rainy], they will not be happy because it will be cold, and we instructors, also, we will not like tell them everything, we will not tell the children everything, we will like tell one, and leave that thing out, so we will not give them all the information because it's cold and ja the kids are complaining that we mustn't go.. We mustn't go because it cold, we have to keep our bodies warm... V2:: and when we try [to do the activities], if it's not particularly a nice day or if it's raining a bit, we try and take them somewhere, all the kids are moaning and groaning, but that definitely the more wealthy schools where that seems to be a bit of a problem [00:35:30.07] Josh: it does depend on time and rain and things like that. solitaire is in fact, um almost if you like, the most important component of the night hike [V2] Lastly, volunteer 2 notes how the enjoyment of the activities dependent both on the children themselves as well as the weather: [00:01:54.08] P2: it's really dependant on how the kids act and behave [socio] and also the weather as well <i>Night hike: below follows various socio-material elements of the night hikes including, arousing the senses and the trust circle:</i> Volunteer 1 highlights the physicality of the night hike in arousing the children's senses as well as the practice of personal reflection during this activity: [V1] [00:22:53.16] P1: but when we are doing something like the night hike, that would be maybe a part where they are very close to the nature because we try... if it's a good night-hike and they try to keep quiet and try to listen to the forest, and try to listen to us [material. We are doing for example, yesterday, we build a circle [during the night hike] and then now listen and tell us about your experience here. And what we are sometimes doing is for them to search their own space, they are just sitting down and focusing on themselves and what is around them... like self reflection and after that we are sitting together and talking about that... Volunteer 1 further highlights the socio-materiality of the night-hike and the night hike trust circle, whereby the experience of darkness theoretical opens up a safe space for self reflection, expression and observation of material surroundings: [V1] during the day time you see the kids playing, and you the kids the kids, like the kids are the kids you know... and when we are doing something like the night hike and its dark and we are doing something like we did yesterday with a circle, they are over stepping another boundary just to go into the middle of the circle and its like the darkness gives them a bit of safety that they can talk in front of other people because they maybe think, okay maybe they cant see me that much and I can just say what I want to say.. And normally it would be the other way around where the darkness would be something that is frightening, where they are afraid or scared of the night... but now exactly, this night hike gives them the opposite thing, and that is what I liked for example about the night hike, that we listen, form little kids, just listening to them, we hear some words that you would never think they would think that far or that they would feel like this. So that's very cool. On the contrary, instructor 4 comments on the activity of reflection rather than solitaire during the night hike, as many of the younger children have a deep seated fear of darkness: ISI456: SM of night hike: [00:32:59.17] P4: ah solitaire, like I do a lot of reflection time as opposed to the solitude because the solitude, its ja its doesn't
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really benefit because most of the kids are scared of the dark, all right, and even though they are actually so close to others, a few meters away.. And you're dropping them off and then we get to the end there, there's gunna be chatting and screaming so it doesn't really work. So by doing the reflection, you are guiding them through with questions and stuff and in a way, they are doing their own solitude, they are doing their own reflection and you are giving them questions to think about but also not at Hobbiton itself but in a space that they are unfamiliar with. So it's almost like the adrenalin is there and its um you know, they are going to benefit more from it. And I think it gives them an opportunity to think, opposed to being with, or experiencing the fear all the time. So you are not going to do, you're not gunna sit there in total silence if you're so worried about what's coming around the corner

Josh further comments on the practice of demystifying the dark forest and the stereotypes that children often uphold in their perceptions of nature as unsafe, dark spaces:

F11: Um we never have it, I get very, very upset if I hear of an instructor frightening the kids when they are on the night hikes, because we want them to feel safe and secure, in the environment. But during the day, when the kids are walking around, they don't really give it much thought, but at night time, because it's dark, the kids actually start focusing on their safety; in fact they may have a far greater sense of wellbeing, when they focus on their sense of safety and overcome it. So um I am far happier when we are doing night hikes with the children becoming at one [in the dark nature]...it's almost a Zen thing. Um I would like to think of them sitting cross legged, in the... that's not going to happen, but the equivalent might happen, that they actually calm down and just keep quiet for a moment and then realise that the forest isn't a threatening place, that actually it's a beautiful place..

