NOTE TO USERS

Environmental education and the Cheetah Conservation Fund: Exploring children's value-based relationships with cheetahs

By

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Abstract

For this thesis I collaborated with the Namibian Cheetah Conservation Fund (CCF) to research how farming children perceive and experience cheetahs. I also explored how CCF's educational documents might affect the ways children (re)construct their value-based relationships with cheetahs.

The first part of my study used storytelling as a research methodology. Children were asked to create drawn, written, and verbal stories as a way to explain how they perceive, experience, and (re)construct their value-based relationships with cheetahs, *following* their experiences with CCF's cheetah run and *prior to* their experiences with CCF's formal education program. Children's stories were grouped into common or similar elements or patterns as meanings emerged through analysis and interpretations. My analysis found that children (re)construct valuations of cheetahs through their lived experiences with CCF, family, and school instruction.

For the second part of my study, my examination of CCF's educational documents, I referred to Elliot Eisner's (1979) concept of the three curricula to learn how CCF portrays human-cheetah relationships in a farming context. I also used this concept to explore how CCF's portrayal might affect the ways children (re)construct their valuations of cheetahs. My examination revealed that CCF's documents are value-laden, conveying their opinions on, and valuations for, cheetahs as well as other Namibian animals. I also learned that both explicit statements and implicit messages, conveyed through educational documents, can effect how children (re)construct their value-based relationships with cheetahs, and quite possibly, with the natural world in its completeness.

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The children, teachers, principals, and CCF staff are also thanked for their participation, in helping make my research possible, as well as providing me with a life changing experience.

Whenever a human being confronts a living creature, whether in actuality or in reflection, the "real life" animal is accompanied by an inseparable image of [the] animal's essence it is made up of, or influenced by, pre-existing individual, cultural or societal conditioning. This "nature," as represented by the biological and behavioural traits of a particular animal, becomes transformed into a cultural construct that may or may not reflect the empirical reality concerning that animal, but generally involves much embellishment.

E. Atwood Lawrence, 2003, p. 624

Endangered species are not simply accidents of our way of living. They are necessary consequences of our way of knowing animals. Endangered species reveal some of the rifts and blank spaces in our ways of seeing, and in those rifts, if we are willing to pay attention to them I see the possibilities of new forms of knowing, new ways of feeling.

C. Bergman, 1990, p. 6

CHAPTER ONE

Introduction

> *Attitudes toward predators must be changed if we hope to save endangered species such as the cheetah. Through environmental education, we can all work together to change the attitudes and behaviours that have led to the endangerment of predator species and help save them from extinction.*
>
> *Cheetah Conservation Fund [CCF], 2007, ¶ 2-3*

Historically, felines have been both revered and persecuted by humans. Ancient Egyptian cultures, for example, worshipped cats as deities (Weissenborn, 1906). Conversely, Parisian industrial workers brutally slaughtered hundreds of cats in the 1730's (Darnton, 1984). The perceptions of felines then, is "prime example of the extreme variability" (Lawrence, 2003, p. 625) in how humans think about, experience, and act towards cats. According to Lawrence (2003, p. 633, 634), there appears to be something about the nature of cats that "fosters perceptions of cats as malicious [killers], leaving the cat vulnerable to hatred and persecution." Nonetheless, I have always been intrigued by cats.

Throughout my youth I was a champion for lost, abandoned, and mistreated felines; I would rescue, care for, and adopt these forgotten, unloved, or discarded souls. Given my experiences, I (re)constructed intimate, positive value-based relationships with felines, simply as unique, sentient beings (Abram, 1996). It is through my relationships with felines that I developed an interest in how other people might (re)construct their value-based relationships with felines through their own direct experiences.

To explain, I do not assume knowledge gained through direct experiences is solely constructed, or reconstructed, in a definitive manner. Instead I understand that knowledge gained through a variety of experiences can provide new meaning, where interpreting and internalizing meaning can be scaffolded or adapted to develop new understandings. In the context of my study, I suggest children "(re)construct" their value-based relationships with cheetahs through their learning experiences, where possibilities exist to challenge or build upon pre-existing or new knowledge, to provide new or deeper meanings (Eisner, 1976). The term (re)construct then, signifies that knowledge, whether new or pre-existing, can be constructed and reconstructed to make new meaning through a variety of direct, lived experiences. Further, the term (re)construct is supported by constructivist theory, where children can construct and reconstruct meaning from their direct, lived experiences in ways that do not simply fill void spaces with information and facts, but instead creates new, unique understandings in ways that are relevant and meaningful to the children's life world (Wigley, 2000).

Similarly, I use the term "direct experiences" as a way to explain the interactions the children in my study may have had with cheetahs, either before coming to CCF or while at CCF. "Direct experiences," then, refers to the prior knowledge children have of cheetahs that they may have acquired from, for example their family or through school instruction. However, this term also refers to my assumption that not *all* the children visiting CCF, despite being part of the same school group, will have directly experienced cheetahs prior to their CCF visit. In these instances, the term "direct experiences" refers to the children's immediate experiences with the cheetahs at CCF. Nonetheless, whether previously having experienced cheetahs, or experiencing cheetahs for the first time, use

of the term direct experiences is intended to encompasses the opportunities that children in my study have to "attend to another being in embodied, sensory ways, first-hand and directly" (Fawcett, 2002, p. 126).

When using the term "value-laden," I am acknowledging that human relationships with any subject or object are never value-neutral; human relationships with another beings, sentient or not, is loaded with values, opinions, and judgements about that being. By describing children's relationships with cheetahs as "value-based" I recognize that individuals ultimately hold a variety of valuations for the natural world and its diverse array of inhabitants. Further, my use of this term simply brings the concept of *values* into the foreground of my study.

To further explain my specific interest in cheetahs, during my post-secondary studies I became aware of human-cheetah conflict in a Namibian farming context. Since Namibia has an intensive livestock farming culture, farmers and cheetahs have repeatedly come into conflict over the need for, and use of, bushveld habitat; in this context farmers have been reported to perceive and persecute cheetahs as mortal threats to livestock (Marker, 2003; Marker, 2006). These perceptions and resulting persecution suggests then, that livestock farmers and cheetahs are positioned in conflicting relationships where cheetahs are often indiscriminately killed by farmers (Muntifering, Dickman, Perlow, Ryan, Marker & Jeo, 2006).

Given my interests, I wanted to learn how conflict might be mitigated between farmers and cheetahs. In my quest for this understanding, I discovered the Cheetah Conservation Fund (CCF), and learned of their education program. Through CCF's Education Centre, students and tourists are provided with educational opportunities,

where they can learn about, among other things[1], the cheetah's struggle to survive in Namibia (CCF, 2007). Given that CCF participates in research and education projects to assist in cheetah conservation, I wanted to explore how children, specifically farmers' children, perceive, experience, and (re)construct their value-based relationships with cheetahs through their direct experiences. Since I would be collaborating with CCF to conduct research, I developed my research questions to not only explore how children (re)construct their value-based relationships with cheetahs, but also to explore how CCF conceptualizes and portrays human-cheetah relationships through their educational documents, hereinafter referred to as CCF's curriculum.

My study then, includes two parts to collecting data. In the first part, I ask children, who were visiting CCF in school groups, to draw, write, and talk about their direct experiences with cheetahs; this compilation of data is hereafter referred to as storytelling, or stories. Children created their stories following their experiences with CCF's cheetah run, and prior to experiencing the remainder of CCF's educational activities (see Appendix B for a sample of CCF's schedule for school group visits).

The cheetah run is CCF's form of daily physical exercise for habituated resident cheetahs. In a cheetah pen, a cleared rectangular section of running area is set up with a starter motor and a few hundred metres of string pegged around the perimeter. An old t-shirt is tied to a section of the string, and when the motor is started, the t-shirt quickly circulates the rectangular area, stimulating the cheetah's curiosity and causing the cheetah to sprint after the t-shirt. When visitors, like students or tourists, come to CCF they have opportunities to watch the cheetah run. Given that the children in my study experienced this activity run prior to participating in storytelling activities, I reported on their

[1] Referring to cheetah biology and ecology, like cheetah behavior, prey selection, habitat, etc.

reactions to the cheetah run. These observations were used to assist in my exploration of how children's direct experiences may affect the ways they (re)construct their value-based relationships with cheetahs.

After the cheetah run and storytelling activities, the children participated in the remainder of CCF's education program. Initially, I aimed to collect two series of children's stories, prior to and following the children's experiences with CCF's education program. However, due to time constraints at CCF, a limited-term internship, lack of *a priori* clarity on my role at CCF, and conflict with school group scheduling, I was only able to collect one series of stories from children, *following* their experiences with the cheetah run and *prior to* experiencing the remainder of CCF's activities. Also, given that I was conducting research in a culture and landscape different than my own, it was necessary to be cognizant of potential ethical issues that may arise. For example, language differences between myself and participants, and differing ethical boundaries of what constitutes consent and who is able to give consent for children, affected my study. However, these differences did not alter my study to the point it could be considered a failure; instead, these differences enriched my research experience and challenged me to adapt to a changing, dynamic context.

To elaborate on my choice of storytelling as a research methodology, I suggest that asking children to tell stories about their direct experiences with cheetahs enables children to critically reflect on how they may (re)construct their valuations for cheetahs (Alerby, 2000; Barraza, 1999; Fawcett, 2002). Storytelling was a useful method because children's stories, created and told by the children themselves, began to uncover the "nature and significance" (Van Manen, 2006, p. 39) of the deeper meanings inherent in

how they perceive, experience, and (re)construct their value-based relationships with cheetahs through a variety of direct experiences.

The second part to my study includes an examination of CCF's curriculum conveyed through two documents; a *Teacher's Resource Guide* and an *Integrated Guide* used for farmer training programs[2] (*CHEETAHS: A Predators Role in the Ecosystem: A Teacher's Resource Guide*, CCF, 2004a; and *Integrated Livestock and Predator Management: A Farmer's Guide*, CCF, 2004b). Through this examination, I explore how CCF conceives of, and portrays, human-cheetah relationships through explicit, implicit, and null messages in their curriculum (Eisner, 1979). Document analysis enabled me to learn how CCF's curriculum is constructed and presented, and in turn how this curriculum may affect the ways children (re)construct their value-based relationships with cheetahs.

By combining storytelling with document analysis as a research methodology, I was able to begin to develop an understanding of how children (re)construct their value-based relationships with cheetahs through a variety of experiences. I was also able to learn how CCF portrays human-cheetah relationships, and how a variety of messages in their curriculum may effect the ways children internalize, interpret, and (re)construct new knowledge or experiences.

In the following sections I introduce my research questions, provide an overview of my research, and then summarize each Chapter of my thesis.

[2] CCF provides training programs for farmers for a nominal fee. Farmers spend the weekend at CCF's Camp Lightfoot, and experience hands-on activities related to livestock management and care, as well as techniques to protect livestock from predators. Later, I discuss how this guide plays a role in my study.

Research questions

Given that Namibian farmers and their children live in relationships with cheetahs, their fates are linked in complex ways. How people think about, and act towards, cheetahs will effect cheetah survival in Namibia. By considering the perceptions Namibian farming children may have of cheetahs, and how their relationships with cheetahs might be influenced through their direct experiences, I developed the following questions to explore how children (re)construct their value-based relationships with cheetahs.

1. How do Namibian children perceive, experience, and (re)construct their value-based relationships with cheetahs, in a farming context?
2. How does CCF curriculum portray human-cheetah relationships in a farming context?
3. How might messages portrayed and conveyed through CCF's curriculum affect the ways children (re)construct their value-based relationships with cheetahs?

I address these questions in two parts. First, I discuss how, and what, children's stories express about their value-based relationships with cheetahs, and relate meanings inherent in their stories to their direct experiences. Refer to Appendix A for a sample of the questions I asked the children during storytelling activities. Next, I explore how CCF's portrayal of human-cheetah relationships, through explicit, implicit, or null messages, may effect how children (re)construct their value-based relationships with cheetahs; specifically, I explore what may or may not arise out of CCF's curriculum (Eisner, 1979).

Overview of my research

Given the practical and ethical considerations of my research, such as conducting research with children, encountering language barriers, and being in a culture and landscape different than my own, I had two parts to my data collection and analysis. In the first part of my study, I observed children's reactions to the cheetah run, where I made note of children's body language and facial expressions. After the cheetah run, I asked children to create drawings and written work about their direct experiences with cheetahs, which is considered to reflect their value-based relationships with cheetahs. Children were also given opportunities to elaborate and explain their drawings and written work through researcher-participant conversations. This research design was followed for two different school groups, both from northern Namibian farming communities. Each child created one story, with a total of 19 stories collected.

In part two of my study, I critically examine CCF's educational curriculum. Through document analysis, I explore how CCF conceives of and portrays human-cheetah relationships in a farming context. I specifically examine language and images used throughout their curriculum, to learn if or how language and images might be organized into explicit, implicit, or null messages.

While document analysis was initially undertaken as a precautionary measure, given that I had a limited-term internship and encountered scheduling difficulties due to time constraints, it proved to be beneficial because it enabled me to develop my understanding of how children's direct experiences can effect the ways they (re)construct their value-based relationships with cheetahs.

Organization of my thesis

This thesis is comprised of seven chapters; Chapter One introduces the intent for research, provides preliminary background information on the context of my study, and outlines research questions I aim to explore. The Literature Review in Chapter Two introduces storytelling as a research methodology, then provides an explanation of my conception of environmental education, which then situates my work in the field of environmental education. Further, this Chapter links my thesis to environmental ethics and constructivism in educational practice.

Chapter Three describes the socio-contextual perspectives of my study; those of African cheetahs, Namibian farmers, Namibian children, and CCF. Chapter Four explains my methodological approach, where I discuss the design of my research, limitations I encountered, and reflections as a researcher. Chapter Five reflectively analyzes, interprets, and then discusses children's drawn, written, and verbal stories about cheetahs. Chapter Six includes the critical examination and discussion of CCF's environmental education documents, where findings that emerged from children's stories are linked to this curriculum.

Chapter Seven is my final chapter. Here, I provide a summary of my research, report on findings from both children's stories and document analysis, and then suggest recommendations for CCF to consider, in terms of their curriculum and programs. I also suggest future implications and research in this chapter.

Throughout my thesis I include footnotes as a form of subtext, used to clarify or expand personal insights, comments, assumptions, or factual information in order to avoid interrupting the flow of the text (Lotz-Sisitka & Burt, 2002). Also, a summary in

the form of a workbook will be given to CCF and the two schools who participated in my study (Appendix E). This workbook describes my research findings and provides suggestions for CCF's curriculum and programs. I think it is important to provide this summary to CCF and the schools, as a way to inform them of the outcome of their participation, and the findings of my study.

CHAPTER TWO

Literature review

> *Layered experience acknowledges actors (researched and reseacher) have (pre)conceptions, (pre)constructions, (in)actions which are enacted via the different habitats/social conditions they inhabit (geographically/culturally).*
>
> *P. G. Payne, 2005, p. 428*

This chapter describes my approach to researching how children (re)construct their value-based relationships with cheetahs through their direct experiences. Here I describe why storytelling is a useful way to engage children in research. Then I describe my conception of environmental education, and how environmental ethics is linked to educative processes and activities. Following this, I explain my understanding of constructivism and how this pedagogical approach affects my research. My explanations of environmental education, environmental ethics, and constructivism are included because they have a bearing on my analysis of children's storytelling, and because they are connected to my analysis of CCF's curriculum.

Introduction to storytelling

Leesa Fawcett's study, "Children's Wild Animal Stories," (2002) largely inspired my research. In this study, Fawcett (2002) asks Canadian school children to tell stories about their direct experiences with bats, frogs, and racoons, and then analyzed these drawings to discover how children perceive, and relate with, these animals. I also refer to Eva Alerby's (2000) study that focuses on discovering meaning inherent in drawings created by adolescents about their environmental perceptions. Alerby's study is useful

because it enables a comparative measure that I can refer to when analysing the children's drawn, written, and verbal stories. Further, I refer to Laura Barraza's (1999) study to assist with my analysis and interpretations of the children's stories, given that she too used drawings as a way to develop an understanding of children's perceptions of the environment. These studies then, are a useful point of reference because they show that asking children to create drawn, written, and verbal stories about their direct experiences with animals, or the natural world in its completeness, can help researchers develop a better understanding of how children may perceive, experience, and (re)construct their value-based relationships with animals or nature (Alerby, 2000; Barraza, 1999; Fawcett, 2002). Further, given that children often enjoy creating drawings, asking children to draw, write, and talk about their direct experiences with cheetahs, conveyed through their drawings is an effective way to engage children in the process of research (Barraza, 1999). Storytelling then, is a useful research methodology because it is a constructive and appropriate way for children to reflect on and describe their direct experiences with animals; each child's story holds a powerful expression of how they perceive, experience, and (re)construct meaning from their life world (Alerby, 2000; Bell, 2002; Fawcett, 2002; Tuhiwai Smith, 2006). Storytelling also recognizes "the competence of children [and] the importance of [their] perspectives" (Dockett & Perry, 2007, p. 47). As such, storytelling engages both children and researchers in the research process. Moreover, children's stories about their direct experiences "convey[s] a sense of human involvement" (Bell, 2002, p. 97) in life-world phenomena (Alerby, 2000; Bell, 2002; Fawcett, 2002; Tuhiwai Smith, 2006; Van Manen, 2006).

More specifically, children's stories about their direct experiences with animals can help explain how children perceive and (re)construct their value-based relationships with the "more-than-human world" (Bell, 2002, p. 101). For example, directly experiencing animals through CCF's education program may enable children to (re)construct "positive human and other animal relationships" (Fawcett, 2002, p. 131). I draw on Fawcett's (2002) study to suggest that children (re)constructing their value-based relationships with animals, through "direct experience... differs qualitatively and sensuously from relationships [that have been (re)constructed] through indirect experience" (Fawcett, 2002, p. 126). I argue that direct learning experiences provide children with opportunities to critically reflect on and (re)construct their valuations for their relationships with animals, as well as their valuations of the animals themselves (Fawcett, 2002; Smyth, 1995). Direct learning experiences with animals can, therefore, potentially disrupt children's unexamined perceptions of animals (Kellert, S. T., Black, M., Reid Rush, C. & Bath, A. J., 1996; Russell, 1999). On the other hand, direct learning experiences may lead to children (re)constructing negative, devaluing relationships with animals. Direct learning experiences, in the context of educational atmospheres, may be organized in such a way that they are biased towards a particular orientation to animals; such bias may be found to convey particular meanings about such animals. If, or when, bias is inherent in educational experiences, without spaces provided to critically reflect on these learning experiences, children may, by default, be influenced to adopt such biases. Anthropocentric perceptions of animals, for example, reflects a common contemporary bias where animals are perceived and experienced as objects to be

dominated, controlled, and used by human hands for consumptive exploitation, (Russell, 1999; Smyth, 1995; Williams & DeMello, 2007).

I draw on a Kenyan study to further explain how direct learning experiences with animals may shape how an individual (re)constructs their value-based relationships with animals (Ali, 2002; Ali & Maskill, 2004). This study found that rural-living Kenyan children perceived both wild and domesticated animals as economic assets; when asked, children demonstrated little to no value for animals beyond monetary benefits animals can offer (Ali, 2002). It can be argued then, in countries like Kenya, rural-living people, such as farmers, may rely on a variety of animals for survival (Ali, 2002; Ali & Maskill, 2004). This reliance may influence farmers, and possibly their children, to perceive, experience, and (re)construct their value-based relationships with animals in more utilitarian ways. In this context, children may (re)construct a valuation of animals for the economic value animals are able to provide human life (Ali, 2002; Ali & Maskill, 2004). Given that Namibia is largely imbued with a farming culture, it is possible that farming children's value-based relationships with cheetahs may be (re)constructed in similar ways as with the children in the Kenyan study; children may be found to (re)construct a valuation of cheetahs in utilitarian ways. However, direct learning experiences with animals, like those provided at CCF, may provide children with spaces to reflect on their direct experiences with cheetahs which, in turn, may effect how children (re)construct their value-based relationships with cheetahs. Conversely, there is reason to carefully consider the possible biases inherent in these direct learning experiences themselves. For example, children may perceive their direct learning experiences with cheetahs as a form of entertainment or economic endeavour rather than a learning opportunity. In these

instances, value-based relationships with cheetahs, or even other animals, may be (re)constructed under influences that value, or devalue, animals through exploitation (Williams & DeMello, 2007).

Nonetheless, I support Fawcett's (2002) suggestion that direct experiences with animals can enable children to reconnect with animals in more intimate ways. In turn, such experiences may enable children to critically reflect on their valuations of animals, which may effect how they (re)construct their value-based relationships with animals.

In the next section, I introduce and explain my conception of environmental education, and how this understanding is significant to my study. I then explore environmental ethics as a facet environmental education experiences, and close with a description of constructivism and how it is connected to my study.

Environmental education

> *The human realm is no longer defined in opposition to the realm of nature, but rather the natural world and nonhuman beings are seen to be integral parts of our experiential world.*
>
> *P. H. Clayton, 1998, p. 198*

I suggest the United Nations Educational, Scientific, and Cultural Organization's (UNESCO) definition of environmental education can be supported on educational grounds, however, I acknowledge that environmental education is a "dynamic process and will differ in various contexts" (Wigley, 2000, p. 10). Environmental education is described as the learning processes that can expand an individual's knowledge and awareness about the natural world, and engage individuals in considering the challenges connected to human-nature interactions (UNESCO, Tbilisi Declaration, 1977). What's

more, environmental education can help create contexts that enable individuals to become engaged in issues relevant to their context, where reflexive, critical thinking and action-oriented responses may result from learning experiences (Wigley, 2000). An aspect of CCF's environmental education definition that can also be supported, on the aforementioned grounds, is their goal to "raise awareness of the plight of the cheetah and society's role in its long-term survival" (CCF, 2007, ¶ 2), in a way that attempts to teach "young Namibian's the value of sustainable practices in environmental and conservation issues from an early age" (CCF, 2007, ¶ 4). This goal serves to place environmental education in geographical and social contexts.

Combining these ideas helped me develop an understanding of environmental education. Here, I include context-specific learning experiences about the intimate processes and interconnections with animals, and more generally, with the natural world in its completeness. Seen this way, experiences with environmental education would be fluid in meaning, where learning adjusts to various contexts in ways relevant to the educational experiences of humans, and other-than-human animals (Jickling, 2003). What is important then, is that learning experiences enable different ways of knowing in multiple settings (Aho, 1984; Orr, 1994; Schleicher, 1989; Weintraub, 1995). Thus, relevant environmental education can address issues specific to an individual's context.

In my study, experiences with environmental education curriculum or programs relevant to the context in which programs are provided may enable individuals to examine how they (re)construct their value-based relationships with cheetahs. With this understanding, individuals are provided with opportunities to examine how they (re)construct their values for animals, and how these values are manifested in their

relationships with animals. Thus, critical reflection on value-based relationships with animals can make possible a more thoughtful and harmonious way of humans and animals coexisting within the natural world (Weintraub, 1995).

In some instances then, relevant environmental education can enable individuals to "embrace all interactions within the biophysical environment" (Aho, 1984, p. 184). Here, relevant experiences introduce individuals to a variety of perspectives that challenge them to think about how they position themselves in value-based relationships with animals. As such, I suggest relevant educational experiences can aid in a critique of the "culture of separateness [that] has cultivated the estrangement between people and the Earth" (Weintraub, 1995, p. 341). However, I am aware that how I think about environmental education is value-laden, so I recognize that if I hold values for educational experiences, then organizations would also hold values for their programs. It is important then, to consider that educational organizations are not value-neutral. With this in mind, environmental education programs can be said to occupy spaces on a continuum between "open [and] loaded" (Jickling 2003, p. 24) conceptions. An understanding of open versus loaded conceptions for educational programs is important to my study because it helps address how educational activities, and messages embedded within such activities, can either thoughtfully enable reflective considerations regarding new knowledge and experiences, or can prescribe particular ideologies and outcomes.

On one end of the continuum, more open conceptions of environmental education are found. Here, the effect learning has on an individual tends to lean towards encouraging an "overall interest in environmental matters" (Jickling 2003, p. 24), where new knowledge enables thinking and action, but not by suggesting particular ideologies

or outcomes (Jickling, 2003). Conversely, the opposite end of this continuum reflects more loaded conceptions, where learning outcomes are considered to be more programmatic, and lean heavily towards ideologically-oriented responses to issues and prescribe advocacy (Jickling, 2003). This could be considered an aspect of behaviourism. For example, though CCF's agenda promotes human-cheetah "co-existence," their curriculum specifically states that farmers and their children are the *key players* to affect change for long-term cheetah survival (CCF, 2007). Moreover, CCF's (2007) agenda states that humans and cheetahs can live together, when humans change their behaviours in response to cheetah experiences. CCF's curriculum claims they strive to reduce or eliminate conflict between farmers and cheetahs by advocating for farmers to change their behaviours regarding their relationships with cheetahs; this is suggested to promote co-existence in a shared land. Overall, CCF's primary concern appears to be cheetah survival, which is indicative of their name. However, explicit statements as well as messages inherent in their curriculum appear to represent CCF's desire to prescribe change in how farmers, and quite possibly their children, think about, and act towards, cheetahs. A closer look at CCF's curriculum will help me better understand how they might position themselves along an open-loaded educational continuum. Through my examination, CCF may be found to deal with more loaded conceptions for educational outcomes, where responses to learning experiences specifically prescribe a change in how farmers think about, and act within, the natural world (Jickling 2003). Conversely, CCF may be found to lean towards more open conceptions for educational outcomes, where possible learning outcomes would be non-prescriptive. In these instances particular actions or advocacy is not prescribed, and instead individuals would be engaged in

critical reflection on new knowledge and experiences, where they could make meaning in their own personally relevant ways (Jickling 2003). With this understanding, an organization's positioning on an open versus loaded continuum will undoubtedly affect the nature of the learning experiences provided.

Overall, how an educational organization is positioned on such a continuum can profoundly effect what educational messages are explicitly expressed, implicitly practiced, or avoided. To better understand the nature of CCF's positioning, I draw on Eisner's (1979) notion that educational messages can be organized into explicit statements made about intended learning experiences, and thus outcomes. I also refer to how implicit or null messages can effect the ways an individual internalizes, interprets, and (re)constructs meaning from learning experiences.

Eisner (1979) describes explicit, implicit, and null messages as the three curricula that all schools teach. These three curricula can be a powerful analytic tool in understanding how educational messages are communicated, interpreted, and comprehended in educational settings. Thus, Eisner's (1979) three curricula are used as a framework to interpret CCF's curriculum.

The explicit curriculum is directly stated in educational content; learning outcomes are written in curriculum documents (Eisner, 1979). For example, CCF's explicit messages can be said to increase a learner's cheetah knowledge, like cheetah biology and ecology through comprehensive activities. Conversely, the implicit and null messages comprise the hidden curricula, where the hidden curricula is understood as content that is un-stated or omitted, yet linked to educational contexts and learning experiences (Eisner, 1979; Gordon, 1982). The implicit curriculum consists of unstated

educational messages that are conveyed through educative processes and chosen content (Eisner, 1979). I compare the implicit curricula to subliminal advertising, where messages indirectly expressed can still have an affect on how children (re)construct new knowledge and experiences (Eisner, 1979; Gordon, 1982).

The null curricula is interesting because what is left out, or omitted, can still have an affect on how learning occurs and what messages are taken from learning experiences. For example, since content exclusion is often politically-oriented, differing issues in particular socio-cultural contexts might be evaded to reduce conflicts between different political and/or sociological positions (Jickling, Lotz-Sisitka, O'Donoghue & Ogbuigwe, 2006). By omission, then, the curriculum favours the implicit values of the content and values included. Examining the implicit and null curricula inherent in CCF curriculum sheds light on the nature of CCF's program, and how children may be directed to internalize, interpret, and (re)construct their experiences at CCF.

I suggest that an awareness of the three curricula, and how educational messages might be organized within these parameters, can assist environmental educators to more fully understand the nature of potential learning experiences. Using these three curricula as a guideline to examine CCF's curriculum enabled me to better understand where CCF might be positioned on a continuum of open versus loaded conceptions for learning outcomes. More specifically, I learned how CCF embeds particular learning outcomes throughout their curriculum. In turn, this understanding is used to examine ways CCF's curriculum may influence how children become "engaged in reconfiguring" (Birke, Bryld & Lykke, 2004, p. 178) the ways they (re)construct their value-based relationships with cheetahs.

When examining CCF's curriculum, I am particularly attentive to language and images used to portray CCF's orientation towards human-cheetah relationships in a farming context. By critically considering messages in CCF's curriculum, I am able to better examine their educational program in light of the educational, environmental, cultural, societal, economic, political, and religious values that reveal human-cheetah relationships in this historical and geographical context. However, CCF's location with respect to these values, is laden with ethical issues. It is, therefore important that I discuss my conception of environmental ethics and how this plays a role in my study.