Josh further highlights how the 'perception-of-safety' objective is met when the children accidentally fall asleep during solitaire, showing that they feel safe in the space:

Um when I take them for night hikes up here, I often ask the children, once they have done the solitaire, um, I deliberately lead them on by saying, "ahh that wasn't too bad... who thought that it was going to be scarier than it was? Who in fact, almost fell asleep? Did anyone fall asleep?" and some of them, sometimes, embarrassedly, admit it [admit to falling asleep] and that's because they do feel nice and safe and then ja. But that's because they know that they are not allowed to fall asleep during class. But I think, you know actually that's great; the kids who did fall asleep have actually really **understood** what this exercise is about... I actually want them to get place where they can see that and so I draw their attention to it once they have sort of, admitted it. I'll point it out as a good thing.

Hikes physicality: below follows socio-material elements of the hikes including fitness levels, physicality of activity, mentality and motivation:

Below, volunteer 3 highlights an important social factor which mediated some of the children's perception and experience of jumping into the pool in mid-winter:

[00:24:29.02] P3: but at the end, like if they do push themselves... then they love it... like the kids who, for example, the kids who didn't swim.. Like the kids who did swim will come back and I will ask them, for tomorrow what do you want to do? and they all say, swimming, swimming, swimming, because its cold but even some of the kids who didn't do swimming and who were very negative about it, cos it was a cold day there, some of them would be like..' ah I am not doing this" but then other one's want to go back and hear stories from their friends "ahh that was so fun, that was so fun.." and even though they thought it was much fun, they think and then they come back here and then some who didn't swim on the first morning come back and tell me.." ah I want to swim tomorrow.." cos they just

	heard from other people. so on the activities, if more people hear negative thoughts from other people then they have a negative picture but if other people, are having positive thoughts even if they negative things (like the cold of the pool) they will be positive. . [mentality vs. materiality] Finally, instructor 4 highlights the need for post-camp reflection around the hikes as many participants have initial negative reactions to the physicality of the hikes, but perceptions shift over time: [01:12:02.21] P4: or [they will say] "are we really going on another hike?" kind of thing... but I think the answers to that can only be answered by those kids after being at Hobbiton after a week, you know, because we just get the back end! And we try and keep it positive, we try and sing...we try and you know, find interesting things, find excuses to stop and to talk to them... and you know but ja	
c) Perception of nature benefits : psychological and physical benefits of nature immersion at Hobbiton.	This sub-theme relates to how participants perceived and experienced nature at Hobbiton. More specifically, this theme relates to the human-centered psychological and physical perceived benefits of being immersed in a nature setting at Hobbiton. <i>Below the Port Alfred participants were able to articulate physically experienced benefits of being immersed within a natural setting, in terms of physical health benefits, being away from man-made infrastructure, and being in closer proximity to the particulars of nature such as flowers, rocks, waterfalls etc:</i> Here participant 7 relays how the hiking may have helped him to lose some weight which will benefit him in terms of being fit for rugby: : [00:05:05.18] P7: When I go back home mam I am going to check myself on the scale...Yes mam and it was good mam because I got to practice for the rugby. [00:08:08.08] P8: It is not that bad, it is actually kind of good for us... [no cell phone] [00:08:13.01] P7: It is awesome without my phone... because we have more time to communicate. [00:06:46.21] P7: Fresh air mam, in PA there is pollution, and cars and the smoke and everything. [00:27:55.04] Participant 4: Well in a city, isn't there a like lot of traffic with a lot of angry people that are just angry for nothing, like bwam bwam bwam... you have got the honking and there is that coffee shop down the street, where there are lots of people talking, then there is a fight which breaks out over there and then there's a bar there and someone is drunk and getting mad. So are actually just going to get stressed. But here, there is serenity, it is calm and relaxing, especially the sky [00:28:51.03] Participant 3: Ja I think so too [that it's health to be outside], and the trees, they are all different colours... [00:28:50.20] Participant 4: It's just... you can just take a deep breath and relax. [00:28:56.15] Participant 3: And there are rocks... and in the city, there are really rocks that much and there is grass and there is poo! And we never really find this there (pa). [00:29:01.04] Participant 3: Yes I feel comfortable, more comfortable...	PAP678 * PAP910 * PAP1, PAP234 , v3, ISI456, PAH1, PAP1

	[00:29:16.05] Participant 2: And there is fresh air! (Sniffs in and out) in the city, you just smell the fumes and ugly smelling things. You feel more comfortable here and you can actually find yourself and be calm. [00:29:52.24] Participant 3: And there are birds flying around and there is tweeting... [00:29:57.18] Participant 4: No honking, and angry people, swearing and shouting. [00:30:07.10] Participant 2: it's not nice, Cos people shout and swear and do things, but if you look at an animal, they don't do anything, they are just there, they don't talk back. [00:30:26.03] Participant 4: If you look at an antelope and an antelope, they are never like "yo this is my gangs' territory! You gonna get killed." "This is my path!" Okay they are territorial, but they don't shout at each other. But I mean the fighting part of animals is natural, they don't do it for no reason, they like, for territory, for good reasons, that help the earth. But people fight and then they are going to get depressed when they are too young... Cos you going to get a heart attack, then gonna be in hospital... and prisons are overcrowded, I don't know where that comes in but I have to say it. Below participants continue to relay how being in a genuine natural setting far exceeds the attempts to 'green' cities: [00:31:32.24] Participant 4: Especially, if you are alone, by yourself and you can just admire it [nature]... in the city it is just rock and square... literally and figuratively, boring and there is no grass, if there is grass, it is fake grass. [00:31:49.19] Participant 3: Like, there is a tree that is just in a square, then there is one tree growing up with some grass around it with like one dead flower... and some fake grass and like a stick in the middle of the tree to hold it up! And they tie it round. [00:32:07.05] Participant 4: and that crushed stuff to protect it. And then in the city it is just blocked and everything but here, it has got different textures and you can get lost, not literally but figuratively. Cos I mean there are so many things to discover about nature, there are gorgeous things. Further participant's 2, 3 and 4 remark on the benefits of nature on your physical health: [00:32:31.11] Participant 2: And it is good for your health... [00:32:30.11] Participant 2: Well it is good to just get everything off your mind and maybe there is like herbs or something good for you but in the city like in an area, it is not healthy. Not good for your health like inside, you feel not nice, the air isn't good for you. [00:32:58.08] Participant 4: Ja like even when you have like a pretty flower, like a vase of flowers in the middle of your living room.. Like if you have a vase of beautiful flowers in the middle of your living room, it's just going to brighten up your day. But I mean if you're going to have a tablet on your living room table, it's not going to brighten up your day, you're just going to see that someone is calling you for your bills and then you're just going to get depressed. SARS raiding you for money, like 'yeah I want my money', no but seriously, animals they won't say 'ja I want my money, you are two days late on your payment!' [00:34:13.20] Participant 3: "I want my extra grass!" [00:34:21.22] Participant 4: "I want the fancy grass, oo you got a nice grass!" [00:36:43.23] Participant 2: I feel more connected here like, I have been to Hogsback many many times and here I feel more open and everything is just soothing and it is nice to just sit outside and you can actually breathe here, you can smell the air, the water is fresh and beautiful so when I come here I feel more happier than in like,, you can't stay in the same place the whole time cos then it gets boring, and you see the same things, you want to see different things [00:01:23.12] P13: it feels different to the other places I have been... different and open... a city is more busy... and lots of cars and businesses. This is more natural, more open... and still...