Environmental ethics

> *The knowledge we have to work with depends on the kinds of questions we ask...questions are rooted in our values--our ethics--making all knowledge value-loaded and ethics-based. When we operate from different value systems, we learn different things, and we tell different stories.*
>
> *B. Jickling & P. C. Paquet, 2005, p. 124*

Opportunities to reflect on a personal understanding of environmental ethics are important components in environmental education programs and experiences. These may enable individuals to more deeply comprehend how they perceive, experience, and ultimately (re)construct their value-based relationships with animals (Jickling & Paquet, 2005). Environmental ethics, as a process of inquiry, can enable individuals, like children, to reflexively (re)construct their value-based relationships with animals, to "generate... the kind of internal reflection" (Corocan, 2003, p. 13) that can effect change in a valuation of such relationships. Moreover, if such opportunities can be provided through relevant environmental education experiences, then (re)constructing value-based relationships with animals may enable a repositioning of humans within these

relationships (Smyth, 1995). In turn, (re)constructing value-based relationships with animals may help heal the wounds of "physical, ethical, and emotional [separation] from [our] nonhuman neighbours" (Bell, A. C., Russell, C. L. & Plotkin, R., 1998). Environmental ethics, when considered a process of inquiry through relevant environmental education experiences, can provide individuals with opportunities to reflect on and (re)construct their relationships, and valuation, of animals.

In the context of my study, CCF may be found to provide learning experiences for children relevant to their context, where then children are able to (re)construct their environmental ethics, thus value-based relationships, with cheetahs to thoughtfully consider the "fellow beings who share our [living spaces]" (Bell et al., 1998, p. 7).

In the following section I elaborate on my understanding of constructivism and how it is related to my research.

Constructivism

> *Constructivism does not claim to have made earth-shaking inventions in the area of education; it merely claims to provide a solid conceptual basis for some of the things that, until now, inspired teachers had to do without.*
>
> *E. Von Glasersfeld, 1995, p. 10*

My approach to interacting with the children in my study, as well as analyzing CCF curriculum, was guided by constructivist thinking. The constructivist has been described as a facilitator who attempts to provide meaningful learning experiences for learners (Von Glasersfeld, 1995). According to constructivist theory, thinking and learning are intrinsically motivated and actively involved process, where critical reflection on new knowledge and experiences are encouraged (Von Glasersfeld, 1989). Learners are encouraged to (re)construct personally relevant ways of understanding and

responding to knowledge, because (re)constructing knowledge is considered a response to one's educational experiences (Bogdan & Biklen, 2007; Van Manen, 2006; Von Glasersfeld, 1982). Given this, meaningful learning is considered to take place "when [relevant] connections [can be made] between [new knowledge and] what happens in daily life" (Taylor, 1996, p. 3). Since new knowledge and experiences are thought to challenge pre-existing ways of knowing, new knowledge can effect how an individual (re)constructs meaning in relation to, and in explanation of, their life world experiences (Van Manen, 2006; Von Glasersfeld, 1989).

Since the theory of constructivism rests on the idea that learning experiences are facilitated by educators who provide learners with spaces to reflect on new knowledge, constructivism is linked to me as an educator. In facilitating learning experiences, I attempt to enable opportunities for children to (re)construct meaning from new knowledge in personally relevant ways. Given this, constructivist thinking allows me to reflect on my role as an educator at CCF, where I examine my orientation to environmental education and environmental ethics. Further, constructivism enabled me to step back from my role as an educator, while acting as a researcher, so that I could analyze and interpret children's stories and CCF's curriculum through spaces of critical researcher reflection.

In the following section, I describe the socio-cultural context of my study. Here, I provide information on African cheetahs, and describe Namibian farmers and farming children, in the context of my study. Then, I more fully describe CCF and their goals for cheetah conservation through their environmental education program.

CHAPTER THREE

Socio-cultural context

In this chapter I describe the socio-cultural contexts of my study. I begin with information about African cheetahs in Namibia, where I incorporate CCF studies and other research sources. Then, I describe the perspectives of Namibian farmers and their relationships with cheetahs, to give voice to the farmer's struggle as well as the cheetah's. Next, I illustrate the role farming children play in my study. Finally, I more fully describe CCF as an organization, and their goals for cheetah conservation.

African cheetahs

> *Animals serve as repositories of shared concepts and values, and societal forces give power to their symbolic roles, providing a lens through which preconceived ideology determines the collective view of the species.*
>
> *E. Atwood Lawrence, 1997, p. 1-3*

African cheetahs (*Acinonyx jubatus*) are earth's fastest land animals, reaching up to 110 kilometers per hour for up to 365 meters in pursuit of prey (Marker, 2000: Marker, 2003). The long, lean body of the cheetah can reach 2.1 meters in length and 0.9 meters in height at the shoulder (Marker & Dickman, 2003; Muntifering et al., 2006). Cheetah are classified as a vulnerable species threatened with extinction, primarily caused by habitat loss, degredation, and persecution from humans (CCF, 2007; CITES, 2000; IUCN, 2006). 2,500 of the remaining 12,000 African cheetahs inhabit Namibia's expansive bushveld[3]. These open plains are more conducive for cheetahs to capture prey

[3] Bushveld is predominantly grassy land dotted with tall shrubs and dense trees in clusters. The flora found here offers excellent grazing conditions for endemic species, correlating with rich hunting ground for

quickly and easily. However, livestock farmers also prefer bushveld because it is suitable for cattle, goats, and sheep to graze (Durant, 2000; Marker, 2000; Marker-Kraus, Kraus, Barnett & Hurlburt, 1996; Muntifering et al., 2006; Nowel & Jackson, 1996). Thus, farmers claim bushveld for their livestock, typically dividing 5,000 to 20,000 hectares of land with six to ten meter high fencing (Muntifering et al., 2006). Fragmentation of habitat results in cheetah's native prey, water, shelter, and play trees[4] becoming isolated within farmland, causing cheetahs to congregate in farming areas (Durant, 2000; Hayward et al., 2006; Marker-Kraus & Kraus, 1995; Marker, 1998; Marker, 2000; Marker, Mills & MacDonald, 2003; Nowel & Jackson, 1996).

Further, cheetahs inhabit farmland as a way to evade kleptoparasites and increase their chance of survival (Durant, 2000; Muntifering et al., 2006). Kleptoparasites, like *Panthera pardus* (leopard), *Panthera leo* (lions) and *Crocua crocua* (hyenas) are large, aggressive, and physically powerful predators that tend to dominate environments co-inhabited with cheetahs (Durant, 2000; Muntifering et al., 2006). Farmland then, becomes a relatively safe refuge for cheetahs (Durant, 2000; Muntifering et al., 2006). However, cheetahs increased habitation of farmland influences livestock farmers to perceive cheetahs as mortal threats to their cattle, goats, and sheep. Farmer's perceptions may be validated if a cheetah opportunistically preys upon small livestock, like lone a calf or goat (Durant, 2000; Marker, 2003; Marker, 2006; Muntifering et al., 2006). Should this happen, indiscriminate killing of any cheetahs that may inhabit the land,

---

cheetahs. Cheetahs prefer bushveld because it is easier to pursue prey in high speed chases where there is little/interspersed shelter (Durant, 2000; Hayward, Hofmeyr, O'Brien & Kerley 2006)

[4] Play trees are trees used by territorial males as scent markers; cheetahs can both be easily trapped and removed or killed at these trees; ironically many play trees are found within farmland (Marker-Kraus & Kraus, 1995).

results, where cheetahs are killed by shooting, poisoning, or gin[5] trapping (Muntifering et al., 2006).

On the other hand, cheetahs are also appreciated throughout Namibia as an economic asset for the tourism industry. Otijwarongo, where CCF is closely located, is known as the "Cheetah Capital of the World" (Marker, 2003, p. 26). This town experiences many visitors yearly, who come from around the world and within Africa to see the CCF cheetahs. However, when cheetahs are valued as a tourist attraction they may be exploited as a source of income; if cheetahs are valued as a tourist attraction, then CCF may be perceived as a tourist attraction rather than an educational and research centre. Thus, visitors to CCF may perceive cheetahs as a tourist attraction or even an economic asset.

If and when cheetahs are perceived as a tourist attraction, economically-disadvantaged farmers may also wish to participate in the economic opportunities provided by using cheetahs as a form of tourism, to generate income and improve their station in life. For example, I was told that nearly all 44 resident cheetahs had been rescued and brought to the centre by the Ministry of Environment and Tourism (MET), because regional farmers had trapped cheetah cubs[6] in an attempt to raise them as tourist attractions (MET, 2004). However, many farmers often do not understand the effect their actions have on the cheetahs' survival.

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[5] Gin traps are gruesome leg-hold traps with jagged, sharp teeth that snap together once the set trap has been stepped on. The resulting injuries break bones, sever limbs, cause severe infection, and often kill or permanently maim an animal.

[6] Cheetah cubs must spend two full years with their mother's, learning to hunt effectively and properly, as well as other social skills. However, cheetah cubs are often trapped by farmers after their mother has been killed. As a result of early separation from their mother, the cubs often suffer physical deformities from malnutrition; in addition, they do not learn how to hunt effectively, or for appropriate prey, therefore cannot be released into the wild (CCF, 2007). CCF takes in trapped, orphaned, and injured cheetahs to protect their survival. CCF also studies cheetahs' genetic invariance.

Given that both children's stories and CCF curriculum indirectly or directly make reference to a valuation of cheetahs as a tourist attraction, I explore this issue in my discussion where I consider the concept of ecotourism, as a way to value animals, and human relationships with animals, can influence or enable different ways of (re)constructing value-based relationships with cheetahs. In the following section I describe my understanding of the farming children, and the role they play, in my study.

Namibian farmers

> *People learn to behave towards their environment in their homes and communities...from relatives, peer-groups [and] cultural influences*
>
> *J. C. Smyth, 1995, p.3*

Farming in Namibia is predominantly of two types, agriculture in central-northern regions, and breeding and raising livestock and animals used for the trophy hunting industry throughout the country, though primarily in northern regions (Fig. 1) (Sweet & Burke, 2007).

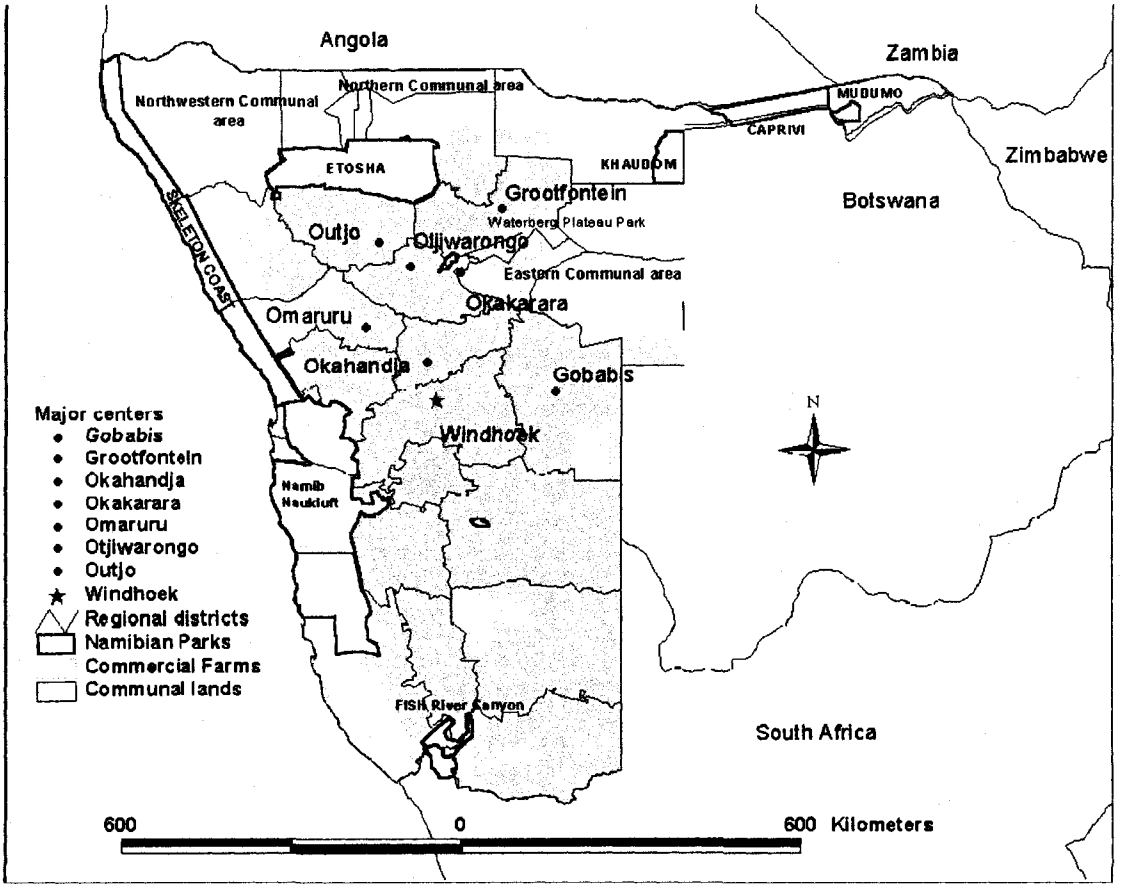

Figure 1. Namibian land use map indicating regions of areas used for farming (Marker, 2002). Communal lands, utilizing traditional farming techniques, are located in the north and northeastern regions.

Communal, or traditional farming, occupies approximately half of the total farming in Namibia (Sweet & Burke, 2006). Traditional farmers account for 62% of the total cattle population, 72% of goats, and 17% of sheep (Sweet & Burke, 2006). Herd sizes vary, and livestock ownership may include a small group of people owning and sharing larger herds, or one person owning very few animals (Sweet & Burke, 2006). There is very limited use of technology and most farmers rely on herders, kraals[7], and guarding animals such as donkeys or dogs to help keep livestock safe (Sweet & Burke, 2006).

[7] Kraals are fences made for cattle or other livestock that usually utilize natural materials, such as acacia branches, to build the structure. They help to keep out predators and protect the animals at night.

Overall, livestock farming contributes to roughly half of the total agricultural output for Namibia (Sweet & Burke, 2006). For example, in 2001 to 2002 Namibian farmers were reported to raise, sell, and consume approximately 2.5 million cattle, 2.9 million sheep, and 2.1 million goats (Sweet & Burke, 2006). However, beef cattle production is the most popular and important activity and significantly contributes to income; goats and sheep are often used for personal food purposes (Sweet & Burke, 2006). Major breeds raised in Namibia are Brahman, Afrikaner, and Simmentaler because they are hardy to the harsh conditions (Sweet & Burke, 2006). While most livestock production is exported to other African or international countries, approximately 997 kilograms of beef remains in Namibia for local consumption (Sweet & Burke, 2006). Given the high production and reliance on livestock animals for income and food, Namibian farmers often find themselves competing with predators for resources, such as land, food, water, and shelter. Inherent in this competition is conflict, where farmers often eliminate predators, such as cheetahs, in order to help protect their livestock and ensure their livelihood.

Namibian farmers are permitted to kill cheetahs to protect life or property when a cheetah is considered a problem animal that habitually preys upon livestock, and may pose a mortal threat to humans. However, this notion is indiscriminately employed as a preventative measure to reduce perceived threats that cheetahs may pose to livestock (Marker & Kraus, 1997; Marker, 2000; Nowel & Jackson, 1996; Swarner, 2001). In these instances, long-term research on Namibian farmlands reveals that "killing [cheetahs] by humans is the single, main source of mortality for adult cheetahs" (Marker & Dickman, 2004, p. 299). Approximately 7,000 cheetahs were removed from Namibian farmland

during the 1980s, because farmers perceived cheetahs to be mortal livestock threats (Convention on International Trade in Endangered Species of Wild Fauna and Flora [CITES], 1992 in Marker et al., 2005; Marker et al., 2003). Moreover, a recent study of cheetah management on Namibian farmland found that cheetahs were "shot on sight due to a perceived threat, of which 92% were killed on livestock farms" (Marker, Dickman, Jeo, Mills & MacDonald, 2003, p. 409). Such killing has resulted in cheetah extirpation "from at least 13 countries [over] the past 50 years" (Marker, 1998 in Marker, Dickman & Schumann, 2005, p 28).

While cheetahs may predate on small calves, sheep, or goats if opportunities exist, fecal analysis of cheetahs inhabiting farmland indicate that native prey[8] is selected at a greater frequency than livestock; this is because native prey is familiar to cheetahs (Marker, Muntifering, Dickman, Mills & MacDonald, 2003). Also, smaller prey[9] reduces the risk of serious injury to cheetahs, whereas prey larger than 56kg, like adult cattle, are typically too large to successfully take down without risking bodily injury to the cheetah (Marker et al., 2003). For example, a sample of 376 cheetahs on commercial farmland found that only 3% actively predated on livestock; CCF suggest then, that cheetah depredation of livestock has largely been exaggerated (Marker-Kraus, et al., 1996; Marker et al., 2003).

Although livestock farmers agree about the difficulties in specifying a definitive cheetah problem, many still openly persecute cheetahs as a precautionary measure to protect their livestock (Marker et al., 2003). This persecution may be attributed to the

[8] Typical prey of cheetah include kudu, oryx or eland calves, warthog piglets, impala, springbok, duiker, steenbok and guinea fowl (Marker, Dickman & Schumann, 2005; Hayward, et al., 2006; Marker, et al., 2003).

[9] Cheetahs prefer impala and blesbuk, small African ungulates weighing between 23-56kg (Hayward et al., 2006; Marker-Kraus & Kraus, 1997; Marker et al., 2003)

ways farmers "interpret and comprehend" (Aho, 1984, p. 186) their direct experiences with cheetahs, since "people possess certain...values towards animals [that] inevitably impact their perceptions [of such animals]" (Kellert et al., 1996, p. 978). Given this, farmers knowledge about, and understanding of cheetahs, might be influenced by their past and present experiences with cheetahs (Kellert et al., 1996). These experiences, in turn, may influence farmer's future interactions with cheetahs, which might influence how their children come to know, and value, their own relationships with cheetahs. However, there are complexities inherent in the knowledge farmers have of the land and wildlife, and these must be recognized as laden with tradition and culture that is passed between generations.

In another context, cheetahs are often perceived as an economic asset, specifically within conservancy areas. Conservancies are large tracts of land owned and used by groups of independent livestock and game animal farmers; these areas are also used for tourism activities, such as trophy hunting of non-farmed game animals like oryx, eland, cheetah, and leopard. While the principles behind conservancies can benefit certain species through tourism-generated revenue, such activities appear to benefit wealthier farmers more so than less wealthy farmers. For example, wealthy farmers often build luxury accommodations for international tourists, while less wealth farmers cannot. In turn, less wealthy farmers may turn to exploiting wild animals, such as cheetahs, as a way to generate income. In such instances, economically-disadvantaged farmers may value cheetahs based on their economic value to humans. I acknowledge here that my culture has historically exploited animals in zoos, circuses, and other tourist attractions, so I am not setting out to criticize another culture's valuation of animals (Williams & DeMello,

2007). Rather, through my study I am interested to explore how children who live in farming families (re)construct their value-based relationships with cheetahs, to explore if and how learning experiences at the CCF might enable children to (re)construct their human-cheetah relationships.

Namibian children

> *The community of knowers, and what it is to be known, is a multi-species community.*
>
> *L. Fawcett, 2002, p. 136*

I do not assume that the children in my study hold identical perceptions, nor do I assume they hold their parent's perceptions, of cheetahs. Further, I do not assume that the children will have identical value-based relationships with cheetahs. Instead, the children are regarded as unique individuals living within a similar context, where their perceptions of, and relationships with cheetahs are (re)constructed through their direct experiences with family, school instruction, and CCF. With this in mind, "children... may have many different perspectives on the same issue, [which might be] reflective of their context" (Dockett & Perry, 2007, p. 49). However, socially-constructed values about cheetahs, like in family, may influence children's epistemological and relational ways of knowing cheetahs (Marker, 2006; Marker & Kraus, 1997; Marker et al., 2005; Nibert, 2003; Treves & Karanth, 2003). In this context, socially-constructed values reflect how a child might organize her or his thoughts and direct experiences about a subject, as a way to collectively look at, and act within, the world around them. It can be argued then, that socially-constructed values can influence how a child (re)constructs their perceptions of, and thus value-based relationships with, cheetahs.

To further explain, by describing socially-constructed values as context-specific shared beliefs legitimizing actions in defence of a culture's existing social order, suggests that the values individuals hold for particular subjects, such as cheetahs, can "direct or influence behaviours" (Gerring, 1997, p. 967) through internalizing and interpreting direct experiences in specific ways (Nibert, 2003). For example, discourse amongst family members, or with a teacher in a classroom, are arguably loaded with values and can influence children to (re)construct their ways of thinking about other subjects, which, in turn, might influence the actions children take in life (Gerring, 1997). Moreover, social discourse, and more specifically family discourse, about conflicting relationships with animals such as cheetahs, (re)constructed through direct experiences, may encourage children to adopt a certain way of knowing said animals. In this case, socially-constructed values about human-animal relationships might reflect a "hierarchy of worth of living beings" (Nibert, 2003, p. 20), where boundaries stipulate the differences between humans and animals, and separate humans from animals in a superior-inferior systematic way. Within this value-laden stance, humans are seen to occupy the upper portions of this hierarchy, where oppressive or hostile actions towards animals might be rationalized as a way to order animals into the hierarchy. Given such a hierarchy, humans may devalue, exploit, or even eliminate animals "particularly when it is in their economic interest to do so" (Nibert, 2003, p. 10). In the context of my study, farmers indiscriminatingly persecuting cheetahs may define their value-based relationship with cheetahs, and thus influence their children's value-based relationships with cheetahs, within a socially-constructed framework of their perceptions of, and direct experiences with, cheetahs.

Seen another way, some forms of knowledge are "shared among those who share common, or at least similar, experiences" (Jickling & Paquet, 2005, p. 115). Here, shared experiences, such as those within a family, may legitimize the killing of cheetahs when cheetahs are perceived as threats, and eliminating them "appears [to be] the right thing to do" when reacting to conflict (Nibert, 2003, p. 10; Marker & Kraus, 1997). Farmer's actions towards cheetahs might further reflect socially-constructed values situated within their experiences, where farmers may (re)construct more negative value-based relationships with cheetahs (Ali & Maskill, 2004; Marker, 1998).

All things considered, families may transmit their beliefs about cheetahs to their children, where children's ways of knowing and (re)constructing their value-based relationships with cheetahs are, thus, influenced by socially-constructed values (Ali & Maskill, 2004). That is, farming children's relationships with cheetahs can reflect a sharing of familial values, especially as "attitudes towards nature are [largely] established in childhood" (Schleicher, 1989, p. 274), and are often influenced by adults. Thus, children's relationships with cheetahs can "reflect the realties of [their direct] experience[s]" (Kahn Jr. & Friedman, 1995, p. 1414) shared within family interactions.

Similarly, children may be influenced by their direct experiences within school when (re)constructing value-based relationships with cheetahs. The Namibian school system provides free basic education to youth between the ages of six and sixteen. The curriculum is largely focused on the instruction and learning of science, language, and mathematics through grades one to ten (Kwak, 2005). Specifically within the science curriculum children learn subjects called Life Sciences and Agriculture, which teach children about interactions amongst humans, wildlife, the natural world, and farming

(National Institute for Educational Development, 2008). Children's learning experiences in school are loaded with assumptions and opinions about humans, wildlife, and nature that can influence how children perceive, experience, and (re)construct their value-based relationships with animals like cheetahs.

All things considered, I recognize their is difficulty in specifying children's value-based relationships towards cheetahs as constitutive of any direct experience, however, I understand, even if I do not agree with, CCF's position that the fate of Namibian cheetahs lies in the hands of Namibian farmers and their children ((Dearden, 1974; Marker, et al., 2003; Marker & Kraus, 1997). However, CCF may also consider that government policies and globalization, which may participate in exploiting animals and nature, also plays a role in the fate of Namibian cheetahs. Nonetheless, given the context of my study I only consider CCF's position, so that I might develop a better understanding of how farming children perceive, and potentially experience cheetahs in meaningful ways, through CCF's curriculum (Fawcett, 2002).

Cheetah Conservation Fund (CCF)

> *CCF is committed to providing training and other opportunities for students, teachers and farmers...and aims to expand its education outreach and capacity building through training courses and increased internships.*
>
> *Cheetah Conservation Fund, 2007,¶ 4*

The Namibian Cheetah Conservation Fund (CCF) is located in the Waterberg Plateau region of Namibia, 44 kilometres north-east of the town of Otjiwarongo.

CCF is an international, incorporated association conducting research and educational programming to help conserve the African cheetah (IUCN, 2006; Marker,

1998; Marker, 2000; Marker & Dickman, 2004). CCF's goal is a "three-pronged process of research, conservation, and education beginning with long-term studies to understand and monitor factors affecting cheetah survival" (CCF, 2007, ¶ 2). Here, CCF aims to secure viable habitat for cheetahs to flourish, while accommodating Namibian farmer's need for, and use of, similar habitat (Marker, 2000).

In the past, CCF conducted various studies exploring livestock farmers' perceptions of cheetahs, and what actions these farmers take when they perceive cheetahs as threatening. For example, between 1991 and 1995 CCF surveyed 385 Namibian farmers who reported conflict with cheetahs through livestock depredation (Marker, 2003). In their study, CCF stated that farmers attributed cheetah's diurnal and social behaviours[10], and their habitation of farmland, as the primary reasons justifying their perceptions (Johnson, Vongkhamheng, Hedemark & Saithongdam, 2006; Marker, 2003; Marker et al., 2003). Conversely, another study by CCF found that 95 % of farmers "had no current knowledge of... cheetah population [decline], and the role farmers played in [the] cheetah's long-term survival" (Marker, 2000, p. 42). CCF states that farmers agreed a more comprehensive understanding of cheetah biology and ecology was necessary to reduce human-cheetah conflict. Further, farmers agreed that training and education programs could assist in developing their understanding of cheetah biology and ecology (Marker, 2000). Through their research, CCF suggests that farmers support the important first steps[11] to achieving long-term cheetah survival in Namibia; first steps, for example,

[10] Diurnal, social behaviors refer to cheetahs hunting during the day and males (not females) preference to be with other cheetahs in social groups called coalitions (Durant, 2000; Muntifering, et al., 2006).
[11] By important first steps, I mean Namibian individuals are open to relevant learning experiences in environmental education, where ideologies regarding cheetahs may be challenged, reflected upon, and (re)constructed to include valuing relationships for conflict mitigation.

include participating in training programs to learn predator protection and livestock management techniques (Marker and Kraus, 1997; Sillero-Zubiri & Laurenson, 2001).

CCF responded to cheetah and farmer needs by collaborating with "local, national and international communities to raise awareness, communicate, educate and train individuals about the cheetah's ecology" (CCF, 2007, ¶ 2). CCF developed an environmental education program about cheetahs relevant within a Namibian farming context (Marker, 2000). This educational program includes their curriculum.

Through their curriculum, CCF's multi-disciplined, integrated approach aims to address the conflict between humans and cheetahs in Namibian farming environments (Marker & Dickman, 2004). To date, approximately 120,000 children have participated in CCF's environmental education program, at their Education Centre and through school outreach activities (CCF, 2007; Marker & Kraus, 1997). Overall, CCF's (2007, ¶ 2-4) environmental education program "plays a key role in empower[ing] Namibians to protect their land and wildlife, [where] teach[ing]...the value of sustainable practice in environmental and conservation issues from an early age [will] raise awareness of the plight of the cheetah, and society's role in its long-term survival."

CCF typically provides learning experiences for visiting school groups in their Education Centre, where informational displays and some activities are used to impart knowledge about cheetahs. CCF also has two other buildings that comprise the centre; the office, which also houses the Medical Clinic, and the Visitor's Centre, with a classroom in the lower level used for Farmer Training and Guard Dog programs. CCF's atmosphere is typically very busy, where staff often exude determination, fervour, and focus in their various tasks. Tasks often include research projects like game count surveys, logging

camera trap photos[12], and even administrative duties. Staff roles include an Executive Director, Administrative Assistants, General Manager, Cheetah Keeper, Vet Technicians, Education Officer, Farmer Training Co-ordinator, Farm Management personnel, Farm Workers, and Livestock Herder. There are no trained teachers at CCF. The Education Officer is responsible for school group instruction, as well as some farmer training programs, despite no formal training or prior experience in an educational setting. However, this is not to say the Education Officer is incapable of providing meaningful instruction to the school groups.

For school visits to CCF, a maximum of thirty children can be accommodated at Camp Lightfoot, a tented camp located less than one kilometer from CCF's main buildings. School groups arrive on Friday evening, at approximately 5pm, and find Camp Lightfoot equipped with solar-powered lamps, firewood, toilets and tissue, and mattresses in all of the nine tents. School groups stay here both Friday and Saturday nights, and then depart Sunday morning.