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	PAH1: [00:00:40.27] P11: ja it feels way different... I mean in a... this is much calmer and more relaxed, and there is no noise... there is just so much difference... [00:00:55.12] P3: ja a natural noise, not that hard car, 'honk honk!'... Finally, participant 5 notes how he feels more comfortable in a natural setting because there are fewer people watching him: 00:13:01.08] Participant 5: Yes I feel calmer here, in the city I feel anxious, cos there are usually lots of people watching me, like here there is nobody watching me. Here it is peaceful. [its] Just the animals Several participants also shed light on the perceived and experienced psychological benefits of being in a natural setting including: being able to spend more time with friends, mood improvement and decreased stress/anxiety: [00:10:06.05] Participant 1: Oh definitely, definitely, [nature does make me feel different] Um city life I think um, people don't really appreciate this sort of outlook... [00:08:32.28] P7: And here can you spend some more time for your friends than you usually do around school. [00:09:23.23] P7: Like the usual guys that you see at school, you will see them...the cool guys, but you would never speak to them usually. And you would be like 'ah naa' [00:11:52.14] P9: Mood, like it gives you a mood, if you are upset you can just go outside, it makes you calm, and so much happier, I don't know how else you explain it.. [00:12:29.04] P9: It makes me feel at home, if you think about it... like at home... uh it is comfortable, nature is very comforting and welcoming, very much so.. [00:13:20.21] P10: I feel ja kinda, cos my dad goes out a lot, and I think he just sits down and wonders, cos like he is a plumber, I think he takes his time there, cos he comes home late so.. And when he is angry, he just sits outside in the garden and it calms him down. [00:13:59.24] P10: I don't know how to explain it, it's just like nothing is bothering you there. It makes you calm, you feel more relaxed and more yourself. P9: if you are alone, in a way it makes you feel very calm yet lonely, in a way... and then if you are with someone, it makes you feel grateful for that person and obviously if you have a boyfriend, it's romantic. [00:22:46.29] P9: I think we would end up dying of depression. [Without nature] [00:23:04.22] P9: like I said before, when you come outside, you feeling calm, and there won't be anything to calm you down, like nothing, the nature is somebody that just loves you and just calms you down but then without it, you're just going to be angry and up and doing things that you don't want to do. [00:18:04.22] P12: I feel free, ja free, like nothing is bothering me, like you have no stress. [00:29:33.29] Participant 4: You feel like are just floating on a cloud, your worries... you are weightless. The weight of the world is not on your shoulders. PAH1: [00:00:05.13] P3: ja it seems like this waterfall, like that feeling that I was talking about, feeling relaxed and calm and breathtaking actually. The previous psychological and physical benefits expressed by the participants have been human-centered, while only 1 participant expressed a more eco-centric benefit for nature : [00:15:01.00] Participant 1: Well I do get great happiness when I see the forest that is very well preserved, that there are still places that we haven't destroyed... <i>Finally, from a more personal perspective, instructors and volunteers further shed light on the benefits of being immersed over time in a natural setting.</i> Below, volunteer 3 attributes his excellence in problem-solving math to having grown up in Hogsback where he enjoyed unstructured play in nature: [V3] [00:02:16.23] P3: and used to run around these courses here and that basically brought out new of creativity in my mind... that's why I come to, I
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	actually I think in math it has helped me.. In terms of problem solving. I have a lot more of a creative mind than most other people have. And then I did really well in my math and I went overseas for my math in grade six...but in an ordinary maths way, I just needed like an ordinary brain... and I didn't really do well.Like just yeah, running around and having a free childhood without out... like other kids who live in a city... Here instructor 5 relays how being immersed, over time in a natural setting, has allowed him to invest in self growth and knowledge: ISI456: um for example, like for me... it is such a relaxing place, away from all the noise and stuff. And I think you get, you probably get to know yourself a little bit better there... and what you do and like and stuff like that.. But coming from Grahamstown... I think it was actually quite a change but then now I actually love it; it's actually quite nice...	
d) Passion of instructors/volunteers as well as participants willingness to learn. Both instructors/volunteers and participants willingness and curiosity to learn act as micro-mediators ofCONNECTEDNESS-WITH-NATURE	This sub-theme involves instructors/volunteers passion and enthusiasm for both the environment and for working children. Moreover, it also became clear that the passion and willingness to learn for the children themselves was a key underpinning mediator of Connectedness-With-Nature . Together, instructor/volunteer and participant passion/willing to learn mediated the perceptions, experience of the Nature-based activities and thus participants Connectedness-With-Nature. Below Port Alfred participants relay their feelings towards the volunteers and instructors: [00:01:19.16] P12: Yes we did [get along with the volunteers], it was very cool, we sang songs and stuff and he like made us feel comfortable, lets us talk and asks us questions and stuff... [00:01:39.04] P11: no, we seemed to all get along with each other and the mentors and with each other [00:16:42.28] P3: I didn't have that much of a conversation with a lot of them... [00:16:38.21] P2: I had conversations with all of them [00:16:33.07] P1: no they seemed nice but I didn't have like really speak to them... SS: [00:03:13.23] P14: I actually got along with every single one of them, because it was fun with them because they would respect you in a good way... of telling you what to do and stuff... [00:03:26.29] P15: I liked all the counselors, and I obeyed all they rules... and I tried to stay out of trouble with them... but I have to say really I liked all the counselors... I got along with them... While only one participant remarked negatively of the instructors: [00:14:55.13] P8: there was [someone I didn't get along with], I didn't think she was cool but then it turned out that she was... It seemed like she was grumpy [initially], but it then at the end, she started laughing and talking to us... Below UPC participants relay their feelings towards instructors/volunteers: [00:00:19.29] P1: well we meet new people [here at Hobbiton] and uncle j is very kind and the instructors... Below two more participants relay transformative encounters and relationships with role-model volunteers which enabled them to feel loved, encouraged and safe while at Hobbiton: [00:24:22.27] P1: my relationship with another volunteer has helped me a lot... before, I was drinking, I was smoking, but he said to me, " I am so little smoke and drink.. Why do I want to do things so fast..?" and he said to me, that I must leave drinking and smoking. And I said to him that I will do that and he said to me that I must please not smoke or drink, that I must be a good boy. I was not respectful, I was naughty, and I was silly. He said to me that I must not be naughty again; you must be respectful and not be silly again. I said that that's fine, I will do as you say... ahh he said to me again, I will miss you when you are not here, and me I also said, me too, I will miss you.	PAP111 2, PAPI1, PAPI2, UPCFG 2 [UPCPI 1], TI1, V1, V2, V3, V6, V7, ISI456, JI1, SS

	Furthermore, a physically disabled girl highlights a positive relationship with 1 volunteer at Hobbiton and how it helped her to participate in the Nature-based activities, play with other children and to feel encouraged in general: [00:21:35.05] P5: I had a good relationship with one of the volunteers because, when I, when I was sitting, when I sit alone, she asked me some things and then tell me when I was in my room the first time, she came in and asked me why I was there because she wanted me to play with her outside. I told her that I can't play outside and then she told me everything that she did when she was home. And then when I heard what she did to be happy, I did it too, and then I was happy too and I went outside to play with others. I did not believe in myself so I wanted to stay alone and not talk to others. But then she came and told me that, when she was in a school, she did not want to talk to the others, then her teacher talked with her and said to her, if she is shy, she must not be shy...and talk to others because she will go with others in grade two and three, all the grades with them, so she must not be scared.. [UPCPI1] <i>Below are instructors/volunteers comments around passion and motivation in sharing environmental knowledge and experiences at Hobbiton: what is highlighted in particular is how volunteers, instructors and camp participant needed to be passionate about sharing environmental knowledge and participating in environmental experience in order to have an effect on Connectedness-With-Nature:</i> Below, instructor 4 gives sheds light on important contextual factors which shape how volunteers work at Hobbiton, which in turn affects how the environmental content knowledge is shared between camp participants and volunteers: ISI456: [01:29:09.29] P4: I think the volunteer side of things is also another aspect of Hobbiton although we get the kids coming in, we have the volunteers coming in and they are coming from a different environment and then they come to us, keeping in mind that most of them have just finished school alright.. and they are coming into a new culture, they most of them, can't speak English that well, so there is a lot of confidence building that has to happen from our side and there is also a lot of like morals that need to take place. And yes you know it's a give and