CCF's full-time Education Officer usually greets the school group at the campsite upon their arrival, but this became my responsibility in his absence. Greeting the schools groups proved beneficial for my study because I was able to meet the children, teacher, and principal before beginning my data collection and CCF activities. This enabled me to form a relationship with the children, before they were asked to participate in my study; I think meeting the children before collecting data enabled children to become more comfortable with me.

[12] Camera traps were field cameras set up in various locations throughout the CCF farm, used to capture photos of cheetahs visiting popular play trees or termite mounds.

In the following chapter I describe my methodology, my research design and methods, the challenges I encountered and, my experiences as a researcher.

CHAPTER FOUR

Methodology

I was accepted to CCF as a research intern from September to the end of October, 2007. In my two-month internship, I collaborated with CCF to collect children's stories about cheetahs, and critically analyzed CCF's (2004a) curriculum. Though I was primarily interested in exploring children's value-based relationships with cheetahs, I also was interested to learn how the children's parents might (re)construct their relationships with cheetahs, so I observed some farmer training programs at CCF (2004b). This enabled me to better situate myself within the socio-cultural context of my study, where I learned more about Namibian farmers and their perceptions of cheetahs. In turn, this enabled me to develop a better understanding of how farming children might (re)construct their value-based relationships with cheetahs through a variety of direct experiences.

The first part of my research focuses on how farming children (re)construct their value-based relationships with cheetahs, through their direct experiences with cheetahs at CCF, as well as with any experiences they may have had with their family or school prior to visiting CCF. Children's drawn, written, and verbal stories are used as a storytelling methodology, which I describe more fully later in this chapter.

I was also interested to learn how CCF conceives of, and portrays, human-cheetah relationships through their curricula, to explore if and how their education program may, or may not, effect how children (re)construct their value-based relationships with cheetahs. Thus, the second part of my study includes document analysis, where I examine

how CCF uses language and images to portray their conception of, and orientation to, human-cheetahs relationships in a farming context.

Considering the two parts of my study, and the context of my study, hermeneutic and environmental phenomenology was considered the most appropriate way to analyze and interpret children's stories, even though I was unable to live with, and study, the children's lived experiences for a longer period of time. Thus, in the context of my study, referring to the "lived experiences" of the children in this section means that I am referring to their lived experiences they *may have had with cheetahs prior to visiting CCF*, as well as their *direct experiences with cheetahs while at CCF*. I understand this is not the exact definition of the term "lived experience," but for the purpose of my study, as well as the dynamic, challenging context, it was considered the most appropriate way to explore children's perceptions of, and experiences with, cheetahs.

Regarding CCF document analysis, I refer to Eisner's (1979) three curricula, the explicit, implicit, and null curricula, because this was considered the most appropriate way to examine and interpret CCF's educational objectives, and messages inherent in their curriculum. As such, I begin this chapter with a description of hermeneutic, environmental phenomenology as an element to my methodology, and then reflect on document analysis through Eisner's (18979) three curricula.

Hermeneutic phenomenology can be explained as the study of human lived experience expressed through conversations in family, community, or learning environments (Titscher, Meyer, Wodak & Vetter, 2000). Although my limited term internship does not allow for a lengthy study period, in which to closely examine the lived life of the children, hermeneutic phenomenology is still an appropriate way to

analyze and interpret the children's experiences at CCF, because I was participating *with* the children in their experiences of the cheetah run. Thus, interpreting children's stories through hermeneutic phenomenology enables me to discover and discern how the children's direct experiences with the cheetah run may or may not effect how they (re)construct their value-based relationships with cheetahs (Lamarque, 2000). The first step then, in exploring how children might perceive, experience, and (re)construct their value-based relationships with cheetahs, was to re-story my experiences as a researcher, with the children and with CCF; through re-storying, I attempt to draw readers into the context of my study (Creswell, 2005). However, by re-storying I became aware that children's stories, when analyzed and interpreted, may not articulate any particular meaning. Thus, I developed an understanding that experiences within the life world "is always more complex than any explication of meaning can reveal" (Van Manen, 2006, p. 18), which enables me to comprehend that some meanings may remain hidden to me. Further, through re-storying I became aware that I must take precaution to avoid explicating meaning from children's stories that may not truly be present (Seamon & Zajonic, 1998). As such, re-storying my research experiences through hermeneutic phenomenology enables me to more sensitively analyze and interpret children's stories, to represent *their* voice and *their* value-based relationships with cheetahs. Hermeneutic phenomenology is useful then, because it enables me to reflectively return to my research experiences as a way to comprehensively describe the children's stories. Moreover, hermeneutic phenomenology enables me to explore, discover, and discern meanings inherent in the children's stories, rather than impose meanings onto the drawings or written words (Moustakas, 1994).

An additional element to hermeneutic phenomenology is environmental phenomenology, given that themes inherent in the children's stories describe elements of, and experiences with, cheetahs, and cheetahs are considered a part of the natural world (Clayton, 1998). By combining environmental phenomenology with hermeneutic phenomenology, I am able to explain how an individual might (re)construct their understanding of a phenomenon, like human-cheetah relationships. By asking children to create drawn and written stories about their perceptions of, and experiences with cheetahs, and then verbalize explanations of their stories, opportunities are provided for children to reflect on their direct experiences with cheetahs, which they may have had prior to visiting CCF, or while at CCF. In turn, children's stories enable me, as a researcher, to explore the core aspects of how the children's value-based relationships with cheetahs are potentially (re)constructed through their experiences (Seamon & Zajonic, 1998). All things considered, hermeneutic environmental phenomenology assist in revealing how the children in my study might (re)construct their value-based relationships with cheetahs through a variety of direct experiences.

For part two of my study, CCF document analysis, I referred to Elliot Eisner's (1979) concept of the three curricula; I interpreted CCF's curriculum into the explicit, implict, and null curricla. I was specifically attentive to how CCF conceives of, and portrays, human-cheetah relationships in a farming context, and how children might internalize, interpret, and (re)construct messages that may be embedded within CCF curriculum. Document analysis, through the lense of Eisner's (1979) three curricula, is useful to my study because it enables me to begin to comprehend how children's direct experiences with educational materials can effect how they (re)construct their value-

based relationships with cheetahs, and quite possibly, with the natural world in its completeness.

In the following section I more fully describe the two parts of my study. In part one, I explain storytelling with children as a research methodology. Here, I elaborate on collecting data from the children and describe the research design and methods used. In part two of my study, I describe the process of examining CCF's curriculum, and explain how I refer to Eisner's (1979) three curricula to organize language and images used in CCF's documents to portray their conception of, and orientation to, human-cheetah relationships in a Namibian farming context. Further, and more importantly, I explore how messages in CCF curriculum may or may not effect how the children (re)construct their value-based relationships with cheetahs. Throughout document analysis, I also refer to various workbooks and authors to assist in my examination of CCF's curriculum (Department of Environment and Conservation, 2004; Eisner, 1979; Jickling, et al., 2006).

Research design and methods: Children's stories and document analysis

> *Different cultures express their values differently.*
>
> *K. Kato, 2002, p. 113*

School groups visiting CCF participate in their educational program; groups typically arrive at CCF on a Friday afternoon, and stay at Camp Lightfoot until Sunday afternoon. CCF can accommodate a maximum of twenty-six children and four adults at this camp. Two different school groups, each from a community in northern Namibia, participated in my study. Upon their arrival at CCF, the children, teachers, and principal from both School Group A and School Group B were given a comprehensive letter

outlining their role in my study, and ongoing opportunity to discuss their participation. It was made clear that participants could deny participation, refuse to answer questions, or withdraw from my study at any time without consequences, and with their data being destroyed (Tri-Council Policy Statement [TCPS], 2003). After participants read the information letter, they freely signed the consent form. However, the principal of each school group signed the consent form in lieu of the parents' consent; the principals acted as the guardian for the children, for reasons I discuss later. All of the participants understood that their data would be used in my formal thesis, potential publications, posters, and conferences. In part one of my study children's stories are the primary source of data.

A total of 19 girls and boys, between the ages of eleven and thirteen, who lived in livestock farming families, or whose families had livestock farming experience, comprised the participants. The principal from School Group A and teacher from School Group B are also included in my data collection because of their role in the school group participation; I refer to the principal and teacher as being from School Group A and School Group B, respectively. Each participant, referring to the children, is hereafter referred to as boy or girl from School Group A or School Group B; I identify their age in addition to their gender. This coding scheme is used to help maintain the participant's confidentiality and anonymity (Bogdan & Biklen, 2007; Creswell, 2005).

The first part of my study explores Namibian children's drawn, written, and verbal stories about cheetahs. Though this approach, for example, has been used in North America by Fawcett (2002) to explore Canadian children's direct experiences with bats, frogs, and racoons, I wanted to use storytelling as a way to mitigate researcher-participant

discomfort, considering the cultural context I would be in. It was my thought that storytelling might be a familiar and comfortable way for children to express themselves, rather than through survey questions or interviews. I also thought that storytelling would truly give voice to the children's perceptions of, and value-based relationships with, cheetahs because they were creating their stories through reflecting on personal experiences.

On their separate visits, children from both school groups first watched CCF's cheetah run, and after the run they walked to CCF's Education Center classroom. Here I had large, rectangular, wooden tables arranged in groups of five, with four to six chairs situated around each table. The tables were approximately three meters apart, in a semi-circle around the classroom. I choose to arrange the tables in focus groups, so that the children might gain confidence from each other (Bell, 2002). I thought that if the children were to sit individually they may have been intimidated by me or the storytelling task.

On top of each table were adequate supplies of white drawing paper, coloured pencils and crayons (blue, black, brown, purple, pink, red, orange, white, green, and yellow), graphite pencils, sharpeners, and erasers for children to use. When the children entered the classroom, I asked them to sit in groups they were comfortable with; children from both School Group A and School Group B immediately sat in gender-specific groups, with girls at separate tables than boys. I acknowledge that this gender-specific grouping, and possibly even the table organization, may have affected how children created their stories, specifically what they drew and wrote about. For example, I observed that different table groups, from both School Group A and School Group B, often adopted a common theme in their drawings. This common theme may have been

based on possible group discussion. These group expressions may slightly skew my findings, given that I may not be able to identify each individual child's value-based relationship with cheetahs. However, I attempted to mitigate this dilemma by asking children to avoid sharing their ideas with their peers; essentially to not chat amongst each other during the drawing and writing stages of storytelling. I further acknowledge what implications this may have on my findings, in Chapter Five.

I attempted to give each school group approximately 45 minutes to draw, write, and talk about their stories. However, I was not overtly strict in my timing, in order to provide more leniencies for children to complete their drawings, writing, and conversations with me. I think a more lenient timeframe enabled children to feel more relaxed and comfortable with my "activity." Nonetheless, I did have to loosely follow CCF's schedule for school visits, so there were some time constraints imposed. I further discuss this in Chapter Five and Seven.

To initiate the children's creation of stories, I asked them to draw or write about their thoughts on, or experiences with, cheetahs. For example, I asked that if the children had seen cheetahs in the past, either in the wild or on their family farm, to draw and write about these experiences. I also suggested that if they were directly experiencing cheetahs for the first time at CCF, to draw or write about these experiences. I am aware that in asking children to draw and write about their differing, direct experiences with cheetahs, I would be receiving stories from different perspectives. However, given the situation I was put in, in terms of research limitations and lack of clarity on the children's communities, family life, and prior experience with cheetahs, I had no other choice than to ask the children to create stories based on the variety of direct experiences they may

have had with cheetahs. Researcher-participant conversations were initiated in a similar manner, which I discuss later.

I circulated the room as children were drawing and writing, taking notes on the content of their stories. Though I submitted a guideline of proposed questions for children to Lakehead University's Ethics Committee, the context of my study indicated that the emergent questions generated during note-taking were more useful for my study. The emergent questions then, were more relevant to the context of the children's drawings and writing.

After the children completed their drawings and writing, I held researcher-participant conversations; during this time children were given opportunities to explain why they chose to draw or write particular things. These conversations also enabled me to explore other topics relevant to my study. I took notes of the content of the researcher-participant conversations, to reflect on what children during my document analysis. I explain why these notes are important to my study in Chapter Five and Seven. Researcher-participant conversations were vital to my study, as a component of storytelling, because it enabled children to explain what they were thinking about when they created their drawings and writing, and it assisted me in developing my understanding of how the children perceive, experience, and (re)construct their value-based relationships with cheetahs. I chose conversations then, as a form of dialogue between researcher and participant, because I think conversations can create a more comfortable atmosphere for children to "make explicit certain feelings, beliefs, and opinions which might otherwise be left unsaid or passed unnoticed" (Bell, 2002, p. 102). I suggest that conversations enabled children to comfortably "pause and reflect" (Bell,

2002, p. 102) on what they remember about their experiences with cheetahs, and to describe their experiences in their own voice. Thus children's ideas and values for cheetahs were expressed through a reflection on their own thinking about, and thus value-based relationships with, cheetahs (Ali et al., 2004). Overall, conversations enabled children to develop the explanation of their stories as they saw fit (Witz, 2007). Personal expressions of feelings, memories, and attitudes about cheetahs were done in their own voice. Conversations then, enabled me to avoid directed discussions of researcher bias, in that it lessened the effect of guiding children to answers I may have unconsciously sought (Witz, 2007). All things considered, conversations between myself as researcher, and children as researched, were grounded in the children's experiences with cheetahs, and not my own values, judgements, or experiences (Bell, 2002).

An interesting element to conversations with children is that I found children often replied to my questions in one-word or short-sentence answers. I do not think the children were resistant or uncomfortable with my questions; rather, I think they perceived their short and concise responses to have sufficiently answered my queries. Though I frequently sought clarification from children, and did so gently and naturally, they still did not elaborate further (Witz, 2007). Given this experience, I draw on my past experiences as an elementary school teacher to provide a better explanation of children's concise answers.

I have found that children, especially between the ages of ten and thirteen, think they have clearly outlined their answers in one or two words, and thus perceive a question to be fully addressed. I have often found that with this age group, no amount of probing can generate further explanations. This may be due to children feeling unable to expand

on their thoughts, or that they truly think further explanation is unnecessary. Also, I consider that children may not have the verbal skills to further explain their thoughts or actions. In this instance, since the children were more fluent in their indigenous and Afrikaans languages, they may have been unable to sufficiently expand on their thoughts in English. Nonetheless, despite very short and direct answers, I was able to develop an understanding of children's value-based relationships with cheetahs because of the *combined* method of collecting children's drawings, writing, and verbal stories as a source of data.

After I had collected data from children, I began the second part to my research, a critical examination of CCF curriculum. I begin with critically analyzing *CHEETAHS: A predator's role in the ecosystem: Teacher's resource guide* (CCF, 2004a), and then I examine *Integrated livestock and predator management: A farmer's guide* (CCF, 2004b), since some ideas from this *Integrated Guide* are indirectly portrayed through CCF instruction to school groups. I observed that CCF referred to ideas and elements from various activities in their curriculum, during school group visits; thus, ideas from the curriculum were expressed through CCF instruction,

By undertaking document analysis, I was able to develop an understanding of how CCF portrays their conception of, and orientation to, human-cheetah relationships in a farming context. I explored how educational messages about human-cheetah relationships are explicitly or implicitly portrayed, or completely omitted by CCF, and what effect this may or may not have on how children internalize, interpret, and (re)construct their value-based relationships with cheetahs (Eisner, 1979; Strauss & Corbin, 1990).

When analyzing the curriculum, I acknowledge that analytical processes are often non-linear and interchangeable as new data is collected, or new knowledge is gained. As such, I attempted to refer to the workbook "Environmental education, ethics and action: A workbook to get started" (Jickling, Lotz-Sisitka, O'Donoghue & Ogbuigwe, 2006), to assist in my analysis. Elements from other workbooks and authors, such as questions about how CCF's educational messages might be conveyed through the framework of Eisner's (1979) three curricula, also guided my analysis (Department of Conservation, 2004; Eisner, 1979; Fien, Scott & Tillbury, 2001; Thompson, Hoffman & Staniforth, 2003).

Prior to the analysis, I reflected on my research questions. I also reflected on the meanings inherent in children's stories, in order to use children's stories to inform document analysis. However, while organizing CCF's educational messages into explicit, implicit, and null curricula, I kept in mind that the children's stories and CCF's curriculum do not share a causal relationship. In my study, children did not experience any educational activity, other than CCF's cheetah run, prior to sharing their stories. Nonetheless, it was interesting to learn, for example, that many children's valuation of cheetahs appeared to be based, at least in part, on the cheetah's perceived beauty; this valuation is also described by CCF in their curriculum.

As a way to communicate results with CCF and the schools that participated in my study, I prepared a summary of the core aspects of my findings specifically for those groups and individuals. This summary can be found in Appendix E.

In the next section, I reflect on the limitations I encountered during my research. However, rather than perceiving these limitations as a hindrance, I chose to accept these as challenges, given that I experientially learned about the complex nature of research.

Research challenges

In this section I specifically describe the challenges I encountered while conducting research in Namibia. Then, I reflect on how my methodological choices played a part in overcoming these challenges, in terms of adjusting the nature of my data collection.

First, I had a two-month term internship at CCF, which affected the length of time I had to collect data. Also, my timeline for collecting data was affected by the lack of *a priori* clarity on my duties at CCF, as well as school group scheduling. As such, only three school groups had the potential to participate in my study. However, I was unable to hold information sessions in children's communities[13] before their arrival at CCF because I was unable to leave CCF prior to the groups' arrival. Thus, I was unable to solicit parent's consent for their children's participation in my study. I could not, therefore, include the first school group in my study. Instead, I sought approval for new consent forms from Lakehead University's Ethics Committee. They agreed that, in this context, the school principal could give consent for the children in lieu of their parents' consent. An example of my introductory letter and consent form are found in Appendix C. Also, given that I could not visit the communities before their participation, I was limited in how much I could learn about the communities and the children's schools. I asked

[13] CCF is remotely located and I did not have transportation to these communities. Further, I was not informed of the location of the school's communities before their arrival, I could not contact the schools prior to arriving at CCF.

participants various questions about their community, but exercised care in this line of questioning to avoid misunderstandings. Overall, I have limited knowledge of the more intricate aspects of daily life in the communities and schools, beyond what I was told.

Second, given my qualifications as an elementary science teacher, I was asked to act as an Education Instructor for visiting school groups, in the absence of CCF's Education Officer[14]. This role, among others, required me to organize my data collection into CCF's daily schedule while providing CCF's educational program for the children. Since CCF had a set timeline to follow for school groups, my allotted time for data collection was restricted. This restriction made it possible to collect only one series of stories from children, following their experiences with the cheetah run and prior to experiencing the remainder of CCF's activities. Initially, I wanted to hold two storytelling sessions with children, prior to and following their experiences with any of CCF's educational activities. Instead, I shifted my original plan my study with a view to being more mindful of children's value-based relationships with cheetahs based on their background experiences with family as well as their immediate experiences with the cheetah run. Document analysis, though initially a precautionary measure, proved beneficial because it enriched my understanding of how learning experiences may, or may not, influence the children to (re)construct knowledge about, and thus relationships with, cheetahs in particular ways.

The time available to talk with the children about their drawings and written work was also limited. In turn, this limited how deeply I could explore children's stories. However, the children did not elaborate on the meanings inherent in their drawings and

[14] The Education Officer was often absent during the instruction of school groups for reasons unknown. I found this very strange, but I was in no position to affect change regarding this concern.

written work, so it is possible they had an adequate amount of time to converse with me, and address my questions.

Third, given the limited supply of resources available at CCF, I had to print my consent forms for both the children and the principal of School Group A and School Group B on a single piece of paper. Lakehead University's Ethics Committee granted my request to do so and children signed the same consent form as their principal.

Finally, I used my laptop and a microphone to record researcher-participant conversations for later transcription and analysis. However, on my return trip from Namibia my laptop was stolen and I completely lost these recordings. However, because I had the foresight to write down notes about my conversations with children, like the questions I asked, who had answered, and what their answers were, I was able to use these note as a form of interview transcriptions. Thus, my hand written notes assist in my analysis and interpretations of children's stories.

Overall, the challenges I encountered were overcome because of my methodological choices. I was flexible with CCF's request for my duties, as well as their schedule for school groups. Further, I was fortunate to have the foresight to write down notes about researcher-participant conversations.

In the next section, I re-story my experiences as a researcher, and attempt to accurately describe my experiences by reflecting on my role in my study. I also reflect on how the design of my study, the methods I followed, and the challenges I encountered shaped my experiences with the children and CCF.

Researcher reflections

> *Although researchers are taught to reveal their biases, they are not taught how to negotiate the difficulties when trying to proceed from there – how to take a stand, have*

> *an opinion, form a critique – and remain connected to the participants. The lived experience of doing narrative research all too often means that decisions about methodology are made based on feelings...while enmeshed in ethical struggles researchers did not see coming.*
>
> *M. Hoskins & J. Stoltz, 2005, p. 102*

I suggest that hermeneutic, environmental, phenomenological research is an "extensive, interactive, and complex process" (Lotz-Sisitka & Burt, 2002, p. 138), where different stories of lived experience can be told in many ways. As a researcher, I attempt to "write in a way that authentically reflect[s] my research experience [and] represent[s] the voices of participants in the text" (Lotz-Sisitka & Burt, 2002, p. 136, 145). However, I try to avoid reducing the children's experiences, or mine, to mere words. Instead, I aim to develop a more comprehensive understanding of children's relationships with cheetahs in the ways that I write. Further, I re-story my experiences because I am positioned as an active player in my research (Creswell, 2005; Witz, 2007). Here, it is important that readers are aware I am not only an observer, but also directly engaged in my study because of my orientation to value-based human-cheetah relationships and environmental education experiences. Thus, by re-storying my experiences I hope readers will "feel an unfolding of [the participants'] memor[ies]" (Witz, 2007, p. 251), as well as mine.

I was excited to step off the plane and onto Namibian soil; I eagerly awaited my arrival at CCF. Here, I was notified I would act as an Education Instructor, in addition to other responsibilities, because CCF was experiencing a staff shortage. Given my qualifications as an elementary science teacher, I was confident I could provide relevant instruction for school groups. However, I was concerned my role as an educator would, to some degree, effect my data collection. My concerns proved well-founded; however, I

would not consider my research a failure (Nairn, Munro & Smith, 2005). Instead, my experiences as a researcher and educator enabled me to "find out more about who [I] am in relation to [my] research" (Nairn et al., 2005, p. 239). My positioning then, enabled me to actively reflect on how I conducted research with, and provided educational experiences for the children. Specifically, I was able to explore what the concept of relevant environmental education experiences means to me, which led me to explore if, or how, my approach to fostering relevant learning experiences enabled children to critically reflect on, and possibly (re)construct, their value-based relationships with cheetahs (Eisner, 1979). However, I was aware that my agenda for "saving the cheetahs" might direct how children (re)constructed their relationships with cheetahs so, in an effort to background my own biases, I took care with the language and actions I used to express my value-based relationships with cheetahs.

Overall, my experiences as a research and an educator at CCF enabled me to learn that I understand "relevant" educational experiences to incorporate hands-on, interactive, learner-centred activities. It is my thought that children can be responsible for (re)constructing meaningful ways of knowing cheetahs, unique to their life world. Given this, I aimed to establish a trusting and open rapport with the children, as well as with teachers and principals involved in my study, to better facilitate meaningful, personally relevant learning experiences, all while attempting to avoid prescribing ideologically oriented learning outcomes (Creswell, 2005; Jickling, 2003).

To facilitate a better rapport with the children, I greeted the school groups upon their arrival at CCF, before commencing data collection. I think that greeting the children before they began participation encouraged them to be more comfortable with me as a

researcher and as an outsider. In turn, this enabled the children to more openly story their value-based relationships with cheetahs; moreover, this enabled me to learn about the children, like what their background experiences with cheetahs were. Overall, my choice to greet and build a connection with the children was crucial to collecting and interpreting children's stories (Dockett & Perry, 2007).

My experiences with research brought an awareness that I was not only a researcher but also a "participant, methodologist, analyst, writer, thinker, interpreter, inquirer [and] co-learner" (Lotz-Sisitka & Burt, 2002, p. 137). Given that I had multiple roles at CCF, like Education Instructor, researcher, agricultural exhibition volunteer, and even fieldwork assistant, I learned more about the complex process of research. I learned that no matter the precautions and planning done prior to conducting a study, researching processes can be murky, where plans will shift and change according to the context of any particular study. Thus, by accepting roles other than that of researcher, like educator and agricultural exhibition volunteer, I developed a better understanding about how the children typically learned about cheetahs before coming to CCF, and to consider what effect this has on how children (re)construct their value-based relationships with cheetahs.

In the following chapters then, I draw on my experiences as an educator and agricultural exhibition volunteer, to illustrate how these experiences assisted with discovering how children learn about cheetahs. However, I will not discuss any specific part of my experiences as an agricultural exhibition volunteer, since I do not have formal consent to include these experiences in my research. Nevertheless, by interacting with adult farmers and their children at CCF's information booth, I was able to learn how

children's experiences with their family often influences how they perceive, experience, and (re)construct their value-based relationships with cheetahs. In turn, my experiences enable me to better analyze children's stories and CCF curriculum.

During data collection I tried to remain an observer and inquirer, even though I was positioned within my study, in an attempt to avoid skewing data with my bias. Given this, I aimed to not interfere with Namibian ways of living with, or thinking about, cheetahs. Nonetheless, I noticed some children, when they came to CCF, regarded me as a "cheetah expert" given my educational history, that I was from America[15], and that I was perceived to be working at CCF. This realization caused me to be reflexive about my epistemological and ontological assumptions, and how my orientation to cheetahs and environmental education might affect my study (Nicaise & Barnes, 1996). For example, I did not want to skew children's stories with my value-based relationships with cheetahs. Further, I did not want to appear as if I had the solutions to farmer's perceived cheetah problems. I could not claim that I fully understood the issues inherent in human-cheetah conflict in a Namibian farming context. Subsequently, I was cognizant of how my value-based relationships with cheetahs, and how I imparted knowledge to children through educational activities might affect children's stories and their experiences at CCF.

In the following chapter I describe, through re-storying, the portraits of both School Group A and School Group B. Then, I include my analysis of children's stories, where drawings, portions of written work, and excerpts from researcher-participant conversations are included.

[15] Many children could not differentiate between Canada and the United States, and thus refer to these countries collectively as "America." Interestingly, many people who are not from Africa, or familiar with it, think of it as one country and not a continent.

CHAPTER FIVE

Children's stories

It is through our perceptions that we experience things, and it is through our experience that they become something for us, which in turn has an effect on our thinking.

E. Alerby, 2000, p. 206

In this section, I describe the portraits of School Group A and School Group B, and then introduce the children's drawn and written stories, including some verbal comments. I also provide a brief analysis of these stories in this section. Following this, I more fully explain my analysis of children's drawn, written, and verbal stories through a heuristic process of discerning, organizing, and reporting on the interpretations of meanings.

Portrait of School Group A

School Group A arrived at Camp Lightfoot at five o'clock on Friday afternoon in late September. I greeted School Group A to acquaint myself with the principal, teacher, and children before introducing my research, requesting their participation, and describing CCF's educational activities for Saturday.

The principal was a tall, middle-aged, Namibian[16] woman with a warm smile. She and I briefly discussed the seven hour drive from her northern Namibian community to CCF, and then arranged for the children, herself, and the teacher to meet me at eight

[16] I want to make clear it is not my intention to differentiate between different cultural groups living in Namibia, however I do think it important to describe the participants for readers, as well as recognize that Namibia has a diverse array of people living in the country. The groups I mostly interacted with were Damara and Owambo people, as well as people of German descent. The way I refer to these individual groups is accepted and appropriate in Namibia (Ministry of Environment and Tourism, 2007).

o'clock Saturday morning outside CCF's main entrance. The principal and I agreed this would be the best time to more formally introduce myself and my research to the children.

At the appointed time, I introduced myself to the children and the teacher using my first name, and then explained my research and request for the School Group's participation. The principal, teacher, and children read my information letter, which outlined their role in my study; they agreed to participate and signed the consent form.

School Group A included seven girls and five boys between the ages of eleven and thirteen. Of the 12 children, five girls and three boys were indigenous Namibians, and two girls and two boys were Namibian citizens of German-descent. All children were smartly dressed in new t-shirts, shorts, skirts, jeans, and shoes; each child also had a camera or cell phone to take photos. Since all of the children were well dressed and carried cameras or cell phones, I was inclined to think this group may live in more affluent families, or a more affluent community. However, instead of assuming this notion I asked the principal about her northern Namibian community (Fig. 2).