take, 'so I will meet you half way if you can also meet me half way...' because the way do things at home, like you can sort of understand south African culture as a whole, you can get to grips, but when you are talking about a European culture, and you haven't really been there, it's a little bit more difficult to ah to deal with. So there are a lot of conversations, we do a lot of team building, we do a lot of braais, just to get to know them on a personal level and where they are coming from. the tensions start coming in when we have long hours of work, so we are working twelve house a day and so forth and again these guys are straight from school, their bodies are not adjusted to our temperatures yet, they are not adjusted to a whole lot of things. And I am going to look more at the volunteer side because I can understand what it would feel like, and if you are the only person, no one else, your family isn't here...if you don't have someone to talk to, you are going to start putting up the wall, and start stepping away and so forth. But again, you know, volunteers need to come for at least, you know we had a volunteer who stayed for year and he said that he needed another six months just to put everything that he had learnt together and then walk away. But when you come for six months, what happens is that you are only just jumping onto the band wagon, you only starting to get your confidence, you are only starting to get to understand the activities that we are doing, you are only starting to understand the culture and the sense of humour and all the rest of it. and at that point, you have to go home and you're like 'dammit I wish I could stay longer' um so, the breaking point I think is from, is one to three months and that three months is basically full on training, full on sitting down for braais, as much as we can do with these guys before the work begins, and we allow them to come with us. If you don't understand, ask us and we will answer, you know. Um from our side,	
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	there comes a point where it's like 'okay guys, we need to get up, we need to graft...' 'are you here to grow yourself, because if you are here to grow yourself, you need to put in the effort, you need to put in the time, so that when you leave, you didn't just come here to sit and watch movies, you came here to do something" and when you go back, you can say 'listen I volunteered at Hobbiton for six months, " and there it is and they can recognise that you know. And we get a lot of volunteers coming back, we have had many fights, but here they come back and they sit with us, and then they come back the next year and so forth... I don't like saying this, but once the horse is broken... Tonya further relays how pitching the environmental education for each group of children can be practically challenging and that in order for environmental learning to take place, volunteers/instructors need to take on the environmental prerogative: [T11] You have probably seen it as realistically as it is [the level of environmental education]...we have debated this one and it's kind of, I have left it in the instructors hands [where to pitch the EE] which is probably not what I should do, I should probably be pushing it a lot harder on my side.. Um it's very difficult on where to pitch it. So to get the instructors to change the pitching of it at every level is incredibly difficult and they have to be passionate about it. So I can give them the information but it's actually up to them to actually say, well I am dealing with a grade five, in their curriculum... and then I mean, we have had outcome-based-education and then that was changed, the curriculum being changed in the department of education caused an absolute nightmare because we were trying to align ourselves with the curriculum. So we were saying, well what is the curriculum? Let's focus on that. just that of a grade three or a grade four, a grade five...let's focus on those key points and then they kept on changing the curriculum so it became a nightmare and we basically just said, well they don't know what they are doing and we threw it, we threw it because it just became a nightmare, every year to try and fit in with the department.. Um could we look at it again? Yes. I am very keen to look at it again and put more of an emphasis there [on EE].....but it is a passion thing, we are dealing with, you've seen the age group [of volunteers], seventeen, eighteen, nineteen... you know quite honestly, they want to have a joll while they are out here, they do want to end up at the backpackers and have a good couple of drinks and that. And that's you know....their priorities are quite different. Their priorities are "I am in Africa, I want to get a tattoo of Africa" you know that's there priority. the fact that they do what they do, while they are here is awesome, we couldn't do what we do without our volunteers, we would be absolutely snookered with three permanent staff and then to try and get them [volunteers] to try and understand that in grade three and four, this is kind of the curriculum, then in grade five and six, this is the curriculum, and getting them to actually enforce it into the program has practical problems.. I'm not saying it can't be done but it does have practical challenges, which is why we have generalised it. so if you are out on a hike, 'this is an indigenous forest, this is an exotic forest, this is what makes it that and that..' um because of logistics. in the perfect world scenario, where they would go out with a grade three and tell them, according to the curriculum, you do that At the same time, Josh also illustrates how volunteers and instructors should be doing the environmental education component regardless of teacher input: J11: um with the instructors explaining, but not all the instructors do this, but ideally the instructors would explain about um things that they are looking at, so um ja...the instructors should never pass up an opportunity to talk about whatever it is that they are seeing whether that is the wild strawberries that grow on some of the hikes Additionally, Josh sheds light on how passionate foreign volunteers have also helped Hobbiton's UPC camps to keep afloat: J11: [00:14:35.13] Josh: exactly and even um something like, bright lights, it's had an impact on them [the children] so then when these youngsters [volunteers]
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	go back to Germany or wherever, they send cash out to carry on with this kind of project. Tonya then highlights Hobbiton's current procedure of EE for paying schools which is to place the EE responsibility on teachers and their current knowledge of the curriculum, while simultaneously still covering the basics: so what we do is we have actually put the responsibility on the teachers, so we have said, you are teaching your students, this, this, this and this, so while you're here, we have these elements that you can make use of .. so bring the class room here and while you're here, talk to them about water purification and litter and all of those components, and have left it a lot in the teachers hands, and some of the teachers run with it to a great extent....they do like a whole programme and they focus on geography and the environment and a bit of history and they bring all of those elements in from their curriculum. Furthermore, Tonya sheds light on the importance of passion of the teachers who accompany the children on the camps and who are meant to be covering the environmental curriculum through the Nature-based activities at Hobbiton: And then we get some teachers who sit in the dining hall for the entire camp and don't actually see the kids doing their thing. Oh it's also, once again the passion that the teacher has, a passion that's driven through the school curriculum, and it comes a lot from management, you know your head master will dictate... whether a school will allow alcohol and drinking and smoking, or whether a school will say, oh hell no you'll get kicked out with the first offence and whether they will focus on the education.. You know, it's very difficult... Volunteer 1 sheds light on her passion for both children and the environment through divulging her previous work in Germany, explaining her motives for choosing to volunteer for Hobbiton: [V1] [00:01:43.25] P1: ja I was working there, in a house where the kids are living without the parents [orphanage] with them and that is the reason why I came to south Africa to.. Work with kids, to have an experience with kids in another country. And um ja I wanted to go into the outdoor education because I like the nature... and ja the... so that was the thing for me... In another vein, volunteer 2 notes how the effectiveness of the Nature-based activities is dependent on how enthusiastic the children are to learn and participate: It's really dependant on how the kids act and behave....so groups that have actually listened to what you are saying and take an interest in the things that you are trying to tell them and seem to be the ones that want to learn something, are the ones that are definitely more enjoyable. Furthermore, volunteer 2 and instructor 6 note how some groups/individuals simply don't put in much effort, making it more challenging to share knowledge, while sharing knowledge with those who are eager to learn is much easier: [V2] [00:03:07.16] P2: um there have been some groups, particularly, its adult groups, who you suspect don't really want to be there....you suspect that they don't really want to be there and so you don't really put much effort into it... [they] don't interact with you or are reluctant to do anything and they are late for activities and things like that.[Or] they are just spending a lot of time on their phones, indoors... so it sounds arrogant, but normally if that does happen, it is a result , not of us not wanting to work hard but as a result of the group not really wanting to do anything....[whereas] with the nicer groups, they are always waiting there for the next a activity, asking what it's about and what they might learn. [00:26:09.28] P6: and lastly, unfortunately, we are working with communities because even if you are like telling them what he is saying, because there will be people that will be people that listen to what you are saying, and there will be	