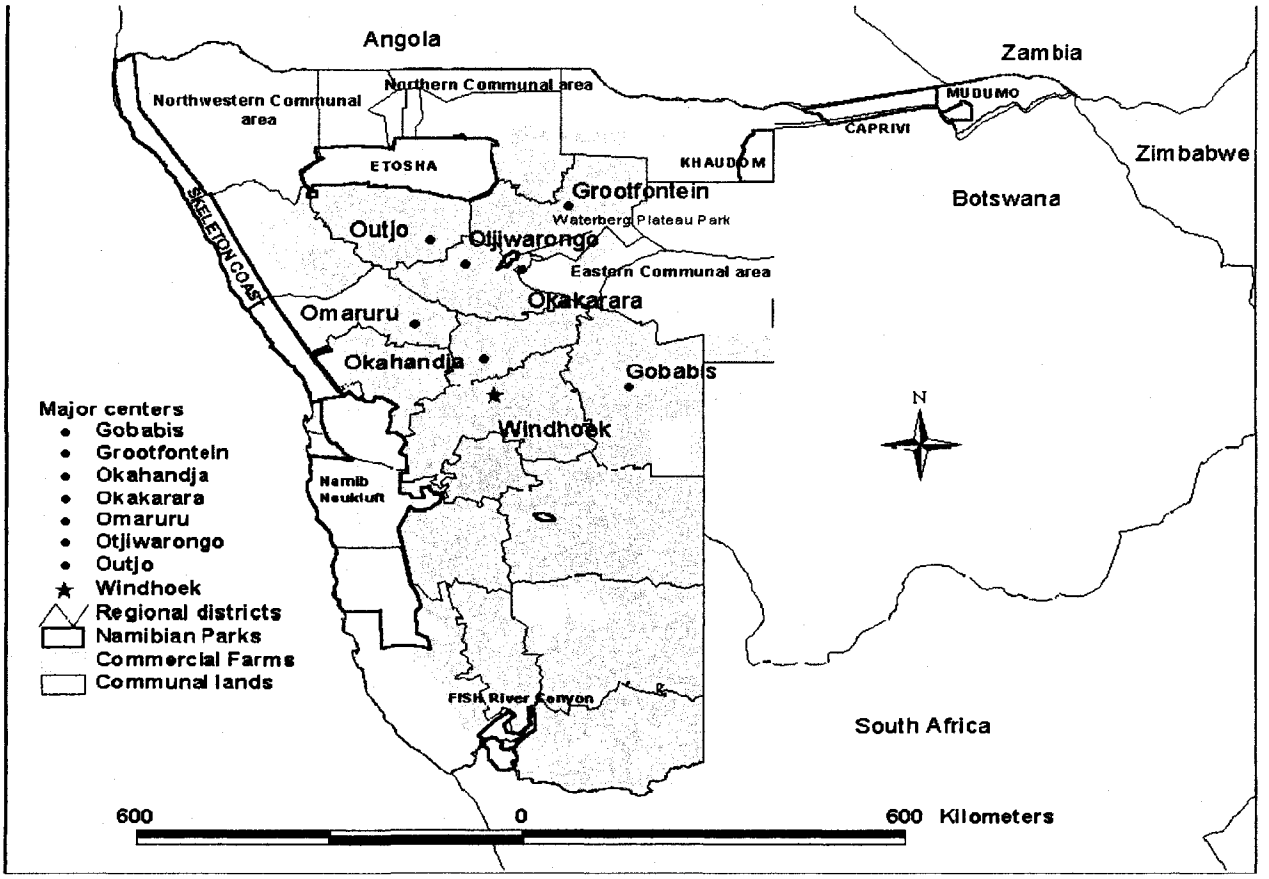

Figure 2. Note the Northern Communal area at the top of the map. This is the general origin of School Group A. Scholl group B is from the northwestern area.

The principal told me that children in her school typically lived in wealthier farming families; however, their school was not as wealthy as professional schools, which are privately funded. The principal also said many families owned and worked on their own farm, or employed individuals, referred to as "workers," to work on their farm. She said her community is primarily a farming area because "it is our biggest economy there. We farm cattle mostly, and sheep and goats for the family." Further, she said many northern Namibian areas, except those close to the Botswana-Zambia border, were largely devoid of predators like cheetahs because "farming areas...[have] been hunted-out and over-used. I have lived there for 20 years and you cannot even hear the jackals at

night...we do not even have oryx[17] around much anymore." She said she thinks providing students with opportunities to experience native wildlife like cheetahs are valuable for children because "it helps the children know their home and what we have here is important...we try to teach [children] about the importance [of cheetahs] in the ecosystem and for tourism because Namibia has so many cheetahs." She also explained that it is unfortunate her students had to travel to places like CCF to learn about cheetahs, given that the children did not have the opportunity to learn about cheetahs in their own community. She explained that her school did not go on many field trips to places like CCF because of the hassle to acquire and store the necessary food for the weekend, as well as to attain transportation for the children. However, she did not mention if it was financially difficult for the children to pay for the cost of the trip.

The principal also explained that she thought tourist attractions, like CCF, were important for Namibian economy, suggesting cheetahs are a popular component to Namibia's tourism industry; this claim appears to be valid, given that approximately 4,200 tourists visited CCF in 2006 (Marker, 2006). Since cheetahs are perceived, and experienced, as a tourist attraction, I later explore how a valuation of cheetahs in relation to the tourism industry may effect how children (re)construct their value-based relationships with cheetahs. Further, I explore CCF's portrayal of human-cheetah relationships in relation to the tourism industry which, in turn, could effect how children (re)construct their value-based relationships with cheetahs.

Shifting our conversation back to my original query about the community, I asked the principal what responsibilities children typically held in their families. She explained

[17] Also known as a gemsbok, it is an African grazing ungulate common throughout Namibia, but apparently dwindling in distribution in northern regions. It is often hunted by local people for meat, and permits can be purchased from the Ministry of Environment and Tourism by trophy-hunting tourists.

that children are generally delegated roles in their families based on gender. She said boys typically work with their fathers on the farm on weekends, where they learn about livestock care and management. Girls, on the other hand, work with their mothers or grandmothers in the home, and learn how to cook, clean, and care for children. While I am aware this may be a generalized impression of most families in this community, and may not be representative of all children, it does suggest that a particular organizational structure of children's responsibilities may be quite common in Namibia. This organizational structure and who, for instance, children learn about wild animals from, may effect how they (re)construct their value-based relationships with cheetahs. In later sections, I draw on researcher-participant conversations to more fully explore how children's responsibilities and learning experiences within their families may effect how they (re)construct their value-based relationships with cheetahs.

After my conversation with the principal, I walked the children to the cheetah run, an activity that involves a group of cheetahs, typically three, chasing a mock "rabbit" in their pen for exercise. This activity is also a popular tourist attraction in Namibia where the cheetah run may be perceived and experienced as a learning experience *and* a form of entertainment.

Before the cheetah run began, I explained to the children I would be taking observational notes of their reactions to the cheetah run. I offered to share these notes with them, to reduce the unease they may have with my note-taking. It seemed my openness about what I was writing, and why, put children at ease with my actions. However, neither the children nor the principal requested my notes.

When the run began, children in School Group A excitedly whispered and pointed to the cheetahs. Delight and fascination was exhibited on their faces, which appeared to be a result of directly experiencing the cheetahs sprinting at full speed, a physical feat they are renowned for. After the run, I walked the children to the Education Centre classroom, to participate in storytelling activities.

Portrait of School Group B

School Group B arrived on a very windy, cold Saturday morning; I introduced myself using my first name, my study, and the group's requested participation. The group read my information letter, agreed to participation, and signed the consent form.

School Group B was comprised of six boys and two girls between the ages of twelve and thirteen. All eight children were indigenous Namibians, as were the teacher and principal. School Group B's traditional language was Oshiwambo; however, the children, teacher, and principal could also speak and understand Afrikaans and English. This school group was from the northwestern region of Namibia, a livestock farming area that has more predators, such as cheetahs, than the northern communal area (See Fig. 2).

Children in School Group B were wearing variations of older, worn-out jeans, t-shirts, windbreaker jackets, and sandals; this group did not have any cameras or cell phones. The teacher was middle-aged, with short black hair, and was dressed causally. The teacher told me this group was from a very small farming community north of CCF, where cattle, goats, sheep, and chickens were typically raised for personal needs. The teacher explained that many families in his community were considered rural poor, with very few affluent individuals owning larger farms. I felt as though questioning him about the financial status of his community and school may be a sensitive topic and I did not

want to offend him with queries. Thus, I made an assumption that providing frequent field trips to places like CCF for the children at this school may be difficult, due to the lack of financial resources. However, the teacher reported that he had obtained a copy of CCF's *Teacher Resource Guide* (CCF, 2004a) from a past trip he had taken here, and that he used the *Guide* to teach his students about cheetahs. Conversely, he said he did not specifically indicate that he had used the *Guide* to teach this particular group of children. Nonetheless, I discuss how his possible use of the *Guide* may effect the stories these children create, and what they choose to include in their stories. The principal, who did not speak after my introductions, was also middle-aged and dressed casually. He was quiet the entire day.

School Group B was, in my experience, more reserved than children in School Group A. The long drive from the north or a late night to bed may have affected School Group B's demeanour. However, this apparent reserve may be more common amongst children from more rurally-located, subsistence farming communities due to their family's traditions, such as the importance of respect that children must demonstrate for their elders (NIED, 2008). In my experiences, I also found that teachers are given a great amount of respect, where children are very polite to those who are seen as an authority figure; this may also have contributed to their reserved demeanour. In response to this behaviour, I made an effort to moderate my enthusiastic actions, to not want to overwhelm the children with my own excitement. I also attempted to avoid being perceived as an authority figure; I wanted to engage with the children in meaningful dialogue and I did not want them to be shy with me. Further, because I was a white woman from the Western world, I may have been intimating. Again, I attempted to put

the children at ease by engaging with them throughout their experiences at CCF, to minimize anxieties.

I walked the children, teacher, and principal to the cheetah run, and explained what the group would be seeing. I also explained that I would be taking notes of their reactions to the cheetah run, and that they could read what I had written. They did not ask to read what I had written though, as with School Group A, seemed at ease with my note-taking because of my openness. Overall, I followed a very similar format to introducing myself, my study, and the children's participation as I had with School Group A.

When the cheetahs emerged and began to run, the children remained quiet in their response to the direct experience. Three boys did laugh when a cheetah attempted to run away with the "rabbit," and two girls giggled when a cheetah came close to the fence. These were the only visible reactions I witnessed. After the run, I walked the children to the Education Centre classroom, to begin storytelling activities.

In the following section I present the drawn, written, and verbal stories about cheetahs from School Group A and School Group B. I have organized stories into three themes that emerged as I analyzed and interpreted data. I also provide an analysis of these stories at the end of this section.

Stories from School Group A and School Group B

> *Participants' stories were sacred, and imposing [my] interpretations [could] violate not only the stories themselves, but also the original experience. [My] path out of this dilemma involved situating [my]self at the centre of research and using participants' stories to inform an analysis.*
>
> *M. Hoskins & J. Stoltz, 2005, p.98*

When the children chose their seats and sat down at the various tables, I asked them to use the paper, pencils, and crayons on the tables to draw and write about how they perceive and experience cheetahs. More specifically, I asked children to reflect on any past memories where they might have experienced cheetahs before coming to CCF. I then explained that after they had completed their drawings and written work, I would circulate amongst the table groups to talk with each child about her or his drawing and written work. This design was used for both School Groups.

The children from both School Groups were hesitant to begin drawing and writing; however, they soon began creating their stories and appeared to be very engaged in what they were doing. While the children were drawing and writing, I circulated around the room and made notes about the images children were illustrating and the words they were writing. I did this as a way to make notes about possible elements or patterns within children's stories, and to help generate questions for later conversations. I noticed that children's drawings, though more so from School Group B than School Group A, generally illustrated cheetahs as anatomically correct. Also, children from both school groups appeared to illustrate images of the cheetahs they had recently seen. For example, many drawings appeared to illustrate background images of the Waterberg Plateau, which is the background scenery at CCF, or drew cheetahs sprinting, as they had done during the cheetah run.

In total, I collected one drawing from each child from both School Group A and School Group B. I have a total of 19 drawings and written words from children, referred to as stories, created *following* children's experiences with the cheetah run and *prior to* experiencing the remainder of CCF's educational activities. The drawings and written

words included as examples in this thesis were chosen because they appear to best represent meanings revealed in the children's stories; thus, the stories in this thesis are considered to best represent emergent themes.

In order to gain understanding of the nature of the children's experiences, and to identify the most evident themes within their experiences, I coded the data according to similar or common elements or patterns that emerged through my analysis. To code data, I referred to a method of allowing meanings inherent in the children's drawn and written stories to emerge; thus, messages, and subsequent themes, were discovered through the data, rather than imposed on the data (Coffey & Atkinson, 1996). For the purpose of my study then, a heuristic coding scheme was used, where this refers to a conceptual, non-linear process of coding data as meanings emerged directly from the children's drawn and written stories (Coffey & Atkinson, 1996).

To assemble data into common or similar elements or patterns, I randomly laid the stories onto a table and made notes about similar or common elements or patterns as they emerged; I also made notes about how these elements or patterns may describe meanings inherent in the stories, and how they may be related to each other. More specifically, I referred to the drawings and written words children used to describe how they perceive, experience, and (re)construct their value-based relationships with cheetahs (Salinger, Plonka, & Prechelt, 2007). My questions about children's stories, then, refer to the "most striking feature[s]" (Titscher, S., Meyer, M., Wodak, R. & Vetter, E., 2000, p. 80) of the stories. More specifically, drawings and written stories were viewed as a whole and analyzed for central characteristics, like repetitive use of words or similar ways of portraying cheetahs through illustrations. Thus, I was able to identify common themes

and to group the stories accordingly (Alerby, 2000; Barraza, 1999; Fawcett, 2002; Salinger et al., 2007).

To help group stories into emergent themes, common or similar words and images used by children to describe their valuation of cheetahs were identified. Specifically, words like "beautiful" and "pretty" were judged to describe a valuation of the cheetah's aesthetic qualities; however, these words can also be linked to describing a valuation of cheetahs as a tourist attraction. As such, valuations of the cheetah's aesthetic qualities appeared to be represented more so through the written words of children, however, drawings grouped in this theme also portray cheetahs smiling or happy. Consequently, smiling, happy cheetahs are judged to describe children's positive value-based relationships with cheetahs. If children were to describe a fear of, or hostility towards cheetahs, this would be considered to represent children's negative value-based relationships with cheetahs. These perceptions of cheetahs were not made apparent in any of the stories.

Words like "speed," "fast," and "prey" were judged to describe an understanding and valuation of the cheetah's biology and ecology, where children appear to convey an understanding of cheetahs as predators. Also, an understanding and valuation of the cheetah's biology and ecology is considered to be portrayed through cheetahs depicted in a natural habitat or hunting prey. On the other hand, a valuation of cheetahs as a tourist attraction is considered to be described by cheetahs portrayed in cages, like the ones seen at CCF, or through game drives at Etosha Park. Words like "tourist" and "tourism" were used as well.

Drawing elements, such as colours used, were also analyzed for similar or common elements or patterns. Vibrant colours, for instance yellow, orange, and blue, are suggested to express positive valuations of cheetahs, whereas darker colours, specifically black, are suggested to describe negative valuations of cheetahs (Burkitt, Barrett & Davis, 2003). Neutral tones, such as grey or brown, are suggested to convey neutral valuations of cheetahs (Burkitt, Barrett & Davis, 2003). With this in mind, smiling, happy cheetahs illustrated with vibrant colours are suggested to convey positive value-based relationships with cheetahs. Any dark black and menacing illustrations would be considered to represent children's negative value-based relationships with cheetahs. Neutrality is obvious.

I also analyzed how the images were drawn, as well as background images included in the drawings; all children appeared to attempt to illustrate cheetahs as accurately as possible, with natural features as their surroundings.

After a repetitive process of analyzing the stories, themes that gradually emerged are considered to describe children's perceptions of, and experiences with, cheetahs. The stories also suggest that children's direct experiences effect how they (re)construct their value-based relationships with cheetahs. Overall, each emergent theme typically contains a distinctive element or pattern, shared among groups of stories. Of the 19 stories, three emergent themes are used to describe how children perceive, experience, and (re)construct their value-based relationships with cheetahs. These three Themes are:

1. Valuation of the cheetahs' aesthetic qualities
2. Valuation of the cheetah as a tourist attraction
3. Understanding/Valuation of cheetah biology or ecology

However, children's stories also suggest that the boundaries between emergent themes are not static but rather permeable. It appears, then, that meanings inherent in children's stories may flow between given themes, which suggests children may (re)construct more than one way of understanding, thus valuation of cheetahs. For example, elements of Theme 1 stories are found in Theme 2 stories; specifically, portions of children's written words, describing cheetahs as "beautiful," are present in both themes. Nonetheless, despite some shared elements, the stories grouped in Theme 1, Theme 2, and Theme 3 were chosen on the basis that they more specifically referred to a valuation of the cheetah's aesthetic qualities, cheetahs as a tourist attraction, and cheetah biology and ecology, respectively.

Researcher-participant conversations were concise and short with both school groups, and are not extensively referred to in discerning emergent themes. However, these conversations, more specifically with School Group B, did help me develop a better understanding of how children perceive, experience, and (re)construct their value-based relationships with cheetahs through a variety of experiences. Researcher-participant conversations are discussed in this section.

All things considered, a process of analyzing and interpreting children's drawn and written stories, combined with researcher-participant conversations, enabled me to begin to discover and discern how children might be influenced or enabled, through their direct experiences, to (re)construct their value-based relationships with cheetahs. Thus, in the following sections, I more fully explain the emergent themes and provide an analysis and interpretations of meanings inherent in these stories.

Theme 1: Valuation of the cheetah's aesthetic qualities

Ten stories are grouped within this theme. Of the ten stories, six were created by children in School Group A and four were created by children in School Group B. For illustration purposes, I have included stories from children in School Group A as they more clearly represent this emergent theme. Stories from children in School Group B are more flexible in their meaning, and could be interpreted as representing multiple themes, particularly Theme 3, Understanding/Valuation of cheetah biology or ecology.

Theme 1 stories share similar elements, such as words like "beautiful," "pretty," or "fast" in the written segments, and drawing images of the Waterberg Plateau, grasses, trees, shrubs, water, or sand. The children's written stories describe the aesthetic qualities of cheetahs, such as their beauty, prettiness, friendliness, or uniqueness. These drawings and written words also appear to illustrate cheetahs in positive ways, because the cheetahs are portrayed as happy or smiling and vibrant colours are used. Thus the tone or mood of the story is considered positive; a general sense of the children's enjoyment at experiencing the cheetahs appears to be expressed. There is no evidence of negative value-based relationships with cheetahs in these drawings or written words.

The first story I refer to was created by a twelve year old girl from School Group A. She drew a smiling cheetah and writes that cheetahs "are very harmless and beautiful. I like cheetahs very much" (Fig 3.).

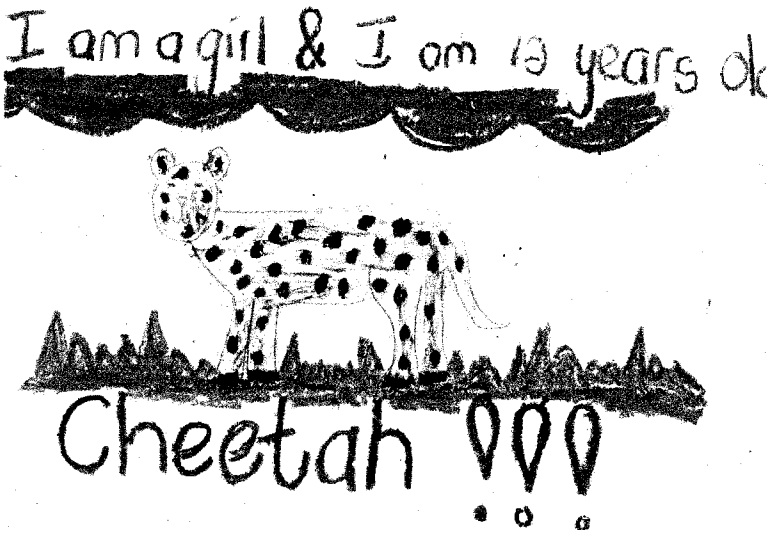

Figure 3. School Group A twelve year old girl describes cheetahs as "beautiful."

Her drawing and written work suggests she perceives, experiences, and (re)constructs her value-based relationships with cheetahs in positive ways, given the smiling cheetah, the vibrant colours, and affirmative language used.

In another story, a twelve year old boy from School Group A expresses appreciation for the cheetah's "beautiful spots [and that] they are friendly" (Fig. 4). He also writes "Today, the cheetah became one of my favourite animals."

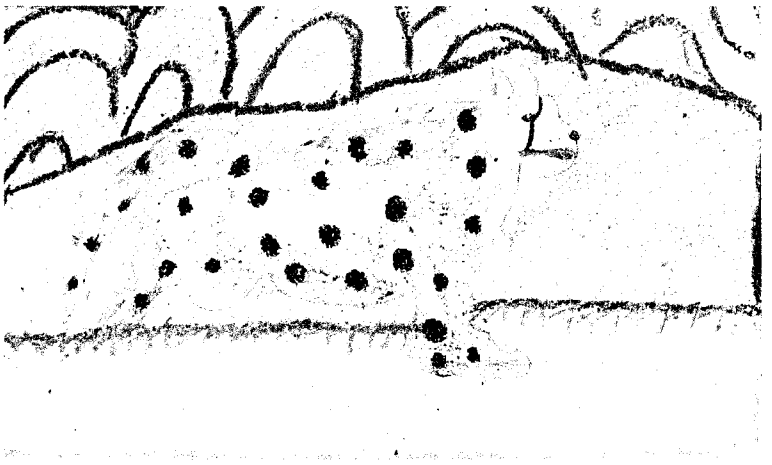

Figure 4. School Group A twelve year old boy expresses valuing for cheetahs for their aesthetic qualities.

This boy also uses vibrant colours and positive words to describe how he perceives, experiences, and (re)constructs his value-based relationships with cheetahs. His drawn and written story suggests he describes a valuation of cheetahs rooted in their aesthetic qualities.

A thirteen year old girl from School Group A also suggests a positive, value-based relationship with cheetahs, since she uses a great deal of colour and draws a pretty cheetah and writes that cheetahs are "friendly and fun. It is pretty. It is fast. I love it" (Fig. 5).

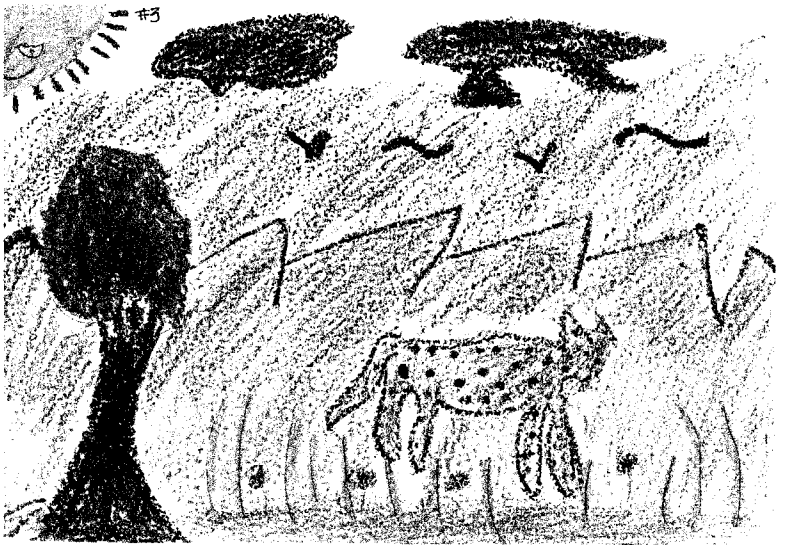

Figure 5. School Group A thirteen year old girl likes cheetahs because they are "pretty" and "fast."

In analysing these stories, it appears the aesthetic qualities of cheetahs may be a factor contributing to how children (re)construct their value-based relationships with cheetahs. More specifically, these stories appear to refer to a valuation of the cheetah's perceived beauty, prettiness, or friendliness; mention of a valuation of the cheetah's speed is also apparent, though this is considered to better represent Theme 3, Understanding/Valuation of Cheetah Biology or Ecology, because the speed of a cheetah

is an biological characteristic that enables cheetahs to capture prey. This is further discussed in Theme 3.

Overall, Theme 1 stories suggest children (re)construct positive value-based relationships with cheetahs rooted in the ways children perceive and experience the aesthetic qualities of cheetahs. Also, given that children's stories did not describe having a fear of, or hostility towards cheetahs, nor illustrate cheetahs in menacing ways, I further suggest that children appear to (re)construct their value-based relationships with cheetahs in positive ways, at least while they were at CCF.

Researcher-participant conversations with children in School Group A were limited because the children appeared eager to move on to the remainder of CCF's activities. However, the children in School Group A did say they enjoyed drawing and writing about cheetahs because "cheetahs are fast" (boy, twelve years old, School A), and they liked "cheetahs [*sic*] spots" (boy, twelve years old, School A). They also said they enjoyed creating stories about cheetahs because "we... don't have [cheetahs] in our homes [*sic*]...they are not in the wild. We only see cheetah [*sic*] here" (boy, twelve years old, School Group A).

Similarly, the children in School Group B who created Theme 1 stories did not elaborate on their drawings or written words. It is possible that children in School Group B were more reserved students; thus, they may have perceived their concise answers, if and when given, coupled with their drawings and written work to have fully addressed my queries.

Since children in both School Group A and School Group B provided little verbal response to elaborate on their stories, I referred more to the drawn and written stories for

analysis and interpretations. Nonetheless, combining any verbal comments with an analysis of their drawn and written stories enabled me to begin to develop an understanding of how children might (re)construct their value-based relationships with cheetahs.

Theme 2: Valuation of cheetahs as a tourist attraction

The primacy of cheetahs' valuation as tourist attraction emerged in four stories. In these stories, cheetahs are drawn in enclosures, in front of the Waterberg Plateau, or under canopies. Interestingly, this group of stories depict structures or features the children had seen at CCF on their way to or during the cheetah run. Common words used in these stories describe aesthetic qualities of cheetahs, and potentially an aesthetic valuation of cheetahs as beautiful, unique animals. The colours used are not as vibrant, or heavily laid onto the paper, compared to stories from Theme 1. Nonetheless, because the colours used are still in shades of yellows, greens, and blues, and do not illustrate cheetahs in overtly dark colours or as menacing animals, these stories are still considered to represent children's positive value-based relationships with cheetahs, despite anthropocentric undertones.

It is interesting to note these stories were told only by children in School Group A. The drawings and written words grouped in Theme 2 suggest that children appear to (re)construct a valuation of cheetahs as a tourist attraction in Namibia; some stories also demonstrate that children are aware income can be generated from tourism activities. For example, a twelve year old boy from School Group A drew a tourist holding binoculars, looking at a cheetah chasing a springbok (Fig. 6). The boy writes that "cheetahs are… a wonder to watch not only for tourists but for local people too… [cheetahs] bring income

to our country." When questioned, he explained his story described his enjoyment watching cheetahs. However, when asked if he had seen a wild cheetah before coming to CCF, his reply was no.

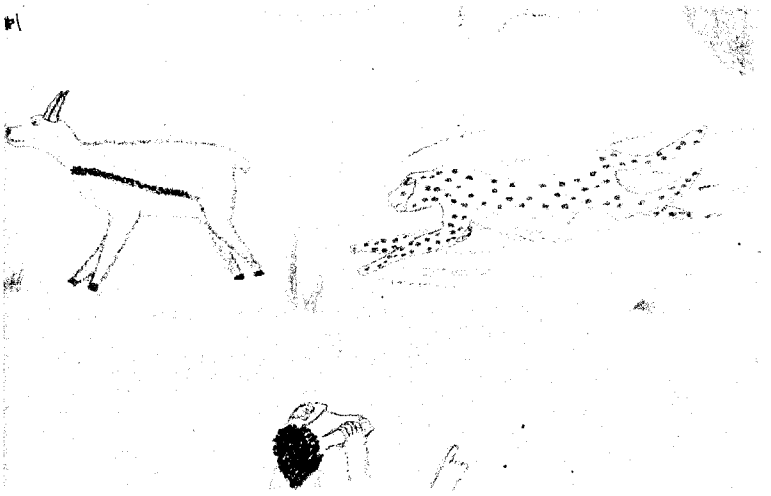

Figure 6. School Group A twelve year old boy illustrates an understanding of cheetahs as a tourism asset.

An eleven year old boy from School Group A described his drawn story to represent his memory of a game drive he had taken with his uncle in Etosha National Park (Fig. 7); he did not include any written work explaining his drawing. Nonetheless, this boy's drawing conveys no fear of, or hostility towards cheetahs; instead he includes a shining sun, a flying bird, a running cheetah, and a vehicle that appears to be viewing the cheetah. Thus, the tone of his drawing appears to reveal that he may have a positive value-based relationship with cheetahs as a tourist attraction. The implications for valuing cheetahs as part of the tourism industry is later discussed in Chapter Seven.

Figure 7. School Group A eleven year old boy illustrates his experience with cheetahs.

A thirteen year old girl from School Group A drew a cheetah in a cage with people observing it (Fig. 8). It appears this drawing is a self-portrait of the girl and her peers observing one of the cheetahs seen at CCF, given that her clothes look very similar to what she was wearing, and that the door to the cheetah pen is very similar to the doors at CCF. However, this girl did not provide any written work, and since she was shy, did not provide a verbal explanation of her story. However, given the strong representation of cheetahs being observed by people, I decided to include this drawing in my analysis as an example of a valuation of cheetahs as a tourist attraction. On the other hand, this drawing may be representative of the girl's educational experiences at CCF.

Figure 8. School Group A thirteen year old girl portrays herself and her peers smiling at a cheetah.

Finally, a twelve year old girl from School Group A drew a cheetah standing under a canopy, which looks very similar to the canopies in CCF's cheetah pen where the cheetah run takes place (Fig. 9). Also, note that the cheetah is smiling, and vibrant colours are used more so than the other drawings in this theme. The drawing then, appears to reveal a positive value-based relationship with cheetahs, which may be linked to a valuation of cheetahs as a tourist attraction. However, I can also suggest this girl's value-based relationship with cheetahs may be influenced by her immediate experiences at CCF, where the cheetah run may have been perceived more as a form of entertainment or economic endeavour than an educational experience. This is discussed in more detail in Chapter Seven.

Figure 9. School Group A twelve year old girl draws a cheetah under a canopy.

Through analysing children's stories included in Theme 2, it appears that children from School Group A are more inclined to (re)construct their value-based relationships with cheetahs rooted in a valuation of cheetahs as a tourist attraction. Children in School Group A might (re)construct their value-based relationships with cheetahs through an understanding of cheetahs as a tourist attraction, since they were reported to have no direct experiences with cheetahs through daily life in their community. Given this, I wonder what effect this particular valuation may have for the future survival of cheetahs, even if such relationships are considered positive. I reflect more fully on this in Chapter Seven.

Theme 3: Understanding/Valuation of cheetah biology or ecology

Five stories describe Theme 3. Of these stories, four were created by children in School Group B and one was created by a child in School Group A. Through both the drawings and writing, the physical characteristics of cheetahs, and how these characteristics enable cheetahs to capture prey, are described. Common words used are

speed, fast, and prey. Colours used are typically vibrant, especially Fig. 12, with the cheetah starkly outlined in yellow.

The first story I refer to was created by an eleven year old girl from School Group B. She drew a cheetah "eating a buck," perhaps a kudu calf, and includes a view of the Waterberg Plateau from CCF; however, she does not provide a written explanation for her drawing (Fig. 10). Rather, she verbally explained that the illustration describes how she thinks about cheetahs when she hears the word cheetah. While she said she had not seen a cheetah in the wild, she reported she did hear her father talking about a cheetah, so it appears she may (re)construct a positive value-based relationship with cheetahs based on an understanding of cheetah biology or ecology. Further, given that she specifically illustrates the cheetah eating its prey, and that this appears to be an accurate representation of the cheetah's habitat and prey choice, she describes a way of knowing and valuing cheetahs as a predators. I also suggest she uses colour accurately, as a way to add detail to the image. Considering all things, I speculate her understanding and valuation of cheetahs may have been learned through direct experiences with family or school instruction, since she would not have seen a cheetah eating wild prey at CCF. Nonetheless, it is still interesting that she includes the Waterberg Plateau in her illustration, because it is a central component of CCF's scenery. Thus, I consider her drawing, and therefore, her value-base relationships with cheetahs, to be indicative of a compilation of learning experiences, with family, school, *and* CCF.

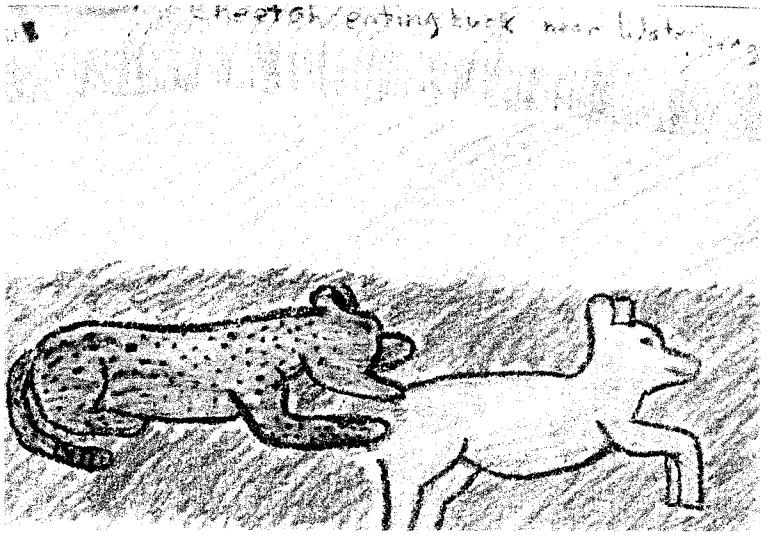

Figure 10. School Group B eleven year old girl draws a cheetah eating a buck near Waterberg Plateau.

In the next drawing, an eleven year old girl from School Group A illustrates a cheetah stalking its prey (Fig. 11). Here, the girl appears to accurately describe what a cheetah hunts for food (impala), as well as the cheetah's habitat (bushveld). Although the drawing portrays a cheetah stalking prey, there is no portrayal of fear of, or hostility towards, cheetahs. The colours used also help solidify this suggestion. The girl also writes that cheetahs in the wild should not be killed, further suggesting a positive value-based relationship with cheetahs where she may want to protect the cheetah.

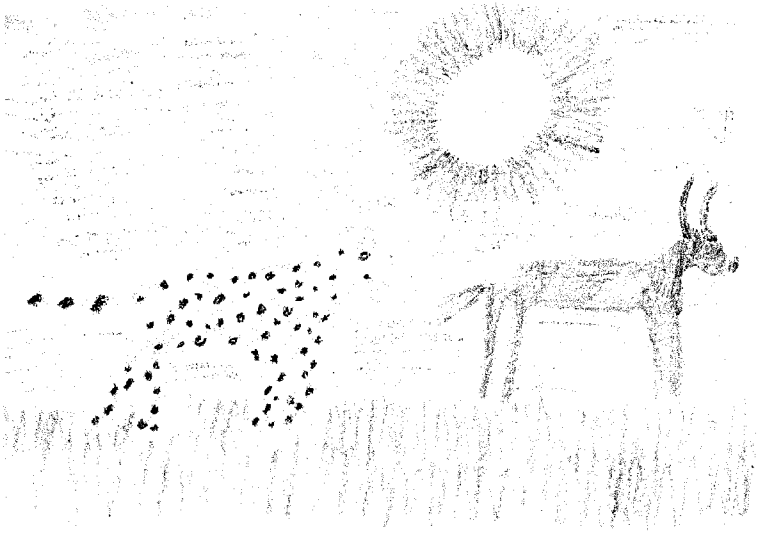

Figure 11. School Group A eleven year old girl draws a cheetah hunting an impala.

In another drawing, a boy from School Group B explains that he understands cheetahs can be a potentially dangerous predator, and that cheetahs may seek out livestock as a food source. He writes that "cheetah is a very good wild animal but can be harmful to some people (Fig. 12).

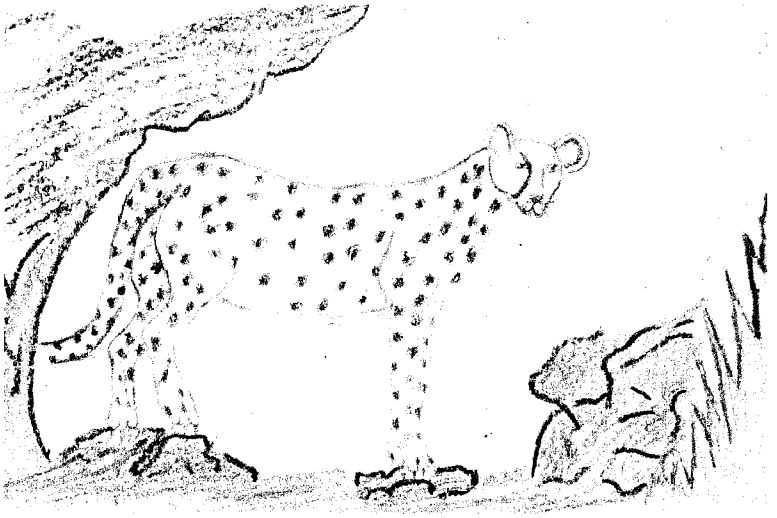

Figure 12. School Group B thirteen year old boy says cheetahs can be "harmful to some people."

His drawn and written story suggests that he is aware cheetahs may attack and kill livestock as a food source, and though he does not differentiate between what type of livestock, such as sheep, goats, or cattle, he demonstrates an understanding that cheetahs can be a threat to some individual's lifestyles. His use of "some people" may be representative of farmers and their way of life, given that he describes how cheetahs might kill livestock for food. Although he demonstrates an understanding of cheetahs as a predator, he does not indicate a fear of, or hostility towards cheetahs. He also uses yellow very heavily to outline the cheetah, so it appears as the central feature of his drawing.

These combined elements then, are suggested to indicate his positive value-based relationships with cheetahs.

Another thirteen year old boy from School Group B drew a cheetah sprinting, which appears to describe his experience with CCF's cheetah run (Fig. 13). He writes that cheetahs "run fast because when they run fast they want to chase the meat to eat because [the cheetah] is hunting [*sic*]." His drawing and written work appear to suggest an understanding of cheetah biology or ecology, since he describes that cheetahs use their speed to capture prey. Given that he does not describe having a fear of, or hostility towards cheetahs, nor does he use black to shade the cheetah, his story suggests he too has a positive value-based relationship with cheetahs. His story also appears to suggest that he has derived at least some of his perceptions of cheetahs from his experiences at CCF, given that the cheetah so closely resembles the cheetah run.

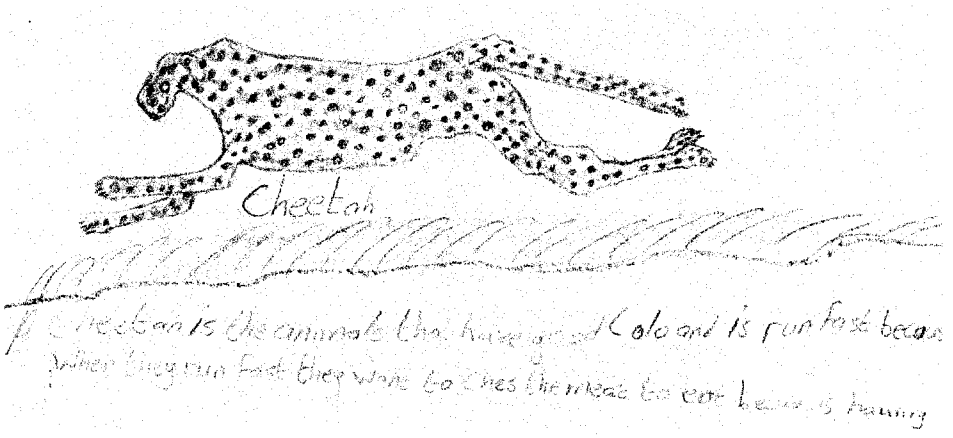

Figure 13. School Group B thirteen year old boy draws a cheetahs sprinting.

Finally, a thirteen year old girl from School Group B illustrates different parts of a cheetah's body, and describes each body part and function in separate sentences (Fig. 14).

Her drawing suggests she has an understanding of the physical functioning of the cheetah's body, because she accurately relates the cheetah's anatomical structure with its ability to capture prey. She writes "I was drawing the cheetah body because it is very fast. It uses its tail to balance to catch its food." While she describes an understanding of cheetahs as a predator, she does not describe having a fear of, or hostility towards cheetahs, even though her drawing is created with pencil (graphite) and uses grey tones. It is suggested then that her value-based relationship with cheetahs might lean more towards neutrality, because of the grey tones.

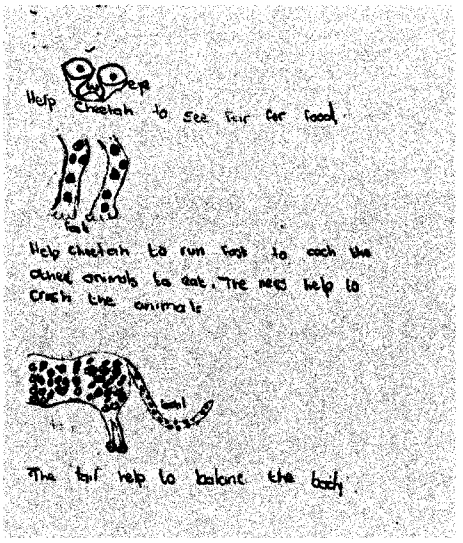

Figure 14. School Group B thirteen year old girl draws the body parts and functions of a cheetah.

Overall, the stories grouped in Theme 3 suggest that children from School Group B most often appear to (re)construct positive value-based relationships with cheetahs as a predator in Namibia, based on an understanding and valuation of the biological or ecological significance of cheetahs. Since children in School Group B live in a more rurally-located, subsistence-farming community, and were reported to work more frequently on their family's farm, they may have more opportunities to directly

experience, and learn about, wild cheetahs. Also, since school Group B's teacher reported to have used CCF's *Teacher Resource Guide* (2004a) in the past, these children may have also learned about cheetahs through school instruction.

On the other hand, the one child in School Group A, who created a story about the cheetah's biology and ecology, might have learned about cheetahs through school instruction, since children in School Group A were reported to have *not* directly experienced cheetahs in their community. The principal had said that many large predators had been hunted out over the years. By default then, this appears to imply that children in School Group A learned about cheetahs more so from school instruction than direct experiences. Further supporting this suggestion is that children in School Group A were reported to spend less time working with their family on the farm; less time on the farm is considered to contribute to fewer opportunities to directly experience wild cheetahs.

All things considered, in the next section I more fully explain my analysis and interpretations of the children's stories.

Data analysis and interpretations

In this section I more fully describe my analysis and interpretations of children's stories, then elaborate on findings and possible implications in Chapter Seven. In this chapter I also reflect on researcher-participant conversations, however, since children from both School Groups provided short and concise responses to my queries, which I addressed in a previous section, this section is limited.

Given that I was essentially attempting to explore the phenomenon of children's value-based relationships with cheetahs, a wild animal, hermeneutic environmental

phenomenology was a useful methodology to employ. Through this methodology, I undertook a process of deciphering the children's illustrations and words in an attempt to more fully examine their perceptions of, and ultimately value-based relationships with, cheetahs. My approach then, attempted to expose children's value-based relationships with cheetahs through their drawings, written work, and conversations. However, I also relied on Fawcett (2002), Albery (2000), and Barazza's (1999) studies to analyze and interpret data. This enabled me to begin to develop "an understanding of [children's] thinking on the subject of [cheetahs]" (Alerby, 2000, p. 206), since children's thinking was "made apparent with the aid of [a] creative activity in the form of the production of drawings, combined with [written and] oral comments" (Alerby, 2000, p. 206).

I found the studies by Fawcett (2002), Alerby (2000), and Barazza (1999) useful because they explored children's perceptions of wild animals and the environment, respectively, through drawings and written work. These studies assisted me in determining how I would group children's drawings and writing into themes, according to images featured and written work. These studies were also useful because they suggested that children from a variety of cultures often share "more similarities in their drawings than differences" (Barazza, 1999, p. 49). Overall, the three studies helped to solidify my belief that children's drawings and written work are "useful tools in providing valuable information for the assessment" (Barazza, 1999, p. 49) of their perceptions of, and value-based relationships with, cheetahs.

I also referred to a study conducted by Burkitt, Barrett and Davis (2003), where they explored UK children's use of colour in drawings, to identify their positive, negative, or neutral responses to a drawn topic. In this study, black colour was found to

indicate a negative response to a drawn topic; brighter, more vibrant colours, such as yellow, orange, and blue, indicated positive responses to a drawn topic (Burkitt, Barrett & Davis, 2003). Neutrality towards the drawn topic was illustrated through use of browns (Burkitt, Barrett & Davis, 2003). For my analysis, I considered the children's use of vibrant, bright colours to indicate positive value-based relationships with cheetahs. Children who used pencil (graphite) to shade their drawings were considered to (re)construct more neutral value-based relationships with cheetahs, where the colour choice suggest the child does not appear to strongly value cheetahs either positively or negatively (Burkitt, Barrett & Davis, 2003).

The content of children's drawings and written work were also evaluated, in terms of what was illustrated and how, and if I could discover why children chose to draw or write about particular things through researcher-participant conversations.

Reflecting on the stories, I discovered that the drawings and writing from children in School Group A suggest these children, more so than children in School Group B, potentially (re)construct positive value-based relationships with cheetahs based on the cheetah's aesthetic qualities (Fig. 15). In this group of drawings, cheetahs appear to be showcased, where their bodies seem to be profiled for the viewer to appreciate. Also, the children's heavy use of yellow and blue in these drawings (Fig. 15) suggests a positive response to cheetahs. The brown cheetah in the third drawing is an anomaly, in terms of the chid attempting to accurately illustrate the colour of a cheetah. However, with close scrutiny this cheetah appears to be smiling, so I suggest that this story also indicates a positive valuation of cheetahs.

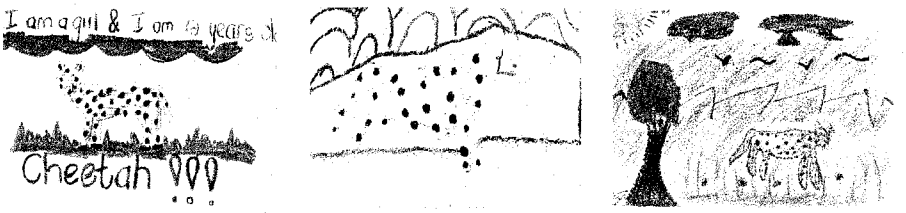

Figure 15. Three drawings from children in School Group A, Valuing the cheetah's aesthetic qualities.

Given this evidence, I suggest some children might (re)construct positive valuations of cheetahs based on the cheetah's aesthetic qualities, such as its beauty. This may be due to a) children simply perceiving and experiencing cheetahs as beautiful animals or b) children perceiving and experiencing cheetahs as beautiful animals, where the cheetah's beauty may be considered an essential quality for the tourism industry (Fig. 16). This valuation may be a response influenced through social discourse about cheetahs, since cheetahs are widely known in Namibia as a popular tourist attraction (MET, 2004).

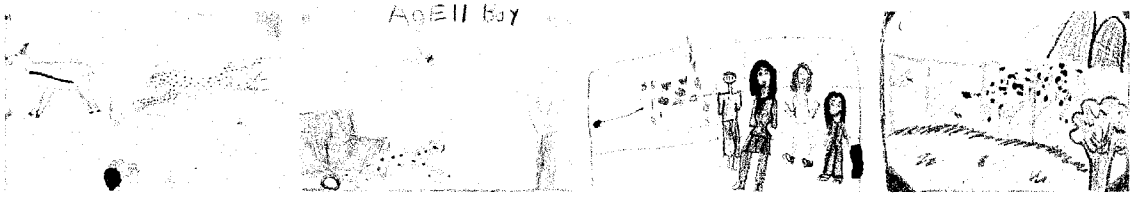

Figure 16. Drawings from children in School Group A, Valuing cheetah as a tourist attraction.

With this in mind, children in School Group A, rather than children in School Group B, might (re)construct positive valuations of cheetahs based on the cheetah's perceived beauty, where beauty is an aesthetic quality regarded as an important element of the tourism industry (Juric, Cornwell & Mather, 2002; Niesenbaum & Gorka, 2001; Wursinger & Johansson, 2006). It appears then, that the aesthetic qualities of cheetahs may effect how children (re)construct their value-based relationships with cheetahs in, for example, positive ways linked to the tourism industry. I suggest these valuations are

positive rather than negative because no negative words were used to describe cheetahs, nor was black colour heavily used in the illustrations. Nonetheless, it is interesting to further explore how these particular relationships might become misguided, towards negative valuations of cheetahs, if and when cheetahs suffer exploitation through tourism. This is later discussed in Chapter Seven.

The drawings and written work from children in School Group B suggest they (re)construct positive, and possibly neutral, value-based relationships with cheetahs based on an understanding and valuation of the cheetah's biology and ecology (Fig. 17).

Figure 17. Three drawings from children in School Group B and one from School Group A, Understanding/Valuing cheetah biology or ecology.

In these instances, children described in their illustrations and writing, the biological and ecological requirements or abilities of cheetahs, such as how their speed enables them to capture prey. This group did not focus on describing the aesthetic qualities of cheetahs, however, they do attempt to accurately illustrate cheetahs as well as their surroundings, with specific details given to the cheetah's characteristic "tear mark" (a black line extending down their face, from their eye to their muzzle) and natural prey. The colours used are not overtly vibrant, however, are not considered to indicate negative or neutral responses towards cheetahs. As such, I suggest children in School Group B, as well as the one child from School Group A, (re)construct positive value-based relationships with cheetahs based on the cheetah's role as a predator in Namibia.

Children in School Group B, more so than children in School Group A, might (re)construct this particular relationship with cheetahs because of their experiences on their family's farm. For example, some children explained they learned about wild animals from their father. Thus, School Group B's daily life in a farming family may effect how they (re)construct their understanding and valuation of cheetahs. Children in School Group B may have had more direct experiences with cheetahs prior to visiting CCF, such as on their family's farm, than children in School Group A, who were suggested to have only experienced cheetahs at CCF or in Etosha Park. The one child from School Group A who did illustrate, and write about, an understanding of cheetah biology and ecology may have done so because of her educational experiences in school, given that her principal said the children learned more about cheetahs from educational endeavours such as this, than from direct experiences at home. Thus, I consider places like CCF and Etosha Park to expose students to learning experience with cheetahs, which could further suggest that children may (re)construct their positive valuations of cheetahs through their school experiences. The teacher's comment from School Group B may also support this suggestion, despite children in School Group B having more direct experience with cheetahs on their family farm, given that he reported to have used CCF's *Teacher's Resource Guide* (CCF, 2004a) in past classroom instruction.

Overall, children's drawings and written work suggest they often (re)construct positive value-based relationships with cheetahs through a variety of experiences; family, CCF, school instruction, and even Etosha Park may all play a role in how children perceive, experience, and come to value cheetahs. Given that many children appeared to illustrate structures or features they had seen at CCF, either during their walk to the

cheetah run, during the cheetah run, or while waking back to the Education Centre classroom, they are suggested to (re)construct their value-based relationships with cheetahs through their immediate, direct experiences, as well as through reflection on past experiences. It is important then, to consider how implicit messages inherent in CCF's curriculum, as well as atmosphere, might affect how children (re)construct their value-based relationships with cheetahs. This is more fully explored in Chapter Six.

In terms of the researcher-participant conversations, children in School Group B suggest they (re)construct their value-based relationships with cheetahs through their more direct experiences with cheetahs, for example, in daily life as part of a farming family. Similarly, their experiences with school instruction may also play a role in how they (re)construct their value-based relationships with cheetahs. However, some children in School Group B diverted the conversation away from reflecting on their value-based relationships with cheetahs towards their value-based relationships with leopards. These children expressed (re)constructing *negative* value-based relationships with leopards, which appeared to be in direct opposition to their value-based relationships with cheetahs. Not only did the words children use to describe leopards change, but their facial expressions and body language changed when speaking about leopards compared to speaking about cheetahs. For example, a thirteen year old girl from School Group B explained she "likes cheetah because they can not bite people and they are very fast [and] they are very... beautiful... they are nice animals." However, another thirteen year old girl from School Group B said if she saw a leopard in the wild she would "tell my father and run away. It can get you, you know." Further, a thirteen year old boy from School

Group B agreed and added "father told me to be afraid of the leopard... because they can eat you."

However, these children also explained that they would like to learn about leopards, through "camps like Etosha when they can not catch us and hurt us... [because] they are safe and can not get our cattle" (thirteen year old boy, School Group B). Another thirteen year old boy agreed and added he would prefer to see leopards in game reserves like Etosha "because they can not get out and hurt us. They can be safe and we can see them and learn about them." When asked where they had learned about leopards, a thirteen year old boy from School Group B explained that his father taught him about leopards, and "told me to watch out for leopard in the farms... [because] leopard are very dangerous. They can kill you... they can bite you on the neck and kill you."

Given the content of these conversations, children from School Group B appear to (re)construct *positive value-based relationships with cheetahs*, on the basis that cheetahs are perceived as good or nice wild animals ("cheetah...cannot bite people... they are nice animals," thirteen year old girl from School Group B). Conversely, children in School Group B appear to (re)construct *negative value-based relationships with leopards*, where these relationships are grounded in a fear of leopards, and perceptions of leopards as bad or mean wild animals ("leopard are very dangerous. They can kill you," thirteen year old boy from School Group B). Thus, children's value-based relationships with cheetah and leopard appear to be (re)constructed in opposite ways. It would have been interesting to ask these children to draw and write about leopards, had I known beforehand these issues would arise.

Overall, asking children to draw, write, and talk about their perceptions of, and experiences with cheetahs enabled me to begin to learn several things about how Namibian children who either live in livestock farming families or communities (re)construct their value-based relationships with cheetahs, as well as with other wild animals such as leopards. I also learned that implicit messages conveyed through CCF's educational atmosphere, such as how the cheetah run may be perceived to masquerade cheetahs as a tourist attraction, can effect how children (re)construct their value-based relationships with cheetahs. Similarly, it appears CCF's implicit messages about a valuation of the cheetah's biology and ecology, particularly as a predator in Namibia and in opposition to leopards, may also effect how children (re)construct their value-based relationships with cheetahs and leopards. In both instances, children may be *influenced* rather than *enabled* to (re)construct particular ways of knowing, thus valuing, cheetahs, leopards, and quite possibly, other Namibian animals. These findings were useful in preparing for document analysis, given that I explore how explicit or implicit messages about human-cheetah relationships are portrayed through CCF's educational materials. In this analysis, I particularly examine how language and images are used to portray CCF's conception of, and orientation to, human-cheetah, and even human-leopard relationships, and how inherent messages can play a role in how children (re)construct their value-based relationships with cheetahs.

CHAPTER SIX

Document analysis

Attempting to perform meaningful interpretations poses serious ethical dilemmas...which give rise to...the need to re-examine the researcher role in [research].

M. Hoskins & J. Stoltz, 2005, p. 99

This chapter presents my analysis of CCF's curriculum through their documents, the *Teacher's Resource Guide* (CCF, 2004a), and the *Integrated Guide* (CCF, 2004b). Here I consider how statements and messages, sometimes called the "hidden curriculum," are embedded within CCF's curriculum using Elliot Eisner's (1979) explicit, implicit, and null curricula as an analytic tool. The term "hidden curriculum" was first coined by Philip Jackson (1968) to describe the norms and values that are implicitly taught in schools, but are not a part of the teacher's explicit statements or goals for student learning objectives. A number of subsequent scholars have developed and applied this concept in a variety of settings. Elliot Eisner (1979) introduced a particularly useful distinction by framing the hidden curriculum in two parts, the implicit and null curricula (Eisner, 1979). Together, the implicit and null curricula delineate a simple, yet elegant, typology that is well suited to analytical processes. (Department of Conservation, 2004; Eisner, 1979; Jickling et al., 2006; Thomson et al., 2003). However, before I commence with examining CCF's curriculum, I begin with a brief reflection of my Chapter Five analysis of children's stories, where I provide an interesting conceptual link between that work and document analysis.

First, I want to be clear that document analysis does not share a causal relationship with the children's stories, given that children did not experience CCF's educational activities until after the cheetah run and storytelling activities. Nonetheless, evidence suggests that children's immediate and direct experiences at CCF, with the run and the atmosphere, as well as their past experiences with family and school instruction play a role in how they (re)construct their value-based relationships with cheetahs. In this I mean that children may have opportunities to learn about cheetahs from their family, school instruction, and CCF, and that these opportunities are imbued not only with explicit statements about cheetahs but also with implicit and null messages hidden from view and scrutiny. Though implicit and null messages are concealed, they still can affect on how children (re)construct new knowledge and experiences about cheetahs, which will ultimately effect their valuations of cheetahs. Considering this, I examine how CCF's curriculum, and messages potentially embedded within this curriculum, affect how children (re)construct new knowledge and experiences to make meaning.

I analyzed CCF's curriculum by reflecting on my research questions, which sought to discover how CCF portrays human-cheetah relationships in a farming context, and how this portrayal may affect the ways children (re)construct their valuations of cheetahs. The first document examined is *CHEETAHS: A predator's role in the ecosystem: Teacher resource guide* (CCF, 2004a) followed by the *Integrated livestock and predator management: A farmer's guide* (CCF, 2004b). I refer to several examples in both of these documents, to illustrate CCF's curriculum.