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	people that won't listen to what you are saying because also it comes with you as an individual person.. In another vein, volunteer 7 illustrates two important factors which underpin effective environmental learning and engagement, stimulating curiosity and leading by passionate example: V7: [00:07:26.23] P10: I'm not sure, I'm not really sure, it's because, I like to learn new things, like I am interested in everything, like when there is an opportunity for me there, I will go there, so that's why. Like what I have learnt before, I don't throw it away or lose it; I will just keep it in my mind... Volunteer 7 demonstrates leading by example by encouraging the children to jump into the pool, by first jumping in herself: V7: [00:21:28.01] P10: I was the first one to jump, yes because I wanted them to see that I can do it, they can also do it... like being a leader, you have to do something, you have to sacrifice.. you see to be a good leader you have to sacrifice, so I did, I was the first to jump, to show them that I can do it and because we are all human beings, so we can do it. I was acting, I was pretending not to be cold, but the water was cold, ja... I was just encouraging my team to go, to come inside, supporting them to come inside... Volunteer 1, and instructors 4 and 5 further highlight the value of leading by example for the children so that they might learn by modeling behaviour, specifically relating to littering: [V1] [00:02:49.08] P1: yes, some of them do. [Respect nature]. Some of them when they are arriving... but a lot them don't, [respect nature] but what we try to do, but also what I am trying to do is just to show them... not just to say every time, okay pick this up.. Pick this up...or something, so we are saying okay please don't litter but I think the most important thing is just to live it... to show them, that you are doing it as well and then they are doing it automatically.. ISI456:[00:22:32.02] IS4: you know, with the kids, they are more engaged and I think they appreciate it a lot more so even when we go on our hikes and stuff.. We carry a black plastic bag for rubbish and they will come to us and they will be so conscious about it and say 'can we pick up litter?' and obviously there is certain litter that they cant pick up and stuff, but they ja....I think in general, it's like, if the kitchen is clean you want to keep it clean, you want to keep it clean all the time.. But if the kitchen is messy you don't really have the energy to go and clean it, so you're going to keep adding onto that mess. ISI456: [00:25:01.10] P5 so I think it also depends on the kids and how they understand what you are actually telling them [child willingness] but so far, I think that you do get groups that do actually listen to you, and sometimes you get the naughty ones and just do things on the side. But we try with everyone to do as we do and to tell them as much as we can... Below follows another important mediating factor for Connectedness-With-Nature; the ability and willingness of the volunteers/instructors to cater for each groups specific needs in terms of age, background and level of prior environmental knowledge: ISI456: [00:46:22.24] P4: I think you know like, I am going to talk from my side, I think like when we are working with Port Alfred, we are going to deliver and our speeches, change according to what we have seen on the hike [in terms of children's prior knowledge and willingness to learn]..It's not a standard speech, we have got the standard and we keep to the protocol of it but we also add in our own little spices dealing with that kind of thing... With the UPC kids, um we are	
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	more engaged..... So I think that you know, with the total different backgrounds [of the children], it really depends how we react, ja how we react with that group... This last section concerns Hobbiton Co-coordinator, Josh and how his passion for the children and the environment has permeated through the organisation: ISI456: [01:19:40.09] P4: ja I think Josh has got so much knowledge and he has trained all of us, you know, and he has got a passion and, I don't know, but he has got a passion but I think that passion overflows to us and his whole work force because even though the hours might be long, or whatever, there is still that initiative and drive because we believe in what we do, and I think that comes from him.. ! IS6: it goes yes, with that passion because, there are some people that say that I like to talk a lot, it's something that comes out, just out of me, out of the blue, you know when you talk about something that you love, you don't even count how long I have been talking, because you want everyone to see or to feel what you are feeling inside, you see. Ah it just comes out of me. I think that's also what you have experienced with Josh; you ask this question, he will tell you [everything about it]. And all of a sudden everything just comes in... Everything just comes in... JA just passion, if you have passion, you just go pew! Here instructor 6 further sheds light on the importance of passion and catering for basic support needs, particularly for the UPC participants: ISI456: the platform that they are putting you on, because you see them, they always, the most of them, they maybe come to you [the children], they need help, they need assistance, they need this, they need that. You feel free ah like yes to always to give a hand, because it's something that happens with us as well, whereby when we needed people to give hand to us, there were people that were there. you say 'yes I can assist you' you see, then with us it's the same thing like... giving that hand back that was given to me before, whereas I will say 'no you have to work hard.' whereas the way people that were there for us to be these individuals we are today as well. Yes it goes a long way with passion, yes, with passion...	
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