I began my examination by laying the documents, one at a time, onto a table in CCF's library. I then located the activities most often referred to by CCF educational

staff during their instruction for school groups. My examination focuses on three activities from the *Teacher Resource Guide* (CCF, 2004a), and several chapters from the *Integrated Guide* (CCF, 2004b) (this *Guide* does not lay out specific activity sections and instead includes chapters). My examination commenced by reading through these activities and chapters, to first identify CCF's explicit curricula, conveyed through specific statements about, and learning objectives for, the activities or chapters. After locating and identifying the explicit curricula, I began to revisit the documents to identify the implicit curricula, where language and images used by CCF conveyed meaning and values through hidden messages. I then attempted to identify topics that may have been omitted from the documents' content, like political, religious, or economic issues; this would help me identify CCF's null curricula.

Through my examination I discovered that the choices of language and images used in educational materials cannot only explain specific things like cheetah behaviour, but can imply meaning laden with values and opinions. Throughout the *Teacher Resource Guide* and the *Integrated Guide*, I found a variety of descriptions about cheetahs; however, what I did not expect to find was descriptions about leopards, in opposition to cheetahs. Given that these descriptions appear to portray cheetahs in direct opposition to leopards, and that children in School Group B discussed cheetahs and leopards through researcher-participant conversations, it is pertinent I refer to this finding throughout this section and in Chapter Seven.

Overall, through document analysis I found that explicit statements, implicit messages, and an exclusion of content can potentially effect how children internalize and interpret their learning experiences, which may consequently effect how they

(re)construct their value-based relationships with cheetahs. Thus, using Eisner's (1979) three curricula as an analytic tool, I now describe my systematic examination of the *Teacher Resource Guide* and the *Integrated Guide* (CCF, 2004a; 2004b).

Teacher Resource Guide

In this section, I examine the *Teacher Resource Guide* by referring to specific examples: "Cat Comparisons I and II," "Animal Behaviours," and "Farmers and Cheetahs: Can they live together?" (CCF, 2004a, pp. 8-98). These activities were chosen because they best represent CCF's instruction during school group visits, and because they illustrate how statements and messages presented through CCF's explicit and implicit curricula, like the cheetah run, can effect how children (re)construct new knowledge and experiences. I also consider how the null curricula may be interpreted through inspection of these activities.

After the prologue the *Teacher Resource Guide* is divided into four sections: cheetah biology, cheetah ecology, cheetah conservation, and other subjects, like mathematics, physical education, English, social sciences, history, and the arts. A series of activities are found in each section, where each activity describes the preparation time, the activity's duration, required materials, and key words. Also, specific learning objectives for students, such as what students will know about cheetahs when the activities culminate, are also defined.

On the whole, the *Teacher Resource Guide* seems to provide practical, comprehensible activities about cheetah behaviour, physiology, morphology, population dynamics, habitats, niches, and food chains among other things. Further, the organization of the activities into various subjects and specific objectives appears helpful to teachers,

so that teachers can connect CCF curricula to school-based curricula. Moreover, the activities appear to be learner-centered, engaging, and hands-on, which appears to support a constructivist orientation to educational practice. With this in mind, in the following section I examine in more detail the three activities referenced by CCF during school group instruction.

Explicit curricula. The *Teacher Resource Guide* (CCF, 2004a) is a compilation of multi-disciplinary activities. This *Guide* begins by introducing cheetahs as a predator in a healthy ecosystem. The prologue specifically states that "attitudes toward predators must be changed if we hope to save endangered species such as the cheetah" (CCF, 2004a, pp. 4), and then it states that individuals can take action to "help make a difference" (CCF, 2004a, pp. 5) in cheetah conservation. Further, this guide states it can be used by teachers to "motivate students to think critically about individual and communal efforts to conserve wildlife and to act constructively to improve our world's environment" (p. 5). Given CCF's explicit statements about cheetahs, and the human dimension to cheetah conservation, evidence suggests that this guide aims to change the way individuals think about, and behave toward, cheetahs; a prescription for change appears to manifest itself through CCF's explicit curricula.

Looking more closely at a specific example, "Cat Comparisons I and II" (CCF, 2004a, pp. 8 &15), this activity states "learners will study the cheetah by comparing and contrasting the cheetah to other members of the cat family... to gather a broader understanding between the differences of the cat species" (CCF, 2004a, pp. 8 & 15). This activity compares cheetahs to other felines, specifically to leopards, lions, and tigers (tigers are not native to Namibia). Through these comparisons, differences or similarities

in feline physiology, prey selection, phylogeny, and behaviour are described. This activity also states that cheetahs are "the only predator that has not been known to attack humans in the wild" (CCF, 2004a, pp. 13 original emphasis), and are categorized as "Not a Threat to Man [sic]" (CCF, 2004a, pp. 24); leopards, lions, and tigers are categorized as "A Threat to Man [sic]" (CCF, 2004a, pp. 23-25). What is explicit then, are the biological and ecological comparisons between cheetahs versus other felines, specifically leopards. What is interesting in these comparisons is how descriptions are chosen and used to portray cheetahs through the explicit curricula. These descriptions are value-laden and children's learning experiences might be influenced by CCF's implicit valuations of cheetahs as, for example, non-threatening to human life and as unique felines. Also, messages embedded within the language used may influence children to (re)construct valuations of other cats, like leopards, in negative ways and in opposition to cheetahs. Similarly, CCF's educational atmosphere and the cheetah run also covey implicit, and perhaps null messages, through what is not directly said, or what is left omitted from educational instruction. I suggest that messages embedded within explicit statements in CCF's *Teacher Resource Guide* (CCF, 2004a) carry implicit values; these messages might reflect CCF's conception, and valuation of human-cheetah or other cat relationships. Considering this, in the following section I discuss how CCF's choice to use particular language and images to portray cheetahs may effect how children internalize, interpret, and (re)construct their value-based relationships with cheetahs. Further, I examine how language or images are used, or *not* used, in the *Teacher Resource Guide* (CCF, 2004a) to portray leopards in comparison to cheetahs, and how

these choices may affect the ways children (re)construct their value-based relationships with leopards.

Implicit curricula. Descriptions and language used throughout the *Teacher's Resource Guide* (CCF, 2004a) suggests particular ways of understanding and valuing cheetahs, and other Namibian animals, specifically leopards. Throughout the three activities, "Cat Comparisons I and II," "Animal Behaviours," and "Farmer's and Cheetahs: Can they live together?" (CCF, 2004a, pp. 8-98) cheetahs are portrayed in opposition to leopards through affirmative versus negative language, respectively. For example, words like beautiful, vulnerable, docile, unique, and opportunistic hunters imply particular perceptions, as well as valuations, of cheetahs. Given that CCFs values and opinions about cheetahs are embedded within the statements they make, children may internalize, interpret, and (re)construct their valuations of cheetahs in similar ways as CCF, as pretty, gentle, unique felines that are stealthy hunters and are part of the tourism industry, rather than as potentially dangerous wild animals, yet nonetheless unique. Conversely, language used to portray leopards describes these felines as aggressive, territorial, and dangerous problem predators. This implies perceptions of leopards as threatening, and possibly frightening animals, and does not convey messages of leopards as unique or important to Namibia. In these instances, children may (re)construct negative valuations of leopards, in opposition to their positive valuations of cheetahs.

Referring to the children's drawn, written, and verbal stories, children in School Group A appeared to express positive valuations of cheetahs as beautiful, pretty, fast cats. On the other hand, children in School Group B reported negative valuations of leopards.

They talked about leopards as mean, aggressive, and deadly. This pattern of comparisons is also found in the two other activities, "Animal Behaviour" (CCF, 2004a, pp. 62), where cheetah relationships with kleptoparasites (competitive carnivores like lions) are described, and "Farmers and Cheetahs: Can they live together?" (CCF, 2004a, pp. 98) where farmer-cheetah relationships are explained. In these activities, language and images used portray cheetahs as nurturing, caring mothers, and as non-threatening to a livestock farmer's way of life. This portrayal appears to convey positive messages about cheetahs, and may implicitly encourage children to (re)construct valuations of cheetahs as gentle, docile, nice cats. Further, given that other animals sharing cheetah habitat are described in less favourable terms, the implicit messages may suggest that cheetahs deserve preferential consideration over other animals.

While I understand the intent of these activities are to compare cheetahs to other cat species as a way to help children learn about the differences between various felines, it is interesting to consider how the language used can imply particular valuations of cheetahs in opposition to valuations of other cats, such as leopards. Given the pattern of affirmative language used to portray cheetahs, I was interested to learn if a similar pattern was used for images. I discuss this next.

Images in the *Teacher Resource Guide* (CCF, 2004a) were found to portray cheetahs in positive ways, such as cheetahs playing with cubs or cuddling with siblings. Given the selection of images used, messages embedded within these images appear to convey meanings that, for example, cheetahs are more similar to playful, friendly, companions than wild animals. However, pictures of cheetahs killing or eating prey were also included, which might convey messages about cheetahs as predators and wild

animals (Fig. 18). Children were able to view these images throughout CCF's Education Centre, during CCF's activities and instruction. Overall, images in the *Teacher Resource Guide* (2204a) appear to portray cheetahs in positive, but also realistic or natural, ways, which will affect how children perceive and experience, and ultimately (re)construct their value-based relationships with, cheetahs.

Figure 18. Image used in CCF's *Teacher Resource Guide* (2004a) illustrating a cheetah suffocating a steenbok.

Taken as a whole, the language and images used throughout the *Teacher Resource Guide* (CCF, 2004a) not only explain specific learning expectations regarding cheetahs but also convey value-laden messages, where CCF's valuations of cheetahs may be implied through embedded meaning. Similarly, content that CCF may have excluded from scrutiny can also effect how children internalize, interpret, and (re)construct meaning, regarding their valuations of cheetahs, from new knowledge and experiences. Thus, in the next section I discuss the null curricula and the potential effect an omission of content may have on how children (re)construct their value-based relationships with cheetahs; I also consider how the null curricula may effect how children (re)construct their value-based relationships with leopards, given the comparisons made in the explicit curricula.

Null curricula. To reflect, the null curricula represents an omission of content in educational materials (Eisner, 1979). Through my examination of CCF's *Teacher Resource Guide* (CCF, 2004a) I could not find representations of intrinsic valuations of cheetahs, even though CCF's staff often seemed to operate from a basis of these values. By excluding intrinsic valuations of cheetahs in their curriculum, CCF may unwittingly reinforce an anthropocentric orientation to valuing cheetahs, which might be detrimental to the conservation of cheetahs in Namibia. For example, if and when children perceive and experience cheetahs as a tourist attraction, which is arguably an anthropocentric orientation to valuing cheetahs, children might (re)construct their valuations of cheetahs based on what cheetahs can offer human life. With this in mind, human-cheetah relationships might become devalued and degraded through possible exploitation of cheetahs in utilitarian ways.

Similar to an omission of intrinsic valuations of cheetahs, I could not find a detailed representation of the leopard's ecological significance, or for that matter, their intrinsic value, in CCF's *Teacher Resource Guide* (CCF, 2004a); their biological functions are only addressed, and briefly, through "Cat Comparisons I and II" (CCF, 2004a, pp. 8 &15). By excluding representations of valuations of the leopard's ecological and intrinsic significance will limit what children can consider about leopards; alternative ways of perceiving leopards will not be enabled unless opportunities to think about leopards in different ways is provided (Peters, 1973). These restrictions then, will effect how children (re)construct their value-based relationships with leopards. Even though CCF is a *cheetah* conservation centre, I do not advocate they play one species off of

another, simply to further their conservation goals. This issue is addressed further in my discussion.

In closing, the *Teacher Resource Guide's* (CCF, 2004a) explicit curricula states that children will learn about the cheetah's biology and ecology, and how cheetahs are an important predator in Namibian ecosystems. Further, CCF states that individuals must change their thinking and behaviour regarding cheetahs, in order to assist with their survival. These statements convey a prescription for change which, in turn, conveys CCF's value-loaded agenda.

In terms of the implicit curricula, embedded messages, such as anthropocentric orientations to valuing cheetahs, and the juxtaposition of cheetahs versus leopards, can influence how children (re)construct their valuations of cheetahs and leopards through the language and images used to portray human relationships with these felines. Similarly, the null curricula can also effect how children internalize, interpret, and (re)construct their value-based relationships with cheetahs as well as with leopards, because the exclusion of key ideas or possibilities can affect what and how children (re)construct meaning from their experiences at CCF. What is *not* expressed can also affect learning experiences and knowledge (re)construction (Eisner, 1979). For example, children may unwittingly adopt anthropocentric orientations to valuing cheetahs through their experiences at CCF, given that they visually experience cheetahs as a tourist attraction through the cheetah run, and that there is no representation of the intrinsic value of cheetahs through CCF's curriculum. Similarly, since there is no representation of the intrinsic value, or ecological significance for that matter, of leopards, children may (re)construct devaluing relationships with leopards, since they are negatively compared in

opposition to cheetahs. With this in mind, I suggest that *what is not said* is just as important as *what is said* in environmental education curriculum and programs.

Given my examination of this guide, I now introduce and review the *Integrated Guide* (CCF, 2004b), where I interpret educational messages into the explicit, implicit, and null curricula.

Integrated Guide

The *Integrated Guide* (CCF, 2004b) is specifically designed for Namibian livestock farmers, where educational messages describe livestock management, care, and protection from predators. I chose to include this *Guide* in my examination because the descriptions of cheetahs, and language and images used to portray cheetahs, are conveyed to children through CCF's activities, such as the cheetah run or CCF instruction, as well as through images used in the Education Centre. Thus, the Integrated Guide (CCF, 2004b) has some bearing on the children's experiences at CCF. Overall, the statements included, and messages inherent in this *Guide*, can effect how children (re)construct their value-based relationships with cheetahs as well as with other animals, most notably leopards.

Explicit curricula. The *Integrated Guide* (CCF, 2004b) does not provide a range of activities like the *Teacher Resource Guide* (CCF, 2004a); instead, it is composed of eight chapters that discuss issues like understanding and identifying various Namibian predators, techniques to reduce livestock losses to predators, and the importance of conservancies and wildlife management for species conservation.

The examples selected to represent this guide were chosen from "Chapter 1: Know Your Animals," "Chapter 3: What Has Killed My Livestock?" and "Chapter 5:

How Do I Reduce Livestock Losses?" (CCF, 2004b, pp. 13-40). These chapters are the ones most often, though indirectly, referred to by CCF staff during their instruction for visiting school groups, prior to and following the children's experiences with the cheetah run.

Through the explicit curricula, I found references about cheetahs as "the athlete of the predators...and the fastest land animal on earth" (CCF, 2004b, pp. 25), and that cheetahs play a "critical role in the ecosystem" (CCF, 2004b, p. 26). Further, I found a comparison of cheetahs to "Namibia's top athlete, Frank Fredericks" (CCF, 2004b, pp. 25). The *Integrated Guide* (2004b) also states the connection between cheetahs and the tourism industry, by explaining that cheetahs are "much sought after by tourists and... may serve as a tourist attraction" (CCF, 2004b, pp. 26). All ideas, opinions, and values for cheetahs are conveyed to learners through CCF's activities, such as the cheetah run, and the children's experiences with CCF's instruction, atmosphere, and Education Centre.

My examination of the *Integrated Guide's* (CCF, 2004b) explicit curricula reveals that CCF teaches individuals about cheetah biology and ecology, as well as how cheetahs are important to the tourism industry. Further, this Guide explains how individuals can change their behaviour to help conserve cheetahs. With this in mind, I suggest this *Guide*, similar to the *Teacher Resource Guide* (CCF, 2004a), conveys an agenda that expects individuals to change their behaviours, and thinking, to help conserve cheetahs. While I admit I have an affinity for cheetahs, and care deeply about their future survival, I wonder how this prescription for change will influence how children internalize, interpret, and (re)construct their value-based relationships with cheetahs. For example,

statements such as "many farmers fail to acknowledge the role predators play in the ecosystem" (CCF, 2004b, pp. 11) are loaded with embedded messages. What is interesting is how statements like these are interpreted by children. For example, I might interpret this statement to mean that farmers *are not aware* of the role predators play in ecosystems; this interpretation could imply that farmers are not knowledgeable about predators, or perhaps they do not care about predators. Despite this interpretation, my experiences showed me that this was not necessarily true; many farmers are aware of predator's roles in a healthy ecosystem, however, if and when farmers and predators come into conflict over livestock losses, farmers often attempt to mitigate their loss by eliminating predators. My experiences then, suggest that farmer's actions are often taken because they feel they do not always have an alternative to eliminating predators. It is not that farmers are necessarily *unaware* of predator biology or ecology, or that they do not care about predators, but instead that they have no other choice if they are to maintain their source of income or food for their family. I refer to this example because it helps to illustrate how the language, as well as the images used throughout CCF's *Integrated Guide* (CCF, 2004b), carry values and opinions that can affect how learners interpret, internalize, and (re)construct new knowledge and experiences. With this in mind, I now discuss the implicit curricula, to examine how language and images used might convey value-laden messages that can effect how children (re)construct their valuations of cheetahs, and quite possibly, their valuations of other animals such as leopards.

Implicit curricula. The language and images used in this *Guide* followed a similar pattern as in the *Teacher Resource Guide* (CCF, 2004a), in terms of language and images used. Here, language and images portray cheetahs favourably, and specific comparisons

are often made between cheetahs and leopards, where leopards are portrayed negatively, in opposition to cheetahs. For example, language used to illustrate cheetahs explains that they are athletic, opportunistic hunters. Language describing leopards explains that they are aggressive, problem predators. Implicit messages in these statements may direct children to (re)construct negative valuations of leopards and positive valuations of cheetahs, based on *what* is said about cheetahs versus leopards, and *how* such messages are expressed. To further explain, how language is used appears to place cheetahs and leopards in direct opposition to each other, where cheetahs appear to be more valuable simply because they are not termed as being aggressive, problem predators. Moreover, since language positively describes cheetahs as a popular tourist attraction, children may be persuaded to (re)construct positive valuations of cheetahs based on what utilitarian purposes cheetahs can offer human life.

For example, children in School Group A appeared to (re)construct valuations of cheetahs as a tourist attraction; their experiences at CCF, and possibly their experiences before visiting CCF, may have implicitly played a role in how the children internalized, interpreted, and (re)constructed their valuations of cheetahs. More specifically, CCF's cheetah run, and messages embedded within this activity, may promote valuations of cheetahs not only as fast, agile predators, but also as a part of Namibian tourism, especially given that cheetahs are viewed behind large, high, fenced-in enclosure. While valuations of cheetahs as a tourist attraction are not necessarily considered negative, this orientation to human-cheetah relationships may have unintended consequences, such as exploitation for the purpose of entertainment of generating revenue. This is discussed later, in Chapter Seven (Tisdell & Wilson, 2005; Williams & DeMello, 2007).

Overall CCF uses affirmative language to describe cheetahs, whereas negative language describes other animals such as leopards, in comparison to cheetahs. Given that language use was similar to the *Teacher Resource Guide* (2004a), I was curious to learn if similar patterns existed in the images chosen to portray cheetahs, as well as other animals.

Since the tone of these images are conveyed to children through CCF instruction, or that children are exposed to these, or similar images, in CCF's Education Centre, it is pertinent I refer to the images in this *Guide*. These images, and the messages embedded within them, can effect how children internalize, interpret, and (re)construct their valuations of cheetahs, and leopards. Although exposure to these images are considered derivative learning, where children may not necessarily see these images, particular values and opinions about cheetahs and leopards will nonetheless be conveyed to the children, and will effect how they (re)construct meaning from their educational experiences at CCF.

Cheetahs, and other animals like leopards, are portrayed through images that convey a variety of embedded messages. For example, one picture shows a group of cheetahs, where one is suffocating an impala (Fig. 19) with "a bite to the throat" (CCF, 2004b, pp. 25). This picture seems to convey a sense of cheetahs as a predator. However, given that this picture shows a cheetah specifically killing an impala, implicit messages may suggest that cheetah's attack and eat only their natural prey, and not livestock.

Figure 19. Image used in CCF's Integrated Guide, of a group of cheetahs suffocating an impala.

On the other hand, a picture used to portray leopards, in a similar context as with the cheetah picture, only shows a goat with wounds on the back of its neck (Fig. 20). The text under this picture says that "leopards usually kill their prey with a bite to the back of the neck" (CCF, 2004b, pp. 28).

Figure 20. Image used in CCF's Integrated Guide, of a goat with wounds on the back of is neck; illustrates how a leopard kills, or attempts to kill, its prey.

Messages implicit in this image suggest that leopards eat, or attempt to eat goats or livestock in general, and not their natural prey. Further, there was no evidence of other images in this guide showing any other predator, like hyenas, wild dogs, or lions, attacking or attempting to attack livestock. Considering this, the images appear to imply

that leopards attack or eat livestock animals, whereas other predators, such as cheetahs, may not. These messages can influence children to (re)construct their perceptions of leopards as livestock killers, something that will harm their family's livelihood, while cheetahs appear to be portrayed as not a threat to livestock.

To connect these findings to the children's stories, children in School Group B specifically discussed leopards with me, through research-participant conversations. They reported that they were afraid of leopards, but not of cheetahs. The children explained that that had learned about leopards and cheetahs from their father, through their experiences on the family farm. Since CCF's implicit curricula appears to convey negative valuations of leopards in comparison to cheetahs, CCF may reinforce these value-based relationships. In turn, if children are persuaded to (re)construct negative valuations for leopards, through family and CCF experiences, leopards may become persecuted in lieu of cheetahs. These contrasting valuations may spell trouble for the future survival of leopards. With this in mind, I suggest that CCF be mindful when developing educational activities and materials, and critically examine the messages portrayed and conveyed to learners, both the explicitly and implicitly. However, a more difficult situation to assess is what is excluded form educational experiences. I suggest that CCF also reflect on what they may be omitting from their educational materials and activities. Given this consideration, I next discuss the null curricula.

Null curricula. If and when particular issues are purposely left unsaid, such as how images in the *Integrated Guide* (CCF, 2004b) only depict cheetahs attacking or attempting to attack their natural prey and *not* livestock animals, the omissions will effect how and what children can internalize and interpret from their educational experiences.

For example, excluding images of cheetahs attacking or preying upon goats can effect how children perceive and experience cheetahs. Although I am not suggesting images of cheetahs attacking livestock should be included, it is important to consider how children interpret the images that *are* included, and what this could mean for the ways children might internalize and (re)construct their valuations of cheetahs. Similarly, excluding images of leopards attacking or feeding on their natural prey can be given the same considerations. Thus, by excluding particular content, unawareness or even ignorance may be fostered in children regarding the abilities that cheetahs and leopards may have, as predators. In this context, unawareness or ignorance can "affect the kinds of options [children are] able to consider, the alternatives [children] can examine, and the perspectives from which [children] can view a situation" (Eisner, 1979, p. 83).

Also revealing of CCF's values and opinions of cheetahs versus leopards is that the *Integrated Guide* (CCF, 2004b) does not present intrinsic valuations of cheetahs or leopards. Moreover, this *Guide* does not present the ecological significance of leopards in as much detail as what is done for cheetahs. By excluding conceptions of intrinsic value and ecological significance of leopards, children may be influenced to (re)construct valuations of cheetahs in positive ways as beautiful, unique animals, and in opposition to that, children may be influenced to (re)construct negative valuations of leopards as aggressive, dangerous, and potentially fatal animals. This exclusion may be problematic for the future survival of leopards in Namibia, given that children may support the persecution and elimination of leopards, in lieu of cheetahs.

In closing, the *Integrated Guide's* (CCF, 2004b) explicit curricula, similar to the *Teacher Resource Guide* (CCF, 2004a), states that individuals will learn about cheetah

biology, ecology, and their connection to the tourism industry. Moreover, the explicit curricula advocates change in individual's thinking and behaviour in order to help conserve cheetah populations in Namibia.

In terms of the implicit curricula, CCF's portrays cheetahs in affirmative ways, while leopards are described in negative ways, in opposition to cheetahs. Embedded messages inherent in the language and images used suggest CCF's valuations for cheetahs, as well as for leopards and possibly other Namibian animals. For example, CCF appears to convey valuations of cheetahs as a tourist attraction, which might represent an anthropocentric orientation to human-cheetah relationships. Also, there was no representation of intrinsic valuations of cheetahs, or for that matter, of leopards, in the *Integrated Guide* (CCF, 2004b), despite intrinsic valuations of cheetahs conveyed to children through CCF staff instruction. With this in mind, how CCF conceives of, and portrays, their valuations of cheetahs, of leopards, and even of other animals, will effect how and what children can internalize and interpret from their educational experiences, which, in turn, will effect how they (re)construct their value-based relationships with cheetahs, and quite possibly, with leopards.

In the next Chapter, I provide a summary of my research, where I reflect on the challenges I encountered, and my methodological approach to collecting data. Then, I more fully explore my findings, and consider parallels between the children's stories and document analysis. Recommendations for CCF's education program are also provided, followed by suggestions for future research. I then end with a few reflective comments.

CHAPTER SEVEN

Discussion and conclusions

What we value...is often riddled with consequences.

E. Eisner, 1979, p. 109

In this section I summarize my study, present my analysis and interpretations of the children's stories, and reflect on my examination of CCF's curriculum. Following this, I make recommendations for CCF and their educational program, and then conclude with thoughts about future research possibilities and reflective comments.

Summary of research

Through my post-secondary educational experiences, I became aware of, and passionate about conservation and education efforts aimed at assisting the African cheetah's survival, specifically in a Namibian farming context. I undertook research through a Master of Education degree not only because I have an affinity for felines, but because I was interested to learn how children who live in farming families perceive, experience, and (re)construct their value-based relationships with cheetahs. Ultimately, I wanted to learn how children might (re)construct their valuations of felines, through a variety of direct experiences. However, given my prior interest in the Cheetah Conservation Fund (CCF), coupled with my role and experience as an elementary teacher in the public school system, I was also interested to learn how CCF might conceive of, and portray, human-cheetah relationships in a farming context through their educational materials. By undertaking an examination of CCF's *Teacher Resource Guide* (CCF, 2004a) and *Integrated Guide* (CCF, 2004b), I learned how explicit, implicit, and null curricula in educational contexts might effect how children internalize, interpret, and

(re)construct new knowledge from their direct experiences with cheetahs at CCF. However, given the nature of my study, I also began to learn how children's various experiences with family and school instruction, coupled with their experiences at CCF, can effect how they (re)construct their valuations of cheetahs, and quite possibly, their valuations of other animals and the natural world in its completeness.

Overall, my research journey enabled me to observe and learn: 1) how Namibian children living in a farming family may be influenced by their experiences when (re)constructing their value-based relationships with cheetahs, and 2) how the explicit, implicit, and null curricula, interpreted in CCF's curriculum, may effect children's valuation of cheetahs. Further, on a more personal level, I experientially learned about the complexities one may encounter throughout the research process. Given these considerations, I next discuss my research challenges and experiences, and how this affected my study. Then I discuss my findings of the children's stories and document analysis.

Conducting research in a culture and landscape different than my own created a complicated context in which to collect viable data. For example, a limited term internship restricted the amount of time I could spend at CCF. Also, a lack of *a priori* clarity on my role at CCF, as well as CCF's scheduling for school group visits, affected the amount of data I could collect. Given these challenges, I had to adapt my approach to collecting data to my internship arrangements with CCF. Originally, I proposed to collect data from children prior to and following their experiences with CCF's education program. This would have allowed me to visit the children's communities and schools, which, in turn, would have developed my understanding of the context in which these

children live and how they might have experienced cheetahs through family and school instruction. Instead, I was handicapped by not being able to visit the children's communities. This also led to the inability to collect data from children in a *prior to* and *following* educational experiences method. Thus, I could only collect one series of children's stories from two schools, School Group A and School Group B, *following* their experiences with CCF's cheetah run, and *prior to* experiencing any further activities. Moreover, because I was unable to travel to the children's' communities to hold information sessions and seek parental consent, I had to seek Lakehead University's Ethics Committee approval to alter my consent forms, where I could allow the principal from each school group to give consent for the children's participation, in lieu of their parents' consent. The children also signed these consent forms. A sample can be found in Appendix C. Finally, theft of my laptop on my return trip from Namibia caused me to lose all of my recorded and transcribed conversations with the children. Fortunately, I had the prudence to write down comprehensive observational notes of the recorded researcher-participant conversations, which enabled me to refer to the key elements of this dialogue.

Data collection for the first part of my study combined children's drawn, written, and verbal stories about their perceptions of, and direct experiences with, cheetahs in a farming context. During this phase, I began to observe children's responses to CCF's cheetah run, where I gathered their reflections about their perceptions of cheetahs through their direct experiences. This data provides insight into how a variety of experiences, for example with family, school instruction, and CCF, can effect how children internalize, interpret, and (re)construct their value-based relationships with cheetahs, and quite

possibly, with other wild animals. I also found that using Fawcett's' (2002) idea of storytelling as a research methodology assisted in developing my understanding of how *Namibian children's* perceptions of, and direct experiences with cheetahs, can effect the ways they (re)construct their value-based relationships with cheetahs. Storytelling, then, was an appropriate way to engage the children in my study in the research process. I consider storytelling to be a method that would enable the children to explain their perceptions of, and experiences with, cheetahs from their viewpoints and in their voices. I also found that drawing and writing stories, and then talking about these stories, seemed to help the children feel comfortable in expressing themselves, as well as assisted in mitigating the difficulties of language barriers I encountered, such as how some children were not completely fluent in writing and speaking in English.

Re-storying, also used as a research method, enabled me to reflect on and retell my research experiences with both the children and CCF. For example, re-storying enabled me to recall my first meeting with School Group A and School Group B, as well as report on my analysis and interpretations of the children's drawn, written, and verbal stories. Re-storying also enabled me to report on the children's stories without explicating meaning that may not truly be inherent in their stories. Thus, through re-storying I was able to be more conscious of, and help minimize, researcher bias in my interpretations and discussions through processes of writing and rewriting my findings, and by taking time to reflect on what I had written and why, between each step. For example, re-storying assisted me in being more aware of my affinity for felines, and how I may convey that to the children during data collection, or through my instruction of the school groups. Re-storying also enabled me to better understand the complexities

inherent in analysing and interpreting data. As well, I was worried my concerns about CCF might influence how I retold my research experience, given that I consider CCF's goals of cheetah conservation well intentioned, and did not want to offend CCF with my scrutiny. Nonetheless, re-storying helped navigate me through this difficulty, to mitigate my unease at reporting on CCF's curriculum. Despite my concerns, I still wanted to accurately illustrate how CCF's curriculum, family interactions, and school instruction can affect how children (re)construct their value-based relationships with cheetahs, and possibly with other Namibian animals (Hoskins & Stoltz, 2005). For example, through analyzing and interpreting the children's drawn, written, and verbal stories, evidence, and my experiences suggest, that socially-constructed values about cheetahs, and other animals like leopards, are often shared between fathers and children. Moreover, CCF appears to convey negative perceptions of leopards, implied through language and images used in their curriculum. These socially-constructed values from family, and opinions and assumptions from CCF, can influence how children internalize, interpret, and (re)construct their value-based relationships with cheetahs, and with other predators such as leopards. School instruction can have a similar effect on what messages children derive from their learning experiences. Although CCF only plays a partial role in how, and what, children learn about cheetahs and other animals, their curriculum and programs can nonetheless have a profound effect on how children (re)construct their valuations of animals.

In terms of gathering and then analysing data, I was concerned that the children, when creating their drawn and written stories about cheetahs, may verbally share their perceptions of, and experiences with cheetahs, amongst each other. This could possibly

skew the results of my data, so I attempted to mitigate this issue by requesting that the children keep their stories private, and try to only draw and write what *they* were thinking, and not their peers. Despite my efforts, the children may still have shared their perceptions amongst each another, given that the children still chatted with each other. As such, to avoid reporting on shared perceptions during data analysis, I randomly shuffled the children's stories into one stack, and then sorted the stories into groups of common or similar elements or patterns. This enabled me to interpret and sort the children's stories into three significant themes; valuations of the cheetahs aesthetic qualities, valuations of the cheetah as a tourist attraction, and understanding/valuations of the cheetah's biology and ecology. Through my interpretations of what children wrote about, and what some spoke about during researcher-participant conversations, I suggest that the children's experiences as a school group with CCF's cheetah run, CCF's general atmosphere, previous school instruction, or life on a livestock farm had played a greater role in what children chose to draw and write about, instead of any potential shared ideas between peers during data collection.

For the second part of my study, I examined two of CCF's educational documents: *CHEETAHS: A predator's role in the ecosystem: Teacher resource guide* (2004a) and the *Integrated livestock and predator management: A farmer's guide* (2004b). Since I was aware of the challenges of my research context, and the possibility of unpredictable events throughout the course of my study, I chose to add document analysis as a precautionary or secondary measure, to ensure I would have sufficient data to report. The documents were chosen on the basis that CCF's instruction referred, either directly or indirectly, to ideas and concepts in the two *Guides*. In my experiences at CCF,

ideas and concepts from a variety of activities and chapters were used to teach children about the cheetah's biology and ecology, as well as other roles of cheetahs, such as how they are a popular tourist attraction in Namibia. The *Guides* also discussed other predators, such as leopards, though not as extensively as cheetahs. Although I also refer to re-storying to report on my examination of CCF's curriculum, especially where re-storying assisted with the processes of writing, reflecting on, and rewriting my examination of the curriculum, I did not extensively refer to this methodology and instead relied more on Eisner's (12979) three curricula as an analytic tool.

I examined CCF's curriculum through the lenses of Eisner's (1979) three curricula, the explicit, implicit, and null. I examined how explicit statements made about cheetahs as well as leopards, and the implicit messages embedded within language and images used, can effect how children internalize, interpret, and (re)construct meaning from new knowledge and experiences. Further, I examined how messages left unsaid, that is the null curricula, also effect what children can or cannot consider, and what they might or might not know about cheetah-human, or other animal relationships (Eisner, 1979). Overall, I found that the documents and their content appeared to parallel the children's stories. By asking children to tell stories about their perceptions of, and experiences with cheetahs, I began to unravel how the children might internalize, interpret, and (re)construct their valuations of cheetahs through their direct experiences with cheetahs (Garbett & Tynan, 2007). I also began to learn how the explicit and hidden messages in educational curriculum can effect how children (re)construct new knowledge and experiences, which, in the context of my research, relates to how they (re)construct

their valuations of cheetahs, and quite possible, with other animals such as leopards (Eisner, 1979).

Despite the research challenges I encountered, such as a lack of *a priori* clarification on my role and duties at CCF, difficulties in school group scheduling, and theft of my laptop, I was able to adapt to the context I was immersed in, and persevere to collect sufficient data. Through the processes of research, which included perspectives from humans and more-than-human animals, I learned that as an educator and researcher I fully enjoyed being absorbed in, and learning from a culture and landscape different than my own. I also learned that conducting a study in a context where the struggle to survive is shared by both animals and humans is complex, and challenged me to effectively collect fair, representative, meaningful data. My research experiences in Namibia have not only renewed my passion for environmentally-oriented educational programs, and the possibilities that exist within them, but my affinity and passion for helping to conserve and promote human co-existence with felines, and the natural world in its completeness.

Next, I offer some suggestions to CCF that may be incorporated into future programming and curriculum design, based on my research findings.

Research findings

As a way to revisit the purpose of my study, I restate my three guiding research questions:

1. How do Namibian children perceive, experience, and (re)construct their value-based relationships with cheetahs, in a farming context?

2. How does CCF curriculum portray human-cheetah relationships in a farming context?

3. How might messages portrayed and conveyed through CCF's curriculum affect the ways children (re)construct their value-based relationships with cheetahs?

I addressed question one in the first part of my study, where children from farming families created drawn, written, and verbal stories about their perceptions of, and experiences with cheetahs, after they observed CCF's cheetah run. My observations, data collection, analysis, and interpretations of their stories assisted me in developing an understanding of how a variety of lived experiences with family, CCF, and school instruction can effect how children interpret, internalize, and (re)construct their value-based relationships with cheetahs, and quite possibly with other animals.

Of the total 19 stories created by children from two School Groups (A and B) visiting CCF, I found that ten stories appeared to primarily refer to valuations of the cheetah's aesthetic qualities, four stories appeared to primarily refer to valuations of cheetahs as a tourist attraction, and five stories appeared to primarily refer to valuations based on the cheetah's biology and ecology, that is linked to the cheetah's role as a predator. However, because common or similar elements or patterns were shared between some of the stories, such as how some of the children's written words described not only the cheetah's speed and prey selection, but also their beauty, the children are considered to (re)construct more than one way of knowing and valuing cheetahs.

Given that children from both School Groups experienced CCF's cheetah run prior to creating their stories, it appears their immediate, direct experiences with the cheetah run affected how, at least some of them, (re)constructed their value-based

relationships with cheetahs. For example, some of the children drew pictures of cheetahs sprinting, cheetahs in cages or under canopies, or illustrated the Waterberg Plateau in the background of their drawing. These are all structures or features the children had seen while at CCF, both prior to and following the cheetah run. As such, I refer to a suggestion by Fawcett (2002). She explains that direct learning experiences with animals, like those provided by CCF through the cheetah run, effect how children come to know and value animals (Fawcett, 2002). Fawcett (2002) suggests that direct learning experiences with and about animals can provide children with opportunities to (re)construct subjective, intrinsic valuations of animals, if and when the animals involved in the learning experience are *wild.* However, it is arguable whether the cheetahs at CCF can *truly* be considered wild, since these cheetahs are habituated to humans; for example, adult visitors[18] are allowed inside the enclosures, accompanied by a staff member, during the cheetah run. Further, since CCF's cheetahs are captive, children may not perceive these cheetahs as truly *wild* animals; their perceptions and experiences with both the cheetah run, and CCF instruction, may result in children (re)constructing anthropocentric orientations to valuing cheetahs. For example, four children in School Group A, who were from a northern Namibian community largely devoid of predators and not heavily reliant on subsistence farming, appeared to (re)construct valuations of cheetahs as a tourist attraction, based on the cheetah's aesthetic qualities. In these instances, children's depictions of the cheetah run portray cheetahs as beautiful animals, as well as source of entertainment or enjoyment. To refer to a specific example, a twelve year old boy from School Group A explained cheetahs can generate revenue in Namibia because they are a "wonder to watch;" his drawing portrayed a cheetah sprinting with tourists watching it

[18] Children under the age of sixteen are not allowed inside the enclosures because of their small size.

through binoculars. Valuations of cheetahs as a tourist attraction are of interest because such valuations may rest on the possibility of some children (re)constructing anthropocentric orientations to cheetahs. In these instances, I consider two things. One, children may value cheetahs as a tourist attraction simply because they have never experienced a wild cheetah; they have only seen cheetahs in cages or in parks. On the other hand, children may value cheetahs as a tourist attraction because valuing cheetahs for the revenue they can generate through tourism is possibly a socially constructed way of knowing cheetahs in Namibia (Bjerke & Kaltenborn, 1999). Given that tourist attractions featuring wildlife viewing is very popular in Namibia, and can generate a great deal of revenue for the country, many Namibians, even children, may be aware of what wildlife tourism can do for their country's economy (MET, 2004). However, problematic issues associated with valuing cheetahs as a tourist attraction can arise, in that cheetahs or other wildlife can become *devalued* through such endeavours. Wildlife, for example, may become known and ultimately valued more as an economic factor contributing to the potential wealth of a country, rather than for its intrinsic value as a unique being. In another example, and one I experienced, is that individuals who understand the potential income generated from cheetah tourism may pursue wildlife harvesting. In these cases, cheetah cubs are taken from their mothers after the mother had been killed; the individual would then attempt to raise, albeit illegally, the cubs in captivity on a private, personal farm to generate income. This is problematic not only because it is an illegal activity, but also because an assumingly healthy breeding female was killed, thus removed from the wild population as a viable reproductive cheetah. Also, since the cubs are often harvested at a young age, they do not learn crucial survival skills from their mother, such as

kleptoparasite avoidance or successful hunting. This is a twofold blow to the wild populations of cheetahs in Namibia, and a very real threat to their future survival; CCF attempts to mitigate this issue through their educational programs. It should be noted though, that in my experiences it was often economically-disadvantaged farmers that would attempt to harvest and raise cheetah cubs; it appeared they often did so to increase their family income. While I agree that such actions are wrong and require regulation, there were various economic and social issues that I became aware of while in Namibia, so I can understand why such actions may have been taken in certain circumstances.

Evidence also suggests that children from both School Group A and School Group B may (re)construct an understanding and valuation of cheetahs as a predator. Drawings depict either the cheetah standing, almost as if on display in the illustration, or sprinting. The accompanying written words served as an indicator of the children's valuations of the cheetah's biological and ecological significance in Namibia. Words often referred to what the cheetah preyed upon (buck), or that they needed to hunt for their food. While these children may have learned about cheetah biology and ecology either from family interactions or school instruction, the cheetah run is also considered to portray the cheetah's biological and ecological significance, where children experientially learn about the cheetah's speed and agility.

Evidence also suggests that some of the children's drawings and written words indicate they reflected on their past experiences with cheetahs, which is considered to also effect how children (re)construct their valuations of cheetahs (Van Manen, 2006). For example, children in School Group B reported to have experienced cheetahs prior to coming to CCF, through their life in a livestock farming family. Through researcher-

participant conversations, some children explained they had seen cheetahs on their farm or had learned about cheetahs, and interestingly leopards, from their fathers. Given these experiences, the evidence suggests that how children internalize and interpret meaning from a variety of experiences, either on their own account or through their father's experiences with cheetahs or leopards, effects how children (re)construct their valuations of cheetahs, as well as leopards. Given this evidence, I suggest when children learn about wild animals, like cheetahs and leopards, from their father, particular beliefs about these animals might be conveyed to the children. In turn, such beliefs might influence how children (re)construct their value-based relationships with cheetahs, or with leopards (Gerring, 1997; Nibert, 2003). To give an example, in my experiences I observed that some farmers persecute leopards because they are considered a mortal threat to livestock. I was told that killing leopards is how many farmers protect their livestock, which is their livelihood. How farmers perceive and experience leopards is likely conveyed to their children explicitly through communication between father and child, or implicitly through actions. In turn, the child may adopt their father's beliefs, and subsequent behaviours, when (re)constructing their own value-based relationships with leopards, and quite possibly, with other wild animals.

In other instances, evidence suggests that children appeared to refer to their experiences with school instruction when reflecting on their valuations of cheetahs. For example, the principal from School Group A reported that children were provided with opportunities to learn about cheetahs on field trips, to places like Etosha Park and CCF, where guides could provide educational materials or knowledge. Similarly, the teacher from School Group B said he had used CCF's *Teacher Resource Guide* (CCF, 2004a) in

his classroom in the past. Through his instruction then, if following the *Teacher Resource Guide* (2004a), the cheetah's role as a predator in Namibia would be highlighted. Given that the children from both School Group A and School Group B appeared to describe an understanding of cheetah biology and ecology, where valuations of cheetahs appear to be based on their role as a predator, the children's direct experiences with school instruction is also considered to effect how they internalize, interpret, and (re)construct their value-based relationships with cheetahs.

In closing, the children in School Group A and School Group B appeared to refer to a variety of experiences when reflecting on, and (re)constructing, their value-based relationships with cheetahs. Furthermore, the children appeared to have constructed new knowledge, and to have made personally relevant meaning, through their reflections on past and current experiences. What is interesting, in instances of how children (re)construct their valuations of cheetahs through direct experiences, is the role that CCF might play.

I am particularly interested in how CCF's curriculum can be interpreted through the explicit, implicit, and null curricula, and to learn how educational materials might affect the ways children interpret, internalize, and comprehend new knowledge and experiences with CCF to make meaning (Eisner, 1979). More specifically, I am interested in how the three curricular messages effect the ways children (re)construct their value-based relationships with cheetahs. As such, I discuss my examination of CCF's curriculum, which addresses my second and third research questions: How does CCF portray human-cheetah relationships in a farming context? And, how might this portrayal affect the ways children (re)construct their valuations of cheetahs? The evidence gathered

suggests that CCF's curriculum, associated activities, and general atmosphere portray human-cheetah relationships from particular standpoints, for example, from an anthropocentric valuation of cheetahs. Further, CCF's curriculum and instruction appear to portray valuations of cheetahs above other Namibian animals, specifically leopards.

To elaborate, CCF's documents, the *Teacher Resource Guide* (CCF, 2004a) and the *Integrated Guide* (CCF, 2004b) primarily teach children about cheetah biology, ecology, conservation, and their role as a tourist attraction in Namibia. Through the explicit curricula, CCF's agenda for cheetah conservation is clearly articulated. CCF's agenda also states their aim in changing an individual's thinking and behaviour to help conserve Namibian cheetahs. Given the prescriptive nature of CCF's agenda, their anticipated outcomes for learning are considered to be loaded with their values and opinions about cheetahs, farmers, the intent of education, and the aims of conservation (Jickling, 2003). Also, through the use of affirmative language and images in CCF's explicit curricula, the implicit curriculum becomes apparent. The language and images used to portray human-cheetah relationships appears to be loaded with values and opinions about cheetahs, where CCF's implies their valuations of cheetahs are based on the cheetah's beauty, uniqueness, athleticism as a predator, and role as a tourist attraction. Thus, CCF's valuations of cheetahs conveyed to children, and quite possibly other visitors, appear to be anthropocentric-oriented and based on what cheetahs might offer human life, such as entertainment. Further, given that CCF compares cheetahs and leopards in opposition to each other suggests that CCF holds little to no intrinsic value for leopards. Though I could not find any representation of CCF's intrinsic valuation for cheetahs in their curriculum nor instruction, I experienced this valuation to be evident in

CCF staff. However, I did not find any representation of intrinsic value for leopards manifested in, or explicitly conveyed by, CCF curriculum or instruction. Thus, the exclusion of intrinsic valuations of both cheetahs and leopards represents the null curricula, which can effect the options children can consider when (re)constructing their value-based relationships with cheetahs, as well as with leopards. Through internalizing and interpreting CCF's values and opinions about cheetahs, and other animals like leopards, *children* might be influenced to (re)construct *their* valuations of cheetahs or leopards by *CCF's* values and opinions. For example, messages inherent in, or excluded from, CCF's curriculum or activities, such as the cheetah run, might be internalized and interpreted by children to portray cheetahs as economically valuable, where the cheetah's aesthetic qualities are perceived as a monetary asset to generate income through tourism. If or when cheetahs are perceived and experienced as economic assets, anthropocentric orientations to valuing cheetahs can result, which can be argued to encourage exploitation of cheetahs and, in turn, devalue the intrinsic significance of these felines (Williams & DeMello, 2007). Similarly, if or when leopards are portrayed as aggressive, life-threatening problem-predators, in comparison to the docile, athletic cheetahs, leopards may be devalued, feared, and possibly persecuted on the basis of differences between these feline species.

While particular outcomes of aesthetic, economic, or intrinsic valuations of cheetahs or leopards are unknown, I suggest two things might occur. On the one hand, aesthetic valuations of cheetahs might prove positive for cheetah conservation since their perceived beauty and uniqueness may motivate individuals to help protect and conserve cheetahs for future generations. Also, an aesthetic appreciation of cheetahs may enable

individuals to begin to (re)construct intrinsic valuations of cheetahs as sentient, autonomous beings. Further, cheetah tourism, as conceived by CCF, might help generate income to purchase habitat for cheetahs, or increase conservation efforts through education. Conversely, aesthetic valuations of cheetahs might be translated to valuing the economic worth cheetah tourism can offer, which might see cheetahs exploited and perceived merely as dollar signs and not as sentient beings (Abram, 1996; Williams & DeMello, 2007). In this context, human relationships with cheetahs would "degrade the integrity of [cheetahs]" (Orr, 2004, p. 168) through domination and mistreatment (Abram, 1996; Lindberg, Enriquez & Sproule, 1996; Williams & DeMello, 2007).

Regarding leopards, CCF's implicit curriculum appears to transfer hostility from cheetahs onto leopards, through affirmative versus negative language and images used to portray the differences between these felines. CCF, then, appears to place cheetahs in a hierarchy of worth of predators, which reflects CCF's values for cheetahs above leopards (Nibert, 2003). This portrayal of leopards and cheetahs not only undermine species biodiversity, because cheetahs are considered to be more important than leopards, it also seems to be an unstable, inappropriate conservation goal for leopards, and even cheetahs, since both species fulfill specific niches in Namibian habitats. If CCF were deeply congruent in their intrinsic values for cheetahs and other animals like leopards, they would not compare cheetahs to other species in negative ways, to undermine the significance of other species. Given these possible outcomes, care should be taken to reflect on what issues might be excluded from educational materials, and why these choices are made. Further, critical reflection on what messages might be embedded and conveyed to learners through an omission of content, if and when it is included, should

also be considered (Eisner, 1979; Jickling et al., 2006). Given these findings, I next offer recommendations for CCF to consider.

Recommendations

First, I suggest CCF clearly declares that their educational agenda directly states favouritism for cheetahs over other Namibian animals, even though this may be implied through the organization's name. I also suggest CCF declare they support a prescriptive, loaded agenda that aims to change how an individual thinks about and acts towards cheetahs. Being straightforward with their educational agenda may enable CCF to begin to mitigate bias inherent in their curriculum, such as how they transfer hostility from cheetahs to leopards. Although their educational aims would not be value-free, their values would be available for scrutiny and more open interpretation by individuals who were not specifically seeking to, nor experienced in, exploring these values.

Next, CCF might reconsider how they make apparent the differences between cheetahs and other Namibian cat species. While I understand CCF aims to generate a positive image of cheetahs for conservation purposes, they may reconsider how they make the differences between various species apparent. Perhaps CCF could showcase more of the positive characteristics of leopards, such as how leopards can be perceived as beautiful animals, as protective and nurturing mothers, and vital predators to healthy ecosystems, all similar to how cheetahs are portrayed. If CCF chooses to reconsider how they differentiate between cheetahs, leopards, and even other animals, they might make apparent the intrinsic and ecological significance of leopards and other animals, in addition to cheetahs. This could be a critical step for CCF's environmental education programs, since an explicit inclusion of the *value of all life* would be recognized, and

could be reflected on by children, when (re)constructing their value-based relationships with cheetahs and the natural world in its completeness. While it can be argued that teaching the intrinsic value of all predators can be difficult, since some large predators may pose a mortal threat to human life, all inhabitants on Earth are interrelated and interconnected, and thus warrant considerations of intrinsic value simply for *being*. While this statement in itself is value-loaded, if humans are to truly co-exist with the natural world in its completeness, we must consider how we value *all beings*, and not just particular species.

Also, CCF may want to attend to how cheetahs are perceived, by children or other visitors, through the cheetah run as well as in their enclosures[19]. Certain implications for perceiving and experiencing cheetahs as a tourist attraction are unknown; however, valuations of cheetahs as a tourist attraction can potentially become exploitative and devaluing of cheetahs, and may hinder the conservation of wild cheetahs in Namibia. Perhaps CCF could stress the importance of the cheetah run as part of the health, biology, and ecology of cheetahs. They could also provide more information on the role that captive cheetahs play at CCF as, for example, ambassador cheetahs that assist individuals in learning about cheetahs and their conservation in Namibia.

Lastly, CCF might consider revisiting their *Teacher Resource Guide* (CCF, 2004a) and the *Integrated Guide* (CCF, 2004b) to reflect on the language and images chosen to portray human-cheetah and other animal relationships. Perhaps CCF could include a more diverse array of images depicting cheetahs and other species, as well as text describing other predators. This could bring about a more holistic approach to their

[19] While the cheetah enclosures are expansive, children, and other visitors, may perceive the enclosures as "cages," which may influence how they perceive, and (re)construct their experiences with cheetahs and CCF.

educational endeavours, where they could more openly recognize that the Earth is an interconnected, interrelated system and one species may not survive without another. This might better identify the importance of species biodiversity, by not "deprive[ing] anyone of access in arbitrary way[s] to forms of understating which might shed light on alternatives open to him[or her]" (Peters, 1973, p. 256).

Conclusions

My journey to the Namibian Cheetah Conservation Fund enabled me to begin to learn how children living in farming families, or communities, (re)construct their value-based relationship with cheetahs through a variety of direct experiences. My journey also enabled me to learn how statements and messages in educational curricula, like CCF's *Teacher Resource Guide* (CCF, 2004a) and the *Integrated Guide* (CCF, 2004b), can direct how children (re)construct their valuations of cheetahs, and even their valuations of other Namibian animals, specifically the leopard.

My experiences enabled me to begin to learn how Namibian farming children (re)construct new knowledge and experiences to reflect their valuations of cheetahs. It is reasonable then, to propose that children's immediate and direct learning experiences with cheetahs can affect how they perceive and experience cheetahs, which ultimately affects how they (re)construct their value-based relationships with cheetahs. However, I nonetheless encourage further research be undertaken to enable a deeper understanding of how these children experience the more-than-human world in their daily lives. I think a more comprehensive understanding of how children (re)construct meaningful valuations of animals from a variety of immediate and direct learning experiences can enrich educational discourse and reveal more complete understandings of the tensions in human-

animal relationships. In turn, this understanding could shed light on how human-animal relationships are (re)constructed through educational experiences, which might allow a greater range of possibilities to emerge for considering how humans can more deeply connect with the natural world and its unique sentient beings, for generations to come.

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Appendices

Appendix A – Sample questions

Questions for initiating dialogue between participants, regarding cheetah perceptions and relationships; these questions will guide the first interview session, prior to children experiencing CCF environmental education. The questions have been generated assuming the CCF encourages children to produce some form of culminating activity regarding their educational experiences. These questions are merely guidelines for dialogue with participants; follow-up questions after story perceptions and relationships will be developed as themes emerge from briefly analyzing and interpreting data from the interview.

1. How would you describe how you think about, or have a relationship with cheetahs? You can draw and write about this if you'd like.

2. Why did you draw/write this? What were you thinking of? What were you feeling?

3. How would you explain the way you think about, or know cheetahs here in your community or home? Who helped you learn about cheetahs?

4. Tell me about your experiences with cheetahs; you can describe your experiences in your home life, like on the farm, or in your social life in or out of school.

5. What does your story/drawing mean? How does your story/drawing represent how you think about cheetahs? How does your story describe your relationship with cheetahs?

Appendix B – CCF school group schedule

-times are approximate and will fluctuate with different groups

Thursday Prepare Camp Lightfoot for school group; ensure all tents are in good repair, all lamps are charged, adequate supply of toilet paper, no garbage, water works in all toilets and showers, ample firewood, ample mattresses for students

Friday ~ 4pm Meet school group and take to Camp Lightfoot; explain breakdown of Saturday, (time to meet [8am], what to bring for the day [hats, water, snacks], approximate time for lunch)

Saturday ~8-9am Greet school group, walk to the cheetah run and provide explanations on the cheetahs, why we run them, etc; walk to the classroom, have a seat at the tables and elaborate on your role at the CCF, what CCF is, what we do, etc

Test Your Knowledge – put students into groups of four and explain we will be doing a group worksheet to explore your cheetah knowledge; hand out the CCF crossword and let the group do them independent of teacher assistance. Explain we will take it up at the end of the day.

Education Centre Scavenger Hunt ~9-11am – Explain we will be staying in our groups to do a scavenger hunt through the Centre. Each group will get one sheet to share and fill out as a team. Map outlining the required information areas in the Centre is provided. Every group assign a SCRIBE to write down answers, two READERS to locate info and read it aloud to the group, and a MAP READER to lead the group through the Centre.

BREAK for snack if needed (20 minutes)

Take up Scavenger Hunt ~11-12pm Gather the students in a group and sit in the Predator Preyground; take up the Scavenger Hunt (read out the questions and have them answer them; if you can not finish in time then give the teacher an answer sheet to take it up later with them).

12pm – Cheetah Centre feeding; then go to the Anatolian dog pens and do a clinic tour

~12:30-1pm Predator Preyground Activities– Explain there are various activities a cheetah must do throughout its life to survive; we have replicated these activities to try. In your groups, starting at a different station, read the information boards and complete all of the activities. Monitor the students and assist where necessary

~1-2:30pm LUNCH/BREAK – tell students, teacher(s), and principal you will meet them at the entrance at 2:30pm.

~2:30-5pm Watch Movie DUMA- Provide a worksheet with questions to answer, so they must pay attention in order to reflect on the film and fill in the worksheet. Start the movie (it is approximately 100 minutes long). Finish movie and ask questions about the movie, critically reflect on the pro's and con's of the film.

Game Drive ~6-7:30pm – prepare students for the game drive; hand out game count/spoor tracking worksheets. Explain we will be driving to the Big Field and getting out of the bus to count game and draw spoor (tracks) we see. Ensure each group has an animal identification sheet with the common animals they may see on the drive. At the Big Field organize students into their groups with their sheets and pencils and begin the drive; get out at appropriate sites to sketch spoor. Assist when/where needed. Before departure explain the importance of counting game and identification of animals (wildlife managers, farmers, tourism, etc know how many animals are in an area (population size)

and what types of animals are found in the area (density/distribution, etc). Also, ask students/teacher/principal if there are questions about CCF, cheetahs, conservation, etc. Thank students for coming and wish them well!

Sunday ~8-10am Students will be readying to leave for their trip home; after they have left go to Camp Lightfoot and clean the camp, run though the checklist and see if any repairs need to be made. Report any repairs or services needed to the appropriate personnel.

Appendix C – Letter of introduction and consent form

Dear School Administration,

My name is Courtney Van Dijk and I am a Master of Education student at Lakehead University in Thunder Bay, Canada. I hope to explore children's stories about cheetahs by working with the Cheetah Conservation Fund. I am particularly interested in exploring the ways children's perceptions of cheetahs may affect their relationships with cheetahs in a shared farming environment.

My research is focused on Namibian children who live in farming families and communities and have/had experience with cheetahs I will attend schools with Gebhardt Nikanor, the Cheetah Conservation Fund's education officer, to observe and conduct interviews with children. Interviews will include opportunities for children to talk, draw, or write stories about their experiences with cheetahs and the Cheetah Conservation Fund. Additionally, I may take photographs of the communities, schools, Cheetah Conservation Fund, and participants, however, photos will only be of participants who have signed the consent forms. All data collected will use pseudonyms in place of participants' names to help protect confidentiality and anonymity.

Participants have the right to decline participation, withdraw from my study, or choose not to answer any interview questions at ay time. All data will be stored in my secure and locked room at the Cheetah Conservation Fund in Namibia, and will be stored at Lakehead University in a locked file cabinet upon returning to Thunder Bay. Any participants or parties wishing to obtain a copy summarizing my research findings may ask, and one will be provided after all phases of the research process are completed.

My research study has been reviewed by Lakehead University's Research Ethics Board and will strictly adhere to the Tri-Council Policy Statement for Ethical Conduct for Research Involving Humans (2003). If you have any questions, please feel free to call or email me, or call my thesis supervisor, Bob Jickling, or Lakehead University's Research Ethics and Administration Officer, Lisa Norton.

I thank you for your cooperation and look forward to working with you and the children in my research.

Sincerely,

Courtney Van Dijk Master of Education student 18 Hodge Street Thunder Bay, ON, CAN P7B 4H1 Phone: (807) 768-4843 Email: cvandijk@lakeheadu.ca	Bob Jickling, Thesis Supervisor Faculty of Education Lakehead University 955 Oliver Road Thunder Bay, ON, CAN P7B 5E1 Phone: (807) 343-8704 Email: rjicklin@lakeheadu.ca	Lisa Norton, Research Ethics and Administrative Officer Research Office Lakehead University 955 Oliver Road Thunder Bay, ON P7B5E1 Phone: 807-343-8283 Email:lisa.Norton@lakeheadu.ca

I have read, understand, and have retained a copy of the research introductory letter entitled: **Exploring human-animal relationships through environmental education**, and agree with the following:

- There are no known risks associated with this research, to children or to cheetahs
- Students will share his or her own stories, drawings, writing, and photographs with the researcher for use in her thesis and other publications and presentations
- Participants may decline or withdraw participation in research, or choose not to answer any interview questions
- All participants and locations of the study will remain confidential and anonymous; any loss of anonymity will result in that data being destroyed
- Data will be stored at Lakehead University for a minimum of seven years, in a locked and secure cabinet
- A final report summarizing research findings will be available to the Cheetah Conservation Fund, Lakehead University, and all other interested parties wishing to obtain a copy
- Publications, posters, conferences, workshops, or any other form of dissemination of results will not betray confidentiality and anonymity agreements between participants and researcher

I, _____, school teacher/administration,
(please print NAME in FULL)
at the school of_____
(please PRINT SCHOOL NAME in FULL)

- AGREE to allow students to participate in the study _____
- DECLINE to allow students to participate in the study _____
  (please put a check mark beside ONE answer)

Signature of School Teacher/Administration Date

_____ _____

Signature of Participants

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

Appendix D – Ethics

Ethics review.

I submitted my thesis proposal for ethical review by Lakehead University *Research Ethics Board.* My research strictly adhered to guidelines in the "Tri-Council Policy: Ethical Conduct for Research Involving Humans" (TCPS, 2003). I successfully completed the TCPS online tutorial and obtained my certificate of completion.

Free, informed and signed consent.

I obtained free, informed, signed consent from participants, teachers and school administration involved in my study. An informational discussion was presented to participants, teacher(s) and principal(s) where the intent and purpose of my study was detailed. Interested participants were given a detailed consent letter describing their role in my study prior to beginning research. All participants were aware I was collecting children's stories of perceptions and lived experience with cheetahs through verbal interviews, drawings, and written work. Participant identities were kept confidential and anonymous; any photographs used showed only the geographic location, buildings and wildlife. Participants were given opportunities to decline participation, or withdraw from my study. Participants were aware their interviews, drawings, and written work could be used in dissemination of results through various publications, posters, workshops and/or conferences.

Storage of data.

All data gathered in Namibia was kept in my locked and secure room at CCF, where I stayed as a research intern. Upon returning to Canada, all data was stored in a locked cabinet at Lakehead University, and will remain the property of Lakehead under

partial fulfillment for the thesis of the Master of Education degree. Data will be kept confidential and remain in a locked cabinet at Lakehead for at least seven years; according to Lakehead's research policies all data will be destroyed after seven years.

Participant confidentiality and anonymity.

I had sole access to all original interview transcripts, drawn, and written stories, and document analyses; however, I provided an interpretation of all data in my thesis in a summary of findings for CCF and interested participating schools.

Participants were asked to keep their stories confidential to protect anonymity, however if a loss of participant anonymity resulted in data being destroyed and not presented in the final thesis or other forms of dissemination of results.

All publications, posters, conferences or workshops resulting from my research will not betray anonymity and confidentiality agreements between participants and locations. However, I will use participant transcripts, drawn and written stories and photographs in such publications, posters, conferences or workshops.

Cheetah considerations.

I extended ethical considerations for the cheetahs (or other animals) I directly or indirectly contacted throughout my research.

Risks.

There were no known risks, physically or psychologically, to myself, participants or cheetahs within the scope of my research. I continually attempted to mitigate problems that arose during fieldwork, and was informed by the CCF of any social or environmental areas which could have posed a risk to participants or myself. I remained

aware, respectful and appreciative of the cultural context during my study, and was reflective and critical of said context in undertaking research.

Anticipated outcomes.

Through analyzing and interpreting children's stories about cheetahs, I hoped to:

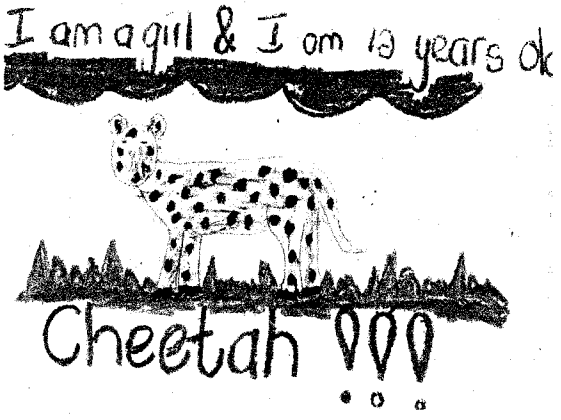
- Discover how children (re)construct knowledge from a variety of sources, such as family, CCF, or school
- Discover meanings embedded within children's stories, and discover and discern potential commonalities between these stories
- Discover if children were inspired to (re)construct cheetah perceptions and relationships through CCF environmental education activities and atmosphere
- Discover how CCF portrays their conception of and orientation to human-cheetah relationships in a farming context

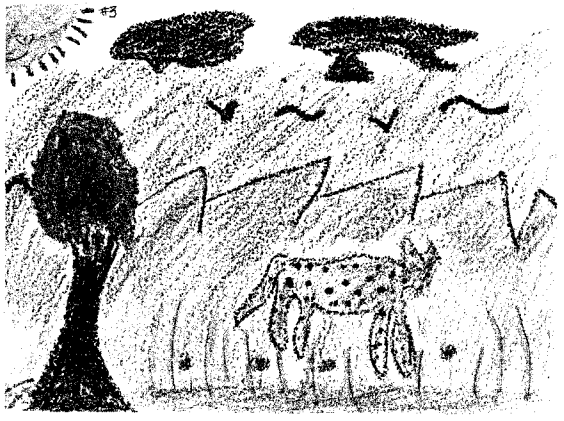
Dissemination of results.

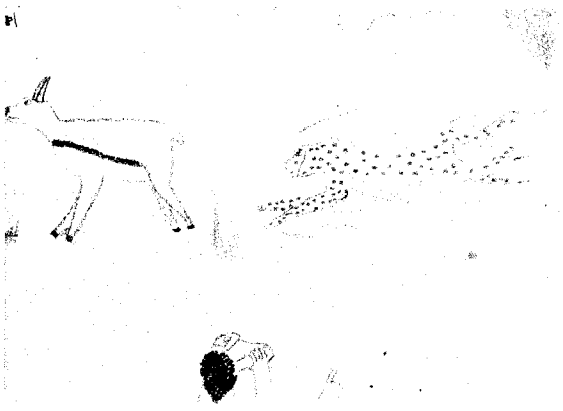
Lakehead University will receive the final draft of my thesis in partial fulfillment of the Masters of Education program in May, 2008. Any/all publication(s) of my research will be sought in various peer-reviewed and non-peer-reviewed journals and magazines. Any/all conferences, workshops, or other presentations of my research will strictly adhere to the consent forms signed and freely given by all participants.

Appendix E – Summary

This summary includes elements of my research and is intended to provide feedback to the participants in my study, specifically the children from the two school groups and CCF. The summary follows this page, as a separate booklet, and will be given to CCF and the schools groups.

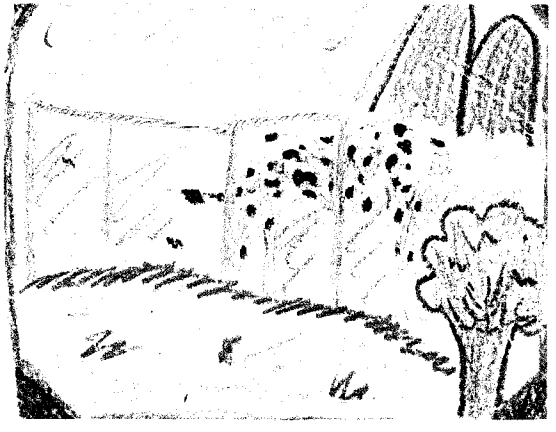


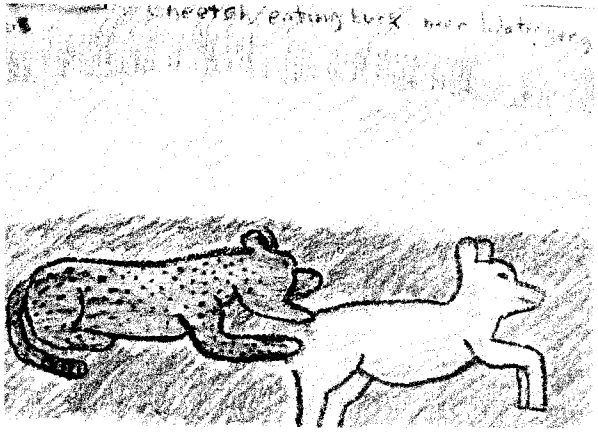




Appendix E: Summary for the Cheetah Conservation Fund and participating school groups

Courtney Hughes, Master of Education
Lakehead University, © November 2008





This summary is a compilation of the stories created by the children who participated in my study, as well as my examination of CCF's educational documents, *CHEETAHS: A Predator's Role in the Ecosystem: A Teacher Resource Guide* (2004) and the *Integrated Livestock and Predator Management Guide: A Farmer's Guide* (2004).

I wish to share my research findings to the two school groups that took part in my study as a way to connect my research to their lives and participation. I also want to provide CCF with some of my insights into how children perceive and experience cheetahs at CCF. Further, this summary shares with CCF my insight into how children's experiences with CCF's educational program can affect how children (re)construct their value-based relationships with cheetahs, and quite possibly, with the natural world in its completeness.

CCF may also use this summary as a tool during future revisions of their documents or program. I hope this summary will be useful for CCF, as it has been for me, in reflecting on how explicit statements describing human-cheetah relationships are laden with embedded messages and values about cheetahs and other animals. Examining excluded messages can also be as important as reflecting on embedded messages. My summary also explores topics left unsaid or completely omitted from educational documents, and how children might internalize, interpret, and (re)construct their experiences to make meaning. Again, these findings might be useful for CCF if and when they revisit their educational documents and program.

Children's Stories

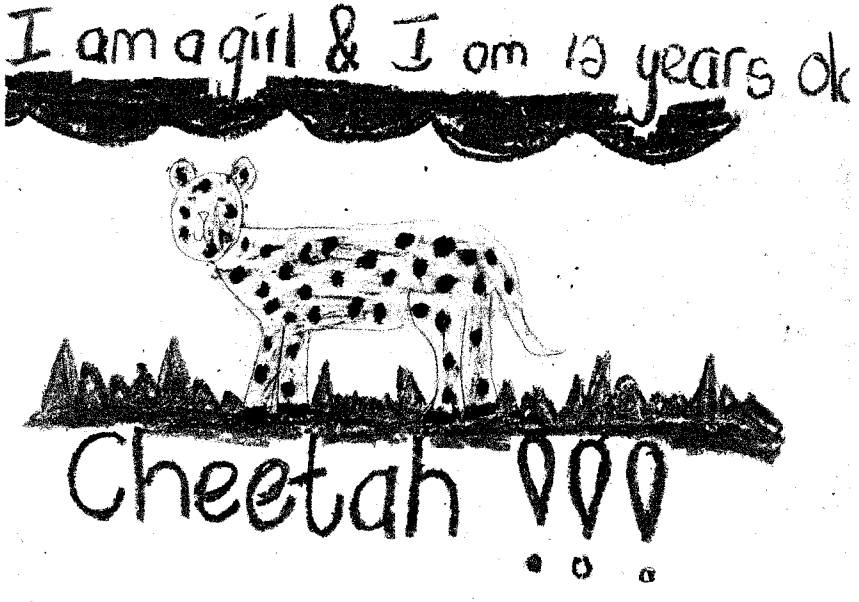
I asked children from two different school groups to participate in my study, and they did so with free and signed consent. These children lived in farming families or communities, and had experienced cheetahs in the past, prior to visiting CCF. I asked the children to create drawn, written, and verbal stories about their experiences with cheetahs. Children were asked to reflect on, for example, their experiences with cheetahs before coming to CCF as well as their experiences with cheetahs at CCF.

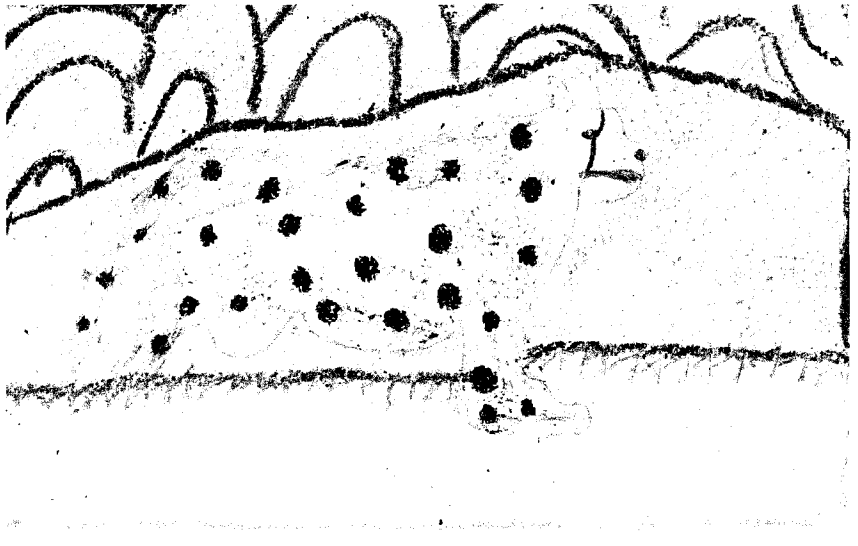
The methods to collect children's stories are as follows:

- Children observed CCF's cheetah run, prior to taking part in my data collection and prior to experiencing CCF's formal education program
- After the cheetah run, the children went to the Education Centre classroom and began to draw and write about how they perceive and experience cheetahs
- After drawing and writing, I asked the to discuss and elaborate on their stories with me. I took down notes of these conversations. Children then participated in the remainder of CCF's activities
- After gathering the children's stories, I began data analysis and interpretations and looked for similar or common elements or patterns in the drawn and written stories.
- I then grouped similar or common elements or patterns into three themes:

1. Valuation of the Cheetah's Aesthetic Qualities
2. Valuation of the Cheetah as a Tourist attraction
3. Valuation of the Cheetah's Biology or Ecology

Here are examples of the children's drawings. These represent Theme 1: Valuation of the Cheetah's Aesthetic Qualities.



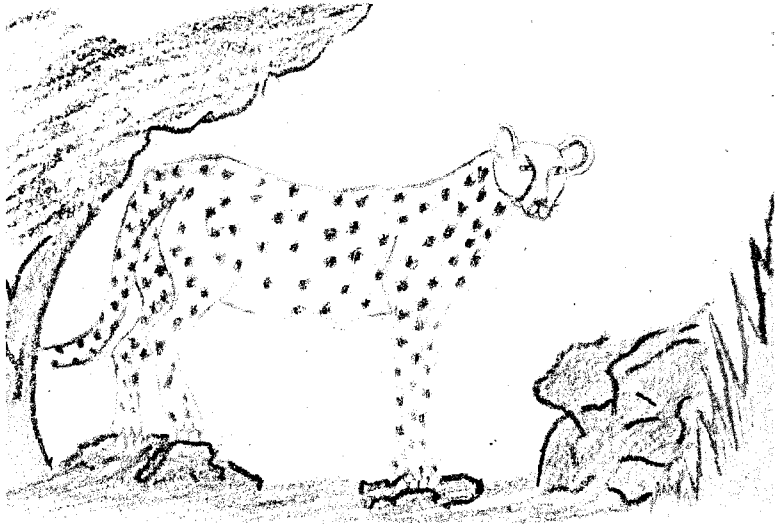


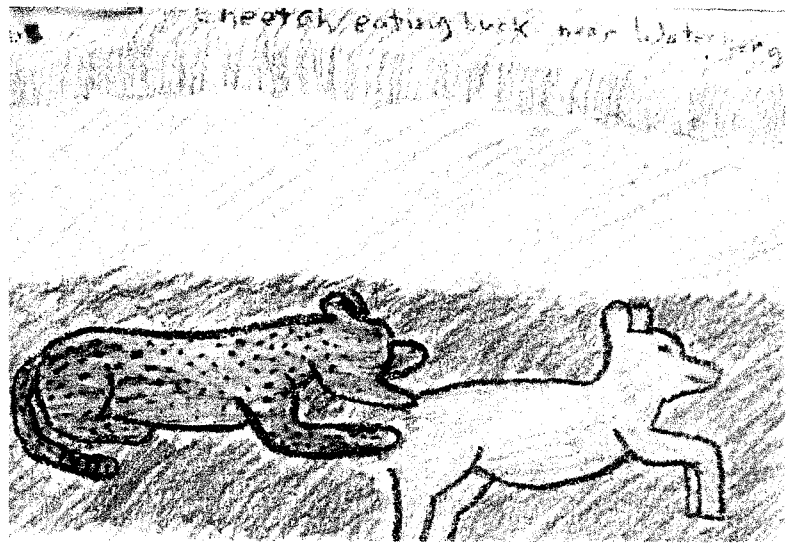
A twelve year old girl from School Group A (top left), a thirteen year old girl from School Group A (top right), and a twelve year old boy from School Group A (bottom left) illustrate positive, vibrant pictures of cheetahs. The twelve year old girl wrote that she likes cheetah's very much; the thirteen year old girl wrote that cheetahs are friendly, pretty, and that she loves cheetahs; the twelve year old boy wrote that the cheetah became his favorite animal.

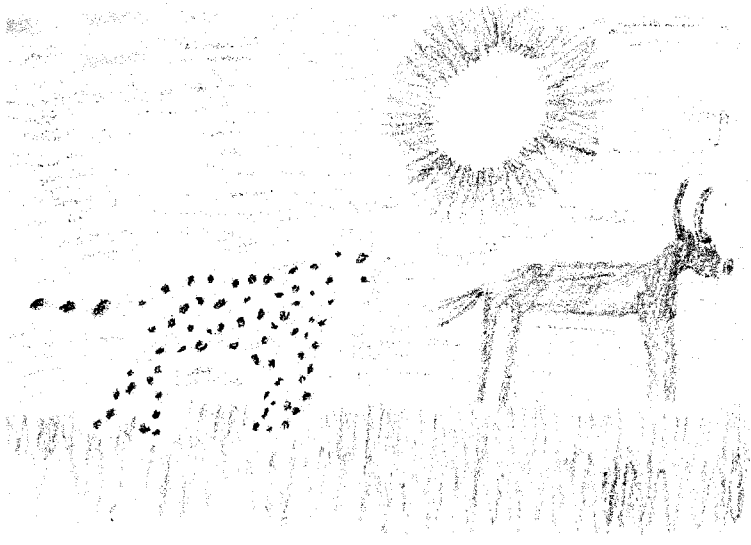
These drawings represent Theme 2: Valuation of the Cheetah as a Tourist Attraction.

A twelve year old boy (top left), a thirteen year old girl (top right), a twelve year old girl, and an eleven year old boy (bottom right) all from School Group A illustrate how they perceive and experience cheetahs. Their drawings and written work suggest they (re)construct valuation of cheetahs as a tourist attraction, in the representations of cheetahs viewed by tourists, enclosed in cages, under human-made canopies.

These drawings represent Theme 3: Valuation of the Cheetah's Biology and Ecology.







A thirteen year old boy (top left), and two eleven year old girls (top right, bottom left) illustrate their valuation of the cheetah's biology or ecology, through the strong representations of cheetahs in their natural habitat and hunting their natural prey. The written words of these children described the cheetah's role as a predator, explaining how and why they hunt for food.

Document Analysis

In addition to gathering children's stories, I examined CCF's educational documents, *CHEETAHS: A Predator's Role in the Ecosystem: A Teacher's Resource Guide* (2004a), and the *Integrated Livestock and Predator Management: A Farmer's Guide* (2004b).

I used Elliot Eisner's (1979) concept of the three curricula, the explicit, implicit, and null curricula, was used as an analytic tool to examine the explicit statements in the text of these documents, and their hidden messages. I learned, through this analysis, that CCF provides practical, hands-on learning experiences about cheetah biology and ecology, as well as the cheetah's role as a tourist attraction in Namibia. The explicit curricula also describes CCF's aim to change individual's thinking and behavior in order to help conserve cheetahs.

Statements like "learners will study the cheetah by comparing and contrasting the cheetah to other members of the cat family…to gather a broader understanding between the differences of the cat species" (CCF, 2004a, p. 8 & 15), and "attitudes toward predators must be changed if we hope to save endangered species such as the cheetah" (CCF, 2004a, p. 4) are examples of the explicit curricula.

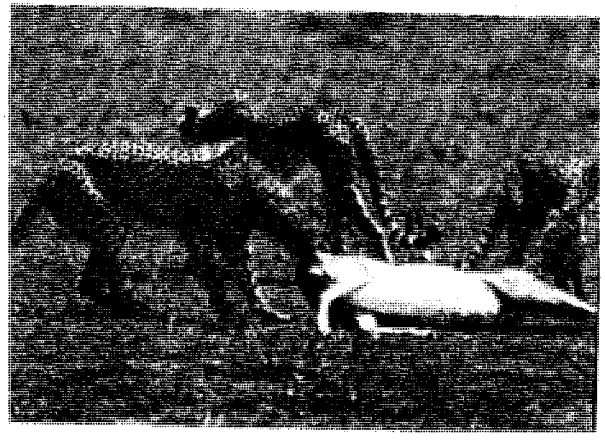
The documents also include information about other Namibian wildlife, notably leopards; however, cheetahs and leopards were often compared in opposition to each other, in affirmative versus negative ways. For example, cheetahs are categorized as "Not A Threat" (CCF, 2004a, p. 24) to humans, whereas leopards are specifically said to be "A Threat to Man" (CCF, 2004a, p. 23).

I found a continual comparison between cheetahs and leopards in both of the documents. Interestingly, the implicit messages embedded within these comparisons, and conveyed to learners through CCF's instruction, appeared to place cheetahs and leopards in a hierarchy of predators, where cheetahs are more valued than leopards. Further, I could find no evidence to suggest that CCF had included any intrinsic value perspectives of leopards or cheetahs. However, while intrinsic value of cheetahs is not provided in the documents, it is evident in CCF staff's actions and words, and may come through during instruction. A lack of, or completely omitting, the concept of intrinsic value for both cheetahs and leopards may be troubling. This omission can limit the range of options available to children when considering and (re)constructing their value-based relationships with cheetahs and leopards.

I do have some concerns about how CCF presents valuations of, and opinions about, cheetahs and other Namibian animals and how these can affect children's educational experiences at CCF, particularly how they interpret, internalize, and (re)construct their value-based relationships with cheetahs, leopards, or even the natural world in its completeness.

With the preceding discussions in mind, I suggest that CCF reconsider how they make apparent their valuations of cheetahs and other Namibian animals. My analysis identifies some considerations that may not have been recognized, and may have unintended consequences. CCF might choose to reevaluate how descriptions, language, and even images are used to portray cheetahs and other animals, in ways to attend to the implicit or null messages that I have identified.

No educational endeavor is value-neutral, or value-free. However, being aware of, and attending to, the ways educational materials affect learning experiences can strengthen programs like those at CCF. My analysis suggests presenting children with a broader range of opportunities and possibilities for internalizing, interpreting, and (re)constructing new knowledge in personally relevant and meaningful ways.

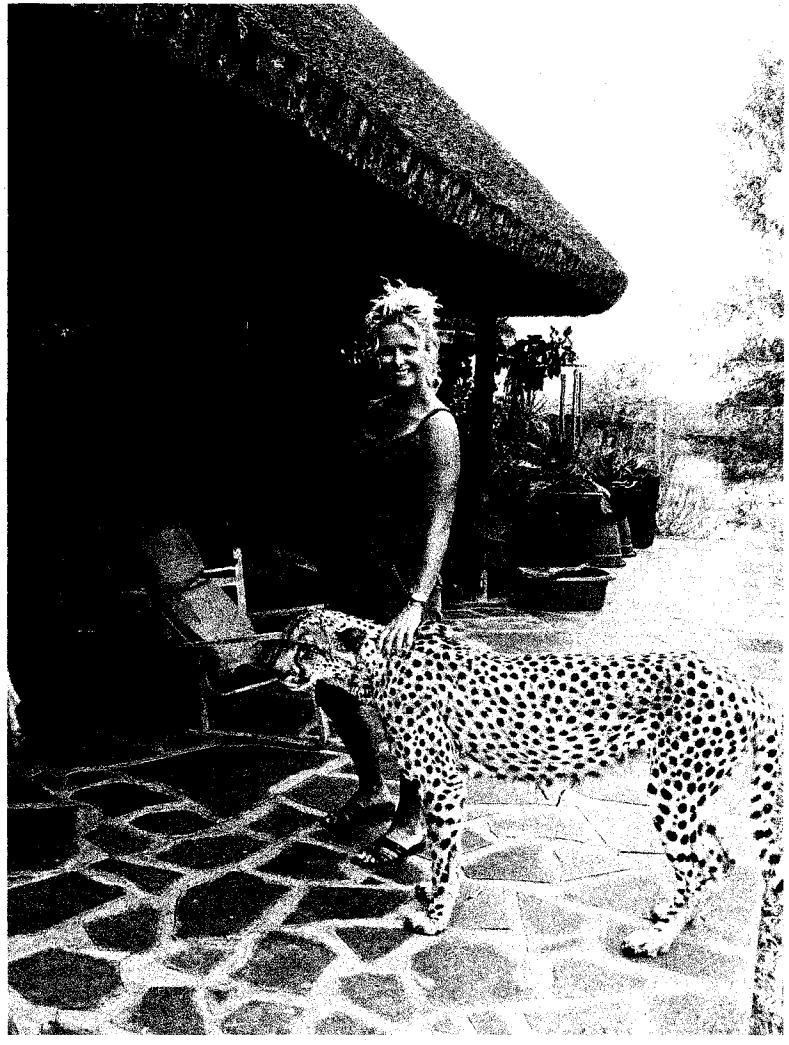


Images from CCF's *Teacher's Resource Guide* (2004) and the *Integrated Guide* (2004).

Conclusion

My research enabled me to begin to learn how farming children in Namibia (re)construct their value-based relationship with cheetahs through their lived experiences with CCF, family, and school instruction. I was also able to learn how educational documents affect how children internalize, interpret, and (re)construct new knowledge and experiences to make meaning.

Although my experiences were enriching, and helped me to develop an understanding of the complexities in knowledge (re)construction, I suggest further research be undertaken to flesh out a more comprehensive understanding of how a variety of lived experiences in environmental education settings can affect how children internalize, interpret, and (re)construct new knowledge which, in turn, might affect how they (re)construct their value-based relationships with cheetahs, and with the natural world in its completeness.



Courtney Hughes and CCF's Ambassador cheetah, Chewbakka.